# 2022-2024 Conservation & Load Management Plan

Connecticut's Energy Efficiency and Demand Management Plan

Submitted by: Eversource Energy, United Illuminating, Connecticut Natural Gas Corporation, and Southern Connecticut Gas

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### **GLOSSARY**

2022-2024 Plan Connecticut's Conservation & Load Management Plan

ACEEE American Council for an Energy Efficient Economy

AESC Study Avoided Energy Supply Costs Study

AFUE Annual Fuel Utilization Efficiency

AHRI American Heating & Refrigeration Institute

ARPA American Rescue Plan Act

BCR Benefit-Cost Ratio

BOC Building Operator Certification

C&I Commercial & Industrial

C&I Portfolio Includes all of the C&I segment energy efficiency and active demand response programs,

initiatives, and pilots

C&LM Conservation & Load Management, legislative and regulatory term for energy efficiency

and demand management programs administered by the Companies

CAA Community Action Agency

ccf One hundred cubic feet of gas, used to measure a quantity of natural gas

CBOs Community-based organizations

CGB Connecticut Green Bank

CO<sub>2</sub> Carbon dioxide, a greenhouse gas

Companies The electric and natural gas utilities that develop and administer Connecticut's energy

efficiency and demand management programs

Consultants The consultants employed by the Energy Efficiency Board

DEEP Department of Energy and Environmental Protection

Demand Average electric power requirement (i.e., load) during a time period.

The production/ transmission demand is the highest average 30-minute

kilowatt demand in the current month. Demand can refer to an individual customer's load

or to the load of an entire electric system

Demand Reduction Reductions in demand due to the installation of an energy efficiency measure, usually

expressed as kilowatts and measured at the customer's meter

DHW equipment Domestic hot water or water heating equipment

Distressed municipality Defined by the Connecticut Department of Economic Development as a distressed

municipality with high unemployment and poverty, aging housing stock and low or

declining rates of growth in job creation, population, and per capita income

DOE US Department of Energy

DOE Home Energy Score The Home Energy Score is run by the US Department of Energy and gives home owners a

score on a 1-10 scale regarding the building's energy use

DRIPE Demand Reduction-Induced Price Effects, the reduction in prices in the wholesale energy

and capacity markets due to the reduction in energy and demand resulting from

conservation efforts

E3 Equitable Energy Efficiency proceeding being conducted by the Connecticut Department

of Energy and Environmental Protection

E3b Energy Efficiency Equity baseline, the University of Michigan's E3b metric estimates

equitable utility investment in proportion to the low-income population in a service territory and as a percentage of the total residential energy efficiency investment

EEB Connecticut Energy Efficiency Board

EF Energy Factor

EISA Energy Independence & Security Act of 2007

Electric Companies Includes Eversource Energy and The United Illuminating Company

EMS Energy Management System

EM&V Evaluation, Measurement and Verification

Energy burden Percentage of household income spent on energy bills

Energize Connecticut<sup>SM</sup> Initiative dedicated to empowering Connecticut to make smart energy choices, now and

in the future. An initiative of the Energy Efficiency, Fund, the Connecticut Green Bank, the State, and the Companies. The initiative has funding support from a charge on customer

energy bills

ENERGY STAR® Brand name for the voluntary energy efficiency labeling initiative sponsored by the US

Environmental Agency and the US Department of Energy

Environmental justice A distressed municipality (see term) in a defined US census block with 30 percent of the

population living below 200 percent of the federal poverty level

EPA US Environmental Protection Agency

EPSO Equipment & Systems Performance Optimization

EUI Energy use intensity

EV Electric vehicles

FCM Forward Capacity Market (run by ISO-NE)

GC3 Governor's Council on Climate Change

GHG Greenhouse Gas

GSIL General service incandescent bulb

GSL General service lamp

HES Home Energy Solutions, residential program for market-rate customers

HES-IE Home Energy Solutions-Income Eligible, residential program for income-qualified

customers

HVAC Heating, ventilation, and air conditioning

Income eligible Residential customers whose household income is at or below 60 percent of the State

Median Income

ISO-NE Independent System Operator-New England

kW kilowatt

kWh kilowatt-hour

LEAD tool US Department of Energy's Low-Income Energy Affordability Data tool

LED Light-emitting diode

Low-income Residential customers whose household income is at or below 60 percent of the State

Median Income

Market rate Residential customers whose household incomes are above 60 percent of the State

Median Income

MBx Monitoring-based commissioning

Measure cost A product (or piece of equipment) or a process designed to provide energy or demand

savings

Measure lifetimes Average number of years (or hours) that a group of new high-efficiency equipment will

continue to produce energy savings or the average number of years a service/practice will

provide savings

Microbusiness A subset of the small business market segment that use less than 25 kW average monthly

demand (United Illuminating) or consume less than 100,000 kWh annually (Eversource)

across all facilities

MLS Multiple Listing Services

Moderate income Residential customers whose household income is at or below 80 percent of the State

Median Income and above 60 percent of the State Median Income

MMBtu Millions of British thermal units

MUD Multi-unit dwellings

Natural Gas Companies Includes Eversource Energy, Connecticut Natural Gas Corporation, and Southern

**Connecticut Gas Company** 

NEI Non-Energy Impacts

NOx Nitrous oxides

Peak demand Highest 30-minute kilowatt demand in the current month or the preceding eleven (11)

months

PHI Passive House Institute

PHIUS Passive House Institute US

PMI Performance management incentive, compensation for each of the Company's successful

execution of the energy efficiency and demand management programs during the

program year as determined by the Connecticut Department of Energy and Environmental

Protection

Portfolio Manager<sup>®</sup> Software run by the US Environmental Protection Agency

PSD Program Savings Document manual, details the calculations and values used to determine

energy savings from the installation of energy-efficient measures

PURA Public Utilities Regulatory Authority

QA/QC Quality Assurance/Quality Control

QPL Qualified Products List

R&D Research & Development

RCx Retro-commissioning

Residential Portfolio Includes all of the residential segment energy efficiency and active demand response

programs, initiatives, and pilots

RFP Request for Proposal

RGGI Regional Greenhouse Gas Initiative

SEM Strategic Energy Management

Small business A business that uses less than one million kilowatt-hours annually (Eversource) or with an

average 12-month peak demand between 10 and 200 kilowatts (United Illuminating)

SOx Sulfur oxides

TRC Total Resource Cost

UEF Uniform Energy Factor

WAP Weatherization Assistance Partnership (federal weatherization program)

ZNE Zero Net Energy

ZNER Zero Net Energy Ready

## **EXECUTIVE SUMMARY**

Pursuant to Connecticut General Statutes § 16-245(m) and § 16-32(f), Connecticut's Electric and Natural Gas Companies¹ are proud to deliver this 2022-2024 Conservation & Load Management Plan (2022-2024 Plan or Plan), to the Connecticut Department of Energy and Environmental Protection (DEEP). Connecticut's energy efficiency and demand management programs are vital resources to the state. For over 20 years, the Companies have delivered nationally-recognized programs that drive energy savings, reduce greenhouse gas emissions and other air pollutants,² employ a highly-skilled and local clean energy workforce, and strengthen the state's economy by increasing energy affordability and improving business productivity. For the 2022-2024 term, the Companies will continue to focus on implementing all "cost-effective energy conservation programs, demand management, and market transformation initiatives."

The 2022-2024 Plan is a \$708 million investment in making Connecticut more energy efficient. The Companies worked collaboratively with the Connecticut Energy Efficiency Board (EEB), EEB consultants, regulators, and stakeholders to develop the Plan's priorities, budgets, and program designs. In addition, the EEB held three Public Input Sessions where contractors, municipal officials, regulators, and other stakeholders were able to voice their suggestions for modifications, improvements, new initiatives, and qualifying energy-efficient technologies. The 2022-2024 term will cover years 23-25 of electric conservation programs since the passage of Connecticut's electric restructuring act (Public Act 98-28) and will cover years 16-18 of natural gas conservation programs since energy independence legislation (Public Act 05-01) was passed.

The Plan is designed as a living document to be modified throughout the 2022-2024 term via annual Plan updates and budget reconciliation filings. The Companies will file two Plan updates for the 2023 and 2024 program years, which will report on program modifications and changes to budgets and goals made in response to new legislation, code standards, state policies, and emerging technologies. The EEB and the Companies also solicit feedback through annual Public Input Sessions, as well as invite public comments at the EEB's monthly committee and board meetings, which also inform the development of the Plan and Plan updates. Additionally, the Companies will file three budget reconciliation filings during the 2022-2024 term. These annual filings allow the Companies to report year-end actual budgets spent, goals achieved

The Electric Companies are The Connecticut Light and Power Company doing business as Eversource Energy (Eversource) and The United Illuminating Company (United Illuminating). The Natural Gas Companies are the Connecticut Natural Gas Corporation (CNG), Southern Connecticut Gas (SCG), and Yankee Gas Services Company doing business as Eversource. For the purposes of this Plan, any reference to both the Electric and Natural Gas Companies will be (collectively, the Companies). If a program or policy is designed for only the Electric Companies or Natural Gas Companies and/or individual utilities, the Plan text will explicitly state the responsible party.

<sup>&</sup>lt;sup>2</sup> The primary greenhouse gas reduced by energy efficiency and demand management programs is carbon dioxide (CO<sub>2</sub>). Other air pollutants that are reduced due to the implementation of the Plan's programs include nitrous oxides (NOx) and sulfur oxides (SOx). The Companies track the resulting reductions of CO<sub>2</sub>, NOx, and SOx and these numbers are reported in various figures and tables throughout this Plan document.

<sup>&</sup>lt;sup>3</sup> Public Act 18-50, § 9(d)(1), An Act Concerning Connecticut's Energy Future, May 24, 2018, online at: https://www.cga.ct.gov/2018/act/pa/2018PA-00050-R00SB-00009-PA.htm.

<sup>&</sup>lt;sup>4</sup> For more information and stakeholder comments (verbal and written) from the various Public Input Sessions, please see Appendix B.

<sup>&</sup>lt;sup>5</sup> Public Act 98-28, *An Act Concerning Electric Restructuring*, Apr. 28, 1998, online at: <a href="https://www.cga.ct.gov/ps98/Act/pa/1998PA-00028-R00HB-05005-PA.htm">https://www.cga.ct.gov/ps98/Act/pa/1998PA-00028-R00HB-05005-PA.htm</a>.

<sup>&</sup>lt;sup>6</sup> Public Act 05-01, *An Act Concerning Electricity and Energy Efficiency*, Jul. 21, 2005, online at: <a href="https://www.cga.ct.gov/2005/ACT/PA/2005PA-00001-R00HB-07501SS1-PA.htm">https://www.cga.ct.gov/2005/ACT/PA/2005PA-00001-R00HB-07501SS1-PA.htm</a>.

The 2023 Plan Update will be filed on November 1, 2022 and the 2024 Plan Update will be filed on November 1, 2023.

Budget reconciliation filings will be submitted on March 1, 2022 (for the 2021 Program Year), March 1, 2023 (for the 2022 Program Year), and March 1, 2024 (for the 2023 Program Year). This document is the budget reconciliation filing for the 2021 Program Year and includes 2021 year-end actual budgets spent, goals achieved in 2021, and makes adjustments to the 2022 program year's budgets and savings.

for the prior program year, make adjustments accordingly to the current program year's budgets and savings, as well as make program modifications in response to DEEP compliance orders, legislation, and feedback from contractors, regulators, and other stakeholders.

#### 2022-2024 PRIORITIES: EQUITY, DECARBONIZATION & ENERGY AFFORDABILITY

The first priority of the Companies for the 2022-2024 term is equity. In designing the Plan, the Companies were committed to prioritizing the equitable distribution of the benefits of energy efficiency programs across the state, communities, neighborhoods, market segments, and customer types (e.g., residential, income-eligible, small business) they serve. As such, program design, outreach efforts, and budgets have all been crafted with equity in mind for the upcoming three-year term and this consideration is reflected across the Residential, Commercial and Industrial (C&I), and Education, Workforce & Community Outreach Portfolio sections of this Plan.

For the Residential Portfolio, the Companies have developed outreach, policies, and programmatic support to specifically address the disparities in high-priority communities and communities of color<sup>9</sup> that limit participation in energy-saving programs and the equitable distribution of energy efficiency benefits, specifically in distressed municipalities<sup>10</sup> and environmental justice communities. To drive participation in these communities, the Companies will continue to deliver training for Community Action Agencies, local clean energy task forces, and community-based organizations regarding energy efficiency programs. The Companies also plan to continue coordinating their energy efficiency outreach efforts to low-income, senior, and financial hardship customers with other utility-led customer workshops regarding matching payment plans and energy assistance. This comprehensive approach to outreach ensures that customers learn about the multiple utility and community programs that can help relieve their energy burdens, as well as deliver the energy efficiency message in a succinct, engaging manner. The Companies will continue these efforts in the 2022-2024 term.

For the C&I Portfolio, the Companies continuously research and analyze how commercial, industrial, and municipal customers participate across market segments to ensure equitable use of energy efficiency funding. This ongoing analysis has helped the Companies to understand which customers, segments, and quartiles have not historically participated in the C&I Portfolio's programs and have received lower contributions in the past five years. Within each market segment, the Companies look at distressed municipalities, non-participants, and customers in arrears (for utility bills) to determine if there is a correlation between customers on these lists. To determine targeted quartiles and sectors, the Companies analyze participation rates, fund contributions received, energy usage, annual kilowatt-hour (kWh) savings, and lifetime kWh savings. In Section Three of this Plan, the Companies further elaborate on the targeted groups and strategies to increase equity in the C&I Portfolio for the 2022-2024 term.

Gommunities of color include Black, Indigenous, Latinx, Americans, immigrants, and other People of Color (BIPOC).

For the purposes of this 2022-2024 Plan, the Companies will define "distressed municipalities" in alignment with the Connecticut Department of Economic and Community Development's (DECD) definition of "distressed municipalities." According to Conn. Gen. Stat. § 32-9p: "a distressed municipality should be based on high unemployment and poverty, aging housing stock and low or declining rates of growth in job creation, population, and per capita income." The DECD's list of the 25 distressed municipalities is updated annually by DECD and is available online at: <a href="https://portal.ct.gov/DECD/Content/About DECD/Research-and-Publications/02 Review Publications/Distressed-Municipalities">https://portal.ct.gov/DECD/Content/About DECD/Research-and-Publications/02 Review Publications/Distressed-Municipalities</a>.

Per Conn. Gen. Stat § 22a-20a, "environmental justice communities" are defined as a municipality on the DECD list of distressed municipalities (See footnote 10 above) or in a defined US census block. These defined census blocks are in municipalities that are not "distressed;" however, they have census block groups with 30 percent of their population living below 200 percent of the federal poverty level. A current list of these census blocks is available at: <a href="https://portal.ct.gov/DEEP/Environmental-Justice/Environmental-Justice-Communities">https://portal.ct.gov/DEEP/Environmental-Justice/Environmental-Justice-Communities</a>.

Decarbonization is the second key priority for the 2022-2024 term. Energy efficiency and demand management programs are key tools in protecting the environment and reducing greenhouse gas and other air pollutant emissions. On September 3, 2019, Governor Ned Lamont issued Executive Order No. 3, re-establishing and expanding the membership and responsibilities of the Governor's Council on Climate Change (GC3). The GC3 is responsible for addressing mitigation strategies to reduce greenhouse gases, as well as considering adaptation and resilience in the face of climate change impacts. In January 2021, the GC3 issued a Phase 1 report on near-term actions that could be taken on climate change and building a more resilient Connecticut. As

Over the 2022-2024 term, Connecticut's energy efficiency and demand management programs will result in the reduction of 4.6 million tons of CO<sub>2</sub> emissions

In support of the GC3's recommendations, the Companies will help to reduce greenhouse gas emissions from the building sector by promoting high-efficiency, low-carbon space and water heating technologies, such as heat pumps and heat pump water heaters. Additional decarbonization strategies will include a renewed push for Zero Net Energy, Zero Net Energy Ready, and Passive House certifications for commercial and residential new construction projects. The Companies will introduce packaged energy efficiency program offerings for all-electric new construction projects through the C&I Portfolio. During the 2022-2024 term, the Companies will also begin to align the C&I new construction program, Energy Conscious Blueprint, with the US Department of Energy's (DOE) Grid Interactive Efficient Building initiative. The Companies will offer increased technical and financial support for low-carbon technologies in retrofit applications and will significantly increase their efforts to weatherize residential and C&I buildings.

The GC3 report also encouraged the transition of the Plan's programs from their historical reliance on high-efficiency lighting measures to active demand response strategies. <sup>15</sup> During the 2019-2021 term, the Companies recognized that the lighting marketplace had transformed and had already shifted their support (via programs and incentives) toward active demand response strategies, weatherization measures, and low-carbon technologies. For the 2022-2024 term, the Companies will promote the co-delivery of energy efficiency and demand management programs that support decarbonization and carbon neutrality, including smart thermostats, electric vehicle chargers, and battery storage. Additionally, the Companies will continue to support and implement some of the Public Utility Regulatory Authority's (PURA) grid modernization efforts. <sup>16</sup> The Companies will encourage customers to adopt "smart" technologies that enable two-way communications between customers' equipment and systems with electric grid operators. These active demand response strategies will significantly reduce peak demand and greenhouse gas emissions, helping to mitigate the impact that the state's building sector has on the environment and climate change. The Companies plan to encourage customers

<sup>&</sup>lt;sup>12</sup> Conn. Exec. Order No. 3, effective Sep. 3, 2019, available online at: <a href="https://portal.ct.gov/-/media/Office-of-the-Governor/Executive-Orders/Lamont-Executive-Orders/Executive-Order-No-3.pdf?la=en&hash=F836ED64F1BB49A5424AB4C7493A3AE3">https://portal.ct.gov/-/media/Office-of-the-Governor/Executive-Orders/Executive-Order-No-3.pdf?la=en&hash=F836ED64F1BB49A5424AB4C7493A3AE3</a>. The GC3 was originally established in 2015 by Governor Dan Malloy. The GC3's membership includes 23 members from businesses, local governments, nonprofits, quasi-public agencies, and state agencies.

GC3, Building a Low Carbon Future for Connecticut: Achieving a 45% GHG Reduction by 2030, rel. Dec. 18, 2018, available online at: https://portal.ct.gov/-/media/DEEP/climatechange/publications/BuildingaLowCarbonFutureforCTGC3Recommendationspdf.pdf.

GC3, Taking Action on Climate Change and Building a More Resilient Connecticut for All: Phase I-Near Term Actions, issued Jan. 2021, available online at: <a href="https://portal.ct.gov/-/media/DEEP/climatechange/GC3/GC3">https://portal.ct.gov/-/media/DEEP/climatechange/GC3/GC3</a> Phase 1 Report Jan2021.pdf.

See GC3, at 35.

PURA, Interim Decision, Docket No. 17-12-03: PURA Investigation into Distribution System Planning of the Electric Distribution Companies, Oct. 2, 2019, available online at: <a href="https://portal.ct.gov/-/media/PURA/electric/171203RE01-Interim-Decision.pdf?la=en&hash=B8A5D3C2B6D42D1EBA2B971581DCDF5B">https://portal.ct.gov/-/media/PURA/electric/171203RE01-Interim-Decision.pdf?la=en&hash=B8A5D3C2B6D42D1EBA2B971581DCDF5B</a>. This interim decision outlined PURA's framework for investigating methods for realizing an equitable modern electric grid in Connecticut, including energy storage (<a href="https://portal.ct.gov/PURA/Electric/Grid-Modernization/Grid-Modernization/">https://portal.ct.gov/PURA/Electric/Grid-Modernization/</a>.

to engage with a more modern grid, improving energy affordability and resilience. The Companies' efforts will also help transition the state to a zero-carbon economy and in meeting the *Global Warming Solutions Act*'s 2050 target goals.<sup>17</sup>

The Companies' third priority is energy affordability—promoting economic development through lower energy bills, enhanced energy security, and increased reliability. According to the US Energy Information Administration, nearly one-third of US households reported facing a challenge in paying energy bills or sustaining adequate heating and cooling in their home. A household's energy burden is defined as the percentage of household income spent on energy bills and very often, lower income households are disproportionately affected. Households with high energy burdens must deal with difficult trade-offs between paying for utility bills or basic necessities like food and medicine.

For the 2022-2024 term, the Companies will focus on making energy bills more affordable for residential, commercial,

industrial, and municipal customers. To achieve this priority in the Residential Portfolio, the Companies plan to reach more households and promote comprehensive energy efficiency measures that will decrease customers' energy bills and make homes safer and healthier to live in. These measures will include insulation, efficient appliances and electronics, heating, ventilation, and air conditioning (HVAC) system and water heating equipment upgrades, and behavioral changes.

Every \$1 invested in energy efficiency, results in \$2.41 back into Connecticut's economy, resulting in an economic lifetime benefit of \$1.7 billion

Energy affordability also affects businesses, particularly micro-businesses and small business enterprises. <sup>20</sup> Many businesses were already struggling pre-pandemic to pay bills, sustain staffing levels, and maintain profitability. With the shuttering of many businesses for months due to COVID-19, even more commercial, industrial, and municipal customers now need to be aware of, and realize, the benefits of energy efficiency in keeping production lines moving and the lights on. Installing energy efficiency measures would benefit C&I customers through increased energy savings, improved facility operations and productivity, and increased health and safety standards (e.g., increased visibility with better lighting, health and safety with high-efficiency HVAC equipment to circulate air). Less dollars directed toward utility bills means more money in an employee's paycheck, more books in the classroom, increased emergency services for communities, and larger investments in new production lines, products, and services.

For the 2022-2024 term, the Companies will look to offer increased financing options; thus, allowing business customers to make long-term energy efficiency investments providing immediate benefits with little to no upfront capital costs. The Companies will also continue to offer increased financial assistance to customers to incentivize them to make long-term, strategic energy efficiency choices. For microbusinesses and small businesses, such as local restaurants, small retail operations, and doctors' or lawyers' offices, the Companies will continue to offer virtual, energy pre-assessments through

<sup>&</sup>lt;sup>17</sup> In 2008, the Connecticut General Assembly passed Public Act 08-98—An Act Concerning Global Warming Solutions (Global Warming Solutions Act). The Global Warming Solutions Act requires the state to reduce greenhouse gas emissions to 10 percent below 1990 levels by January 2020 and to reduce greenhouse gas emissions to 80 percent below 2001 levels by January 2050.

US Energy Information Administration, 2015 Residential Energy Consumption Survey, 2015, online at: <a href="https://www.eia.gov/consumption/residential/reports/2015/energybills/">https://www.eia.gov/consumption/residential/reports/2015/energybills/</a>. The US Energy Information Administration is currently collecting data for the 2020 Residential Energy Consumption Survey and will release information regarding housing characteristics by December 2021 and energy consumption and expenditures data in January 2023.

<sup>&</sup>lt;sup>19</sup> Fisher, Sheehan, and Colton's *Home Energy Affordability Gap Analysis* defines households with a 6 percent energy burden or higher as households with high energy burden, online at: <a href="https://www.homeenergyaffordabilitygap.com/">www.homeenergyaffordabilitygap.com/</a>.

Microbusinesses are defined as a subset of the small business market segment that use less than 25 kW average monthly demand (United Illuminating) or consume less than 100,000 kWh annually (Eversource) across all facilities. A small business is defined as an enterprise that uses less than 1 million kilowatt-hours annually.

the Small Business Energy Advantage program to support the installation of electric and natural gas cost-saving measures. The remote assessments identify areas where upgrades could improve energy use. Once an assessment is complete, a self-install kit of energy efficiency measures is mailed to the customer at no charge allowing the business to optimize their energy consumption and realize energy savings right away.

#### 2022-2024 SAVINGS AND BENEFITS

Connecticut's energy efficiency and demand management initiatives provide significant economic and environmental benefits to the state's residents and businesses. For the 2022-2024 term, the Companies' energy-saving initiatives will generate \$2.41 into Connecticut's economy for every \$1 invested in energy efficiency and provide an economic lifetime benefit of \$1.7 billion dollars. These benefits are reinvested into the state's economy and workforce through direct and indirect services, training initiatives, and professional development. In Connecticut, energy efficiency programs create and support 33,573 jobs annually.<sup>21</sup>

In addition to these quantifiable benefits, installed measures improve the efficiency of industrial and commercial operations and several initiatives provide and support customized strategic energy management and sustainable business practices to C&I and municipal customers. During the 2022-2024 term, the energy efficiency and demand reduction measures installed will result in emission reductions of 4.6 million tons of carbon dioxide and further reductions in other air pollutants, such as sulfur oxides and nitrous oxides.

During the 2022-2024 term, energy efficiency and demand management initiatives will result in:

- Electric lifetime savings of 4.8 billion kilowatt-hours (kWh).
- Natural gas lifetime savings of 21.3 billion cubic feet of natural gas (Bcf).
- Oil lifetime savings of 81.6 million gallons.
- Propane lifetime savings of 14.4 million gallons.
- A combined annual peak demand reduction (active and passive) of 409 Megawatts (MW).

Figure 1-A below details the annual operating budgets and lifetime and annual energy savings forecasted for the 2022, 2023, and 2024 program years.

Source: 2021 CT Clean Industry Energy Report reflects 2020 data and reports clean energy employment declined by 5.9 percent (2,600 workers) in 12 months. The COVID-19 pandemic resulted in wiping out nearly four years of clean energy employment growth across the state, sending the clean energy labor market back to 2016 employment levels. Clean energy investment supports 41,500 Connecticut jobs in HVAC, electrical, manufacturing, insulation, weatherization and solar industries. This includes 33,573 energy efficiency jobs. Despite these losses, the clean energy industry is projected to see an 8.2 percent employment growth in 2021 with the addition of around 3,400 clean energy jobs.

#### Figure 1-A: 2022-2024 Savings & Benefits\*

Year	В	udgets (\$000	))		Annual Savings						Lifetime Savings		
	Electric	Natural Gas	Total	Electric (GWh) *	Peak (MW) **	Natural Gas (MMcf)	Oil (gallons)	Propane (gallons)	Annual Savings (MMBtus) ***	CO <sub>2</sub> Emissions (tons)	Lifetime Benefit (\$000)	Lifetime Savings (MMBtus) ***	
2022	\$199,845	\$44,878	\$244,723	197	135	382	1,548,671	294,364	1.3	126,510	\$598,196	16.8	
2023	\$178,385	\$55,179	\$233,564	170	133	521	1,363,908	258,488	1.3	123,802	\$563,900	17.2	
2024	\$173,895	\$55,836	\$229,731	157	141	521	1,351,073	254,667	1.3	118,502	\$544,206	16.8	
Total	\$552,124	\$155,893	\$708,017	524	409	1,424	4,263,652	807,519	3.9	368,814	\$1,706,301	50.8	

<sup>\*</sup>Abbreviation for Gigawatt hours.

<sup>\*\*</sup>Savings include demand response programs.

<sup>\*\*\*</sup>In millions of MMBtu (one million British Thermal Units). Figures listed are site MMBtus and address only the energy saved at the meter level.

## **SECTION ONE: OVERVIEW**

#### 1.1 LEGISLATIVE HISTORY

In 1998, the Connecticut General Assembly passed *Public Act 98-28—An Act Concerning Electric Restructuring*, establishing the Conservation & Load Management Fund (known today as the Connecticut Energy Efficiency Fund or Fund). Initially, the energy efficiency programs were funded solely by electric residential and C&I customers across the state. This legislation established the Fund's three primary objectives: (1) to advance energy efficiency, (2) mitigate the negative environmental impacts of energy generation, and (3) to promote economic development through lower energy bills, enhanced energy security, and increased energy reliability. Public Act 98-28 also established the Energy Conservation Management Board (known today as the Energy Efficiency Board or EEB) to advise Connecticut's Electric Companies in developing their annual energy efficiency and load management plans.

In 2005, *Public Act 05-01—An Act Concerning Electricity and Energy Efficiency* was passed by the Connecticut General Assembly. This legislation created a funding mechanism for the Natural Gas Companies to develop and implement cost-effective energy efficiency programs that reduce natural gas consumption for residential and C&I customers. This legislation also created energy efficiency programs and a funding mechanism for the Connecticut Municipal Electrical Energy Cooperative (CMEEC). Additionally, under Public Act 05-01, the EEB's role was expanded to provide guidance for the Electric and Natural Gas Companies in their development of energy efficiency programs for electric and natural gas customers.

Public Act 05-01 codified the establishment of a joint financing committee (Joint Working Committee) between the EEB and the Renewable Energy Investment Fund (known today as the CT Green Bank). <sup>22</sup> Pursuant to Public Act 05-01, this Joint Working Committee must coordinate the programs and initiatives overseen by both the EEB and CT Green Bank to reduce the long-term negative environmental impacts, costs, and security risks associated with energy consumption across the state. <sup>23</sup> As a result of this legislation and joint collaboration with the CT Green Bank, the Residential and C&I Portfolios' financial offerings have significantly expanded over the years and are detailed in Section 2 and Section 3 of this Plan, respectively. In 2007, new legislation called for the Companies to pursue "all cost-effective energy efficiency" with the passage of *Public Act 07-242—An Act Concerning Electricity and Energy Efficiency*. This legislation envisioned energy efficiency as the focal point for statewide energy policy.

In 2011, the Connecticut General Assembly passed *Public Act 11-80—An Act Concerning the Establishment of the Department of Energy & Environmental Protection and Planning for Connecticut's Energy Future*. This landmark legislation created DEEP and laid the groundwork for pursuing all cost-effective energy efficiency. Public Act 11-80 also requires

<sup>&</sup>lt;sup>22</sup> Public Act 05-01, Section 5(d)(2).

<sup>&</sup>lt;sup>23</sup> Public Act 05-01, Section 16-245.

DEEP to prepare a Comprehensive Energy Strategy for Connecticut every four years and DEEP issued its first in 2012.<sup>24</sup> Additionally, Public Act 11-80 established ambitious energy-saving targets for the state, including reducing state buildings' energy consumption by 10 percent by 2013 and an additional 10 percent by 2018, and weatherizing 80 percent of Connecticut's residential homes by 2030.

In 2013, the Connecticut General Assembly passed *Public Act 13-228—An Act Concerning Implementation of Connecticut's Comprehensive Strategy and Various Revisions to the Energy Statutes*. Public Act 13-228 modified how the Electric and Natural Gas Companies developed their energy efficiency plans with a requirement for them to develop a three-year combined plan, beginning on November 1, 2015. The 2022-2024 Plan is the third three-year plan developed after the passage of Public Act 13-228. This legislation also provided the framework for increased energy efficiency spending in Connecticut and made organizational changes to the EEB. Public Act 13-228 also requires the EEB and CT Green Bank to finance residential energy efficiency and renewable energy measures using private capital with on-bill loan payments via electric and natural gas utility bills.

During the 2016-2018 term, significant funding for the Fund's programs was diverted to the state's General Fund through the Connecticut General Assembly's passage of June Special Session's *Public Act 17-2—An Act Concerning the State Budget for the Biennium Ending June 30, 2019, Making Appropriations Therefor, Authorizing and Adjusting Bonds of the State and Implementing Provisions of the Budget* (SS Public Act 17-2) on October 31, 2017. The Act diverted \$63.5 million per year for Fiscal Years 2018 and 2019 from the Fund and diverted an additional \$10 million per year in proceeds from the Regional Greenhouse Gas Initiative's carbon trade auctions. These diversions negatively impacted the Companies' Portfolios for 2017, 2018, and 2019.

In 2018, the Connecticut General Assembly passed *Public Act 18-50—An Act Concerning Connecticut's Energy Future*. <sup>25</sup> Due to the passage of this legislation, the Companies saw partial restoration of funds for Program Year 2019, and full funding for Program Years 2020 and 2021. To deter future funding diversion efforts, Public Act 18-50 changed the structure of how energy efficiency programs are funded in the state. In addition, the Act introduced a new energy savings goal policy for the state, requiring the Companies to reduce energy consumption by 1.6 million MMBtus (one million British Thermal Units), or the "equivalent megawatts"

## **Energy Legislation**

Public Act 98-28—An Act Concerning
Electric Restructuring

Public Act 05-01—An Act Concerning Electricity and Energy Efficiency

Public Act 07-242—An Act Concerning Electricity and Energy Efficiency

Public Act 11-80—An Act Concerning the Establishment of the Department of Energy & Environmental Protection and Planning for Connecticut's Energy Future

Public Act 13-228—An Act Concerning Implementation of Connecticut's Comprehensive Strategy and Various Revisions to the Energy Statutes

Public Act 17-2—An Act Concerning the
State Budget for the Biennium Ending June
30, 2019, Making Appropriations Therefor,
Authorizing and Adjusting Bonds of the
State and Implementing Provisions of the
Budget

Public Act 18-50—An Act Concerning Connecticut's Energy Future

Public Act 18-82: An Act Concerning Climate Change Planning and Resiliency

<sup>&</sup>lt;sup>24</sup> Public Act 11-80, Section 51.

<sup>&</sup>lt;sup>25</sup> Public Act 18-50, *An Act Concerning Connecticut's Energy Future*, approved May 24, 2018. Also known as Senate Bill 9 ("SB 9"). Available online at: <a href="https://www.cga.ct.gov/2018/act/pa/pdf/2018PA-00050-R00SB-00009-PA.pdf">https://www.cga.ct.gov/2018/act/pa/pdf/2018PA-00050-R00SB-00009-PA.pdf</a>.

of electricity," annually each year for calendar years commencing on and after January 1, 2020, through calendar year 2025." 26

Public Act 18-50 also revised the state's general statutes, specifically § 16-245, adding "demand management" to the Companies' legislatively directed program mandates<sup>27</sup> and requiring the Companies to be fuel blind in the delivery of energy efficiency programs.<sup>28</sup> The Companies exceeded the mandated goal energy reductions by delivering 1.9 million MMBtus for both the 2020 and 2021 Program Years.<sup>29</sup>

The figure below details the planned MMBtu savings for the 2022-2024 term.

Year	2022	2023	2024
Legislative Goal	1.6	1.6	1.6
Companies' Goal	1.3	1.3	1.3

Figure 1-B: 2022-2024 Plan Million MMBtu Savings (Annual)\*

Another piece of legislation passed in 2018 was *Public Act 18-82: An Act Concerning Climate Change Planning and Resiliency*. This legislation requires the state to achieve greenhouse gas emissions reductions of at least 45 percent below 2001 greenhouse gas emissions levels by January 1, 2030. Additionally, the legislation called for the integration of greenhouse gas reductions into the Integrated Resources Plan, the Comprehensive Energy Strategy, and various other state planning documents and efforts.

#### 1.2 AWARDS & RECOGNITION

#### 1.2.1 American Council for an Energy Efficient Economy Scorecards

For more than a decade, the American Council for an Energy Efficient Economy (ACEEE) has ranked Connecticut as one of the top ten energy-efficient states in its annual State Energy Efficiency Scorecard. In 2020, Connecticut was ranked seventh in the nation by the 2020 ACEEE State Scorecard (most recently published).

Beginning in 2019, the ACEEE began to assess and rank the fifty-two largest US electric utilities across a range of energy efficiency metrics critical to utility-sector efficiency. The three critical categories include: (1) energy efficiency program performance, (2) program offerings and portfolio comprehensiveness, and (3) enabling mechanisms for efficiency. For the

<sup>\*</sup>In millions of MMBtus.

Public Act 18-50, § 8. "It shall be the policy of the state to reduce energy consumption by not less than 1.6 million MMBtu, or the equivalent megawatts of electricity, as defined in subdivision (4) of section 22a-197 of the general statutes, annually each year for calendar years commencing on and after January 1, 2020, up to and including calendar year 2025." While PA 18-50 refers to "megawatts," the technical conversion of MMBtus (as an energy unit) to an electric unit would be megawatt hours. The Plan uses "megawatt-hours" throughout the remainder of the Plan when citing PA 18-50.

<sup>&</sup>lt;sup>27</sup> Public Act 18-50, § 9(d)(1). "...of implementing "cost effective energy conservation programs, demand management and market transformation initiatives." This directive started in 2020.

Public Act 18-50, § 9(d)(1). "...provided a customer of an electric distribution company may not be denied such services based on the fuel such customer uses to heat such customer's home."

<sup>&</sup>lt;sup>29</sup> Figures listed are site MMBtus and address only the energy saved at the meter level.

2020 ACEEE Utility Energy Efficiency Scorecard, Eversource MA and National Grid MA both tied for the top spot, with Eversource CT ranked the number ten utility.

#### 1.2.2 Ceres – Benchmarking Utility Clean Energy Report

In 2020, Eversource was ranked the number one energy efficiency provider in the nation, according to a Ceres' report: *Benchmarking Utility Clean Energy*.<sup>30</sup> This report looked at the percentage of 2014 retail electric sales of large electric utilities in relationship to clean energy deployment. Ceres is a non-profit organization transforming the economy to build a just and sustainable future for people and the planet. Eversource was ranked number one in two of the report's categories: (1) incremental annual energy efficiency and (2) life cycle energy efficiency.

#### 1.2.3 2021 ENERGY STAR Partner of the Year Sustained Excellence

In April 2021, Energize Connecticut, in partnership with the Companies, was recognized with the Environmental Protection Agency's (EPA) 2021 ENERGY STAR® Partner of the Year Sustained Excellence recognition for their 2020 program year accomplishments.<sup>31</sup> The award was given for the Companies' response to the COVID-19 public health crisis by increasing incentives for ENERGY STAR certified HVAC units, offering special online discounts for ENERGY STAR certified lighting, air cleaners, and smart thermostats, and increasing the impact of the Retail Products program by 14 percent. Combined, these initiatives resulted in the sale of about 70,000 ENERGY STAR certified products.<sup>32</sup>

In addition, the EPA noted the Companies' implementation of a virtual pre-assessment for households, along with the introduction of a self-install energy efficiency kit to adapt to the pandemic. The Companies also offered incentives of up to 100 percent for insulation installation and provided health and safety training for contractors to ensure the safety of contractors and households to facilitate resumption of in-home and on-site services. The EPA also recognized the Companies for their empowerment of municipal partners to use the EPA's ENERGY STAR Portfolio Manager™ software, and other tools and resources to track building energy usage, evaluate buildings for energy-efficient improvements, monitor results of technology upgrades, and capture energy savings to meet required energy reduction goals.

#### 1.2.4 2021 Home Energy Score Partner Innovation Award

In May 2021, the DOE Home Energy Score Team presented Energize Connecticut<sup>SM</sup> with the 2020 Home Energy Score Partner Innovation Award.<sup>33</sup> This award recognized the Connecticut Home Energy Score Working Group for championing an innovative, inclusive process for improving program impact and making efforts to reach rental households with the Home Energy Score. For more information regarding the Home Energy Score, please see Section 2.5 of this Plan.

<sup>&</sup>lt;sup>30</sup> Ceres, 2020 Benchmarking Utility Clean Energy, Jul. 8, 2020, available online at: <a href="https://www.ceres.org/resources/reports/benchmarking-air-emissions-100-largest-electric-power-producers-united-states-4">https://www.ceres.org/resources/reports/benchmarking-air-emissions-100-largest-electric-power-producers-united-states-4</a>. Please note that United Illuminating is too small to be eligible for this recognition.

<sup>&</sup>lt;sup>31</sup> EPA, <u>2020 ENERGY STAR Awards: Profiles in Leadership at 14</u>, available online at: https://www.energystar.gov/sites/default/files/asset/document/2020%20Profiles%20in%20Leadership Final%20%28Updated%205.5.2020%2 9.pdf.

This figure does not include retail sales of lighting products.

Energize Connecticut is an initiative dedicated to empowering Connecticut to make smart energy choices, now and in the future. It is an initiative of the Energy Efficiency Fund, the CT Green Bank, the State, and the Companies. The initiative has funding support from a charge on customer energy bills.

#### 1.3 CONNECTICUT'S ENERGY POLICY

Energy efficiency is the most cost-effective, reliable resource for Connecticut's energy policymakers and stakeholders. To develop the 2022-2024 Plan's programs, incentives, and budgets, the Companies worked extensively with DEEP, the EEB, and EEB consultants to meet relevant statutory requirements and policy guidance. The primary goal for the 2022-2024 Plan is to "implement cost-effective energy conservation programs, demand management and market transformation initiatives." The Companies have also aligned the 2022-2024 Plan with the 2018 Comprehensive Energy Strategy. Once the 2022 Comprehensive Energy Strategy is finalized, the Companies will work with DEEP and the EEB to align the 2022-2024 Plan with any of the strategy's policies, guidelines, or goals that will help Connecticut achieve the state's overall energy policy goal of cheaper, cleaner and more reliable energy.

#### 1.3.1 Comprehensive Energy Strategy

In 2022, DEEP will issue the 2022 Comprehensive Energy Strategy to advance Connecticut's goal of creating a cheaper, cleaner, more reliable energy future for all the state's residents and businesses. Under § 16a-3d, DEEP is charged with preparing a Comprehensive Energy Strategy for Connecticut every four years, which examines future energy needs in the state and identifies opportunities to ensure reliable energy availability, reduce costs for ratepayers, and mitigate public health and environmental impacts of Connecticut's energy use, such as greenhouse gas and criteria air pollutant emissions.

In addition, Governor Lamont's recent Executive Order 21-3 directs DEEP to include in the 2022 Comprehensive Energy Strategy a set of strategies to: (a) provide for more affordable heating and cooling for Connecticut residents and businesses, (b) achieve reductions in greenhouse gas emissions from residential buildings and industrial facilities to meet the economy-wide greenhouse gas reduction targets for 2030 and 2050 established in the Global Warming Solutions Act, and (c) improve the resilience of the state's energy sector to extreme weather events, fuel commodity price spikes, and other disruptions.<sup>36</sup> In January 2022, DEEP issued a Notice of Proceeding and Scoping Meeting, initiating its stakeholder process for development of the 2022 Comprehensive Energy Strategy.<sup>37</sup> In this notice, DEEP announced that it would apply the following overlapping lenses in developing the state's comprehensive energy strategy for the next four years:

- (1) Climate,
- (2) Equity,
- (3) Affordability,
- (4) Economic Development, and
- (5) Resilience.

Public Act 18-50, § 9(d)(1). The "demand management" component of this directive starts in 2020. Existing law already requires C&LM plans "to implement cost-effective energy conservation programs and market transformation initiatives". Conn. Gen. Stat. §16-245m(d)(1). Prior C&LM plans have also included load management programs.

Department of Energy and Environmental Protection, 2018 Comprehensive Energy Strategy, available online at: <a href="http://www.ct.gov/deep/lib/deep/energy/ces/2018">http://www.ct.gov/deep/lib/deep/energy/ces/2018</a> comprehensive energy strategy.pdf.

Governor Ned P. Lamont, Executive Order No. 21-3, issued Dec. 16, 2021, available online at: <a href="https://portal.ct.gov/-/media/Office-of-the-Governor/Executive-Orders/Lamont-Executive-Orders/Executive-Order-No-21-3.pdf">https://portal.ct.gov/-/media/Office-of-the-Governor/Executive-Orders/Lamont-Executive-Orders/Executive-Order-No-21-3.pdf</a>.

<sup>&</sup>lt;sup>37</sup> DEEP, *Notice of Proceeding and Scoping Meeting*, Jan. 6, 2022, available online at: <a href="https://portal.ct.gov/media/DEEP/energy/CES/2022CESnoticeofproceedingpdf.pdf">https://portal.ct.gov/media/DEEP/energy/CES/2022CESnoticeofproceedingpdf.pdf</a>.

The 2018 Comprehensive Energy Strategy noted that while Connecticut has reduced greenhouse gas emissions four percent below 1990 levels and 14 percent below 2001 levels, that greater reductions are needed for the state to meet the *Global Warming Solutions Act*'s 2050 target goals.<sup>38</sup> Once the 2022 Comprehensive Energy Strategy has been released, in consultation with DEEP and the EEB, the Companies will begin to integrate recommended strategies into the goals and objectives for the Residential, C&I, and Education, Workforce & Community Outreach Portfolios. These modifications will be reflected in the 2023 and 2024 Plan updates and/or budget reconciliation filings.

#### 1.3.2 Equitable Energy Efficiency Proceeding

Pursuant to Conn. Gent Stat § 16-245ee, DEEP must determine that an equitable amount of the funds administered under the Conservation & Load Management Plan "are to be deployed among small and large customers with a maximum average monthly peak demand of 100 kilowatts in census tracts in which the median income is not more than 60 percent of the state median income." DEEP must file an annual report of its findings regarding the distribution of funds to such communities, in accordance with the provisions of Conn. Gen. Stat. § 11-4a, to the Energy and Technology Committee of the Connecticut General Assembly. 40

In September 2020, DEEP launched an Equitable Energy Efficiency (E3) proceeding to define equity in the context of energy efficiency and demand management programs, develop specific metrics to determine which customer demographics are underserved by the current programs, and to expand the inclusion and participation of individuals in the Portfolios, particularly within distressed and environmental justice communities. <sup>41</sup> DEEP is also exploring whether groups within these communities, such as minorities, customers with limited incomes, veterans, and renters are also being served by the energy efficiency and demand management programs. Additionally, through the E3 proceeding, DEEP will determine whether Connecticut's business customers are equitably benefitting from Energy Efficiency Fund programs, including, but not limited to minority-owned businesses, microbusinesses, and large C&I customers with energy-intensive processes.

In parallel to this proceeding, DEEP issued compliance orders for the 2020 Plan Update to the 2019-2021 Plan that included the creation of new equity performance management metrics for the 2021 Residential and C&I Portfolios. DEEP invited and reviewed public comments for a number of stakeholders and participants on the scope and process of the E3 proceeding. On May 5, 2021, DEEP issued its *Proposed Phase I Actions and Recommendations* and invited the public to submit comments by June 18, 2021.<sup>42</sup> On July 21, 2021, DEEP issued its *Final Phase I Actions and Recommendations*.<sup>43</sup>

<sup>&</sup>lt;sup>38</sup> In 2008, the Connecticut General Assembly passed *Public Act 08-98—An Act Concerning Global Warming Solutions* ("Global Warming Solutions Act"). The Global Warming Solutions Act requires the state to reduce greenhouse emissions to 10 percent below 1990 levels by January 2020 and to reduce greenhouse emissions to 80 percent below 2001 levels by January 2050.

<sup>&</sup>lt;sup>39</sup> Conn. Gen Stat § 16-245ee (2012).

<sup>40</sup> Conn. Gen Stat § 11-4a (2012).

<sup>&</sup>lt;sup>41</sup> DEEP, Notice of Equitable Energy Efficiency Proceeding and Request for Written Comments, Sep. 3, 2020, available online at: http://www.dpuc.state.ct.us/DEEPEnergy.nsf/c6c6d525f7cdd1168525797d0047c5bf/12c36ce3c4b5a80c852585d80046845f/\$FILE/Notice%20 of%20Equitable%20EE%20Proceeding%20&%20Req%20for%20Written%20Comments.pdf. See Footnotes 10 and 11 for definitions of distressed and environmental justice communities.

<sup>&</sup>lt;sup>42</sup> DEEP, *E3 Proceeding-Phase 1 Actions and Recommendations*, May 5, 2021, available online at: <a href="https://portal.ct.gov/media/DEEP/energy/ConserLoadMgmt/E3-Proposed-Phase-I-Actions-and-Recommendations.pdf">https://portal.ct.gov/media/DEEP/energy/ConserLoadMgmt/E3-Proposed-Phase-I-Actions-and-Recommendations.pdf</a>.

DEEP, Final Determination for Equitable Energy Efficiency Proceeding—Phase I Goals and Actions, Jul. 21, 2021, available online at: <a href="https://portal.ct.gov/-/media/DEEP/energy/ConserLoadMgmt/Final-E3-Phase-I-Determination.pdf">https://portal.ct.gov/-/media/DEEP/energy/ConserLoadMgmt/Final-E3-Phase-I-Determination.pdf</a>.

The final determination contains eight high-level goals and nineteen associated action items which are detailed in Figure 1-C. Throughout the 2022-2024 term, the Companies will work to analyze and design new pathways and process improvements to align program delivery with the E3 proceeding's goals and associated action items. The Companies will provide updates regarding their efforts in the two Plan Update Filings and the three budget reconciliation filings (2022, 2023, and 2024). For the 2022-2024 Plan, the Companies have developed equity metrics in accordance with DEEP's *Final Phase I Actions and Recommendations* in the E3 proceeding (see Section 2.1.6 (Residential Portfolio) and Section 3.1.7 (C&I Portfolio)).

The 2023 Plan Update will be filed on November 1, 2022 and the 2024 Plan Update will be filed on November 1, 2023. Budget reconciliation filings will be submitted on March 1, 2022 (for Program Year 2021), March 1, 2023 (for Program Year 2022), and March 1, 2024 (for Program Year 2023).

#### Figure 1-C: Final Phase I Actions and Recommendations for Equity in Energy Efficiency Proceeding

#### Goal 1: Embed greater equity in decision-making.

- o Action 1.1: Direct the EEB to develop a plan to hire a Diversity, Equity, and Inclusion Consultant.
- o Action 1.2: Solicit nominations for EEB membership in a more inclusive manner to increase board diversity.

#### Goal 2: Enhance tracking of equity indicators in Conservation & Load Management programs.

- Action 2.1: Work with the Companies to assess-retrospectively and moving forward—the extent to which priority communities are served by energy efficiency programs.
- O Action 2.2: Update the Equitable Distribution Report to make equity data accessible to a wider audience.

#### Goal 3: Develop metrics and goals to assess equitable distribution of energy efficiency funding.

- Action 3.1: Broaden the current Matching Payment Program metric to potentially cover medical and financial hardship customers and include more ambitious targets to scale up the percentage of participating customers on an annual basis.
- Action 3.2: Establish a baseline E3b (Energy Efficiency Equity baseline) level for the Companies based on the most recent available data and establish a goal of at least maintaining the E3b figures for each utility on an annual basis.

#### Goal 4: Improve program participation and impacts among moderate-income customers.

- Action 4.1: Develop a definition of "moderate income."
- Action 4.2: Assess moderate income program participation using the agreed-upon definition.

#### Goal 5: Streamline the eligibility process for low-income programs.

- Action 5.1: Streamline eligibility based on participation in other state assistance programs through multi-lateral data-sharing across multiple state agencies and departments.
- Action 5.2: Hold a series of workshops with adequate representation to explore additional avenues for streamlining eligibility.
- Action 5.3 Develop a tool with strong consumer protections that allows vendors to easily identify eligible customers by address to support verification and marketing activities.

#### Goal 6: Improve outreach to high-need or high-impact populations.

- o Action 6.1: Develop community engagement practices that align with the goals outlined in the E3 proceeding and 2022-2024 Plan.
- Action 6.2: Develop a checklist to ensure that opportunities for public participation are widely shared and accessible to a diverse group of stakeholders.

#### Goal 7: Address health and safety barriers to low-income weatherization access.

- Action 7.1: Work with the CT Green Bank to explore improved financing options for Home Energy Solutions and Home Energy
   Solutions-Income Eliqible customers to access interest-free financing for health and safety barrier mitigation.
- Action 7.2: Develop a DEEP-administered program with supplemental funding sources to remediate health and safety barriers to weatherization in low-income homes.

#### Goal 8: Address and remove barriers to participation among renters.

- Action 8.1: Engage with both landlords and renters on the benefits of Home Energy Solutions and Home Energy Solutions-Income Eligible and teach them how to participate in the programs.
- Action 8.2: Leverage existing incentives with federal funding and other funding sources as approved to provide a comprehensive approach to energy retrofits for affordable housing.
- Action 8.3: Maintain the landlord agreement in the interim as the Companies gather data on rental units that do not proceed due to lack of landlord approval.

#### 1.3.3 Governor's Council on Climate Change

As referenced in Section 1.1, Governor Lamont's *Executive Order No. 3* re-established and expanded the membership and responsibilities of the GC3. The GC3 is responsible for two primary objectives and related tasks: (1) monitor and report on the state's implementation of the greenhouse gas emissions reductions strategies set forth in the GC3's December 2018 report: *Building a Low Carbon Future for Connecticut: Achieving a 45% GHG Reduction by 2030* and (2) develop and implement adaptation strategies to assess and prepare for the impacts of climate change in areas such as infrastructure, agriculture, natural resources, and public health.

In January 2021, the GC3 issued a Phase 1 report on near-term actions to reduce greenhouse gas emissions, combat climate change, and help build a more resilient Connecticut. The Companies have integrated several of the GC3's recommendations into the 2022-2024 Plan, including the continued promotion of high-efficiency low-carbon space and water heating technologies in retrofit and new construction projects and an enhanced weatherization effort for both the residential and C&I building sectors. Additionally, the Companies continue to develop innovative active demand response programs to support decarbonization and carbon neutrality, including battery chargers, smart thermostats, and electric vehicle chargers. For the 2022-2024 term, CNG and SCG will expand their active demand response strategies for residential and C&I natural gas customers, decreasing the amount of energy used in natural gas-heated homes, as well as reducing greenhouse gas emissions.

#### 1.4 2022-2024 PLAN PRIORITIES & PLAN HIGHLIGHTS

Connecticut is perennially ranked as one of the nation's top ten states in energy efficiency policies and programs. The 2022-2024 Plan is a \$708 million investment in making Connecticut more energy efficient. The Companies worked collaboratively with the EEB, EEB consultants, regulators, and stakeholders to develop the Plan's priorities detailed below:



For the 2022-2024 term, program design, workforce outreach efforts, and budgets have all been crafted with the Plan's three priorities in mind—equity, decarbonization, and energy affordability. In Figure 1-D below, the Companies have highlighted how they will address these three priorities across the Residential, C&I, and Education, Workforce & Community Outreach Portfolios.

#### Figure 1-D: 2022-2024 Plan Priorities

Figure 1-D: 2022-2024 Plan Priorities								
Residential	Commercial & Industrial	Education, Workforce Development & Community Outreach						
	Equity							
<ul> <li>Use DEEP's new Energy Efficiency Equity baseline (E3b) to identify areas of the state with lower participation and to inform new targeted customer outreach efforts.</li> <li>Market to customers in non-English languages to increase audience engagement.</li> <li>Continue to analyze customer data and target customers in distressed and environmental justice communities and market sectors with untapped potential.</li> <li>Include extra weighting for certified minorityowned, women-owned, and veteran-owned businesses when evaluating and scoring competitive requests for proposals for program vendors.</li> </ul>	<ul> <li>Continue to analyze customer data and target customers in distressed and environmental justice communities and market sectors with untapped potential.</li> <li>Market to customers in non-English languages to increase audience engagement.</li> <li>Include extra weighting for certified minority-owned, women-owned, and veteran-owned businesses when evaluating and scoring competitive requests for proposals for program vendors.</li> </ul>	<ul> <li>Use Community Partnership Initiative to reach more customers, particularly those in distressed, environmental justice, and non-English speaking communities.</li> <li>Introduce Energize CT Energy in Action mobile exhibit. Sixty percent of school tours and community events will be in distressed and environmental justice communities.</li> <li>Implement proactive Workforce Development Strategy focusing on growing energy efficiency workforce and recruiting/training workers from underrepresented communities, such as ethnic and racial minorities, and women.</li> </ul>						
	Decarbonization							
<ul> <li>Promote sustainable building practices (e.g., Zero Energy Homes, Leadership in Energy and Environmental Design, and Passive House) to residential new construction market actors.</li> <li>Expand active demand response offerings to support electrification and carbon neutrality, including smart thermostats, air conditioning load control, battery storage, and electric vehicle chargers.</li> <li>Educate consumers on benefits of heat pump technologies and develop contractor locator tool to direct customers to qualified installers.</li> <li>Maintain Qualified Products List to standardize efficiency and qualifying criteria for heat pump technologies in Northeast.</li> </ul>	<ul> <li>Promote sustainable building practices (e.g., Net Zero Energy Buildings).</li> <li>Enhance weatherization efforts and use building energy management control strategies for commercial and municipal buildings.</li> <li>Educate contractors and customers on heat pump technologies and benefits.</li> <li>Expand active demand response offerings to support electrification and carbon neutrality, including smart thermostats, air conditioner load control, lighting/dimming, battery storage, industrial load shifting, and electric vehicle chargers.</li> <li>Claim savings for delivered fuels (oil and propane) resulting from the installation of energy efficiency measures.</li> </ul>	<ul> <li>Leverage manufacturer and distributor education and training efforts to promote heat pump technologies.</li> <li>Encourage contractors to attend and complete manufacturer-led heat pump trainings to broaden base of qualified installers.</li> <li>Coach contractors to recognize prime opportunities such as replacement of end-of-life air conditioning systems with heat pumps.</li> </ul>						
	Energy Affordability							
<ul> <li>Leverage funding from Low-Income Heating Energy Assistance Program and American Rescue Plan Act to address weatherization health and safety barriers.</li> <li>Increase stocking and sale of efficient equipment at retailers.</li> <li>Enhance and deploy web-based resources to educate customers about low-carbon technologies, high-efficiency products, and active demand response offerings.</li> <li>Continue to offer virtual pre-assessments through HES/HES-IE programs to support installation of energy efficiency and active demand response measures.</li> <li>Introduce Census Tract Tool to streamline</li> </ul>	<ul> <li>Enhance promotion of existing loan products, such as CPACE, and increase financing options to C&amp;I customers to support long-term energy efficiency investments that provide immediate energy savings with little to no upfront capital costs.</li> <li>Offer virtual, pre-assessments through the Small Business Energy Advantage program to support the installation of energy efficiency and active demand reduction measures.</li> <li>Conduct additional education and outreach to businesses to increase participation in energy efficiency and active demand response across market segments and customer classes.</li> <li>Increase small business participation in</li> </ul>	<ul> <li>Provide energy efficiency seminars to schools and community-based organizations to help educate students and educators on various careers/paths in energy efficiency available to students.</li> <li>Target residential and small business customers in distressed, environmental justice, and non-English speaking communities through community and direct outreach campaigns.</li> </ul>						

weatherization measures, including targeting

businesses in converted residences.

customer outreach efforts for contractors.

#### 1.4.1 Plan Priorities

#### **Priority 1: Equity**

The Companies' first priority for the 2022-2024 term is to ensure that the Portfolios are equitable in their distribution of programs and benefits across the state, including communities and neighborhoods, market segments, and customer types. The Companies' equity efforts have been shaped and will continue to be developed by DEEP's Equity in Energy Efficiency (E3) proceeding (see Section 1.3.2 for more details).

In July 2021, DEEP released its final recommendations for Phase I, including the need to develop an Energy Efficiency Equity baseline (E3b). In the upcoming term, the Companies will use the E3b to identify areas of the state with lower participation in energy efficiency and active demand response programs and to help them determine where customer outreach should be targeted. Throughout the 2022-2024 term, the Companies will work with DEEP, the EEB, and EEB consultants to modify processes and programs to promote greater equity across the Portfolios to align the Plan with the E3's eight goals and nineteen associated action items. <sup>45</sup> The E3 proceeding has already resulted in the creation of new equity performance management incentives for both the Residential and C&I Portfolios for the 2021 Program Year. For the 2022-2024 term, new equity metrics were developed (see Section 2.1.6 (Residential Portfolio) and Section 3.1.7 (C&I Portfolio)).

The 2022-2024 Plan's program designs, outreach efforts, and budgets have all been crafted with equity in mind for the upcoming three-year term and this consideration is reflected across the Portfolios. During the 2022-2024 term, the Companies will deploy a Census Tract Tool to allow communities, municipalities, and vendors to select areas throughout the state that are deemed to be "income eligible" through US census tract data. There will be two available paths for communities and vendors to choose for marketing and outreach activities, as well as an additional path to verify customers are eligible for the Home Energy Solutions-Income Eligible program. Additionally, for the Residential Portfolio's contractor communities, the Companies will include extra weighting for certified minority-owned, women-owned, and veteran-owned businesses when evaluating and scoring competitive requests for proposals for program vendors.

The C&I Portfolio is focused on making sure that customers across all market segments and business sizes receive equitable use of energy efficiency funding. For the 2022-2024 term, the Companies will research and target underserved customers and market sectors and introduce new incentives that make energy efficiency more affordable. In addition, the Companies will streamline the verification process for enhanced incentives. This makes it faster and simpler for C&I customers to participate in energy efficiency and active demand response programs, particularly small businesses and microbusinesses who do not have the time or resources to devote to energy-saving projects.

The C&I Portfolio will also be aligned to the E3 proceeding, focusing on reaching all C&I market segments. The C&I equity metric established for the 2021 Plan Update ensured that the Companies equitably distribute program support, funds, and the benefits derived from energy efficiency programs to all market sectors. In the 2022-2024 term, the Companies will focus on reaching customers and market segments with historically lower participation rates to ensure equity across the entire C&I customer base. The equity metric requires the Companies to increase annual electric savings in one C&I market segment within each quartile that has been identified as "under-participating and lower contributions received."

DEEP, Final Determination for Equitable Energy Efficiency Proceeding—Phase I Goals and Actions, Jul. 21, 2021, available online at: <a href="https://portal.ct.gov/-/media/DEEP/energy/ConserLoadMgmt/Final-E3-Phase-I-Determination.pdf">https://portal.ct.gov/-/media/DEEP/energy/ConserLoadMgmt/Final-E3-Phase-I-Determination.pdf</a>.

For reference, the C&I market segments are separated into quartiles by energy consumption and contributions to the Energy Efficiency Fund. Quartile 1 is for the largest energy consumers while Quartile 4 represents micro and small businesses. Throughout the upcoming term, the Companies will reevaluate the targeted segments and goals for each quartile on an annual basis. This analysis will be based on participation, energy savings, and contributions received (i.e., how much the business or municipality "pays" into the Fund). The new performance metrics are detailed in Section 3.1.7.

In the 2022-2024 term, the Companies will continue to analyze customer data and segmentation studies to identify barriers to participation and target customers and market sectors with historically low participation rates in the programs. To increase participation in these markets, the Companies are also committed to marketing the C&I Portfolio's programs in non-English languages. For the Companies' contractor communities, the Companies will include extra weighting for certified minority-owned, women-owned, and veteran-owned businesses when evaluating and scoring competitive requests for proposals for program vendors.

As part of the Education, Workforce & Community Outreach Portfolio, the Companies have recently launched the Community Partnership Initiative, a community-based approach that focuses on partnerships between the Companies, organizations, nonprofits, and municipalities to reach neighborhoods and communities who have historically not participated or who have low levels of participation in the Residential and C&I Portfolios. These organizations have the trust of the community and the insight to make inroads in awareness and to drive increased participation in energy efficiency and demand management. These outreach efforts will ensure that the benefits of energy efficiency and demand management reach all customers across the state, particularly those in distressed municipalities and environmental justice communities with a large non-English speaking population.

In 2022, the Companies will introduce the Energize CT Energy in Action mobile exhibit. This traveling museum's objective is to inspire energy efficiency advocacy through entertainment-based and interactive learning programming and exhibits. The exhibit will travel to schools and community-based events throughout the state with a metric of 60 percent of its tours scheduled in distressed municipalities and environmental justice communities. Additionally, in the upcoming term, the Companies will implement a proactive Workforce Development Strategy focusing on growing the energy efficiency workforce and recruiting and training workers from underrepresented communities, such as ethnic and racial minorities, and women.

#### **Priority 2: Decarbonization**

The second objective of the Energy Efficiency Fund is to protect the environment through the reduction of carbon dioxide and other greenhouse gas emissions, such as nitrous oxides, sulfur oxides, and chlorofluorocarbons (from refrigerants). This mission to protect the environment and reduce greenhouse gas emissions is now even more important with the recent release of the *Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (IPCC) reporting that since 2011, concentrations of carbon dioxide have increased to 410 parts per million (ppm), 1866 parts per billion (ppb) for methane, and 332 ppb for nitrous oxide in 2019. <sup>46</sup> This increase in greenhouse gas emissions has led to climate

<sup>&</sup>lt;sup>46</sup> IPCC, 2021: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Demote, V., P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M. I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J. B. R. Matthews, T. K. Maycock, T. Waterfield, O. Yelekçi, R. Yu and B. Zhou (eds.)]. Cambridge University Press. In Press.

change, "which is already affecting every inhabited region across the globe with human influence contributing to many observed changes in weather and climate extremes." <sup>47</sup>

The Companies understand the inextricable link between energy consumption and climate change, and they have designed the Plan's programs and offerings to significantly reduce greenhouse gas emissions from the building sector. For the 2022-2024 term, the Companies will invest in decarbonization strategies that benefit residential and C&I customers, improve air indoor quality, and protect the environment through reduced greenhouse gas emissions. This focus will align the 2022-2024 Plan with the decarbonization and electrification strategies and statewide goals for greenhouse gas emissions reductions set forth by the *Global Warming Solutions Act* and Public Act 18-82. Additionally, the Companies have also integrated several of the GC3's recent Phase I report on near-term actions to reduce greenhouse gas emissions, combat climate change, and help build a more resilient Connecticut.

For both the C&I and Residential Portfolios, the Companies will prioritize transitioning customers to heat pump technologies, such as air source heat pumps, ground source heat pumps, central and ductless, air-to-water heat pumps, and packaged and split heat pump water heater systems. For the 2022-2024 term, the Companies have invested in a workforce development training and certification platform that will engage and prepare contractors to install highericiency, low-carbon heating and cooling, and hot water heat pump technologies in homes and businesses.

For the upcoming term, the Companies will continue to work with other regional program administrators to maintain a regional Qualified Products List (QPL) for heat pumps. This regional QPL was established to standardize the efficiency and qualifying criteria for air source heat pump technologies installed in Connecticut and in multiple states throughout the Northeast region. The QPL ensures that qualifying product inventory is available to contractors within the local supply chain and prior to expanded trainings across the region and all 2022-2024 trainings will reflect the new QPL. Additionally, the Companies will develop customer-facing tools, such as a contractor locator tool to direct customers to qualified heat pump installers. To advance electrification of heating and cooling equipment, the Companies will prioritize marketing tactics that promote the benefits of heat pump technologies, refresh the EnergizeCT.com website, create an "All Things Heat Pumps" webpage, and conduct ongoing pulse surveys to better understand and track customer awareness and perceptions of heat pump technologies.

For the Residential Portfolio, the Companies plan to promote more weatherization of residential buildings to prepare them for low-carbon heating and cooling practices and technologies. Weatherization and the installation of energy-efficient measures reduces the amount of energy needed to power and heat the residential building sector. Reductions in energy consumption mean less reliance on fossil-fueled power plants, lower greenhouse gas emissions, and less operations and maintenance on buildings systems and equipment. Air sealing, duct sealing, and the installation of high-efficiency insulation and windows will reduce heating and cooling losses, while ENERGY STAR certified appliances and electronics will reduce electric consumption. During the 2022-2024 term, the Companies will also introduce induction cook tops and advanced power strips to the ENERGY STAR Retail Products Platform.

Residential new construction projects will also benefit from the Companies' electrification and decarbonization strategies in the upcoming term. The Companies will heavily promote sustainable building certifications, such as Zero Energy Homes, Leadership in Energy and Environmental Design, and Passive House to residential new construction market actors. The Companies will also offer a new Major Renovations & Additions pathway through the Residential New

<sup>47</sup> See IPCC Report.

Construction program. This new pathway, a pilot initiative during the 2019-2021 term, will ensure that homeowners who are renovating areas of their home greater than five hundred square feet will have access to guides that help them understand their options to improve the aesthetics, function, and energy performance of their home simultaneously. This will increase participation in the programs and lead to greater energy savings and reduced greenhouse gas emissions.

The Companies will expand their contractor outreach through increased education and training regarding low-carbon heating and cooling practices and technologies. These efforts will ensure the electrification of the residential new construction sector for the long term. In addition, the Companies will scale up their active demand response offerings for electric vehicles by establishing make-ready requirements for residential new construction projects, in addition to continuing to incentivize new construction projects that comply with solar photovoltaic make-ready protocols.

Within the C&I Portfolio, the Companies will promote decarbonization through an expanded weatherization effort of existing buildings (through the Energy Opportunities and Small Business Energy Advantage programs). Weatherization reduces the amount of energy needed to heat and cool a business or municipal building, which in turn makes the installation of low-carbon heating and cooling technologies more feasible in a C&I project. Energy efficiency projects not only provide energy savings but also result in reductions in carbon dioxide and other greenhouse gas emissions. In addition to enhanced weatherization efforts for existing commercial and municipal buildings, the Companies will also offer building energy management control strategies.

Additionally, for the 2022-2024 term, the Companies will increase their support for high-efficiency practices and equipment in C&I new construction projects. Energy Conscious Blueprint, the C&I new construction and equipment program, offers several pathways to make it easier to integrate energy efficiency offerings with clean, renewable technologies. The program's Zero Net Energy pathway provides support and incentives to new construction market actors to ensure that a building's energy use is viewed holistically from the first sketch to the final construction phases. Additionally, the Companies will support active demand response strategies that reduce both energy consumption and demand at peak demand times, including smart thermostats, water heating equipment, air conditioner cycling, light dimming, battery storage, and industrial curtailments.

Within the Workforce Development Initiative, the Companies will leverage manufacturer and distributor education and training efforts to promote heat pump technologies and encourage contractors to attend and complete manufacturer-led heat pump trainings. These efforts will broaden the base of qualified installers and build capacity. In addition to these workforce decarbonization strategies, the Companies will encourage and coach contractors to recognize prime opportunities to replace end-of-life air conditioning systems with heat pumps.

#### **Priority 3: Energy Affordability**

For the 2022-2024 term, the Companies will continue to prioritize energy affordability for residential and C&I customers across the state, including low-income customers who have high energy burdens. The Companies will conduct education and outreach through the Community Partnership Initiative which is designed to reach communities, customers, and market segments where participation in energy efficiency has been limited due to multiple factors. The combination of energy savings goals by segment and continuing to reach customers who contribute to install energy-efficient measures will both increase customers' energy savings and reduce their energy burdens, therefore making energy more affordable to all customer segments.

For the Residential Portfolio, the Companies will remain focused on reducing the energy burdens of low and moderate-income households who pay a disproportionate share of their household income toward energy bills. "Low income" is defined as a household whose income is at or below 60 percent State Median Income and "moderate income" is defined in Connecticut as a household whose income is at or below 80 percent of the State Median Income and above 60 percent. In accordance with DEEP's final decision in the E3 Proceeding Phase I Report, the Companies will monitor moderate-income participation and be prepared to adjust program outreach and incentives accordingly. A8 This focus will be through the lens of equity to ensure that households from different communities, races, ethnicities, cultures, and socioeconomic backgrounds receive equal access to the benefits of energy efficiency. In addition, the Companies will broaden their data collection and inclusion of multifamily properties to ensure that all buildings are receiving valuable home performance services that increase energy affordability and comfort. Outreach to multifamily building owners and tenants will also increase in the upcoming term to ensure more affordable and market-rate units are retrofitted to reduce energy consumption and customer costs.

To address energy affordability in the Residential Portfolio in the upcoming term, the Companies will assist DEEP and other industry partners with weatherization health and safety barrier remediation efforts in Connecticut. These barriers limit the Companies' abilities to weatherize as many homes as possible and to deliver energy savings equitably across the state. A stable funding mechanism would allow remediation contractors to address barriers, especially in low-income homes and allow the Companies to weatherize more homes, helping to meet the state's goal of 80 percent of homes weatherized by 2030. For the 2022-2024 term, the Companies plan to leverage funding from the Low-Income Heating Energy Assistance Program (LIHEAP) and the American Rescue Plan Act (ARPA) to address weatherization health and safety barriers. The Companies will participate in DEEP's Request for Proposal process for a Weatherization Barrier Remediation Program, and plan to integrate and coordinate with the agency's selected vendor.

In the upcoming term, the Companies plan to address energy affordability in the Residential Portfolio through the introduction of the Census Tract Tool to streamline customer outreach for contractors, increasing the stocking and sale of efficient equipment at retailers, continuing to offer virtual pre-assessments through the Home Energy Solutions and Home Energy Solutions-Income Eligible programs to support the installation of energy efficiency and active demand response measures, and enhancing and deploying web-based resources to educate customers about high-efficiency products, active demand response offerings, and low-carbon HVAC and water heating equipment.

The Companies understand that businesses also struggle with paying their energy bills and that energy efficiency programs can help reduce their costs. Prior to the pandemic, many businesses were already struggling to sustain staffing levels and incomes, stock the shelves, and to maintain profitability. These businesses closed temporarily or permanently due to the pandemic and now the benefits of energy efficiency technologies and programs are needed more than ever to ensure that C&I customers keep their lights on and manufacturing production lines in operation. Energy efficiency and demand management programs reduce energy costs and make business operations more affordable, as well as the ancillary benefits of improved facility operations and productivity, and increased health and safety standards.

For the 2022-2024 term, the Companies will enhance their promotion of existing loan products, such as CPACE, and increase financing options to C&I customers to support long-term energy efficiency investments that provide immediate energy savings with little to no upfront capital costs. The Companies will also continue to offer virtual, pre-assessments through the Small Business Energy Advantage program to support the installation of energy efficiency and active demand

<sup>&</sup>lt;sup>48</sup> The Companies will define "moderate-income customers" in accordance with DEEP's findings and recommendations in the E3 proceeding. See Goal 4: Improve program participation and impacts among moderate-income customers.

response measures, as well as increase small business participation in weatherization measures, including targeting businesses in converted residences. The Companies will conduct additional education and outreach to businesses to increase program participation across market segments and customer classes.

For the Education, Workforce & Community Outreach Portfolio, the Companies will target residential and small business customers in distressed municipalities, environmental justice communities and non-English speaking areas through community and direct outreach campaigns. Additionally, in the 2022-2024 term, the Companies plan to provide energy efficiency seminars to schools and community-based organizations to help educate students and educators on various careers and career paths in energy efficiency available to students.

#### 1.5 ENERGY SAVINGS

Over the last two decades, the Companies have a proven record of developing and administering energy efficiency and demand reduction programs that generate sustainable annual and lifetime energy savings for Connecticut's residents and businesses. Since 2000, the Electric Companies' energy-saving programs have achieved 6,897 annual gigawatt-hour (GWh) and 80,174 lifetime GWh savings. The Natural Gas Companies have helped customers realize 6,876 MMcf annually and 102,866 lifetime MMcf savings.

#### 1.5.1 Electric Savings

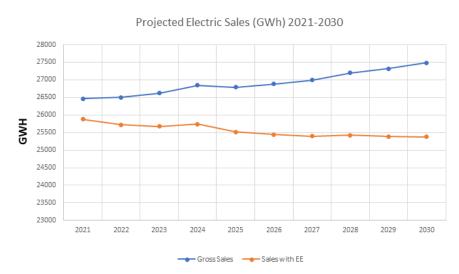
For the 2022-2024 term, the Companies expect to achieve 524 annual GWh savings and annual 1,424 MMcf savings, which is enough to power approximately 85,000 homes for one year. Figure 1-E below depicts the projected electric (in GWhs) savings resulting from the Companies' energy efficiency and demand management programs and how energy efficiency is a valuable resource for the state to

decrease electricity consumption in Connecticut.

The *Gross Sales* data (blue line) details the forecasted electric consumption unchecked by the projected impacts of energy efficiency efforts in Connecticut. The *Sales with Energy Efficiency* data (red line) reflect the projected impacts to electricity consumption due to Connecticut's energy efficiency program.

The figures below provide a summary of the projected annual savings from the Electric Companies' energy efficiency programs in the 2019-2021 Plan and the percentage of electric sales. The Companies will implement

Figure 1-E: Projected Electric Savings



the following strategies during the 2022-2024 term to drive electric energy savings:

• Increase outreach efforts to reach more customers and market segments across the Residential and C&I sectors who have historically not participated in energy efficiency.

- Increase workforce development efforts, including contractor training and education, to drive energy efficiency and create a pipeline of energy-saving projects.
- Expand weatherization efforts to increase electric savings.
- Focus on end-use equipment and market actions (e.g., smart thermostats, advanced power strips, and highefficiency HVAC equipment) that reduce electric consumption.

Figure 1-F: Electric Companies—Summary of Annual Savings and Percentage of Sales

Companies		2022			2023 2024		2022-2024					
	GWh Sales	Annual Savings (GWhs)	% of Sales									
Eversource (electric)	20,181	158.8	0.79%	20,139	134.5	0.67%	20,200	123.1	0.61%	60,520	416.4	0.69%
United Illuminating	4,727	38.6	0.82%	4,674	34.8	0.74%	4,622	32.8	0.71%	14,023	106.2	0.76%
Total	24,908	197.4	0.79%	24,813	169.3	0.68%	24,822	155.9	0.63%	74,543	522.6	0.70%

Figure 1-G: Electric Companies—Summary of Lifetime Savings

	2022		2023		2024		2022-2024		
	Eversource Lifetime Savings (GWhs)	United Illuminating Lifetime Savings (GWhs)	Eversource Lifetime Savings (GWhs)	United Illuminating Lifetime Savings (GWhs)	Eversource Lifetime Savings (GWhs)	United Illuminating Lifetime Savings (GWhs)	Eversource Lifetime Savings (GWhs)	United Illuminating Savings (GWhs)	Total Lifetime Savings (GWhs)
Residential	359.2	65.6	323.9	60.5	299.2	57.3	982.3	183.4	1,165.7
C&I	1,072.2	286.4	890.3	255.5	826.9	240.4	2,789.4	782.3	3,571.7
Total	1,431.4	352.0	1,214.2	316.0	1,126.1	297.7	3,771.7	965.7	4,737.4

#### 1.5.2 Natural Gas Savings

The figures below detail the projected annual savings from the Natural Gas Companies' energy efficiency programs and percentage of natural gas sales. While still modest in terms of percent of consumption, the Companies will implement the following strategies during the 2022-2024 term to drive natural gas energy savings:

- Increase outreach efforts to reach more customers and market segments across the Residential and C&I sectors who have historically not participated in energy efficiency.
- Increase workforce development efforts, including contractor training and education, to drive energy efficiency and create a pipeline of energy-saving projects.

- Expand weatherization efforts to increase natural gas savings.
- Focus on end-use equipment and market actions (e.g., smart thermostats, and high-efficiency HVAC equipment) that reduce natural gas consumption.

Figure 1-H: Natural Gas Companies—Summary of Annual Savings and Percentage of Sales

		2022			2023			2024		2022-2024			
Companies	MMcf Sales	Annual Savings (MMcf)	% of Sales										
Eversource													
(natural gas)	53,155	152.9	0.29%	54,801	240.0	0.44%	55,823	242.1	0.43%	163,780	635.0	0.39%	
Connecticut													
Natural Gas	37,235	124.1	0.33%	37,369	152.3	0.41%	37,525	150.8	0.40%	112,128	427.2	0.38%	
Southern													
Connecticut Gas	33,067	104.9	0.32%	33,510	148.5	0.44%	33,851	147.9	0.44%	100,428	401.3	0.40%	
Total	123,457	381.9	0.31%	125,680	540.7	0.43%	127,199	540.8	0.42%	376,336	1,463.5	0.39%	

Figure 1-I: Natural Gas Companies—Summary of Lifetime Savings

Sector	2022 Lifetime Savings (MMcf)	2023 Lifetime Savings (MMcf)	2024 Lifetime Savings (MMcf)	2022-2024 Lifetime Savings (MMcf)
Residential	3,791.0	5,042.2	5,106.0	13,939.2
C&I	2,034.6	2,983.0	2,951.4	7,969.0
Total	5,825.6	8,025.2	8,057.4	21,908.2

### 1.6 FUNDING SOURCES

For the 2022-2024 term, the primary funding sources for Connecticut's energy efficiency programs will be: (1) a six-mill Conservation Adjustment Mechanism (CAM) on customer electric bills<sup>49</sup> and (2) contributions from natural gas customers (on firm rates) through the natural gas CAM. Additional funding sources for the 2022-2024 term will include the Regional Greenhouse Gas Initiative (RGGI), a Northeast carbon trade system and the Independent System Operator-New England's (ISO-NE) Forward Capacity Market (FCM). The figures below summarize the statewide funding for the 2022-2034 Plan's electric and natural gas energy efficiency programs.

<sup>&</sup>lt;sup>49</sup> Similar to a millage rate tax structure on property, the CAM charge is a 0.6 cent per kilowatt-hour charge to support energy efficiency programs.

Figure 1-J: Electric Program Funding Sources

	2022 Eversource Electric Revenues	2022 UI Revenues	2022 Combined Total	2023 Eversource Electric Revenues	2023 UI Revenues	2023 Combined Total	2024 Eversource Electric Revenues	2024 UI Revenues	2024 Combined Total
ISO-NE FCM	\$24.6	\$4.9	\$29.5	\$16.1	\$3.2	\$19.3	\$12.7	\$2.7	\$15.4
RGGI	\$16.6	\$4.2	\$20.8	\$14.1	\$3.5	\$17.6	\$13.5	\$3.4	\$16.9
CAM (Net of Gross Receipts Tax)	\$123.7	\$25.8	\$149.5	\$115.4	\$26.2	\$141.6	\$115.7	\$25.9	\$141.6
TOTAL (Energy Efficiency Revenues)	\$164.9	\$34.9	\$199.8	\$145.5	\$32.9	\$178.4	\$141.9	\$32.0	\$173.9

<sup>\*</sup>In millions. Totals may vary due to rounding.

Figure 1-K: Natural Gas Program Funding Sources

Natural Gas Energy Efficiency Revenues	2022 Conservation Adjustment Mechanism	2023 Conservation Adjustment Mechanism	2024 Conservation Adjustment Mechanism
Eversource Natural Gas Revenues	\$17.9	\$24.1	\$24.5
Connecticut Natural Gas Revenues	\$14.8	\$16.4	\$16.5
Southern Connecticut  Gas Revenues	\$12.2	\$14.7	\$14.8
TOTAL (Energy Efficiency Revenues)	\$44.9	\$55.2	\$55.8

<sup>\*</sup>In millions. Totals may vary due to rounding.

# 1.7 PERFORMANCE MANAGEMENT INCENTIVES

The Companies earn an annual pay-for-performance management incentive for managing Connecticut's energy efficiency and demand management programs and budgets. A performance management incentive is tied to program specific-oriented metrics, including, but not limited to energy savings and net economic benefits. Performance management incentive earnings using a sliding scale are based on a percentage of Company spending (2.5 percent to 6.5 percent) corresponding with the level of performance (75 percent to 115 percent) dependent on if goals and/or targets are met or exceeded.

For the 2022-2024 term, the Companies propose a base target 5.0 percent performance management incentive payout at 100 percent goal achievement for the 2022, 2023, and 2024 program years. Other changes to the 2022-2024 performance management incentive model include incorporating benefits/net benefits from Residential and C&I Active Demand

Response programs and including fossil benefits and net benefits (i.e., utilize the Modified Utility methodology versus the Utility Benefit methodology). In Connecticut, there are two types of metrics:

- **Primary metrics.** These are program specific-oriented metrics, including energy savings/benefits and net energy savings benefits (benefits minus costs). The benefits are achieved from program savings (lifetime energy savings) including electric (kWh), natural gas (ccf), and fossil fuel (gallons), as well as summer peak demand savings from both passive and active demand resources.
- Secondary metrics. These metrics are complementary metrics and target other areas such as increased energy savings from all fuel types (MMBtus), program participation, comprehensiveness, equity, and outreach to specific groups or types of customers, and program comprehensiveness. Secondary metrics can include: but are not limited to: (a) Number of single-family homes served that receive a specific add-on measure, and (b) Number of new construction C&I projects built a certain percentage above state building code.

For individual Company-specific performance management incentive metrics, please see Appendix E. For Portfolio-level secondary metrics, please see Section 2.1.6 (Residential) and Section 3.1.7 (C&I). The weights for performance management incentive metrics are detailed in the figure below.

Figure 1-L: Performance Management Incentive Weights (Electric and Natural Gas)

	Benefit Energy Efficiency (Passive)	Net Benefit  Energy  Efficiency  (Passive)	Benefit  Demand  Reduction  (Active)	Net Benefit Reduction (Active)	Secondary Metrics	Total
Electric						
Residential Allocation	20.99%	20.99%	0.45%	0.45%	9.0%	51.88%
C&I Allocation	17.45%	17.45%	1.11%	1.11%	10.0%	47.12%
Evaluation Allocation	-	-	-	-	1.0%	1.0%
Total	-	-	-	-	-	100.0%
Natural Gas						
Residential Allocation	21.44%	21.44%	-	-	9.0%	51.88%
C&I Allocation	18.56%	18.56%	-	-	10.0%	47.12%
Evaluation Allocation	-	-	-	-	1.0%	1.0%
Total	-	-	-	-	-	100.0%

# **SECTION TWO: RESIDENTIAL PORTFOLIO**

### 2.1 OVERVIEW

The Residential Portfolio delivers comprehensive energy savings to residential customers across the state. For more than 20 years, the Companies have developed and implemented a wide range of energy efficiency and demand management programs and offerings to increase energy affordability, make homes more comfortable and healthier, reduce peak demand on the grid, support economic development and job creation, and reduce greenhouse gas and other air pollutant emissions through reduced electric, natural gas, and delivered fuel consumption. For the 2022-2024 term, the Companies will continue to evolve the Residential Portfolio to promote greater weatherization measures, integrate energy efficiency and active demand response strategies, encourage the purchase of energy-efficient products, and to increase the installation and use of low-carbon heating, cooling, and water heating technologies, such as heat pumps and heat pump water heaters.

Over the past two decades, the Residential Portfolio has changed significantly and will continue its evolution during the 2022-2024 term due to new conditions, federal standards, building codes, policies, and technologies. The largest changes in the Portfolio are due to the widespread adoption of energy-efficient lighting in the marketplace. In previous Plan terms, the Companies had to heavily promote, market, and incentivize energy-efficient lighting to influence customers' purchasing decisions and the resulting energy savings made up a large proportion of the Residential Portfolio. As the 2022-2024 term begins, the Companies recognize that their efforts at market transformation have been successful and light-emitting diodes (LEDs) are now the standard bulbs on most retail shelves. As a result, for the upcoming term, the Companies will only provide limited incentives and support to retailers in communities with historically limited customer participation in energy efficiency and who have low adoption rates of high-efficiency LEDs.

During the 2019-2021 term, the Companies began to transition the Residential Portfolio's offerings away from lighting to non-lighting measures to generate energy savings, reduce greenhouse gas emissions, and to make energy more affordable. This transition has resulted in a new focus on whole-home comprehensive energy efficiency projects and measures that increase energy affordability, influence decarbonization of the electric grid, and drive energy savings in an equitable manner to residential customers across the state. For the upcoming term, the Companies will increasingly promote non-lighting measures such as air sealing, duct sealing, insulation, active demand response strategies, energy-efficient appliances and electronics, and high-efficiency HVAC and water heating equipment and systems.

The Companies will also continue to engage customers, distributors, retailers, and manufacturers through the upstream, midstream, and downstream market channels. A key focus will be on education, training, and engagement of market actors in these channels to influence energy efficiency. To support decarbonization efforts, the Companies launched an online portal in the 2021 program year to train and certify contractors regarding high-efficiency HVAC and water heating equipment and will use this platform throughout the upcoming term. In addition, the Companies will leverage manufacturer and distributor outreach and training to support their own efforts in influencing the marketplace toward energy efficiency.

The Residential Portfolio is an investment in the state's local economy and employs a robust workforce of skilled professionals including home performance services contractors, home energy raters, architects, builders, and energy auditors, as well as retailers and product distributors of energy-efficient appliances, electronics, HVAC equipment and

systems, and active demand response technologies. For the upcoming term, the Companies remain focused on diversifying and growing the workforce that supports the Residential Portfolio's programs and initiatives. The everchanging landscape of the residential marketplace necessitates continued contractor education and outreach, field staff training that includes soft skills, technical training and certifications, and an increased push to include workers who reflect the diversity of the communities they serve. The Companies' Workforce Development Initiative (detailed in Section Four of this Plan) is designed to support the needs of the current and future energy efficiency workforce in Connecticut. This infrastructure supporting the workforce is critical in helping the Companies meet the Residential Portfolio's goals and energy savings set forth in this 2022-2024 Plan.

For the upcoming term, the Companies have designed a Residential Portfolio capable of evolving rapidly to meet customer demands, emerging technologies, federal and local regulations, and state and national energy code modifications. The rest of Section Two details the key priorities, themes, and designs of the Residential Portfolio's programs and initiatives for the upcoming term.

### 2.1.1 Residential Programs

For the 2022-2024 term, the Companies will deliver a comprehensive Residential Portfolio to all residential market segments, including the new construction, single-family, multifamily, market-rate, and income-eligible markets. These energy efficiency and demand management programs and initiatives are designed to help residential customers reduce their energy costs, save energy, and decrease greenhouse gas emissions, as well as support the three key priorities for the upcoming term—equity, decarbonization, and energy affordability.

**Home Energy Residential New HVAC and Water Solutions Retail Products Construction & Heating Equipment Additions** (single family) **Home Energy Solutions-Income** Multifamily **Behavioral Demand** Eligible Initiative **Strategies** Management (single family)

Figure 2-A: Residential Portfolio

- Retail Products. This broad-based program is designed to increase the awareness, acceptance, and purchase of ENERGY STAR certified appliances, consumer electronics, and products in the marketplace. The Companies accomplish this through consumer education, point-of-sale marketing, an online sales platform, incentives designed to make energy-efficient choices financially attractive, and upstream, midstream, and downstream market channels to reach customers, distributors, retailers, and manufacturers.
- HVAC and Water Heating Equipment. This program positions high-efficiency HVAC and water heating equipment
  as the best choices for residential customers making purchasing decisions regarding heating, cooling, and hot
  water systems through the implementation of multiple market channels, education, and financial incentives. The
  program focuses on marketing to customers and market actors, as well as training and support for distributors
  and contractors to ensure high-efficiency equipment is promoted, stocked, sold, and correctly installed.

- Residential New Construction. This program provides incentives to builders and homeowners who integrate
  advanced energy-efficient building construction and technologies into the construction of new homes and
  residential buildings undergoing major renovation and additions projects. The program supports the transition of
  the residential new construction marketplace toward high-efficiency building standards and equipment
  installations through a tiered incentive structure, bonus incentives for advanced building certifications,
  contractor and customer education, and code trainings.
- Home Energy Solutions. Designed as the Companies' home performance services program for market-rate customers, the HES program promotes and facilitates energy efficiency upgrades in existing homes to optimize home energy performance, reduce energy consumption, and to increase the health, safety, and comfort of single-family residential homes in Connecticut. The program provides customer education on products and services and direct-install services of energy-efficient and hot water-saving measures. Additionally, the program qualifies the home for high-efficiency upgrade rebates and serves as a cross-promotional marketing channel for demand management programs.
- Home Energy Solutions-Income Eligible. The HES-Income Eligible program is designed to decrease the energy burden of income-eligible customers (households whose incomes are at or below 60 percent of the State Median Income) living in single-family homes through customer education on products and services, the direct-install of air sealing, duct sealing, and HVAC and water heating equipment testing, and the qualification of the home for additional energy-efficient upgrades. Though similar to HES, this program's services are offered at no cost to the customer. Upgrades for additional energy efficiency measures (e.g., appliances, windows, insulation, appliances, active demand response) are also covered through nominal customer or landlord contributions.
- Multifamily Initiative. This holistic whole-building approach to energy efficiency provides assessment and direct-install services to income-eligible and market-rate tenants and owners of multifamily buildings. This unique initiative combines programmatic elements of the single-family home performance services programs (HES and HES-Income Eligible), with the energy-saving solutions found in the Companies' C&I Portfolio programs (Energy Opportunities and Small Business Energy Advantage). For more information regarding the C&I Portfolio, see Section Three of this Plan.
- Behavioral Strategies. The Companies will use data-driven usage insights, information, social cues, and other
  prompts to motivate customer behavior changes and encourage participation in energy efficiency programs. The
  Companies will use their previous experience with traditional behavior programs and digital customer
  engagement to drive behavioral changes in the upcoming term.
- **Demand Management.** The Companies provide incentives to customers who enroll their devices (e.g., smart thermostats, HVAC equipment, electric vehicle chargers) into active demand response offerings that promote a decrease in energy consumption during periods of peak demand.

### 2.1.2 Key Priorities and Themes

For more than a decade, Connecticut has ranked as one of the top states in the nation for energy efficiency by the ACEEE in its annual state scorecard. To maintain its leadership role, Connecticut must advance its energy efficiency policies, programs, and goals to address emergent economic, social, and environmental issues that face residential customers, businesses, local governments, the state, and nation. For the 2022-2024 term, the Companies, the EEB, and DEEP have identified three top priorities for Connecticut's energy efficiency and demand management initiatives to address—equity, decarbonization, and energy affordability.

The Companies have developed their plans for the 2022-2024 Residential Portfolio's programs and initiatives with the intent to align all efforts with these key priorities. In addition, the Companies have identified additional themes and needs of the Residential sector to ensure that energy efficiency goals are met in the upcoming term, and these are detailed below.

### **Priority 1: Equity**

As recent events in the United States have shown, there are widespread issues of systemic societal inequity and racial injustice that persist. For the 2022-2024 term, the Companies are intent on ensuring that the Residential Portfolio delivers the benefits of energy efficiency to all residential market segments. To address inequity, the Companies must first understand how participation in the Residential Portfolio is distributed across the state to identify communities where groups of customers participate at relatively lower levels than other groups. This understanding helps the Companies identify the social, economic, racial, ethnic, linguistic, and/or cultural attributes of these underserved communities and what systemic inequities contribute to these groups' lower participation levels in energy efficiency.

For the 2022-2024 term, the Companies will collaborate with community-based organizations and nonprofits to perform the needed work to overcome the inequities that persist in communities with historically limited program participation. These organizations have the trust of the community and the insight to make inroads in awareness and to drive increased participation in energy efficiency. These outreach efforts will ensure that the benefits of energy efficiency reach all residential customers across the state, particularly for customers who reside in distressed municipalities and environmental justice communities.

The Companies' equity efforts in the 2022-2024 term will be influenced by DEEP's Equitable Energy Efficiency proceeding launched in September 2020. <sup>50</sup> The purpose of this proceeding is to define equity in the context of energy efficiency and demand management programs and to expand participation in the Portfolios, particularly within distressed communities. It is envisioned that the proceeding will result in more than just the creation of a new equity performance management incentive metric (initiated in the 2021 Plan Update) to measure the Companies' performance in the electric portfolio. This equity metric requires the Companies to track participation in the HES or HES-Income Eligible programs of electric customers enrolled in the Matching Payment Program and to achieve a 2.1 percent increase in HES-Income Eligible program participation by the end of the 2021 program year.

For the 2022-2024 term, the Companies will broaden this residential equity metric to include financial and medical hardship customers. With the recent issuance of the E3 Phase I recommendations in July 2021, the Companies will work closely with DEEP, the EEB, the EEB consultants, and other stakeholders to make modifications to the Residential Portfolio to increase the equitable distribution of programs and their derived benefits across the state. The Companies will also focus their outreach and educational efforts to reach those groups of customers across the state with lower participation levels, particularly for customers who reside in distressed municipalities and environmental justice communities.

DEEP, Notice of Equitable Energy Efficiency Proceeding and Request for Written Comments, Sep. 3, 2020, available online at: <a href="http://www.dpuc.state.ct.us/DEEPEnergy.nsf/c6c6d525f7cdd1168525797d0047c5bf/12c36ce3c4b5a80c852585d80046845f/\$FILE/Notice%20\_of%20Equitable%20EE%20Proceeding%20&%20Req%20for%20Written%20Comments.pdf">http://www.dpuc.state.ct.us/DEEPEnergy.nsf/c6c6d525f7cdd1168525797d0047c5bf/12c36ce3c4b5a80c852585d80046845f/\$FILE/Notice%20\_of%20Equitable%20EE%20Proceeding%20&%20Req%20for%20Written%20Comments.pdf</a>.

Additionally, in the upcoming term, the Companies will include extra weighting for certified minority-owned, women-owned, and veteran-owned businesses when evaluating and scoring competitive requests for proposals for residential program vendors.

# **Priority 2: Decarbonization**

The US Energy Information Administration reports that single-family and multifamily households account for 55 percent of the energy used in the building sector in the United States. <sup>51</sup> The major energy end uses in Northeast homes are space heating (53.4 percent), water heating (16.9 percent), and air conditioning (3.4 percent); collectively accounting for approximately 73 percent of an average household's annual energy consumption. <sup>52</sup> In Connecticut, the primary heating sources are oil, natural gas, electric, and other delivered fuels (e.g., propane, kerosene, etc.). Fossil-fuel heating systems emit more carbon dioxide into the air, increasing the greenhouse gases emitted by the building sector.

The Companies' goal for the 2022-2024 term is to significantly invest in and deploy decarbonization strategies that benefit residential customers, protect the environment, and improve indoor air quality. The Companies will look to DEEP and the EEB for guidance in developing and modifying the decarbonization strategies listed below for the Residential Portfolio. This will help align the decarbonization strategies with statewide goals for greenhouse gas emissions reductions and energy consumption, such as the 2022 Comprehensive Energy Strategy, the GC3 (Governor's Steering Committee on Climate Change), Public Act 18-82, and the Global Warming Solution Act's 2050 target goals.

Energy efficiency is critical in helping states and regions meet their zero emissions goals over the next few decades. Efficiency helps reduce load (demand), decreasing the amount of clean energy needed to power the grid and reducing the higher costs of renewable energy technologies. As the grid becomes more renewably-powered, electricity becomes the cleaner fuel. The Companies plan to weatherize more single-family and multifamily residential buildings to prepare them for high-efficiency heating and cooling technologies that are renewably-powered by clean energy sources. It is critical that the Companies increase the number of homes weatherized as energy efficiency reduces the amount of energy needed by the residential building sector. These energy consumption reductions result in decreased amounts of carbon dioxide (and other air pollutant) emissions into the environment.

In the 2022-2024 term, the Companies will push for increased air sealing, duct sealing, and installations of high-efficiency insulation and windows to prevent heating and cooling losses, as well as the installation of water-saving measures to reduce waste and the amount of energy needed to supply hot water to the home. In addition, the Companies will promote the use of more ENERGY STAR certified appliances and electronics, as well as advanced power strips, to reduce the amount of electricity used in residential buildings.

In the upcoming term, the Companies will prioritize transitioning customers to heat pump technologies if they are more likely to experience reduced heating costs. Customers who heat their homes with electric resistance and delivered fuels (i.e., oil and propane) will see greater reduction in their overall energy bills than residential customers who heat with

US Energy Information Administration, What's New in How We Use Energy at Home: Results from EIA's 2015 Residential Energy Consumption Survey (RECS), rel. May 2017, available online at: <a href="https://www.eia.gov/consumption/residential/data/2015/">https://www.eia.gov/consumption/residential/data/2015/</a>. The 2020 RECS household survey data collection began in September 2020 and concluded in spring 2021. The EIA plans to release initial estimates on key household characteristics in late 2021 and final state-level energy consumption and expenditure data, as well as survey microdata, will be available in early 2023.

<sup>52</sup> See 2015 RECS.

natural gas. The move to heat pump technologies results in increasingly reduced carbon dioxide emissions. This protects the environment and serves as an effective mitigation strategy in the move to decarbonize the grid.

For the 2022-2024 term, the Companies will focus on promoting the installation of more heat pump technologies including air source heat pumps, central and ductless heat pumps, ground source heat pumps, air-to-water heat pumps, and packaged and split heat pump water heater systems. Over the next three years, the Companies will make extensive investments in consumer education and workforce development trainings and certifications to build general awareness and familiarity around heat pumps. The 2021 heat pump pilot will be extended into the 2022-2024 term to ensure that all units are installed and their performance during the 2021-2022 heating season analyzed. The Companies are studying the effectiveness of the heat pump pilot, both to understand energy savings during the heating and cooling seasons and customer satisfaction. EEB's third-party evaluator is aware of this effort and may conduct additional evaluation needed to assess the results of the pilot. Once the analysis has been completed, this will help the Companies determine what modifications to might be required to transition the pilot to a full-fledged program during the upcoming term.

Residential new construction projects will also benefit from the Companies' decarbonization strategies in the upcoming term. The Companies plan to heavily promote sustainable building practices, such as Zero Energy Homes, Leadership in Energy and Environmental Design, and Passive House, to architects, builders, code officials, contractors, home energy raters, and other residential new construction market actors. This will include increased contractor education and training, as well as extensive outreach to promote low-carbon heating and cooling technologies. These efforts will ensure the decarbonization of the new residential construction sector for the long term. The Companies will also transition their current Major Renovations & Additions pilot to a program pathway in the upcoming term. The purpose of this new pathway is to promote energy efficiency in existing homes undergoing major home improvements of existing areas (renovations) and additions (new conditioned space) greater than five hundred square feet.

In addition, the Companies will scale up their active demand response offerings for electric vehicles by establishing makeready requirements for residential new construction projects, in addition to continuing to incentivize new construction projects that meet solar photovoltaic make-ready protocols.

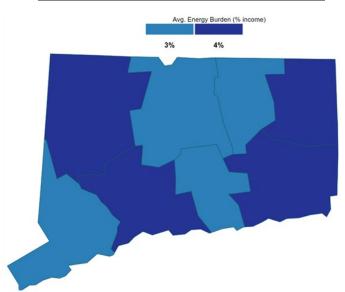
# **Priority 3: Energy Affordability**

Nearly one-third of US households report facing a challenge in paying energy bills or sustaining adequate heating and cooling in their home. <sup>53</sup> A household's energy burden is defined as the percentage of household income spent on energy bills. The energy burden is considered "high" if more than 6 percent of household income is spent on energy bills and very often, low-and-median income households are disproportionately affected. Households with high energy burdens must deal with difficult trade-offs between paying for utility bills or basic necessities like food and medicine. According to the DOE's Low-Income Energy Affordability Data (LEAD) tool, the average energy burden across Connecticut is 3 percent (in

<sup>&</sup>lt;sup>53</sup> Fisher, Sheehan, and Colton's *Home Energy Affordability Gap Analysis* defines households with a 6 percent energy burden or higher as households with high energy burden, online at: <a href="https://www.homeenergyaffordabilitygap.com/">www.homeenergyaffordabilitygap.com/</a>.

Fairfield County, Hartford County, Middlesex County, and Tolland County) and 4 percent (in Litchfield County, New Haven County, New London County, and Windham County).<sup>54</sup>

Figure 2-B: Average Energy Burden (% income) in CT



Households with incomes at or below 60 percent of the State Median Income were found to have higher energy burdens than those with household incomes above the State Median Income. The LEAD tool data shows that energy affordability is a pressing issue with low-and-moderate income households in Connecticut experiencing high energy burdens three times more than the average household. In Connecticut, low-income is defined as a household whose income is at or below 60 percent of the State Median Income and moderate income as a household whose income is at or below 80 percent of the State Median Income and above 60 percent. Figure 2-C shows the average energy burden of households broken down by their incomes and how their heating fuel type (electricity, natural gas, and other fuels).

According to a recently released report, Connecticut households' expenditures on energy, transportation, and housing exceeds affordable levels in areas throughout the state. The average costs are 49 percent statewide, which is above the 45 percent threshold for affordability. <sup>55</sup> Low-and-moderate income households have a higher rate of 68 percent (as compared to wealthier residents) because these costs constitute a larger portion of their household income. The report also found that high energy burdens were clustered in urban areas such as New Haven, Hartford, and Bridgeport and that though there are few options available to help renting households, that the HES and HES-Income Eligible programs reduce building energy burden.

The above-referenced data shows that energy affordability is a pressing issue with Connecticut's low-income households experiencing high energy burdens three times more than the average household. The HES and HES-Income Eligible programs, and the Multifamily Initiative help to reduce the high energy burdens faced by low-and-moderate income households (as well as market-rate customers) and serve thousands of existing single-family and multifamily homes annually. For the 2022-2024 term, the Companies will continue to prioritize energy affordability, though through the lens of equity to ensure that low-income households across different types of communities receive the program's valuable energy-saving services. In addition, the Companies recognize that there is an ebb and flow of households who qualify as income eligible; thus, making it important to continuously conduct education and outreach to raise awareness of the value of energy efficiency, demand management, and the home performance services programs and initiatives. Drivers of high energy burdens include chronic or sudden economic hardships, housing stock, types of heating systems and fuel

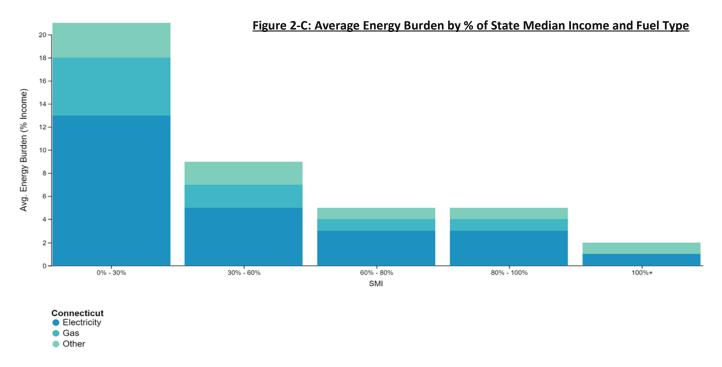
Ma, Ookie, Krystal Laymon, Megan Day, Ricardo Oliveria, Jon Weers, and Aaron Vimont, Low-Income Energy Affordability Data (LEAD) Tool Methodology, 2019, Golden, CO: National Renewable Energy Laboratory. NREL/TP-6A20-74249. Available at: <a href="https://www.nrel/gov/docs/fy19osti/74249.pdf">https://www.nrel/gov/docs/fy19osti/74249.pdf</a>. Direct access to the LEAD tool can be found at: <a href="https://www.energy.gov/eere/slsc/low-income-energy-affordability-data-lead-tool">https://www.energy.gov/eere/slsc/low-income-energy-affordability-data-lead-tool</a>.

<sup>55</sup> Mapping Household Energy and Transportation Affordability in Connecticut, study produced by Vermont Energy Investment Corporation on behalf of the CT Green Bank and Operation Fuel, Oct. 2020, available online at:

https://www.veic.org/Media/Default/documents/resources/reports/Mapping-Household-Energy-and-Transportation-Affordability-Report-Oct-2020.pdf.

types, inadequate insulation, inefficient appliances and lighting, health issues, and lack of awareness of bill payment assistance and energy efficiency programs. This includes promoting the HES-Income Eligible program alongside other financial hardship programs, such as the Matching Payment Program, to customers that are likely to qualify.

For most residential customers, even those with high energy burdens, participating in energy efficiency is not a top priority. Therefore, the Companies have to significantly invest in partnerships, education, and marketing that increase awareness regarding the Residential Portfolio, how to register (apply) for them, and the benefits of participation. This includes increasing the stocking and sale of efficient equipment at retailers, holding soft skills and technical trainings and programs for current and future energy efficiency workers to build capacity, and providing valuable web-based resources to educate customers about low-carbon technologies, high-efficiency products, and active demand response offerings.



The HES-Income Eligible program targets low-income households across the state. The program is designed to reduce energy consumption through weatherization and upgrades offered at little or no cost to participants. The program provides direct installation services of air sealing, duct sealing, water-saving devices (i.e., low-flow showerheads and faucet aerators), energy-efficient appliances, high-efficiency insulation, upgrades to HVAC and water heating equipment, demand reduction strategies, and behavioral changes. The program's energy-efficient measures can improve home health, safety, and comfort, as well as reduce energy usage in income-eligible customers' homes.

For the 2022-2024 term, the Companies will work to ensure that residents who need energy efficiency services the most are able to access them by conducting extensive education and outreach. Currently, the Companies, DEEP, and the Community Action Agencies are increasing their efforts to coordinate the HES-Income Eligible program and the federally-funded Weatherization Assistance Partnership (WAP) program to reach more low-income households. The Companies will also use their Community Partnership Initiative, introduced in 2021, as an extensive education and outreach platform to reach communities whose participation in energy efficiency has been limited due to systemic inequity (see Section 4.). Additional analysis to establish a new Energy Efficiency Equity baseline (E3b) will help identify the areas in the state that have lower participation and will inform new targeted customer outreach efforts. Leveraging additional funding sources during the 2022-2024 term will also allow the Companies to address weatherization health and safety barriers, such as

presumed asbestos-containing material and mold. Remediation of these barriers is required before advanced energy efficiency services can be performed in homes affected and energy savings can be realized.

In addition, the Companies will broaden their data collection and inclusion of multifamily properties to ensure that all buildings' common areas, shared systems, and apartment units are receiving valuable home performance services that increase energy affordability and comfort. Outreach to multifamily building owners and tenants will also increase in the upcoming term to ensure more affordable and market-rate units are retrofitted to reduce energy consumption and customer costs.

### Other Goals

#### Weatherization

For the energy efficiency sector, weatherization means improving a building's envelope to protect against the elements and upgrading the energy performance of buildings. For residential buildings this is achieved through measures such as air sealing, insulation, duct sealing, and window replacements. Weatherization services provide a number of benefits to residential customers including saving energy, making homes healthier and more comfortable by improving indoor air quality, saving money on bills, reducing wear and tear on HVAC equipment, increasing a home's value, and reducing greenhouse gas emissions.

Through the HES and HES-Income Eligible programs, the Companies encourage energy efficiency through the direct installation of certain measures and the issuance of prescriptive rebates and incentives for weatherization services and equipment upgrades. The home performance services programs generate significant and reliable energy savings (in MMBtus) and help the Companies support the State of Connecticut in meeting its legislative goal of weatherizing 80 percent of the state's existing homes by 2030.<sup>56</sup>

### Weatherization barriers

For the upcoming term, the Companies are focused on addressing weatherization barriers which preclude energy efficiency services from being performed in residential buildings. Common weatherization health and safety barriers include presumed asbestos-containing material, knob and tube wiring, mold, vermiculite insulation, combustion safety, gas leaks, and carbon monoxide. Other organizations that work on health and safety barriers may consider lead, poor indoor air quality, and falls hazards, though these do not prevent weatherization work. While these health and safety barriers may overlap, the Companies' focus is on the weatherization health and safety barriers in order to be able to deliver comprehensive and cost-effective energy efficiency services and products.

During the 2016-2018 term, the Companies conducted a Clean Energy Healthy Homes Initiative to address weatherization barriers in homes. <sup>57</sup> This initiative provided great insight to the Companies on how to safely remediate weatherization barriers and follow through with comprehensive energy efficiency projects for their HES-Income Eligible customers. During the time the initiative was active, the Companies developed the HES & HES-Income Eligible Program Field Guide for Health and Safety Barriers as an informative tool for field technicians and to assist them with the complex nature of the conditions that can be found in residential homes. The guide describes how to weatherize homes that have had their weatherization health and safety barriers remediated. The guide includes customer education documents that are used as

<sup>&</sup>lt;sup>56</sup> Public Act 11-80, An Act Concerning the Establishment of the Department of Energy Environmental Protection and Planning for Connecticut's Energy Future.

<sup>&</sup>lt;sup>57</sup> The Clean Energy Healthy Homes Initiative received funding by fees paid by the merger of Northeast Utilities and NSTAR.

resources for customers. The Companies remain poised to partner with other entities to assist with providing weatherization services after homes have had the weatherization or other barriers remediated. For the upcoming term, the Companies will look for a stable funding mechanism for the remediation of weatherization health and safety barriers in Connecticut residences. For single-family HES and HES-Income Eligible homes, the Companies have observed that more than 9 percent and 23 percent, respectively, contain weatherization health and safety barriers preventing the installation of energy efficiency measures.

The Companies currently work with the Building for Health Initiative to help customers in the City of Hartford and City of Waterbury address weatherization health and safety barriers. The initiative is designed as a cross-sector, cross-referral partnership that embraces a "no wrong door" approach so programs that help low and moderate-income customers can work with families to resolve their initial concerns and refer them to other programs for additional support. Healthy Homes teams up with local partners such as the Local Initiative Support Corporation (LISC), Eversource, United Illuminating, and Southside Institutions Neighborhood Alliance to help customers. This eases the burden for families so they can make their homes healthier without having to locate multiple resources on their own. The Companies will continue their partnership with the Building for Health Initiative during the 2022-2024 term.

In late 2020, the EEB and DEEP launched an initiative to develop and implement a Weatherization Barrier Remediation program. The development phase included a review of current statewide efforts to address health and safety barriers, including weatherization barriers, such as the HES-Income Eligible program, Connecticut Children's Hospital Healthy Homes Program, <sup>58</sup> One Touch Referral Program, and CT Green Bank financing offerings. <sup>59</sup> In addition, the Companies reviewed nationwide programs and funds to see if efforts and funding overlapped. These programs and funds included LIHEAP, the Zonolite Attic Insulation Trust, and the Weatherization Assistance Program. DEEP and the EEB also benchmarked other utility and program administrator programs to determine best practices and which components should be considered in the development and implementation of the Weatherization Barrier Remediation Program. This research should help inform any future efforts to conduct weatherization or other health and safety barrier remediation.

For the upcoming term, the Companies will assist DEEP and other industry partners in their efforts to leverage funding from the LIHEAP and ARPA to address weatherization and other health safety barriers in Connecticut homes. This additional funding stream would allow the Companies to serve more customers, drive deeper energy savings, and use Energy Efficiency Fund dollars toward other programmatic elements.

#### Bundling of measures

In the 2022-2024 term, the Companies will simplify and streamline the energy efficiency process for residential customers by bundling measures and services into tiered packages with prescriptive costs and savings. These discrete bundles can promote the integration of different energy efficiency measures as one packaged solution. For example, the Companies will offer a bundled "HVAC package" that includes tiered incentives for HVAC equipment, smart thermostats, duct sealing,

The Healthy Homes program provides support to improve living conditions for families. Working with a team of licensed and certified experts, Healthy Homes assesses homes and develops a scope of work to address housing-related health hazards, such as lead-based paint, mold, asbestos, and injury risks.

<sup>&</sup>lt;sup>59</sup> The CT Green Bank offers the Smart E-Loan, Energize CT Health & Safety Revolving Loan Fund, Loans Improving Multifamily Efficiency (LIME), and the Navigator Pre-Development Loan which help homeowners and property owners finance projects that address weatherization barriers.

and demand reduction program participation. These bundled packages would help customers understand how buildings systems are integrated and streamline program administration by offering a one-stop shop for energy efficiency.

Co-delivery of energy efficiency and demand management programs

Demand management strategies provide a number of benefits to customers and the grid, including improving the reliability of the grid and reducing customer costs due to reduced peak demand. Demand management strategies also provide environmental benefits by reducing energy usage which offsets the need for fossil-fueled power plants and results in greenhouse gas emissions reductions. The integration of active demand response offerings with energy efficiency programs is critical to the success of the Residential Portfolio.

For the 2022-2024 term, the Companies will use energy efficiency program delivery channels and measures as a seedbed for active demand response technologies, such as HVAC controls, building and energy management systems, and lighting controls. The Companies will promote active demand response technologies through their home performance services offerings (i.e., HES, HES-Income Eligible, and Multifamily Initiative), as well as through the Residential New Construction program. In addition, the Companies plan to establish make-ready requirements for active demand response technologies in residential new construction projects. This ensures that homes being built over the next few years are built to interact with current and future active demand response technologies. The Companies will increase customer education and outreach regarding active demand response programs, including cross-promotional efforts to advertise active demand response offerings with the sale of smart thermostats, plug load control devices, and other smart, connected technologies.

### Workforce Development

Throughout the 2022-2024 term, the Companies will continue to provide and support workforce development for vendors, contractors, trade allies, and other stakeholders who work within the Residential Portfolio's programs and initiatives. The Companies understand that a robust and well-trained workforce drives energy efficiency savings and success in the portfolio. The Workforce Development Initiative ensures that residential market actors receive up-to-date training regarding building science and design, high-efficiency HVAC and water heating equipment installation, lighting design, emerging technologies, financing, and sales strategies. The Workforce Development Initiative's strategies, regional collaboration, and a list of expected trainings for the Residential Portfolio are detailed in Section 4.3.

In addition to the general workforce trainings referenced above, the Companies will continue to coordinate with trade allies, other energy efficiency administrators, and regional organizations to facilitate training opportunities for home performance services contractors, including but not limited to Building Performance Institute certifications (e.g., Building Analyst, Home Energy Professional, Healthy Homes Evaluator, Infiltration and Duct Leakage, etc.), DOE Home Energy Score Qualified Assessor, financing workshops, and weatherization barrier trainings.

In the upcoming term, the Companies will design and deploy additional training opportunities to deliver hands-on training to field crews in specific program information and soft skill training to help new employees to understand the overall goals and best practices. In addition, the Companies will work with distributors, manufacturers, and retailers to implement customer and contractor education regarding high-efficiency HVAC and water heating equipment, smart thermostats, active demand response strategies and connected devices, and Advanced Duct Sealing. The Companies will also coordinate with DEEP's workforce development efforts and other Connecticut clean energy workforce efforts and planned coordination.

# 2.1.3 Process for Continued Improvement

The Companies understand that it is important for them to make constant evaluations and modifications of existing Residential Portfolio programs to ensure their efficacy, as well as the delivery of energy, cost, and environmental benefits to customers. To that end, the Companies actively participate on local, state, and national boards and organizations to stay up to date on new and emerging technologies, best practices, and research and evaluation findings.

For the 2022-2024 term, the Companies remain committed to a process for continued improvement in delivering cost effective and innovative energy efficiency programs to residential customers across the state. The Companies work with trade allies in the residential marketplace to understand the needs of contractors, distributors, manufacturers, retailers, and stakeholders, and proactively develop incentive structures, trainings, marketing materials, and program modifications in response. The residential energy efficiency marketplace is dynamic and ever evolving and the Companies must build in flexibility to the design of their programs and offerings.

Connecticut's policymakers and regulators have established an independent third-party evaluation process for Connecticut's energy efficiency programs. This process, managed by the EEB, results in evaluation findings and recommendations that assist the Companies in making process, energy-saving calculation, and design modifications to the Residential Portfolio programs. In addition to Connecticut-specific evaluations, the EEB authorizes regional evaluations of other energy efficiency programs to assess the Northeast marketplace and determine where cross-state collaborations may provide efficacy and energy savings to the state. Periodically, the Companies will also review other utility and energy efficiency administrators' activities across the United States to determine if new technologies or program designs should be integrated into the Residential Portfolio. These high-level reviews include state leaders in energy efficiency, including California, Massachusetts, New York, Oregon, Rhode Island, and Vermont.

### 2.1.4 Codes, Standards, and Appliances

### Connecticut Energy Code

The current Connecticut Energy Code is the 2015 International Energy Conservation Code (2015 IECC). In 2017, the Office of the State Building Inspector and the Codes and Standards Committee began preparing a draft Connecticut Supplement for the 2018 State Building Code. On January 2, 2018, the Connecticut Department of Administrative Services (DAS) issued a Draft for Public Comment. The Connecticut Supplement adopted the 2015 family of codes developed by the International Code Council and is also aligned with the State Fire Safety Code. This included Connecticut Residential Amendment *R402.4.1.2 – Thermal Envelope Testing* which added a new set of special requirements for low-rise attached dwelling units and Amendment *R403.3.4 – Duct Leakage Prescriptive*, which raised the allowable duct leakage value from 4 to 8 CFM25. The 2018 Connecticut State Building Code was adopted on October 1, 2018.<sup>60</sup>

The State Building Inspector, State Fire Marshal, and the Codes and Standards Committee have announced their intent to adopt the 2022 State Building and Fire Safety codes based on the 2021 editions of the International Code Council. The 2022 State Building Code will incorporate the 2021 IECC. The technical review of these codes will be conducted by the Committee's Code Adoption Subcommittee along with DAS staff. The review began in April 2021 and was completed in

<sup>&</sup>lt;sup>60</sup> Connecticut Department of Administrative Services. Final 2018 Connecticut State Building Code, Jan. 2, 2018, available online at: <a href="https://portal.ct.gov/-/media/DAS/Office-of-State-Building-Inspector/2018-CT-State-Building-Code----Effective-10-01-18.pdf">https://portal.ct.gov/-/media/DAS/Office-of-State-Building-Inspector/2018-CT-State-Building-Code----Effective-10-01-18.pdf</a>.

October 2021. The state will essentially "skip" the 2018 IECC as the energy code baseline and move straight to the more stringent 2021 IECC.

### Code Compliance

For the 2022-2024 term, the Companies will continue to research current approaches for building code savings attribution used in Massachusetts, Rhode Island, and other states. In 2021, a third-party firm began the *Residential New Construction Baseline and Code Compliance Phase Study (R1968)*, an evaluation designed to assess code compliance rates for the Residential New Construction program. The results of this study will be used as a basis to measures savings attributable to future code compliance activities in the Residential Energy Efficiency Portfolio. To support code compliance in the upcoming term, the Companies will:

- **Provide stretch code development support.** During the 2021 legislative session, the Connecticut General Assembly advanced stretch code legislation (HB 6572) out of committee. <sup>61</sup> The legislation proposed that municipalities would be allowed to establish a requirement that new or renovated buildings over 40,000 square feet must demonstrate that they use at least 10 percent per square foot less energy than maximum levels permitted under the state building code. The Companies will monitor if HB 6572 (or similar bill) becomes law during the 2022-2024 term. If stretch code legislation is passed into law, and a local government decides to adopt a stretch code, the Companies will provide technical and program support in the development of such a code for that municipality.
- Provide compliance support for base and stretch code. The Companies will work with architects, local builders, contractors, and building enforcement officials to increase the number of buildings complying with the locally applicable energy code. The Companies will implement a series of code trainings, as well as outreach and technical support in the form of circuit riders, compliance documentation tool development, and review support.<sup>62</sup> These significant code training efforts should improve compliance with the 2021 IECC and mitigate the drop in code compliance which typically occurs with large code changes.

Figure 2-D: Schedule of Code Compliance & Activities

		2021			2022			2023			2024			2025						
Code/Implementation Timeline	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
2021 CT State Building Code (Oct 2022)																				
Training/support on new code																				
Expected: 2022 CT Building Code																				
Residential buildings built to code																				
C&I buildings built to code																				

<sup>&</sup>lt;sup>61</sup> HB 6572 was advanced out of committee but was tabled as the 2021 legislative session ended prior to coming to a vote before the entire Connecticut General Assembly. Proposed legislation is available online at:

https://www.cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Bill&bill num=HB6572&which year=2021.

<sup>&</sup>lt;sup>62</sup> Circuit riders are experts who meet with targeted groups of market actors (in this instance the new construction community) to address their specific needs and issues, enhance their knowledge, provide technical assistance, and modify their practices.

### 2.1.5 Financing

A major barrier to implementing energy efficiency projects in homes are the upfront costs. Over the last two decades, the Companies have developed innovative residential financing solutions to help homeowners and property owners of single-family and multifamily buildings make energy improvements that lower customers' energy bills. For the 2022-2024 term, the Companies will continue to offer several financing options to residential customers pursuing comprehensive energy efficiency projects, including:

- **Energy Conservation Loan program.** This income-restricted program offers low-interest financing for eligible single-family homeowners (1-to-4-units) to borrow funds for a period of 10 years to make eligible improvements.
- Energize CT Heating Loan program. The program offers low-interest financing for the installation of new energy-efficient heating systems (e.g., boilers, furnaces, and electric heat pumps) that meet ENERGY STAR or higher ratings for heating equipment. Customer has the ability to make loan payments through their electric utility bill.
- HES Payment Plan (Micro) Loan Financing program. This program offers zero-interest loans for the
  implementation of qualified improvements and energy-efficient equipment replacements. This financing solution
  allows up to 20 percent of the total loan amount to be used to pay for non-listed work directly related or
  necessary to the installation of the eligible measures. Customer has the ability to make loan payments through
  their electric utility bill.
- Smart E-Loan program. The CT Green Bank offers this long-term and low-interest loan program to customers making energy-efficient improvements, including HVAC and water heating equipment, and clean energy (renewable) technologies. The property must be owner occupied, a single-family home (1 to 4 units), located in Connecticut, and condominiums must be individually metered.
- C4C Landlord Loan program. The Capital for Change, Inc. (C4C) offers the C4C Landlord Loan to property owners making energy-efficient improvements to their rental units, including insulation, HVAC and water heating equipment, windows, ground source heat pumps, weatherization and duct sealing (caulking and weatherstripping), clean energy technologies, and remediation of weatherization health and safety barriers (e.g., asbestos, mold).

The CT Green Bank Multifamily program provides customized financing solutions for multifamily buildings or complexes with five or more units, such as apartment buildings and complexes, condominiums and cooperatives, congregate and senior housing, and mixed-use residential and commercial properties. As in previous Plan terms, the Companies and CT Green Bank will work collaboratively together, where effective, to finance energy efficiency projects and achieve important energy policy objectives through improved CT Green Bank financing offerings. These offerings will increase the amount of private sector capital and align financing programs to fill market gaps and current unmet needs in the multifamily sector.

During the 2022-2024 term, the Companies will continue to work with DEEP, the EEB's consultants, the CT Green Bank, and C4C to identify financing program improvements, reduce customer costs, and increase program volume.

Figure 2-E: 2022-2024 Residential Financing Solutions

Financing Product	Loan Limits	Terms	Interest Rate	Funding Source
Energy Conservation Loan	\$400 to \$25,000	Up to 10 years	0% to 3%	C4C
Energize CT Heating Loan Program	Up to \$15,000	3 to 10 years, minimum down payment of 10%	0.99%	Systems Benefit Charge, managed by C4C
HES Payment Plan (Micro) Loan Financing Program	\$500 to \$3,000	Up to 36 months	0%	Managed by C4C
Smart E-Loan Program	\$500 to \$40,000	5 to 12 years, no down payment	4.49% - 6.99%	Local lenders (administered by the CT Green Bank)
C4C Landlord Loan	\$3,000 to \$40,000	5 to 12 years	4.49% - 6.99%	C4C

# 2.1.6 Performance Management Incentive Metrics

As discussed in Section 1.7, the Companies earn an annual performance management incentive for managing Connecticut's energy efficiency and demand management programs and budgets. The incentive is tied to program specific-oriented metrics, including, but not limited to energy savings and net economic benefits. Performance management incentives are typically based on a percentage of energy efficiency program costs and this percentage varies dependent on if goals and/or targets are met or exceeded. For the 2022-2024 term, the Companies have developed energy and demand savings metrics for measuring the success of the Residential Portfolio's programs and initiatives. The Companies will earn a performance management incentive for meeting the following program specific-oriented secondary metrics:

Figure 2-F: 2022-2024 Residential Performance Management Incentive (Secondary Metrics)

Program	Incentive Metric	Description
		Electric
	Increase in HES savings per ducted home	MMBtu per HES single-family home (not including lighting) for Core Services where ductwork is present that has air sealing completed (i.e., non-barriered homes)
HES	HES Increase in HES savings	MMBtu per HES single-family home (not including lighting) for Core Services where ductwork is not present that has air sealing completed (i.e., non-barriered homes)
	Increase in homes	Number of HES homes that receive insulation rebates divided by the
	being weatherized	number of homes that receive the HES assessments
	Increase in HES-Income Eligible savings per ducted home	MMBtu per HES-Income Eligible single-family home (not including lighting) for Core Services where ductwork is present that has air sealing completed (i.e., non-barriered homes)
HES-Income Eligible	Increase in HES-Income Eligible savings per non-ducted home	MMBtu per HES-Income Eligible single-family home (not including lighting) for Core Services where ductwork is not present that has air sealing completed (i.e., non-barriered homes)
	Increase in homes being weatherized	Number of HES-Income Eligible homes that receive insulation rebates divided by the number of homes that receive the HES-Income Eligible assessments

Figure 2-F: 2022-2024 Residential Performance Management Incentive (Secondary Metrics)(continued)

Program	Incentive Metric	Description				
Residential New Construction	Increase % of efficient new homes	Percentage of participating units in the RNC program that achieve a HERS rating of 50 or less				
Equitable Distribution	Percent of hardship customers participating in HES and HES-Income Eligible	The Companies will track the participation in 1-4 unit HES or HES- Income Eligible from Jan. 1, 2022 through Dec. 31, 2022 of all customers that are coded "hardship" (Eversource MPP, IE, New Start and UI Forgiveness Programs) on Nov. 1, 2021				
		Natural Gas				
HES	Increase in HES savings	Achieve ccf savings from "core services" per single-family home that has air sealing completed (i.e., non-barriered homes)				
HES-Income Eligible	Increase in HES-Income Eligible savings	Achieve ccf savings from "core services" per single-family home that has air sealing completed (i.e., non-barriered homes)				

#### 2.2 RETAIL PRODUCTS PROGRAM

### 2.2.1 Overview and Target Market

The Retail Products program is designed to create awareness, acceptance, and to promote the stocking and sale of ENERGY STAR certified appliances, electronics, and light-emitting diode (LED) lighting products. The program educates customers so they can make informed decisions about purchasing efficient electronics and products. For the 2022-2024 term, the Companies will offer incentives for energy-efficient appliances, electronics, and LEDs (in limited locations) through the following market channels: (1) upstream incentives, (2) upstream retail products platform (i.e., ESRPP), and (3) an e-commerce platform for the purchase of small electronics, rebate fulfillment, and product comparison of larger consumer appliances.

The Retail Products program's primary target market are residential customers who are making decisions regarding the purchase of appliances, electronics, and LEDs and getting them to purchase ENERGY STAR certified products. The secondary target market is retailers and distributors to influence their stocking and selling practices. By offering incentives and rebates, the Companies can tip the financial scales in favor of energy-efficient options, leading distributors and contractors to change what they stock and sell, which benefits the customer.

The following figure summarizes the Companies' projected energy savings, and program costs and benefits for the Retail Products program, including both electric, oil, and propane values.

Figure 2-G: 2022-2024 Retail Products Savings & Benefits (Electric)\*

Planned Results	Total
Number of Products Sold (appliances and lighting)	1,281,094
Total Program Lifetime Savings, Electric (MWh)	222,694
Total Program Lifetime Savings, Oil (Gal)	4,814
Total Program Lifetime Savings, Propane (Gal)	140,586
Total Program Lifetime Savings (MMBtu)	773,338
Lifetime CO <sub>2</sub> Emissions Reduced (tons)**	90,072
Total Program Lifetime Benefits (\$000)	\$52,974
Total Program Costs (\$000)	\$13,897

<sup>\*</sup>Products sold include lighting and appliances (e.g., air purifiers, clothes washers, clothes dryers, refrigerators and freezers, induction cooktops, dehumidifiers, soundbars, power strips).

\*\*Please note that these are short tons.

### 2.2.2 2022-2024 Themes & Priorities

#### Market Transformation

In previous Plan terms, the Retail Products platform was focused on influencing customers' purchasing decisions regarding lighting to encourage them to choose energy-efficient products. This influence was accomplished through the Companies' heavy promotion, marketing, and incentivization of ENERGY STAR certified bulbs. The Companies offered incentives to buy down the cost of energy-efficient bulbs to make their prices more competitive with standard incandescent bulbs and the resulting savings have historically made up the largest proportion of the Residential Portfolio's energy savings.

With the 2022-2024 term beginning, the retail marketplace has been transformed by the Companies' historical efforts. LEDs are now the predominant bulbs on retail and distributor shelves and incentives and promotional activities are not as needed to influence customers' purchasing decisions. During the upcoming term, the Companies will only incentivize a limited number of LEDs in markets where conventional retail and marketing channels are still needed to influence customers. This will include discount stores where the Companies can reach communities with low participation rates and low adoption levels of LEDs.

### Potential for Revised Federal Standards for Lighting

Throughout the 2019-2021 term, there was great uncertainty regarding the implementation of the Energy Independence & Security Act of 2007 (EISA). <sup>63</sup> This federal legislation had established national energy efficiency standards for light bulbs and manufacturers, distributors, retailers, and energy efficiency program administrators had begun to prepare for more stringent standards. Phase 2 and Phase 3 of EISA's light bulb standards were slated to go into effect on January 1, 2020 (EISA 2020 standard) and January 1, 2025 (EISA 2025 standard), respectively.

<sup>&</sup>lt;sup>63</sup> Public Law 110-40. Energy Independence and Security Act of 2007. Dec. 19, 2007.

On February 11, 2019, the DOE published a Notice of Proposed Rulemaking that proposed withdrawing the revised definitions of general service lamp (GSL), general service incandescent bulb (GSIL), and other supplemental definitions that were slated to go into effect as part of the EISA 2020 standard. On September 5, 2019, the US DOE rescinded the expanded definition of GSLs, reversed its 2017 decision to expand the types of GSLs subject to the stricter standards, and allowed exemptions for specialty lamps.<sup>64</sup> With this ruling, the US DOE withdrew the prior rules regarding the EISA 2020 standard that were to become effective on October 17, 2019, which were intended to phase out the incandescent bulb in favor of high-efficiency LEDs and fluorescent bulbs and fixtures.<sup>65</sup> On September 5, 2019, the DOE also issued a proposed determination, which if finalized, would eliminate the EISA 2020 standards for the pear-shaped bulbs, known as "Alamps", that make up 50 percent of the bulbs used in the United States.<sup>66</sup>

Although there has been a delay in the EISA 2020 standards going into effect, the market has moved forward in an energy efficiency direction. Lighting manufacturers expected the original rules to go into effect in 2020 and 2025 and have transitioned to designing and manufacturing energy-efficient LEDs. As a result, the lighting market has transitioned despite the federal roll-back of minimum-efficiency standards. LEDs are now the standard bulbs seen on store shelves and in customers' sockets. With a new federal administration that favors energy efficiency in place for the 2022-2024 term, the Companies will monitor proposed rulemakings and decision issued by the DOE regarding the EISA 2020 and EISA 2025 standards. If new decisions or rulemakings are issued that alter their planned approach in the upcoming term, the Companies will adjust accordingly with input from DEEP, the EEB, and EEB consultants.

For the 2022-2024 term, the Companies will transition program support to discount retailers focused on reaching historically underserved customers and retailers where baseline lighting products are still a viable option for customers. In addition, the Companies will continue to promote LED bulbs through non-traditional channels, including lighting sales and lighting fundraisers for nonprofits, community groups, and schools.

# Residential Lighting Strategy

In October 2020, a lighting study was released which measured the availability and pricing of key light bulb types across a wide range of Connecticut retailers and investigated the progression of federal standards for light bulbs. <sup>67</sup> This study was commissioned to determine the viability of continued promotion of residential lighting products in Connecticut and made several recommendations to the Companies. One recommendation was to discontinue the promotion of products at club stores (e.g., Costco, BJ's) where the product choice landscape already favors efficient products and redirect those efforts toward retailers where baseline products are a viable option for customers. The study's second recommendation was to review and refine the Companies' incentive strategies for both non-discount and discount retailers. For non-discount retailers, the study recommended that the Companies should size incentives and design more targeted strategies to promote products based on pricing and availability information, while for discount retailers, the Companies should ensure

<sup>&</sup>lt;sup>64</sup> 84 FR 46661. Office of Energy Efficiency and Renewable Energy. Energy Conservation Program: Definition for General Service Lamps, Published Sep. 5, 2019, pp. 46661-46676. Available at: <a href="https://www.federalregister.gov/documents/2019/09/05/2019-18940/energyconservation-program-definition-for-general-service-lamps">https://www.federalregister.gov/documents/2019/09/05/2019-18940/energyconservation-program-definition-for-general-service-lamps</a>. Specialty lamps now exempted include globes, candelabras, and reflectors, as well as three-way and rough service lamps.

<sup>65 82</sup> FR 7276 and 82 FR 7322. Jan. 19, 2017.

<sup>&</sup>lt;sup>66</sup> 84 FR 46830. Office of Energy Efficiency and Renewable Energy. Energy Conservation Program: Energy Conservation Standards for General Service Incandescent Lamps, Published Sep. 5, 2019, pp. 46830-46862. Available at: <a href="https://www.federalregister.gov/documents/2019/09/05/2019-18941/energy-conservation-program-energy-conservation-standards-forgeneral-service-incandescent-lamps">https://www.federalregister.gov/documents/2019/09/05/2019-18941/energy-conservation-program-energy-conservation-standards-forgeneral-service-incandescent-lamps</a>.

<sup>&</sup>lt;sup>67</sup> R1963b: Short Term Residential Lighting Report, prepared by SCS Analytics, LLC on behalf of the Connecticut EEB Evaluation Administration Team, Oct. 19, 2020.

incentives are aggressively compared to other retailers in the program. The study's recommendations and findings have shaped the Companies' lighting strategy for the 2022-2024 term. The Companies will no longer support discount promotions at club stores and will only incentivize limited numbers of LEDs sold in historically underserved communities.

### 2.2.3 Program Design

The Retail Products program is designed to create awareness and acceptance of energy-efficient appliances, consumer electronics, and LED lighting (limited support) to help reduce electric and natural gas use year-round. The Companies offer incentives designed to encourage customers to make energy-efficient choices when purchasing appliances and consumer electronics. The program's three primary channels for the upcoming term will include: (1) upstream retail products platform, (2) upstream incentives, and (3) an online platform.

### ENERGY STAR Retail Products Platform

The ENERGY STAR Retail Products Platform (ESRPP) is a collaborative marketing and upstream rebate fulfilment initiative facilitated by the EPA, ENERGY STAR, energy efficiency program sponsors (e.g., utilities), retailer partners, and other stakeholders. The initiative offers minimal direct retailer incentives to participating big-box retail stores (e.g., Best Buy, Home Depot, and Lowe's) and small independent stores to increase the stocking and sale of high-efficiency appliances. The ESRPP was launched in Connecticut during the 2019-2021 term. The Companies work directly with retailers to lower the cost of appliances and electronics before they hit retail shelves through midstream incentives.

By increasing the availability of ENERGY STAR certified products in the marketplace, the ESRPP generates energy savings as customers purchase and install these more efficient models in their homes. Through participating retailer agreements, the Companies gain access to full category sales data on program products, allowing them to truly judge market penetration of highly-efficient products. The 2022-2024 ESRPP will include incentives for dryers, washers, refrigerators, freezers, air purifiers, room air conditioners, dehumidifiers, and sound bars. The Companies will also add induction cooktops and advanced power strips to the ESRPP for the upcoming term. In-store signage highlights the savings potential of high-efficiency, ENERGY STAR certified models.

### **Instant Discounts**

Over the next three years, the Companies plan to continue expanding the Instant Discount program to include room air conditioners, dehumidifiers, and air purifiers at big-box stores. Point-of-purchase materials at the retail outlet inform the customer of discounts and how to access those discounts.

### Online Marketplace.

The Online Marketplace is a channel that allows Connecticut residents to compare products and prices of energy-efficient measures to help them with their purchasing decisions, as well as make purchases where incentives are applied instantly to qualifying products at the time of checkout. Customers can purchase ENERGY STAR certified equipment, such as smart thermostats, dehumidifiers, room air conditioners/cleaners, window air conditioners, sound bars, and advanced power strips, as well as non-incentivized energy-saving products, such as lighting and various other "smart home" devices. The platform provides validation services to verify that consumers purchasing the incentivized equipment are Connecticut residents and qualify for the incentive(s). This streamlines the incentive process for customers and subsequently, the resulting energy savings.

Similar to the ESRPP, the Online Marketplace requires that all appliances and electronics marketed in the Online Marketplace meet the requirements for an ENERGY STAR "Most Efficient" or Tier 2 product. <sup>68</sup> Currently, the Companies offer incentives for Tier 1 and Tier 2 advanced power strips through the Online Marketplace, and this will continue in the 2022-2024 term. The Online Marketplace also serves as a cross-promotional channel for active demand response programs. The Companies can actively bundle the sale of energy-efficient equipment, such as smart thermostats, with an active demand response program to encourage customer participation in additional programs.

### Early Retirement Initiative

A second, inefficient refrigerator or freezer could cost a customer close to \$125 per year to operate. In mid-2020, the Companies launched the Early Retirement Initiative to encourage and incent customers to retire old, inefficient refrigerators and freezers and replace them with high-efficiency units. Customers work with a third-party contractor to verify their eligibility for the initiative, arrange a convenient pick-up time for the removal of their inefficient appliance(s) from their home, and then these units are removed and recycled in an environmentally-friendly manner instead of being placed in a landfill where contamination could occur.

By unplugging these units, customers can save energy on their electric bills and earn an incentive for the appliance's disposal. In addition, the initiative helps reduce the effect of residential customers' energy consumption on the environment, including reducing greenhouse gas emissions and removing harmful contaminants from landfills. The Companies will monitor the success of this initiative and could potentially include additional appliances in the initiative, such as room air conditioners (room A/Cs), during the 2022-2024 term.

### Efficiency Levels

The Companies continue to look at multiple efficiency levels and tiers to design their incentive strategy for the Retail Products program. The EPA's ENERGY STAR Emerging Technology Award (Emerging Tech Award) is given to innovative technologies that meet rigorous performance criteria to reduce energy consumption and lower greenhouse gas emissions, without sacrificing features or functionality. In 2021, residential induction cooking tops received the Emerging Tech Award. Traditional cooking tops employ gas or an electrical element to generate heat, which is then transferred to cookware via thermal conduction. A residential induction cooking top consists of an electromagnetic coil that creates a magnetic field when supplied with an electric current.

When evaluated in the field, the residential induction cooking tops warmed compatible cookware internally and transferred energy with about 85 percent efficiency, compared to natural gas (32 percent) and electric cooking tops (70 to 80 percent). In addition to the technology's energy savings benefits, it also decreases cooking times. In 2021, the Companies will support this Emerging Tech Award technology through its sale and promotion through the ESRPP, as well as introduce the technology into programming and K-12 lessons implemented through the Energy Education and Community Outreach Initiatives (see Section Four of this Plan).

### Marketing

A mix of traditional marketing tactics will be used to promote these solutions and incentives to customers. Because the online marketplace is a digital platform, digital marketing will drive the majority of traffic. In addition to a steady stream

<sup>&</sup>lt;sup>68</sup> ENERGY STAR utilizes the Tier 2 (also referred to as Advanced) criteria when there is not a Most Efficient designation for a product and/or where there is a desire for a higher specification than the basic ENERGY STAR criteria.

of digital advertising, special promotions (which create a sense of urgency) receive additional support via social and email, as warranted.

### 2.3 HVAC AND WATER HEATING EQUIPMENT PROGRAM

### 2.3.1 Overview & Target Market

As noted in Section 2.1.2, residential heating, cooling, and water heating equipment make up 73 percent of an average household's annual energy consumption. <sup>69</sup> The HVAC and Water Heating Equipment program is designed to promote the awareness, acceptance, availability, and purchase of high-efficiency HVAC and water heating equipment in Connecticut's retail and wholesale marketplace. This broad-based platform offers incentives through two channels: (1) midstream incentives and (2) traditional mail-in rebates. These channels are designed to position high-efficiency HVAC and water heating equipment as the primary choice for customers making purchasing decisions, whether online, in-store, or through independent contractors and distributors.

The target market for the HVAC and Water Heating Equipment program includes residential electric and natural gas customers of the Companies and contractors, distributors, installers, and retailers who either sell or install HVAC and water heating equipment and systems in Connecticut. The HVAC and Water Heating Equipment program offers trainings and support to market actors to help shift the marketplace toward energy efficiency. The following figure summarizes the Companies' projected energy savings and program costs and benefits for the HVAC and Water Heating Equipment program, including both electric, natural gas, oil, and propane values.

Figure 2-H: 2022-2024 HVAC and Water Heating Equipment Savings & Benefits (Combined Electric & Natural Gas)\*

Planned Results	Total
Number of Units Sold (HVAC and water heating equipment)*	211,043
Number of Heat Pumps Sold (included above)**	27,950
Total Program Lifetime Savings, Electric (MWh)	352,488
Total Program Lifetime Savings, Natural Gas (ccf)	43,872,074
Total Program Lifetime Savings, Oil (Gal)	23,176,342
Total Program Lifetime Savings, Propane (Gal)	6,137,453
Total Program Lifetime Savings (MMBtu)	9,491,986
Lifetime CO₂ Emissions Reduced (tons)***	831,557
Total Program Lifetime Benefits (\$000)	\$265,049
Total Program Costs (\$000)	\$71,328

<sup>\*</sup>Includes heat pumps, central A/Cs, room A/Cs, water heaters, and smart thermostats.

<sup>\*\*</sup>This number is included in the total number of units sold (HVAC and water heating equipment).

<sup>\*\*\*</sup>Please note that these are short tons.

US EIA, What's New in How We Use Energy at Home: Results from EIA's 2015 Residential Energy Consumption Survey, rel. May 2017, available at: <a href="https://www.eia.gov/consumption/residential/reports/2015/overview/pdf/whatsnew\_home\_energy\_use.pdf">https://www.eia.gov/consumption/residential/reports/2015/overview/pdf/whatsnew\_home\_energy\_use.pdf</a>. The 2020 RECS household survey data collection began in September 2020 and concluded in spring 2021. The EIA plans to release initial estimates on key household characteristics in late 2021 and final state-level energy consumption and expenditure data, as well as survey microdata, will be available in early 2023.

#### 2.3.2 2022-2024 Themes & Priorities

The HVAC and Water Heating Equipment program offers customers rebates for installing high-efficiency HVAC equipment, water heating equipment, and heat pump water heater technologies. For the 2022-2024 term, the program will implement a number of decarbonization strategies, collaborate with manufacturers and distributors, promote co-delivery of the program with demand reduction strategies, and introduce new products. These new modifications to the HVAC and Water Heating Equipment program are discussed below.

### Decarbonization and Heat Pumps

In the upcoming term, the Companies will prioritize transitioning customers to heat pump technologies if they are more likely to experience reduced heating costs. Customers who heat their homes with electric resistance and delivered fuels (i.e., oil and propane) will see a greater reduction in their energy bills than residential customers who heat with natural gas. The move to heat pump technologies also results in greater greenhouse gas emissions reductions, another realized benefit. For the 2022-2024 term, the Companies will focus on promoting the installation of more heat pump technologies including air source heat pumps, central and ductless heat pumps, ground source heat pumps, air-to-water heat pumps, and packaged and split heat pump water heater systems.

Over the next three years, the Companies will make extensive investments in consumer education and workforce development trainings and certifications to build general awareness and familiarity around heat pumps. The Companies plan to conduct ongoing "pulse" surveys to better understand and track customer awareness and perceptions of heat pump technologies. In the upcoming term, the Companies will focus on prioritizing marketing tactics that promote the benefits of heat pump technologies and simplifying customer-facing messaging and terminology. The Companies will also refresh the EnergizeCT.com website and create an "All Things Heat Pumps" webpage. Additionally, the Companies will develop customer-facing online tools, such as a contractor locator to direct customers to qualified heat pump installers. These online tools will help educate customers regarding the benefits of heat pumps, current incentives, and also help interested homeowners in locating qualified contractors.

The Companies will also identify and support qualified heat pump installers to ensure that home performance and HVAC contractors are promoting heat pump technology adoption where appropriate.

The 2021 heat pump pilot will be extended into the beginning of the upcoming three-year term to ensure that all units are installed. The Companies are studying the effectiveness of the heat pump pilot, both to understand energy savings during the heating and cooling seasons and customer satisfaction. The EEB's third-party evaluator is aware of this effort and may conduct additional evaluations needed to assess the results of the pilot. This decision will also be based on DEEP's directives for the 2022 Comprehensive Energy Strategy.

### Collaboration with Manufacturers & Distributors

In the 2022-2024 term, the Companies will work with manufacturers and distributors to leverage their education and training efforts to support the purchase and installation of more high-efficiency HVAC and water heating equipment across the state. Many of the larger heat pump manufacturers have robust contractor networks that are based on contractor experience and their completion of manufacturer-led trainings. For the 2022-2024 term, the Companies have a two-fold approach to collaborating with heat pump manufacturers:

- Work with manufacturer partners to identify contractors (in Connecticut and New England) who have
   successfully completed heat pump installation trainings and engage these firms through program support, and
- Encourage untrained contractors to attend and complete manufacturer-led heat pump trainings to broaden the base of qualified installers.

This work already began in the 2019-2021 term through the development of the Air Source Heat Pump Working Group. This group includes regional manufacturer representatives from major heat pump manufacturing companies.

#### Contractor Education & Training

Throughout the 2020 program year, the Companies developed a comprehensive heat pump training strategy for Connecticut and the Northeast region. To drive adoption from the supply chain to the contractor to the end user, a defined Qualified Products List (QPL) for air source heat pumps was developed and announced to the market in early November 2020. This regional QPL was established to standardize the efficiency and qualifying criteria for heat pump technologies installed in multiple states throughout the Northeast region. The establishment of the QPL was a necessary first step to ensure qualifying product inventory is available to the contractors within the local supply chain and prior to launching the expanded trainings across the region. This also ensures that trainings will reflect the new QPL that will be used going forward.

During the 2022-2024 term, the Companies will continue to implement the comprehensive heat pump training strategy to ensure that HVAC contractors working in Connecticut know how to sell, install, and service heat pump systems. The Companies' strategy to increase awareness, educate, and ensure proper installation is to reach contractors utilizing various channels and paths. The two main pathways identified are:

### Online Learning Resources

The Companies have developed an online Learning Center to educate the contractor community about HVAC and heat pump technologies. The online training resource allows contractors to take classes and educate themselves based on their interests, schedule, and availability. The feedback from the HVAC and home performance services community has been positive and the Learning Center is recognized as a resource that is and will be used. Some current courses include:

- Air Conditioner and Heat Pump High-Performance Tune-Up. This course provides technical training to help
  residential and commercial diagnostic tune-ups meet specifications. The tune-up process focuses on non-capacity
  verification.
- HVAC Equipment Energy Usage: Charge Levels Refrigerant Leaks. This training details the topics of subcooling, superheat, and system design considerations according to Manual J using an interactive HVAC simulation to effectively illustrate these points.
- HVAC Equipment Energy Usage: Obstructed Air Flow-Condenser or Filter. This course provides an analysis of both indoor and outdoor airflow, associated tool usage, and a general discussion related to SEER using an interactive HVAC simulation to highlight these points.
- measureQuick Start to Finish. This course trains participants on how to use measureQuick to calculate the airflow, measure total/sensible/latent capacity, and determine the efficiency of heat pumps.

Measuring Air Distribution. This training explains airflow, how HVAC systems are designed and configured to
deliver the correct amount of air to each room of a building, how to accurate measure airflow, and how to
address common air distribution problems.

## **Collaborative Channel Partnership Trainings**

The Companies have long acknowledged how critical it is to leverage the capabilities and resources of manufacturers. The heat pump industry has many global manufacturers with substantial resources and who often design and conduct their own trainings and certifications. The Companies have internal teams who collaborate closely with these global partners, which allow for a stronger go-to-market strategy by benefitting the supply chain's resources. This partnership strategy leverages knowledgeable experts and builds upon existing resources rather than starting from a blank slate.

For the 2022-2024 term, the Companies plan to collaborate with existing channel partner trainings and modify them, as needed, into joint efforts hosted by both the manufacturer and the Companies. This ensures that subject matter experts and direct utility resources can be accessed by HVAC contractors during training sessions. The collaborative trainings will be held on a quarterly basis and will be complementary to the ongoing manufacturer-hosted trainings held throughout the year. As industry trainings tend to be best suited for large HVAC contractors, the Companies recognize the need for trainings to reach both large and small HVAC contractors. The Companies' training efforts will ensure that HVAC contractors not presently engaged by industry partner efforts are able to access heat pump training though online resources and partnerships within the supply chain, such as the local distribution arm of an HVAC equipment distributor.

### Customer Education

The Companies' two primary goals for consumer education are:

- Awareness of heat pumps as a heating and cooling option, and
- Confidence in heat pump technology performance.

The Companies plan to leverage industry efforts, working with manufacturers' to co-brand manufacturer-created educational materials, when warranted. For the 2022-2024 term, the Companies will continue to develop and enhance customer-facing materials regarding the basics and benefits of heat pump technologies. This includes educational content integrated into the HES and HES-Income Eligible programs leave-behind package for customers. In addition, the Energize CT website's heat pump page is being enhanced to clearly communicate how heat pump technology works, the benefits of heat pumps, how a heat pump may change energy usage, and the incentives available. The site will include engaging animation that depicts how the technology works. The Companies have previously used animated graphics to create engaging experiences for consumers and stakeholders.<sup>70</sup>

#### Integration with Active Demand Response Offerings

Over the long term, the Companies' active demand response offerings provide a number of benefits to customers and the grid, including improving the reliability of the grid and reducing customer costs due to reduced peak demand. In addition,

<sup>&</sup>lt;sup>70</sup> The Companies used animated graphics for the Energy Education Program (*see Section Four of this Plan*) and the Annual Legislative Report.

the active demand response offerings provide significant environmental benefits by reducing energy usage which offsets the need for fossil-fueled power plants and results in greenhouse gas emissions reductions.

For the last two three-year Plan terms, the Companies have implemented active demand response offerings that reduce peak demand and help save customers money. Historically, these offerings have been implemented independently, separate from the Residential Portfolio's other programs and initiatives. For the 2022-2024 term, the Companies will integrate both energy efficiency and demand reduction technologies and programs to deliver comprehensive holistic energy-saving solutions. The Companies will use energy efficiency program delivery channels and measures to generate customer enrollment for active demand response offerings, such as HVAC controls, smart thermostats, electric vehicle chargers, and battery storage. The Companies will cross-promote the sale of high-efficiency HVAC and water heating equipment and controls with active demand response offerings to advertise these initiatives with the sale of smart thermostats, plug load control devices, and other smart, connected technologies.

For the upcoming Plan term, the Companies will continue to support connected smart thermostats that are ENERGY STAR certified and capable of providing real-time response to demand response events or have data sharing capabilities. Additionally, home performance services technicians (HES and HES-Income Eligible) will be trained in how to actively promote and upsell Active Demand Response offerings at the Kitchen Table Wrap-Up. In the case of income-eligible customers, the Companies will encourage customers to sign-up for active demand response offerings at the time that demand reduction technologies are installed (e.g., smart thermostats).

### 2.3.3 Program Design

### Types of Incentives

The HVAC and Water Heating Equipment program provides a broad-based platform to promote high-efficiency heating, cooling, and water heating equipment to customers. The HVAC and Water Heating Equipment program offers incentives through two channels: (1) midstream incentives and (2) traditional mail-in rebates.

#### Midstream Incentives

For the 2022-2024 term, the Companies will continue to promote midstream incentives for HVAC and water heating equipment as their primary channel. The use of midstream incentives encourages distributors to stock and sell higherficiency HVAC and water heating equipment and in turn, increases the number of units sold and installed. As part of the midstream incentive process (market channel), the Companies typically require contractors, distributors, and installers to release customer demographic information (i.e., customer address and installed equipment model number) when they apply for a midstream incentive for an eligible HVAC and/or natural gas water heater purchase. This gives the Companies valuable insight into customer demand and installation rates of various HVAC and water heating equipment. If a retail establishment cannot provide the required customer demographic data, the Companies will provide a smaller midstream incentive.

#### **Traditional Incentives**

The Companies continue to offer traditional incentives for some HVAC systems. These systems include high-efficiency central air conditioning (central A/C), air source heat pumps, and ground source heat pumps. As the opportunity arises and verification of installation and proper equipment sizing is streamlined, the Companies will evaluate offering these incentives through the midstream channel during the 2022-2024 term.

#### **Energy Efficiency Specifications**

To receive a midstream or traditional incentive, the Companies require that central A/C systems and heat pumps must meet nationally-recognized energy efficiency specifications. These specifications help rate the efficiency and performance of the central A/C or heat pump system and include:

- Energy Efficiency Ratio (EER). An EER rating measures how efficient a central A/C or heat pump system will operate when the outdoor temperature is at a specific level (95°F). The higher the EER, the more efficient the system.
- **Heating Seasonal Performance Factor (HSPF).** The HSPF measures the efficiency of a heat pump. The HSPF shows the total heating output of the heat pump during a normal heating season, in British Thermal Units (BTUs), as compared to the total electricity consumed (in kWh) during the same period. The higher the HSPF, the more efficient the heat pump.
- Seasonal Energy Efficiency Ratio (SEER). A SEER rating measures the efficiency of a central A/C or heat pump system over an entire cooling season. The SEER rating indicates the cooling output of a central A/C or heat pump system in BTUs during the normal cooling season as compared to the total electricity consumed (in kWh) during the same period. The higher the SEER rating, the more efficient the central A/C or heat pump system.
- **Coefficient of Performance (COP).** The COP is the ratio of heat output to the amount of energy input for a heat pump.
- **Heating Capacity Ratio.** The heating capacity of a heat pump is equal to the rate at which heat is rejected by the condenser (which is equal to the rate of heat absorbed in the evaporator plus the power required by the compressor). The capacity of a heat pump is rated in BTUs. The for the HVAC and Water Heating Equipment program, the Heating Capacity Ratio requirement is the minimum equipment performance for heating capacity at 17°F, divided by the heating capacity at 47°F, expressed as a percentage. In 2022, the ENERGY STAR specification for heat pumps will be introduced to the market (requiring minimum equipment performance for heating capacity at 5°F). The Companies will work to prepare the market for this specification change.

### <u>Incentivized Measures</u>

### **Heat Pumps**

Heat pump technologies offer an energy-efficient alternative to air conditioners (central or room) and furnaces. Similar to refrigerators, heat pumps use electricity to move heat inside and outside of the home, dependent upon the season. Since these systems move heat rather than generate heat, heat pump technologies can provide equivalent space conditioning to traditional heating and cooling systems and still use less energy. Qualifying heat pump technologies include air source heat pumps, ground source heat pumps, water source heat pumps, ductless heat pumps, and heat pump water heaters (discussed in water heating equipment section).

Air source heat pump technologies transfer heat between a home and the outside air. When properly installed, an air source heat pump can deliver one-and-a-half to three times more heat energy to a home than the electrical energy the

There are 12,000 BTUs per ton. Therefore, if you have a 2 ton heat pump, it has the capacity to produce 24,000 BTUs of heating or cooling.

equipment consumes.<sup>72</sup> In addition to reducing energy consumption, air source heat pumps also serve as more efficient dehumidifiers than standard central A/Cs, resulting in lower energy bills and improved comfort for the customer. Ductless heat pumps are air source heat pumps that can be used in residential applications where there are no ducts or ductwork.

Ground source heat pumps take advantage of relatively constant ground and water temperatures to efficiently transfer heat between a home and the ground or water source. These technologies use only a small amount of electricity to operate the unit's heat pump, ground loop pump, and distribution fan/pump. The Companies provide traditional incentives for the proper installation of ENERGY STAR certified ground source heat pumps that are closed loop or direct geo-exchange systems. Ground source heat pump systems must meet the following strict criteria to be eligible for the incentive: (1) equipment must be closed loop or direct geo-exchange type, (2) equipment must be ENERGY STAR certified (existing homes must meet ENERGY STAR Tier 3 Requirements), (3) AHRI/ISO/ASHRAE Standard 13256-1 closed loop systems, (4) Appropriate field testing must be conducted to verify performance, and (5) new construction homes must participate in the Residential New Construction program to be eligible for the ground source heat pump incentive.

During the 2022-2024 term, the Companies will continue to monitor the marketplace for new efficiency requirements. The Companies will also work with the International Ground Source Heat Pump Association to support trainings for the ground source heat pump industry. In the upcoming term, the Companies will offer incentives for air-to-water heat pumps based on a performance and criteria standpoint. The Companies plan to align their efficiency requirements with those established by the Massachusetts Program Administrators to provide regional consistency for the market.

### **Heat Pump Integrated Controls**

Heat pumps are high-efficiency technologies that save energy and money when used properly. Integrated controls makes it simpler to operate heat pumps when they are working with other HVAC systems to optimize heating and cooling in a customer's home. In the 2022-2024 term, the Companies will continue to support heat pump integrated controls to the HVAC and Water Heating Equipment program. Integrated controls provide a number of benefits, including allowing for the seamless transition between multiple HVAC systems, maximizing heat pump runtime, using outdoor air temperatures as triggers, removing customer interactions and decisions, and encouraging whole home and zone displacement. The introduction of heat pump integrated controls will ensure that customers can be confident that their installed heat pump technologies are operating effectively and efficiently.

### Natural Gas High-Efficiency Furnace, Boiler, and Boiler Water Circulator Pumps

The efficiency of a furnace or boiler is measured by its annual fuel utilization efficiency (AFUE) which measures the percentage of heating fuel (i.e., natural gas, oil, or propane) converted to useful heat for a home. During the 2022-2024 term, the Companies will continue to offer midstream incentives for the purchase of energy-efficient boilers and furnaces that meet efficiency standards set by the American Heating & Refrigeration Institute (AHRI), an industry-respected certification program. In the 2022-2024 term, the Companies will investigate whether program supported condensing equipment is replacing existing condensing equipment and if so, whether there is continued need to do so. The Companies have established the following AFUE and AHRI requirements for natural gas furnaces, boilers, and boiler water circulator pumps (see figure below).<sup>73</sup>

<sup>&</sup>lt;sup>72</sup> DOE, Air Source Heat Pumps, available online at: <a href="https://www.energy.gov/energysaver/heat-and-cool/heat-pump-systems/air-source-heat-pumps">https://www.energy.gov/energysaver/heat-and-cool/heat-pump-systems/air-source-heat-pumps</a>.

<sup>&</sup>lt;sup>73</sup> Companies will require qualified condensing installations.

Figure 2-I High-Efficiency Furnace, Natural Gas Boiler & Boiler Water Circulator Pump Requirements\*

Type of System	Energy Efficiency Requirements
Natural Gas Warm Air Furnace	ENERGY STAR certified 95% AFUE or greater, and AHRI- rated with electronically commutated motors
Natural Gas Boiler	ENERGY STAR certified 94% AFUE or greater with temperature reset or purge control
Boiler Water Circulator Pump	The Companies maintain a list of approved model numbers

<sup>\*</sup>These are 2021 Energize Connecticut requirements which are subject to change. The Companies reserve the right to make periodic updates, as needed, through the 2022-2024 term.

### Central Ducted Systems and Central Air Conditioning Heat Pumps

The Companies will continue to provide traditional incentives for split HVAC systems where both the condenser unit and evaporator coils are installed simultaneously by a contractor. A Split HVAC system has multiple sections, including: (1) an indoor coil section typically located within the ductwork, and (2) an outdoor coil section that contains the compressor or condenser.

During the 2022-2024 term, the Companies will encourage contractors to replace central air conditioning (ducted) units with central heat pumps by strengthening their existing channel and industry relationships and establishing a formalized contractor network for central heat pump installers. In addition, the Companies may offer larger incentives for the installation of central heat pumps.

Figure 2-J: High-Efficiency Central A/C and Heat Pump Requirements\*

Type of System	Energy Efficiency Requirements
AHRI Rated Central Air Conditioning Split System	16 SEER / 12.5 EER ENERGY STAR and AHRI Certified
AHRI Rated Central Ducted Air Source Heat Pump Split	16 SEER / 9.5 HSPF / 60% Heating Capacity
System	Ratio (47º - 17º)

<sup>\*</sup>These are 2021 Energize Connecticut requirements which are subject to change. The Companies reserve the right to make periodic updates, as needed, through the 2022-2024 term.

#### **Domestic Hot Water Equipment**

For the 2022-2024 term, the Companies will continue to offer incentives for high-efficiency natural gas domestic water heaters and heat pump water heaters.

#### **Heat Pump Water Heaters**

Heat pump water heaters are more efficient than traditional electric water heaters as they concentrate the warmth of ambient air around them to heat water for domestic hot water consumption. While a heat pump removes air from the surrounding ambient air, there is a slight cooling effect that results in dehumidification and cooling. On average, heat

pump water heaters have 50 to 75 percent savings on electric water-heating costs and also have programmable options, such as "vacation modes" that allow homeowners to save energy while ensuring that there is hot water when they return.

As of June 12, 2017, manufacturers must adhere to the DOE's new Uniform Energy Factor (UEF) standard and test procedure for water heaters. The new UEF standard addresses inconsistencies in water heater testing and allows for a more accurate comparison of products. New products coming onto the market now have an UEF rating instead of an Energy Factor (EF) rating.

In the upcoming term, the Companies will establish heat pump water heater standards and explore the potential to codeliver demand reduction strategies with this technology. The Companies are currently in discussions with the Massachusetts Program Administrators regarding introducing solar thermal incentives in the 2022-2024 term.

### High-Efficiency Natural Gas Water Heaters

The Companies will continue to offer upstream incentives for two types of ENERGY STAR certified natural gas water heaters during the 2022-2024 term. Periodic adjustments may be made to the qualifying criteria and incentive levels based on energy efficiency standard changes and/or budget levels for the Residential Portfolio. In 2021, the two types of high-efficiency natural gas water heaters eligible for incentives are:

- ENERGY STAR certified tankless water heaters with electric ignitions are currently eligible for incentives if they have a UEF of 0.92 or greater.
- ENERGY STAR certified natural gas condensing storage water heaters must have a Thermal Efficiency (TE) of 0.95 or greater.<sup>74</sup>

As noted above, the Companies will monitor the market closely to establish an appropriate UEF rating criteria for new products.

#### Clean Heating & Cooling Calculator

In 2020, the Clean Energy States Alliance (CESA) collaborated with state agencies in Connecticut (DEEP), Massachusetts, and New Hampshire to develop a Clean Heating and Cooling Calculator (Calculator) for homeowners trying to decide what heating and cooling system is right for them. The three states worked collaboratively to create regional methodology, assumptions, and calculations for estimating cost and emissions savings. In 2021, Rhode Island released a similar calculator that uses the same methodology.

The Calculator estimates the cost savings and greenhouse gas emissions savings from replacing all or a portion of a home's heat from fuel oil, natural gas, propane, or electric baseboard to a clean heating and cooling technology, such as air source heat pumps (ducted and ductless), ground source heat pumps (geothermal), solar hot water, and heat pump water heaters. The tool's calculations reflect available statewide incentives, as well as the difference between the current annual fuel baseline costs and the energy costs of the clean heating and cooling technology. The tool also calculates simple payback times and net installation costs. The savings are displayed as a dollar amount and as a percent. The estimated annual emissions savings show the difference between the current heating and cooling system's greenhouse

<sup>&</sup>lt;sup>74</sup> Both measures reflect 2021 Energize Connecticut requirements which are subject to change. The Companies reserve the right to make periodic updates as needed throughout the 2022-2024 term.

gas emissions and those associated with the applicable clean heating and cooling technology. The emissions savings are depicted as vehicle miles avoided. For the 2022-2024 term, the Companies will promote the link to the Connecticut Calculator to help educate customers on the economics of installing clean heating and cooling technologies.<sup>75</sup>

#### Marketing

Traditional marketing tactics will be enhanced by targeted marketing, made possible by the audience segmentation work done by the Companies, so that customers receive advertisements and materials most applicable to them. Cross promotion of the HES program to assist customers in making HVAC equipment purchasing decisions is incorporated, as applicable.

### 2.4 RESIDENTIAL NEW CONSTRUCTION

The Residential New Construction program is Connecticut's energy efficiency solution for residential single-family and multifamily new construction homes. The program is designed to implement and promote an enhanced level of energy efficiency in new construction throughout Connecticut, by increasing builder and consumer awareness and understanding of the benefits of energy-efficient building practices. The program's offerings drive the new construction market in Connecticut toward more energy-efficient and sustainable construction practices, causing homes to meet a standard that is above and beyond the required energy code in Connecticut.

#### 2.4.1 Objectives & Target Market

### **Objectives**

The Residential New Construction program has two primary objectives: (1) reduce energy consumption and peak demand in residential new construction and major renovation and addition projects, and (2) create a clear path toward more efficient homes, including zero energy and passive house homes. Secondary objectives for the program include the integration of energy efficiency with demand reduction strategies, increased awareness and technical education regarding energy-efficient practices, making homes "ready" to support clean energy technologies and electric vehicles, and preparing residential new construction market actors for the adoption of the IECC 2021.

The program combines educational outreach, technical trainings, and financial incentives to encourage builders and homeowners to integrate advanced energy-efficient building construction, techniques, and technologies into their new construction or major renovations and addition project. These efforts are intended to drive the new construction market in Connecticut toward more efficient construction practices, causing new homes to meet a standard that is above and beyond the required state energy code. The figure below summarizes the Companies' projected energy savings, program costs and benefits for the Residential New Construction program, including electric, natural gas, and propane values.

<sup>&</sup>lt;sup>75</sup> CESA Clean Heating & Cooling Calculator, available online at: <a href="https://www.cesa.org/projects/building-decarbonization-and-clean-heating-cooling/chc-calculator/connecticut/">https://www.cesa.org/projects/building-decarbonization-and-clean-heating-cooling/chc-calculator/connecticut/</a>.

Figure 2-K: 2022-2024 Residential New Construction Savings & Benefits (Combined Electric and Natural Gas)\*

Planned Results	Total
Number of Homes	5,899
Total Program Lifetime Savings, Electric (MWh)	203,962
Total Program Lifetime Savings, Natural Gas (ccf)	23,589,384
Total Program Lifetime Savings, Propane (Gal)	2,348,578
Total Program Lifetime Savings (MMBtu)	3,337,761
Lifetime CO <sub>2</sub> Emissions Reduced (tons)*	272,055
Total Program Lifetime Benefits (\$000)	\$75,880
Total Program Costs (\$000)	\$18,246

<sup>\*</sup>Please note that these are short tons.

### Target Market and Eligibility

The target market for the Residential New Construction program are residential single-family and multifamily property owners who are building a new home, making a significant building renovation or addition, or conducting a gut rehab project (i.e., down to the studs) where the residential building will receive electric and/or natural gas services from the Companies. Eligible multifamily developments include two and three-family town homes, apartments, condominiums, and high-rises for both the market rate and low-income markets. The program also targets the residential new construction community to educate, train, and engage market actors, including architects, builders, code officials, contractors, designers, developers, engineers, estimators, financing agencies, general contractors, municipal officials, raters, tradespeople, and verifiers.

While customers who heat their homes or water with a delivery fuel (e.g., oil, propane) are eligible, their home must receive electric service from one of the Electric Companies. The incentives for fossil fuel-heated homes are lower than those for electric or natural gas-heated homes. For single-family and low-rise multifamily projects, the building must have either an established residential electric or natural gas account with the Companies. Additionally, the property must be classified as a single-family or multifamily property (four stories or less) and must be built within the state of Connecticut. Buildings more than four stories may classify under the Multifamily Whole Building Performance Initiative (see Section 2.6).

### 2.4.2 Themes & Priorities

### Passive House

For the 2022-2024 term, the Companies will continue to provide enhanced incentives for builders who build multifamily buildings to Passive House design principles. In addition, they will continue to provide support to the Passive House movement by maintaining their existing strategic trade ally partnership with the CT Passive House Alliance, and to actively support technical trainings regarding Passive House design principles. The Companies will leverage their partnership with the CT Passive House Alliance, to deliver comprehensive Passive House trainings to the residential new construction community.

The objective of the training is to support workforce development and help transform the energy efficiency and building construction industries. The Passive House training stems from the principles instilled within Passive House Institute (PHI) and Passive House Institute US (PHIUS). This will continue to be offered through three separate channels, which include: (1) lunch and learns, (2) building science workshops, and (3) Passive House accreditations.

#### Code Compliance

As referenced in Section 2.1.4, the Companies will support code compliance in the upcoming term and will be proactive in their training and outreach in advance of the State's adoption of the IECC 2021 in October 2022. The Companies will support code compliance by providing: (1) stretch code development support and (2) compliance support for base and stretch code. If the Connecticut General Assembly approves stretch code legislation during the 2022-2024 term, the Companies will provide support for municipalities who choose to adopt a stretch code throughout the upcoming term. This support will come through education and training for municipal officials and staff to assist them in developing and implementing a stretch code for their town or city.

In the 2022-2024 term, the Companies will collaborate with architects, local builders, contractors, and building enforcement officials to increase the number of residential buildings complying with the local energy code. The Companies' efforts to support this increase will come through a code training series, as well as outreach and technical support, such as circuit riders, review support, and the development of a compliance documentation tool. The Companies will also promote new appliance standards as technologies with advanced levels of efficiency come to market. The Companies will promote and support the introduction of advanced power strips and induction cook tops through the ENERGY STAR Retail Products Platform (see Section 2.2).

### Equity and Affordable Housing

One-quarter (24 percent) of all US households have high energy burdens, and struggle to pay their energy bills and to sustain adequate heating and cooling in their home. <sup>76</sup> Low-income households experience higher energy burdens and their utility costs per square foot are often high due to poor maintenance and construction of rental buildings. For the 2022-2024 term, the Companies will look to increase the number of affordable housing projects that participate in the Residential New Construction program.

For multifamily buildings, the Companies will support equity and affordable housing through the Residential New Construction program's Whole Building Performance Initiative. The Whole Building Performance Initiative was designed by the Companies to address new construction multifamily projects of four stories or higher and to incentivize building owners who choose to invest in certified sustainable building practices, such as Leadership in Energy Efficient Design or ENERGY STAR Multifamily High Rise. The Companies will support high-efficiency affordable housing projects in the upcoming term through increased design guidance, outreach, and WBP incentives.

In addition to increased outreach and support for multifamily buildings, the Companies will also support single-family affordable housing projects to increase the efficiency of the building envelope, space conditioning, ventilation, lighting, water heating, and appliances. These energy savings directly impact the tenants who see better affordability with their lower energy bills.

ACEEE Report, *Understanding Energy Affordability: How Energy Efficiency Can Alleviate High Energy Burdens*, analyzing data from the US Census Bureau's *American Housing Survey*, available online at: <a href="https://www.aceee.org/sites/default/files/energy-affordability.pdf">https://www.aceee.org/sites/default/files/energy-affordability.pdf</a>.

In 2019, the Hartford Habitat for Humanity partnered with Eversource, the CT Green Bank, and other companies to construct the organization's first Zero Energy Home in South Hartford. The 1,200 square foot, three-bedroom home features a heat pump water heater, ENERGY STAR certified appliances, low-flow water fixtures, air tight construction, and solar photovoltaics. The home achieved a HERS index of -15 and is at least 40 to 50 percent more energy efficient than a typical new home. In October 2020, the Hartford Habitat for Humanity was selected as the Affordable Housing-Single-Family Detached category Grand Prize Winner in the DOE's 2020 Housing Innovation Award Competition. For the 2022-2024 term, the Companies will continue to work with Habitat for Humanity and other groups to develop and build affordable housing projects that are as energy efficient as possible.

### Decarbonization

The Companies' third priority for the 2022-2024 term is decarbonization. The Residential New Construction program will heavily promote sustainable building practices, such as Zero Energy Homes and Passive House, as well as low-carbon heating and cooling technologies. This outreach will be conducted through contractor education and training to ensure the residential new construction market is ready to meet the increased energy efficiency standards set forth in the IECC 2021. For the 2022-2024 term, the Companies will offer additional incentives to builders and developers who install all-electric heating equipment instead of propane, such as heat pumps and heat pump water heaters. In addition, the Companies will work to increase the number of new construction projects that meet make-ready requirements for demand reduction strategies, clean energy technologies, and electric vehicles. This ensures that new construction homes are built to meet the demands of energy efficiency and demand reduction technologies in both the short and long term.

# 2.4.3 Program Design

### Home Energy Rating System Pathway

The Residential New Construction program operates under a performance-based incentive structure. This incentive structure is based on the Home Energy Rating System (HERS) Index where a HERS rating assigns a numerical rating to a newly-constructed home's energy efficiency performance. Qualified HERS Raters perform on-site inspections and use REM/Rate or Ekotrope software to determine a home's HERS rating. This software uses a code home, or "Reference Home" as the baseline HERS index (usually has a score of 100) and compares it to the participating home to determine its score. The lower a HERS rating, the more efficient a home (e.g., a zero net energy would have a HERS Index of 0).

Every point on the scale less than 100 corresponds to a 1 percent improvement in energy efficiency. The HERS Index views a residential building's energy use holistically, focusing on how the building's systems (e.g., mechanical, cooling and heating, building envelope) compare relative to homes built to current building code. This requires all residential new construction market actors to treat projects comprehensively and to not only ensure that building systems are efficient, but that they also increase the overall energy performance of the home.

The HERS Index serves as the foundation of all single-family and low-rise multifamily building projects and will help the Companies determine incentives for the upcoming term. For the 2022-2024 term, the Companies will offer a three-tiered incentive structure (see figure below) based on the HERS Index to encourage whole energy home performance and will

<sup>&</sup>lt;sup>77</sup> In the United States, the Residential Energy Services Network (RESNET) is responsible for the creation and maintenance of the RESNET Mortgage Industry National Home Energy Rating Standards, as well as certification and quality assurance on RESNET Provider organizations.

incentivize builders to plan for demand reduction technologies, clean energy technologies, and electric vehicle-ready homes into high-performance new construction projects.

Tier	HERS Rating
Tier 1	51 to 60 HERS
Tier 2	41 to 50 HERS
Tier 3	40 HERS Index and lower

Figure 2-L: Residential New Construction HERS Index Incentives

The 2022-2024 incentive structure is designed to push the construction market toward greater efficiency and to prepare the construction market for IECC 2021. Once the new energy code is adopted in October 2022, the incentive structure may change as the "Reference Home" must meet the new baseline criteria. An advantage of the HERS-based incentive structure is that it allows a builder and/or homeowner to work directly with a RESNET-accredited HERS Rater to ensure that high-performance and sustainable building methods, equipment and materials are used throughout the construction process. In addition, the HERS Rater can also perform duct and building envelop testing to confirm the building's code compliance.

#### High-Performance Certifications and Incentives

For builders and homeowners who want to build to higher standards than the HERS Rating pathway, the Residential New Construction program offers five additional "bonus" tracks, including: Passive House, ENERGY STAR Homes, Leadership in Energy and Environmental Design (LEED) for Homes, National Green Building Standard™ (NGBS), and DOE Zero Energy Ready Home. For the 2022-2024 term, the Companies are investigating adding appliance savings to the bonus incentives.

- Passive House. Homes built to Passive House standards rely on passive solar features combined with energy
  efficiency measures to dramatically reduce space heating demands. A certified Passive House is a well-insulated
  and near airtight building primarily heated by passive solar and internal heat gains from the occupants and
  buildings uses, such as bathing, cooking, and electrical equipment. Passive Houses uses window orientation,
  shading, and passive ventilation to limited space cooling energy demand and maintain its efficiency in warmer
  weather.
- ENERGY STAR Homes (Version 3.1). Similar to other consumer products, new construction home projects can earn the ENERGY STAR for meeting strict energy efficiency requirements. An ENERGY STAR Home must have a complete package of building science-based energy efficiency systems and measures installed that are third party verified by a Home Energy Rater. These measures include high-efficiency HVAC and DHW equipment, high-performance windows and doors, quality installed high-performance insulation, comprehensive air sealing, and energy-efficient lighting and controls.
- **LEED for Homes.** LEED for Homes is a voluntary rating system that promotes the design and construction of highperformance green homes. A LEED-certified home reduces energy and water consumption, lowers utility bills, and provides clean indoor air for homeowners.

- National Green Building Standard. NGBS Green certification provides independent, third-party verification that a
  home is designed and built to achieve high performance in six key areas: site design, resource efficiency, water
  efficiency, energy efficiency, indoor environmental quality, and building operation and maintenance.
- **DOE Zero Energy Ready Home.** This program builds upon the comprehensive building science ENERGY STAR for Homes Version 3, as well as Building American innovations and best practices. A typical DOE Zero Energy Ready Homes receives a low- to mid-50s HERS Rating and is at least 40 to 50 percent more energy efficient than a typical home.

#### Major Renovations & Additions

For the 2019-2021 term, the Companies established an Additions, Renovations & Retrofit pilot for the Residential New Construction program. To participate in the pilot, the Companies required that over 50 percent of the home's square footage had to be modified to qualify. The pilot's purpose was to create an energy efficiency offering that served customers who were partially renovating their home or building an addition to their existing single-family home (1-to-4 units). In launching this pilot, the Companies quickly learned that deep energy retrofits cannot be treated with a formulaic one-size-fits-all approach and that the HES program should manage small-scale renovation projects of less than 500 square feet. In July 2021, a third-party evaluation identified the potential for energy savings in the major renovations and additions project market in Connecticut.<sup>78</sup>

For the upcoming term, the Companies will offer a Major Renovations & Additions pathway as part of the Residential New Construction program. The Companies will offer this pathway for two types of home improvement projects:

- **Renovations.** Defined as a major home remodeling or improvement project that does not add to the conditioned square footage of a home.
- Additions. Defined as a home remodeling or improvement project that expands the conditioned square footage
  of a home. This includes projects where an exterior wall is taken down to expand a room, finishing and
  conditioning a previously unfinished basement or bonus room, or adding a new story to a home.

The Companies will require that major renovation and addition projects must be greater than five hundred square feet to qualify and that participants must use an accredited RESNET-certified HERS Rater approved by the Companies for work in Connecticut. During the 2022-2024 term, the Companies will integrate small-scale renovation and addition projects (less than 500 sq. ft.) into the HES program. In addition, the Companies will develop customer education guides regarding types of minor renovations and additions projects. These guides will be made available online.

## Multifamily Whole Building Performance Initiative

The Multifamily Whole Building Performance Initiative pathway was designed by the Companies to address new construction projects in multifamily buildings with more than 20 percent commercial or common space, and to encourage building owners to invest in certified sustainable building practices, such as LEED or ENERGY STAR Multifamily High Rise, and non-certified high-performance buildings that consume less energy than code-compliant buildings. These buildings are typically comprised of energy efficiency measures, such as energy-efficient controls and systems and high-

NMR Group, Inc., *Draft R1959 Single-Family Renovation and Addition Potential Analysis*, Jul. 9, 2021. The draft study notes that seven percent of single-family homes undergo a major renovation or addition each year.

performance materials, which reduce operations and maintenance costs over a building's lifecycle. The Companies offer six types of incentives to encourage participation in the WBP Initiative:

- Bonus for LEED or ENERGY STAR Multifamily High Rise-certified buildings. The Whole Building Performance
  pathway awards a bonus incentive for buildings that obtain Silver, Gold, or Platinum LEED, Passive House, Green
  Globes, or ENERGY STAR Multifamily High-Rise certification of the building.
- Whole Building Performance installation incentives. A property owner will receive an incentive if they invest in a high-performance building that complies with the Initiative's energy modeling guidelines.
- **Building energy simulation subsidies.** A design firm (i.e., Simulator) can receive engineering subsidies for submitting Phase 1 (pre-construction) and Phase 2 (post-construction) building energy simulation reports.
- Path to Net Zero Ready incentive. An incentive is given for Whole Building Performance Initiative projects that
  achieve Net Zero Ready certification. These projects must achieve savings of 35 percent or greater than ASHRAE
  90.1-2013 prior to renewable technologies.
- **Commissioning incentive.** An incentive will be awarded for all projects which meet the requirements of the LEED enhanced commissioning credit (available to projects pursuing or not pursuing LEED certification).
- **Design incentives for as-built source energy reductions.** The design firm can receive an incentive if the as-built performance of the building design (detailed in the Phase 2 simulation report) shows a reduction of 25 percent or greater from baseline in source energy savings.

#### CT Zero Net Energy Challenge

For over a decade, the Companies have held the annual Connecticut Zero Net Energy Challenge, a design-and-build competition. The objective of the Zero Net Energy Challenge is to generate awareness for and highlight high-performance zero net energy and "near zero energy" homes built in the state. Challenge participants demonstrate to the building community that zero net energy home construction is achievable and display leading-edge technologies, building practices, and building designs. All participating homes are judged based on the project's cost effectiveness, building envelope performance, and RESNET rating standards, which are used to determine each home's HERS index, both with and without renewable energy.

Common measures include insulated concrete forms, structural insulated panels, ground source heat pumps, and photovoltaic systems or solar energy systems. Each home receives program incentives for building with advanced technologies. Winning homes may be awarded prizes up to \$5,000 depending on the building's final HERS rating, affordability of construction, and net operating costs.

The Companies will continue to hold an annual ZEC and recognize top performers in the 2022-2024 term. The Zero Net Energy Challenge is a proven valuable marketing and education channel for the Companies to highlight the affordability and benefits realized from zero energy home construction. Approximately ninety homes have been built throughout the state that have participated in the challenge since its launch in 2010.

Previous projects provide content for promoting the Residential New Construction offerings. Video clips and images are used in public relations initiatives, in social media efforts, and as featured web content.

# 2.5 HOME ENERGY SOLUTIONS AND HOME ENERGY SOLUTIONS-INCOME ELIGIBLE (SINGLE-FAMILY HOMES)

The core of the Residential Portfolio is its home performance services programs—Home Energy Solutions (HES) and Home Energy Solutions-Income Eligible (HES-Income Eligible) programs. The primary objectives of these direct-install programs are to optimize the home energy performance of existing single-family residential dwellings (1 to 4 units), help customers save energy and lower their energy bills, and to make homes more comfortable, healthier, and affordable.

Home Performance with ENERGY STAR is a national program administered by the DOE in partnership with the US Environmental Protection Agency. This program includes a comprehensive evaluation of an existing home based on building science principles and home upgrades installed by trained and qualified networks of contractors. The innovative HES and HES-Income Eligible programs were designed around the same principles as Home Performance with ENERGY STAR and serve as the flagship programs for the Residential Portfolio. The Companies endeavor to modify these offerings to reach more homeowners and tenants and help them optimize their home's energy performance.

During the 2022-2024 term, the Companies will continue to enhance the HES and HES-Income Eligible programs to drive greater energy savings, to help more customers (limited income and moderate income) to reduce their energy burdens, and to reduce the weatherization health and safety barriers that prevent the installation of all energy efficiency measures. The success of these programs is vital to the state meeting its legislative goal of weatherizing 80 percent of Connecticut homes by 2030. The Companies remain committed to providing support for this ambitious goal and have developed outreach efforts, program modifications, and new pathways to increase participation by customers, especially incomeeligible customers.

## 2.5.1 Themes & Priorities

#### **Innovation**

When the COVID-19 pandemic hit in 2020, the Companies had to temporarily suspend in-home and on-site energy efficiency activities to comply with health and safety restrictions. During the temporary halt to in-home services, the Companies had to innovate with new efficiency solutions that could produce energy savings for customers and still provide a steady pipeline of work for Connecticut's robust home performance services workforce.

One of the resulting innovations was the Virtual Pre-Assessment, a remote assessment of a home's energy performance by a qualified HES or HES-Income Eligible technician. Virtual Pre-Assessments are conducted via a telephone or video conferencing tool, with the customer moving around the home and taking measurements. The technician records and documents their findings in the same data collection instrument typically used for in-home visits. Though the virtual assessment cannot provide the full diagnostics, testing, and direct install of energy efficiency upgrades normally completed through the HES and HES-Income Eligible programs, the Virtual Pre-Assessment does prove useful as an analytic tool to gauge the needs of a home, assess the staffing and material resources needed to conduct an in-home assessment, and to screen for weatherization health and safety barriers. The Companies will continue to offer Virtual Pre-Assessments during the 2022-2024 term and will also explore if there are new opportunities for these virtual assessments to generate energy savings with installed measures.

The Companies are also collaborating with landlords to increase participation in the HES and HES-Income Eligible programs. In June 2021, the Companies designed and held two roundtables to hear from landlords on how to overcome

obstacles to having their tenants participate in the HES and HES-Income Eligible programs, as well as the Multifamily Initiative (see Section 2.6). In 2022, the Companies plan to conduct a series of landlord roundtable sessions to gain additional insight and further explore barriers to participation.

For the 2022-2024 term, the Companies plan to:

- 1. Host a series of additional landlord roundtables over the next year (through the end of 2022) in partnership with local organizations in order to increase participation and diversity in the roundtables:
  - **a.** Create partnerships with neighborhood associations, landlord groups, and/or civic organizations to reach more landlords and tenants.
  - **b.** Partner with ethnic-based, community-based organizations to host multilingual roundtables to reach landlords who use language(s) other than English.
- 2. The Companies will explore more opportunities to communicate peer-to-peer with landlords to make them aware of energy efficiency programs and the benefits of participation. The Companies plan to create some landlord testimonials regarding their experience participating in the programs so that their experience can be shared with other landlords.

In the 2019-2021 term, the Companies established a process for residential customers who have crumbling foundations. Customers who have had their foundations evaluated and certified to be deemed "crumbling foundations" will work with the Companies through a market-rate (HES) or income eligible (HES-Income Eligible) customer process. Customer education regarding the importance of weatherization and energy-efficient technologies is imperative at the beginning of a foundation replacement project. Therefore, the Companies designed a specialized brochure to help affected homeowners understand what energy efficiency programs are available to them. The process design allows HES and HES-Income Eligible vendors to work within a timeline that suits the phase of foundation replacement that the home is in, as well as allow follow-up after the foundation has been replaced, if necessary. Additional incentives are provided to customers who make insulation upgrades and install heat pump technologies.

Additionally, the Companies are developing a residential energy efficiency concierge service for customers participating in the HES program for the 2022-2024 term. <sup>79</sup> This service will connect customers with email communications and step-by-step videos regarding the add-on measures that were recommended during their in-home HES assessment, such as insulation, heat pumps, efficient appliances, and clean energy and electrification technologies (e.g., solar photovoltaics and electric vehicle chargers). The service will educate customers regarding eligible add-on measures, rebate requirements, how to complete rebate forms/applications, and what to attach to the rebate forms/applications to verify (prove) that the measure was installed. The purpose of the concierge service is to give a homeowner a more comprehensive approach to building performance and to encourage them to take the next steps in improving their home's energy performance. The Companies will track participant engagement and report metrics to the EEB.

#### <u>Decarbonization</u>

The HES and HES-Income Eligible programs are integral in the Companies' objective of protecting the environment and reducing greenhouse gas emissions through energy efficiency. For the 2022-2024 term, the Companies plan to promote

The creation of a concierge service offering is in compliance with Conditional Item No. 15 of DEEP's approval of the 2021 Plan Update to the 2019-2021 Plan. See Appendix C-4.

more weatherization projects in an effort to decrease the amount of carbon emissions from the residential building sector, as single-family and multifamily buildings are responsible for 55 percent of energy consumption in the United States. The Companies will focus their decarbonization efforts by pushing for increased air sealing, duct sealing, and insulation projects that prevent heating and cooling losses in conditioned spaces and look for ways to market them as bundles to encourage comprehensiveness in energy-saving projects. In addition, the Companies will also promote the installation of high-efficiency HVAC equipment (including heat pumps), low-carbon water heating measures, such as heat pump water heaters, to reduce the greenhouse gas emissions resulting from heating water for the home. The HES program will also promote and incentivize the sale and installation of ENERGY STAR certified appliances and electronics, as well as advanced power strips, to reduce electricity consumption.

In totality, the decreased energy consumption will result in significant reductions in carbon emissions into the environment further meeting one of the three original priorities of the Energy Efficiency Fund. As seen during the pandemic, the Companies can use incentive amounts and requirements to push the market toward greater participation, deeper energy savings, and greenhouse gas emissions reductions. The Companies will maintain their flexible incentive models for the HES and HES-Income Eligible programs to ensure that they can quickly comply with changing policies, codes and standards, and customer needs.

#### Workforce Development

The Companies require HES and HES-Income Eligible vendor field technicians to have technical training regarding building science and home performance services and understanding of high-efficiency HVAC and water heating equipment. During the 2022-2024 term, the Companies will continue to collaborate with home performance trade allies to facilitate training opportunities for HES vendors, such as Building Performance Institute certifications (e.g., Building Analyst, Home Energy Professional, Healthy Homes Evaluator, Infiltration and Duct Leakage), DOE Home Energy Scorecard Qualified Assessor, sales training, weatherization barrier training, and Advanced Duct Sealing techniques. The Companies are investigating additional training opportunities to deliver hands-on training to field crews and soft-skill training to help new employees understand the overall goals. Education and outreach to trade allies bring more awareness regarding the value of the HES and HES-Income Eligible programs and helps to develop opportunities for more involvement from previously nonengaged contractors and market actors.

#### Department of Energy Home Energy Score

A key objective for the Companies in the 2019-2021 term was to have home performance services perceived as a high-value product to Connecticut's market-rate residential customers. This perception would be shaped by the numerous benefits of the HES program, including the significant energy and water savings, increased health and comfort, and improved indoor air quality and home safety. As part of their education and outreach efforts to customers, the Companies also include the DOE Home Energy Score<sup>TM</sup> (Initial Score) as an optional service to HES participants.

The Initial Score can be interpreted as a "miles per gallon" rating on the energy performance of a home and is on scale of 1-10 (10 being the most efficient). The Score assesses the energy efficiency of a home based on its foundation, roof, walls, insulation, windows, and HVAC equipment and makes recommendations for cost-effective improvements. For the 2019-2021 term, HES participants can opt-in to receive a Score from their technician at the time they receive energy efficiency services. The Score report provides a list of recommendations and a "Score with Improvements" is listed so the customer can determine how their home will score after the recommendations are completed.

Implementation of the Score has changed since its initial deployment in Connecticut (2013). Originally, the Companies did not anticipate sharing the Score data with outside entities. In 2018, in an effort to transform the market, a customer who chooses to opt-in and receive a Score, could agree to release the data to the Multiple Listing Services (MLS) for future publication and use in real estate listings. The Score was designed to move the real estate marketplace (homeowners) toward valuing homes that are energy efficient and that received HES services. During the 2019-2021 term, the Companies, DEEP, and contractors observed that there seemed to be barriers to increased participation and opting in to a Score in the program. Additionally, the Score was not as valued by customers and the real estate market as anticipated. During the 2020 and 2021 program years, the Companies worked with the Home Energy Score Working Group (Working Group)—made up of DEEP, HES contractors, and other stakeholders—to identify and correct barriers to customers opting in to receive the Score and to make recommendations on how to improve the process.

In 2021, the Companies changed the customer release opt-in language to align with a more practical understanding of actual market activities. The Score data is not shared with the MLS unless a customer agrees (opts-in) in writing. This change has already resulted in increased adoption of the Score helping the customer understand how their home's energy usage compares with comparable homes across the United States. HES vendors are required to provide the Score and meet a minimum percentage of customers who opt in.

The Companies are also designing a new process to deploy in the 2022-2024 term. This is a free "Final Score" to customers who opted in to an Initial Score and completed at least one of their recommended energy efficiency upgrades. Customers will be able to request this free Final Score within 24 months of their original assessment, either as a virtual Final Score conducted by their original HES vendor or as an in-person Final Score which will be completed with a post-inspection. The Companies are working with DEEP to transform the real estate industry to understand and use green fields in the MLS listing to provide information on energy efficiency and energy usage.

In May 2021, the DOE Home Energy Score Team presented Energize Connecticut with the 2020 Home Energy Score Partner Innovation Award. This award recognized the Connecticut Home Energy Score Working Group for championing an innovative, inclusive process for improving program impact and making efforts to reach rental households with the Home Energy Score. In the upcoming term, the Companies will continue to implement the Working Group's recommendations to increase customer and realtor buy-in to the Score. In addition, the Companies will introduce the Score to the HES-Income Eligible program.

#### Census Tract Tool

In their efforts to streamline access and qualification efforts for low-income customers, the Companies are working to deploy a Census Tract Tool to allow communities and vendors to select areas throughout the state that are deemed to be income eligible through US census tract data. There will be two available paths for communities and vendors to choose for marketing and an additional path to verify customers are eligible for the HES-Income Eligible program.

The communities and vendors will be able to sign into the database and select a specific number of customers. Once the customers are selected, they will be removed from the database for a predetermined number of days. This will allow time for the communities and/or vendors to market to the selected customers. Vendors will have a specific time period to create HES-Income Eligible projects in the Companies' tracking systems and then the selected customer information (those without projects) will be made available through the Census Tract Tool to other vendors. The tool will allow vendors to print out single customer information (e.g., name, address, proof that they are on the census tract) to attached to a completed HES-Income Eligible application as "proof of income."

#### Weatherization Barriers Program

As noted in Section 2.1, in the 2022-2024 term, the Companies will focus on addressing weatherization barriers that preclude energy efficiency services from being performed in residential buildings. The non-delivery of services is typically due to health and safety concerns such as presumed asbestos containing material, mold, knob and tube wiring, venting and combustion safety, gas leaks, and carbon monoxide. Approximately 23 percent of homes that have participated in the HES-Income Eligible program are considered barriered. This is close to a quarter of income-eligible households that cannot receive valuable energy efficiency measures due to weatherization health and safety barriers.

In order to address energy affordability in the upcoming term, the Companies will assist DEEP and other industry partners with weatherization health and safety barrier remediation efforts in Connecticut. A stable funding mechanism will allow remediation contractors to address these barriers, especially in homes eligible for the HES-Income Eligible program. These barriers limit the Companies' abilities to weatherize as many homes as possible and to deliver energy savings equitably across the state. Currently, DEEP is researching best practices and available programs, as well as collaborating with the Companies, stakeholders, Community Action Agencies, and HES-Income Eligible vendors to get their feedback. Based on their benchmarking and feedback sessions, DEEP will develop a Weatherization Barrier Remediation program that leverages state and national program financing, remediation services, and funding to address weatherization health and safety barriers. The Companies will participate in DEEP's Request for Proposal process and plan to integrate and coordinate with the agency's selected vendor. The RFP release and selection award should be completed in the 2021 program year and the Companies are planning for the program to start in 2022.

Households who have not participated in energy efficiency programs due to weatherization barriers in the past can now be served through the HES and HES-Income Eligible programs, increasing participation rates across the state. The HES and HES-Income Eligible programs provide valuable weatherization and energy efficiency measures that can significantly decrease energy bills; thereby reducing customers' energy burdens. The implementation of the Weatherization Barriers program, in coordination with the HES and HES-Income Eligible programs, will increase the number of households weatherized in the state, helping to decrease demands on the grid and reducing greenhouse gas emissions.

## 2.5.2 Home Energy Solutions Program

The HES program provides direct-install energy efficiency services for market-rate customers. The primary objective of the HES program is to optimize the home energy performance of existing single-family residential dwellings (1 to 4 units) to help market-rate customers save energy, lower their energy bills, and to make their homes more affordable, healthy, and comfortable. These benefits are achieved through the implementation of home performance services, including air sealing, duct sealing, HVAC and water heating equipment testing, and qualifying upgrades that include insulation, windows, and energy-efficient HVAC and water heating equipment. The program focuses on not only ensuring the efficiency of an individual building's systems but addressing how a building's systems interact together in an efficient manner to optimize home energy performance.

The target market for the HES program are single-family residential homes located in the state and served by the Electric and/or Natural Gas Companies. The figure below summarizes the Companies' projected energy savings, program costs and benefits for the HES program, including electric, natural gas, oil, and propane values.

Figure 2-M: 2022-2024 HES Savings & Benefits (Combined Electric and Natural Gas)\*

Planned Results	Total
Number of Homes Served	73,088
Total Program Lifetime Savings, Electric (MWh)	270,339
Total Program Lifetime Savings, Natural Gas (ccf)	28,794,958
Total Program Lifetime Savings, Oil (Gal)	41,364,134
Total Program Lifetime Savings, Propane (Gal)	4,025,005
Total Program Lifetime Savings (MMBtu)	9,989,794
Lifetime CO <sub>2</sub> Emissions Reduced (tons)	923,019
Total Program Lifetime Benefits (\$000)	\$307,087
Total Program Costs (\$000)	\$98,946

<sup>\*</sup>Please note that these are short tons.

## Program Overview

The HES program has long served as the flagship program of the Companies' Residential Portfolio. Over the years, the program has morphed from a home energy assessment offering to a comprehensive direct-install energy efficiency services program. For the 2022-2024 term, HES will continue to evolve as the Companies assess and integrate new pathways, offerings, and measures into the program.

#### Program Delivery Model

Managed program approach and pay-for-performance pilot

Throughout the 2022-2024 term, the Companies plan to continue delivering the HES program's high-quality home performance and direct install services to customers through a managed program approach. This is the same management design used by the Companies throughout the 2016-2018 and 2019-2021 terms. The Companies manage HES Vendors to ensure that the program is delivered throughout the state for a consistent customer experience. HES Vendors must meet stringent qualifications and insurance requirements, maintain home performance and weatherization certifications and processional licenses, and achieve energy savings metrics (MMBtus/home).

The Companies also ensure excellence in program delivery through an established and robust quality assurance process. The Companies also offer specialized trainings for HES Vendors, such as DOE Home Energy Score, Advanced Duct Sealing, and sales trainings. The Companies remain focused on meeting their performance metrics of delivering deeper savings (MMBtus/home) for HES and HES-Income Eligible program participants.

In the upcoming term, the Companies will launch a pay-for-performance pilot for the HES program. Though pay for performance is common for C&I energy efficiency programs, a similar approach is not currently used in the Residential Portfolio. As part of this pilot, delivery will include analyzing energy pre- and post-services energy usage data to determine realized savings from weatherization measures. The goal for the pay-for-performance pilot will be to determine if there are persistent energy savings from comprehensive, multi-measure energy efficiency projects and behavioral changes. Historically, replacing incandescent lighting with LEDs has been a staple energy efficiency direct-

install measure; however, it will no longer be provided in the HES program for the 2022-2024 term. HES vendors will be allowed to provide LED replacements while on a customer's premises using set pricing.

#### Program co-pay

For the 2022-2024 term, the Companies plan to offer HES program services at a \$50 co-payment. If necessary, the Companies will present any alternative co-payment recommendation to the EEB for their approval and submit the approved request to DEEP to establish a new co-pay amount. This request could be based on a variety of factors, including budget levels, market demand for the HES program, and methodology changes for benefit-cost testing. As noted in Section 2.5.2, the Companies will offer a Census Tract Tool during the 2022-2024 term. For select census tracts, such as distressed or environmental justice communities, residents will be eligible to receive free weatherization services through the HES-Income Eligible program.

#### Direct-install services

Throughout the 2022-2024 term, the HES program will deliver high-quality, direct-install services to single-family homes across the state. To ensure continuity in program delivery statewide, the Companies will require HES vendors to: (1) deliver HES direct-install services at the time of a home energy performance assessment, (2) meet a minimum MMBtu/home threshold to be considered a "HES vendor in good standing," and (3) ending the visit with a Kitchen Table Wrap-Up where technicians make qualified recommendations for high-efficiency measures and provide additional customer education. The qualified recommendations can include insulation, windows, high-efficiency HVAC equipment (including heat pumps), heat pump water heaters, appliance rebates, and smart thermostats. Additional customer education and savings opportunities include active demand response programs, appliance recycling, DOE Home Energy Score, and financing information.

The Companies adjust the MMBtu threshold on an annual basis to reflect prior year performance and program changes planned for any given year throughout the upcoming term. The HES program is designed as a custom direct-install services program allowing for each home to be treated in an individual manner to best service the customer's and residential dwelling's energy needs. As such the direct-install services listed below may differ between customers.

- Safety and health inspection. This is a visual assessment of the home by HES vendors to identify health and safety concerns, areas that need direct-install services, and the efficiencies and performance of appliances and HVAC and water heating equipment. HES vendors perform a variety of tests to ensure that there are no health or safety barriers, such as gas leaks or mold, within the home that will prevent them from performing weatherization services. This includes testing to ensure that natural gas or propane lines are properly sealed, that the home is properly ventilated, and that combustion systems are venting properly. The purpose of these tests is two-fold: (1) to ensure that the home is safe for direct install services, and (2) to ensure that the home is healthy and safe for the dwelling's occupants.
- **Blower door guided air sealing.** The blower door test is a diagnostic tool that is used by HES vendors to measure air leakage/infiltration in a home. The blower door test produces a partial vacuum in a home that allows HES vendors to measure the number of cubic feet per minute (CFM) of air leakage. In instances where a weatherization health and safety barrier exists, a blower door test may not be used. This diagnostic tool allows HES vendors to identify the magnitude and where air leaks are occurring in a home and the primary areas where heating and cooling losses are occurring. The vendors then provide air sealing services including caulking, spray foam, and weatherization strips. Once the air sealing services have occurred, a post-blower door test reading is

performed to measure the home's air leakage again. The energy reductions are measured by the difference in CFM measurements between the initial and post-blower door tests.

- **Duct sealing.** If a home has a ducted central heating or cooling system, duct leakage testing can measure the air leakage throughout a home's ductwork system. If the duct leakage test indicates air leakage, then the HES vendor will seal the visible ductwork leaks on-site. In certain circumstances (e.g., inaccessible duct work), Advanced Duct Sealing may be provided during a separate customer visit. Before and after measurements are recorded by HES vendors to determine duct leakage reductions.
- Water-saving measures. HES vendors provide direct-install services of water-saving measures including faucet aerators, low-flow showerheads, and hot water pipe insulation. These measures save water and save energy by reducing the amount of energy needed to heat the home's water.
- **DOE Home Energy Score.** As described in Section 2.5.1, HES participants can opt-in to receive a Score from their HES technician at the time they receive their direct-install energy efficiency services. The Score gives an energy performance rating on a scale of 1-10 of a home. The Score is an asset-based evaluation and assesses the energy efficiency of a home based on its foundation, HVAC equipment, insulation, roof, walls, and windows and makes recommendations for cost-effective improvements.
- Active demand response. In the Kitchen Table Wrap Up, HES technicians will educate participants, who have
  connected smart thermostats and Wi-Fi enabled heat pump water heaters about the benefits and how to
  participate the Active Demand Response programs.

#### Add-on Measures

To drive greater energy savings, the Companies offer incentives and financing opportunities to encourage customers to pursue additional or add-on energy efficiency measures beyond those installed during the initial HES visit. These add-on measures include appliances, connected smart thermostats, insulation, HVAC and water heating equipment, and windows. At the time of the Kitchen Table Wrap-Up, the HES vendor reviews the add-on measure incentives that the customer is eligible for and provides applicable rebate forms. To make the Kitchen Table Wrap-Up more effective, the Companies will also offer soft skills and sales trainings during the 2022-2024 term. This will empower technicians to upsell energy efficiency upgrades to customers.

- HVAC equipment and systems. At the time of the direct-install services, the HES vendor will evaluate the home's heating system to ensure that it is safely operating and running efficiently. The customer is notified at the Kitchen Table Wrap-Up regarding any incentives, rebates, and financing available to purchase a high-efficiency HVAC system. In addition, any heat pump and central A/C systems are also evaluated at the time of the service. All HES vendors are highly skilled and trained regarding how to educate customers about high-efficiency HVAC equipment, available incentives, and the importance of hiring licensed quality contractors to ensure that any new systems are properly sized and installed, and function at the most efficient levels possible. The HES program offers an air source heat pump rebate for electrically-heated homes (electric resistance).
- Water heating equipment. During the direct-install assessment of the home, the HES vendor will evaluate all the
  mechanical equipment, including water heating units, in a home to ensure they are operating safely and
  efficiently. Based on this evaluation, the HES vendor can determine if energy-efficient upgrades are needed for
  DHW equipment and provide the customer with a rebate (during the Kitchen Table Wrap-Up) to purchase a highefficient replacement unit.

- Connected smart thermostats. These connected smart thermostats are devices that when connected to a
  home's heating and cooling system, can remotely adjust the temperature setting or even turn the system on or
  off. During the Kitchen Table Wrap-Up, a HES vendor will provide a written recommendation to the customer
  that they are a suitable candidate for a connected smart thermostat and should enroll the device in an Active
  Demand Response offering.
- Insulation. During the direct-install assessment, HES vendors evaluate the insulation levels in the attic, walls, and basement ceiling to determine if there are energy-saving opportunities. Incentives are provided to customers at the Kitchen Table Wrap-Up to encourage them to install high-performance insulation in critically-needed areas of the home, as well as insulated attic hatch and stairwell covers. The insulation rebate that is provided to customers has historically been provided as an open market rebate where the customer could hire any insulation contractor to complete the insulation installation. In the 2022-2024 term, the Companies will move to a hybrid approach for the rebate that will ensure best practice and program-specific guidelines for the installations. The Companies will use a tired incentive approach where the highest tier will only be available to those insulation contractors who have gone through specific Company-sponsored training (i.e., insulation boot camp).
- Windows. Windows allow heat gain and heat loss in a home. During the direct-install assessment, HES vendors evaluate the efficiency of home's windows and will perform caulking and weatherstripping on site. The HES vendors can provide window rebates to customers (at the Kitchen Table Wrap-Up) and will encourage them to hire a professional contractor to replace their qualifying windows with ENERGY STAR qualified windows with low U-Factors. The Companies offer a rebate with HES services for a single-pane window replacement with a double-pane window with qualifying U-Factors. The Companies also offer a standalone rebate for single-pane or double-pane window replacement with triple-pane window with qualifying U-Factors.
- Appliance rebates. During the direct-install assessment, the HES vendor evaluates the efficient of common
  household appliances to determine if there are energy efficiency opportunities. Incentives are provided to
  customers at the Kitchen Table Wrap-Up to encourage the replacement of inefficient units with ENERGY STAR
  qualified appliances, including clothes washers, dehumidifiers, freezers, and refrigerators.
- **Residential lighting fixture (Eversource only).** This rebate is available to replace and upgrade interior light fixtures with qualifying LED fixtures.

## 2.5.4 Home Energy Solutions-Income Eligible Program

## Target Market

The HES-Income Eligible program targets low-income residential customers who live in single-family buildings (1 to 4 units) across Connecticut. Customers who qualify for the HES-Income Eligible program must meet at least one of the following criteria: (1) have income that is at or below 60 percent of the State Median Income, (2) customer must not have participated in HES or HES-Income Eligible in the past 36 months, and/or (3) customer must live in a single-family dwellings or facility that provides beneficial services to residents, including but not limited to: disabled veterans groups, group homes, halfway homes, and non-profit agencies who offer housing and emergency shelter to disadvantaged residents.

In the 2019–2021 term, the Companies worked to streamline the HES-Income Eligible application process to make it easier to apply and qualify for services. Customers can qualify if the meet one of the following criteria:

- Participate in utility-offered forgiveness programs.
- Participate in electronic benefits transfer (e.g., Supplemental Nutritional Assistance Program), energy assistance, or have a Section 8 Housing Choice voucher.
- Have income that is at or below 60 percent of the State Median Income.
- In the case of a multi-unit building (2 to 4 units), if 50 percent (2 out of 4 units) or 66 percent (2 out 3 units) of the tenants qualify for the HES-Income Eligible program, then the remaining tenants can also qualify by completing an application.

The HES-Income Eligible program is designed to decrease the energy burden of income-eligible customers living in single-family homes by providing comprehensive home performance projects through an initial direct-install services assessment that mirrors the HES program's direct-install services and additional installation of qualifying energy efficiency upgrades. The direct-install assessment measures include air sealing, duct sealing, HVAC and water heating equipment testing and repair. The energy efficiency add-on measures include insulation, windows, appliances, heating equipment (including heat pumps), water heating equipment, and smart thermostats.

The following figure summarizes the Companies' projected energy savings, program costs and benefits for the HES-Income Eligible program, including electric, natural gas, oil, and propane values.

Figure 2-N: 2022-2024 HES-Income Eligible Savings & Benefits (Combined Electric and Natural Gas)\*

Planned Results	Total
Number of Homes Served	51,949
Total Program Lifetime Savings, Electric (MWh)	111,651
Total Program Lifetime Savings, Natural Gas (ccf)	35,665,790
Total Program Lifetime Savings, Oil (Gal)	16,874,254
Total Program Lifetime Savings, Propane (Gal)	1,596,753
Total Program Lifetime Savings (MMBtu)	6,537,083
Lifetime CO <sub>2</sub> Emissions Reduced (tons)*	551,419
Total Program Lifetime Benefits (\$000)	\$222,115
Total Program Costs (\$000)	\$93,235

<sup>\*</sup>Please note that these are short tons.

## Customer Costs

While the HES-Income Eligible program is designed to have a similar customer experience to the HES program, the HES-Income Eligible program's services are offered without a customer contribution for the assessment. This includes the direct-install measures and little to no contribution from the customer for qualifying add-on measures. The customer contribution is determined by reviewing the savings that will be achieved for the measures (total add-on project) that may produce no contribution or a nominal contribution off the customer or landlord.

#### **Priorities**

For the 2022-2024 term, the Companies have developed several priorities for the HES-Income Eligible program. They include:

- Increase the number of homes that have insulation installed.
- Integrate the DOE Home Energy Score into the program's offerings.
- Deliver comprehensive home performance projects to income-eligible customers, with the same add-on measures (referenced in Section 2.5.3) at little or no cost (contribution). During the 2019-2021 term, HES-Income Eligible vendors were pushed to deliver more comprehensive projects and this will continue in the upcoming term.

#### Program Overview

The HES-Income Eligible program delivers direct-install services to customers through a Qualified Vendor-managed program approach. HES-Income Eligible "Qualified Vendors" are selected through a competitive bidding process managed by the Companies. This managed approach ensures the delivery of the same high-quality, innovative and cost-effective home performance services throughout the state. The Companies also ensure excellence in program delivery through an established and robust quality assurance process.

#### Managed Program Approach and Measures

During the 2022-2024 term, the HES-Income Eligible program will continue to deliver high-quality direct install services to single-family homes statewide. To ensure continuity in program delivery statewide, the Companies require HES-Income Eligible vendors to: (1) deliver HES-Income Eligible direct-install services at the time of a home performance assessment, (2) meet a minimum MMBtu/home threshold to be considered a "HES-Income Eligible vendor in good standing," and (3) end the visit with a Kitchen Table Wrap-Up where technicians make all qualified recommendations for high-efficiency measures and provide additional customer education.

The qualified recommendations can include insulation, windows, high-efficiency HVAC including heat pumps, heat pump water heaters, appliance rebates, and smart thermostats. Additional customer education and savings opportunities include advanced demand response options, appliance recycling, DOE Home Energy Score and financing information, when applicable. The Companies adjust the MMBtu threshold on an annual basis to reflect prior year performance and program changes planned for any given year throughout the upcoming term. The HES-Income Eligible program is designed as a custom direct-install services program allowing for each home to be treated in an individual manner to best service the customer's and residential dwelling's energy needs. As such the direct-install services listed below may differ between customers.

• Safety and health inspection. This is a visual assessment of the home by HES-Income Eligible vendors to identify health and safety concerns, areas that need direct-install services, and the efficiencies and performance of appliances and HVAC and water heating equipment. HES vendors perform a variety of tests to ensure that there are no health or safety barriers, such as gas leaks or mold, within the home that will prevent them from performing weatherization services. This includes testing to ensure that natural gas or propane lines are properly sealed, that the home is properly ventilated, and that combustion systems are venting properly. The HES-Income Eligible program also assists customers in remediating some health and safety issues that are barriers to energy

efficiency, such as performing a clean, tune & test of the home's HVAC system, making furnace repairs, fixing natural gas and propane leaks, and performing water heating equipment tune-ups.

- Blower door guided air sealing. The blower door test is a diagnostic tool that is used by HES vendors to measure air leakage/infiltration in a home. The blower door test produces a partial vacuum in a home that allows HES vendors to measure the number of cubic feet per minute (CFM) of air leakage. In instances where a weatherization health and safety barrier exists, a blower door test may not be used. This diagnostic tool allows HES vendors to identify the magnitude and where air leaks are occurring in a home and the primary areas where heating and cooling losses are occurring. The vendors then provide air sealing services including caulking, spray foam, and weatherization strips. Once the air sealing services have occurred, a post-blower door test reading is performed to measure the home's air leakage again. The energy reductions are measured by the difference in CFM measurements between the initial and post-blower door tests.
- Duct sealing. If a home has a ducted central heating or cooling system, duct leakage testing can measure the air leakage throughout a home's ductwork system. If the duct leakage test indicates air leakage, then the HES vendor will seal the visible ductwork leaks on-site. In certain circumstances (e.g., inaccessible duct work), Advanced Duct Sealing may be provided during a separate customer visit. Before and after measurements are recorded by HES vendors to determine duct leakage reductions.
- Water-saving measures. HES-Income Eligible vendors provide direct-install services of water-saving measures including faucet aerators, low-flow showerheads, and hot water pipe insulation. These measures save water and save energy by reducing the amount of energy needed to heat the home's water.
- **Limited lighting measures.** Although the lighting market has been transformed, the Companies will continue to provide LEDs to HES-Income Eligible participants.
- **DOE Home Energy Score.** As described in Section 2.5.1, HES-Income Eligible participants can opt-in to receive a Score from their HES technician at the time they receive their direct-install energy efficiency services. The Score gives an energy performance rating on a scale of 1-10 of a home. The Score is an asset-based evaluation and assesses the energy efficiency of a home based on its foundation, HVAC equipment, insulation, roof, walls, and windows and makes recommendations for cost-effective improvements.
- **Active demand response.** In the Kitchen Table Wrap Up, HES-Income Eligible technicians will educate participants, who have connected smart thermostats and Wi-Fi enabled heat pump water heaters about the benefits and how to participate the Active Demand Response programs.

In addition to these direct-install measures, the Companies drive for deeper energy savings in income-eligible homes by promoting the bundling of add-on measures, such as insulation upgrades, window replacements, HVAC and water heating equipment, appliance upgrades, advanced power strips, and connected smart thermostats.

HVAC equipment and systems repair or replacement. At the time of the direct install assessment, the HES-Income Eligible technician will evaluate the home's heating system to ensure that it is safely operating and running efficiently. If there was combustion appliance zone test failure, the technicians will recommend a clean, tune, and test or furnace repair. This work needs to take place in order for the blower door air sealing can be completed. Otherwise, if the home qualifies for a heating system replacement, the customer is notified at the Kitchen Table Wrap-Up that the vendor will follow-up with details on qualifying upgrades for heating systems. In addition, any heat pump systems are also evaluated at the time of the service. The HES program offers an air source heat pump rebate for electrically-heated homes (electric resistance).

- Water heating equipment. During the direct-install assessment of the home, the HES-Income Eligible vendor will
  evaluate all the mechanical equipment in a home, including water heating equipment, to ensure they are
  operating safely and efficiently. Based on this evaluation, the HES-Income Eligible vendor can determine if
  energy-efficient upgrades are needed for water heating equipment and follow-up with details on qualifying
  upgrades.
- Connected smart thermostats. These connected smart thermostats are devices that when connected to a home's heating and cooling system, can remotely adjust the temperature setting or even turn the system on or off. The HES-Income Eligible vendor will follow-up to provide details of qualifying upgrades that include details on the applicable active demand response program.
- Insulation. During the direct install assessment, HES-Income Eligible vendors evaluate the insulation levels in the attic, walls, and basement ceiling to determine if there are energy-saving opportunities. The HES-Income Eligible vendor will discuss the qualified insulation upgrades with the customers at the Kitchen Table Wrap-Up and will follow-up with the details of qualifying high-performance insulation, as well as insulated attic hatch and pulldown stair covers. HES-Income Eligible vendors are encouraged to complete projects in every home that needs insulation.
- Windows. Windows allow heat gain and heat loss in a home. During the direct install assessment, HES-Income
  Eligible vendors evaluate the efficiency of home's windows and will perform caulking and weatherstripping on
  site. The HES-Income Eligible vendor will discuss qualifying window upgrades with customers at the Kitchen Table
  Wrap-up and follow-up with more details to replace their qualifying windows with ENERGY STAR qualified
  windows with low U-Factors. The Companies offer single-pane window replacement with a double-pane window
  or triple-pane window with qualifying U-Factors.
- Appliance vouchers. During the direct install assessment, the HES-Income Eligible vendor evaluates the efficient
  of common household appliances to determine if there are energy efficiency opportunities. The HES-Income
  Eligible vendor will discuss qualifying upgrades for the refrigerator or freezer replacement voucher at the Kitchen
  Table Wrap-up and will follow-up with more details to encourage the replacement of inefficient units with
  ENERGY STAR qualified freezers and refrigerators.

## Weatherization Assistance Program—Collaboration with Community Action Agencies

In the upcoming term, the Companies will collaborate with Community Action Agencies, community-based organizations, and other community partners to educate customers about the HES-Income Eligible program. DOE's WAP reduces energy costs for low-income households by increasing the energy efficiency of their homes, while ensuring health and safety. WAP supports 8,500 jobs nationally and provides weatherization services to over 35,000 homes every year using DOE funds. WAP is implemented by locally-based and professionally-trained crews who use a computerized auditing tool and advanced diagnostic equipment (e.g., blower doors, manometers, infrared cameras) to create a comprehensive analysis of a home's energy performance.

In Connecticut, WAP is administered by DEEP through two Community Action Agency administrators. The statewide CAA network provides leads and applications to the selected Community Action Agency administrator. For the 2022-2024 term, the Companies will continue their long-term partnership with the Community Action Agencies to assist in cost

<sup>&</sup>lt;sup>80</sup> WAP is part of the Weatherization and Intergovernmental Programs Office and supports DOE's objective to lower energy bills while expanding cost-effective energy choices for all American communities.

sharing energy efficiency measures for WAP projects including direct-install measures, ductless heat pumps, water heating equipment, heating system replacements, insulation, and windows.

For the upcoming term, the Companies will assist DEEP and other industry partners in their efforts to leverage funding from LIHEAP and ARPA to address weatherization and other health safety barriers in Connecticut homes. This additional funding stream would allow the Companies to serve more customers, drive deeper energy savings, and use Energy Efficiency Fund dollars toward other programmatic elements.

#### 2.6 MULTIFAMILY INITIATIVE

The Multifamily Initiative is a statewide comprehensive offering that provides customized solutions for existing multifamily properties with five or more dwelling units. Solutions include assistance with energy efficiency upgrade projects, comprehensive energy assessments of a building's energy-saving opportunities, and incentives and financing for energy efficiency upgrades.

## 2.6.1 Objectives & Target Market

The primary objective of the Multifamily Initiative is to provide a comprehensive solution that evaluates and services multifamily buildings for all energy efficiency opportunities. This unique initiative combines programmatic elements of the single-family home performance services programs (HES and HES-Income Eligible), with the energy-saving solutions found in the Companies' C&I Portfolio programs (Energy Opportunities and Small Business Energy Advantage). Combining these two approaches allows multifamily property owners and their tenants to save energy and money under a seamless umbrella initiative. Treating a multifamily building holistically requires viewing the total energy usage, including tenant and tenant support (e.g., public areas and shared building systems).

The Multifamily Initiative services residential properties with five or more units and is open to any customer, regardless of heating fuel type or household income, who resides within the Companies' service territories. These buildings include, but are not limited to: apartment and complexes, condominiums and co-operatives, congregate and senior housing, mixed-use residential and commercial properties, assisted living facilities, and dormitories. Typically, these buildings are managed by property management companies or a condominium association. In most cases, the person(s) who occupy the housing units cannot make decisions regarding changes to the four walls, the roof, and fixed appliances. This falls under the purview of the property owner, property management company, or condominium association. In the upcoming term, the Multifamily Initiative will target electric heat customers using market segment data to promote heat pump technologies.

The Multifamily Initiative provides the same level of services to the following customer segments:

- **Income Eligible.** Multifamily property with: (1) two thirds of occupants with gross annual income at or below 60 percent of the State Median Income, or (2) customers residing in *Community Reinvestment Act* areas or eligible US Census tracts, or (3) residential dwelling or facilities providing beneficial services to residents.
- Market Rate. Any multifamily building that does meet the income-eligible criteria.

Please note that the Multifamily Initiative's budgets and savings are allocations from the overall HES and HES-Income Eligible programs' approved budgets and goals referenced in Sections 2.5.2 and 2.5.3, respectively.

## 2.6.2 Themes & Priorities

#### Collaboration

The Companies collaborate with multiple community-based organizations, financing organizations, housing authorities, CAAs, and property associations to effectively conduct outreach to multifamily properties across the state. During the 2016-2018 term, the Companies successfully worked with the Connecticut Housing and Financing Authority (CHFA) and the Connecticut Department of Housing (DOH) to develop a process where the utilities review CHFA/DOH renovation and new construction projects and issue a Letter of Participation (LOP) that notes the opportunities for energy savings. Since the process began in 2016, there have been 112 projects completed and the Companies have leveraged \$7.8 million in energy efficiency incentive funding.

For the 2022-2024 term, the Companies will continue to collaborate with CHFA and DOH to leverage Fund dollars to increase the efficiency of multifamily homes, decrease greenhouse gas emissions, and make these properties more affordable. Additionally, Governor Lamont's administration is recommending the use of \$7 million from the American Rescue Plan Act of 2021 toward affordable housing projects, including making existing units more energy efficient. The Companies will look to collaborate with state agencies to offer technical and funding support from the Multifamily Initiative.

#### 2.6.3 Program Overview

The Multifamily Initiative is an open market offering and homeowners and building owners can use any contractor that they prefer. The Initiative offers incentives, financing, and technical assistance for energy-efficient improvements to individual units and entire property systems.

#### Measures

The Multifamily Initiative provides home performance assessments and the direct install of energy-efficient measures similar to both the HES and HES-Income Eligible programs. Tenant-occupied areas can receive direct-install measures including air sealing, duct sealing, the installation of energy-efficient LED lighting (income-eligible properties only), and hot water-saving measures (e.g., low-flow showerheads and aerators). Add-on measures, beyond the direct-install dwelling units measures, are also offered through the Multifamily Initiative and include HVAC and water heating equipment and controls, insulation, windows, appliances, connected smart thermostats, custom measures, and lighting fixtures and lighting controls in dwelling units and exterior and common areas.

In addition, the Initiative also focuses on several high-efficiency technologies and measures that help these larger residential buildings optimize their energy performance. These measures include:

- Triple-pane windows. To make the building envelope tighter, the Companies have designed an offering for
  multifamily properties to encourage the replacement of single-pane windows and doors with triple-pane
  products. This offering provides an incentive that covers up to 100 percent of the cost difference between the
  inefficient and efficient measure. Eligible triple-pane windows must have a U-value of 0.20 or better.
- Heat pump water heaters. To support the installation of heat pump technologies in multifamily buildings, the
  Companies developed a heat pump water heater installation guide in 2018. This guide has proven successful in
  educating contractors regarding how to properly install the technology to optimize savings and where to locate

the units, so they perform efficiently. Since 2018, over 1,200 heat pump water heaters have been installed through 44 different Multifamily Initiative projects.

- Electric resistance to heat pump conversions. Since 2018, over 490 heat pumps have been installed through the Multifamily Initiative. The Companies note that proper installation is critical to optimize energy savings and that integrated controls are also needed to ensure that the systems operate efficiently, especially when paired with other heating and cooling technologies in the multifamily building. The Companies increased the incentives for heat pumps in May 2020. The Companies have seen an increase in heat pump activity commensurate with the incentive increase. The Companies have aligned Connecticut's incentives and heat pump qualification criteria with other states in the New England region.
- Gasketed A/C cover sleeve. In many multifamily buildings, sleeve or through-the-wall air conditioners are installed as self-contained units that can be installed and removed by a tenant. These units are mounted in a metal sleeve installed through a rough opening in the wall, typically under a window in every bedroom and living area, and these openings through a building's envelope are there year-round. There can be air leakage around the joints between the unit and its sleeve, the joint between the sleeve and the drywall finish, and through the air conditioner unit itself. A gasketed A/C cover sleeve can help to reduce air leakage around room A/C units.

#### **Engagement with Multifamily Building Owners**

The Companies have established two primary objectives in the 2022-2024 term to encourage multifamily building owners toward greater installation rates of additional measures. The first objective will be to host a series of landlord roundtables through the end of 2022 in partnership with local organizations to reach more landlords and tenants. The Companies will partner with ethnic-based, community-based organizations to host multilingual roundtables to reach multifamily building owners who have limited English proficiency. The second objective is to explore more opportunities to communicate peer-to-peer with landlords to make them aware of energy efficiency programs and the benefits of participation. The Companies plan to create some landlord testimonials regarding their experience participating in the programs so that their experience can be shared with other landlords.

#### 2.7 BEHAVIORAL STRATEGIES

## 2.7.1 Overview

The premise behind behavioral-based strategies is the idea that if a customer is educated regarding how much energy they consume then they can be encouraged to make a behavior change that will result in energy efficiency. In 2011, the Companies began to offer behavioral-based solutions that were designed to make customers aware of how much energy they consume and to empower them to adopt energy-efficient behaviors and technologies. Historically, the Companies' behavioral-based strategies were tied to the delivery of Home Energy Reports. These Home Energy Reports were behavioral-based communications, printed or electronic, that gave visuals showing energy consumption, comparisons to the consumption of neighbors, and steps or actions they could take to reduce their energy consumption. By comparing the usage of customers receiving these reports (in the treatment group) to those not receiving the Home Energy Reports (in the control group), savings attributable to the reports themselves could be calculated.

During the 2019-2021 term, the Companies offered Home Energy Reports to their customers (or for at least a portion of the term). The feasibility and cost effectiveness of behavioral offerings is contingent upon scale. There are large, fixed,

upfront costs associated with creating the data integrations that created cost-effectiveness challenges for the Companies. The Companies began to closely monitor the marketplace for continued enhancements to behavioral-based strategies and focused on finding solutions that provided individualized customer communications. The Companies began to drive energy efficiency awareness and customer action by meeting customers where they are with the right message at the right time. These new approaches and delivery models involved identifying good candidates for specific offers (such as a product or measure) based on what the respective Companies know about them (demographically), their homes, and how much energy they consume, then designing a series of personalized communications and interactions over time to move customers along the desired path to energy efficiency.

For the 2022-2024 term, the Companies will continue to deliver these customized communication journeys that use behavior-based principles to their customers. Eversource's and United Illuminating's behavior-based strategies are described in the following sections. The following figure summarizes the Companies' projected energy savings, program costs, benefits, and cost effectiveness for the Behavioral Strategies, including both electric and natural gas values.

|--|

Planned Results	Total
Number of Homes Served	489,837
Total Program Lifetime Savings, Electric (MWh)	14,924
Total Program Lifetime Savings, Natural Gas (ccf)	1,625,946
Total Program Lifetime Savings (MMBtu)	218,231
Lifetime CO <sub>2</sub> Emissions Reduced (tons)*	17,759
Total Program Lifetime Benefits (\$000)	\$5,626
Total Program Costs (\$000)	\$2,015

<sup>\*</sup>Please note that these are short tons.

#### 2.7.2 Energy Insights (Eversource)

#### Objectives & Target Market

Eversource's Energy Insights pilot is a streamlined approach to providing customers with data-driven usage insights paired with targeted recommendations to motivate behavior change and participation in energy efficiency programs. The pilot leverages Eversource's expertise gained through previous experience with traditional behavioral programs and digital customer engagement in the areas of data analytics, informational design, behavioral science, and communication delivery. In May 2020, Eversource released a Request for Information to determine what types of customer engagement services and solutions were offered in the marketplace for consideration across its three-state service territory (Connecticut, Massachusetts, and New Hampshire). The selected tools have enabled Eversource to integrate customized usage insights and recommendations for pilot participants.

#### Program Design and Marketing

The Energy Insights pilot will drive energy efficiency awareness and customer action by meeting customers where they are with the right message at the right time. Eversource's approach involves identifying good candidates for a specific offer (behavioral recommendation and/or energy efficiency measure) based on what Eversource knows about them, their

homes, and how they use energy, then designing a series of personalized communications and interactions over time to move customers along the desired path to energy efficiency.

Communications will include customized usage insights and recommendations delivered through traditional one-on-one outbound marketing channels (email and sometimes direct mail) that allow for personalization at scale. To maximize impact and reinforce the message, Eversource will integrate this information with natural touchpoints that customers have with their utility (for example, the process of viewing and paying a bill online) and trigger the presentation of information at times when its most relevant (for example, seasonal changes in temperature or after a customer receives a high bill). For the 2022-2024 term, the Energy Insights pilot will focus primarily on residential customers with learnings from that work applied to relevant C&I subsegments in subsequent years. Eversource will involve statewide evaluation contractors early in the design process to ensure that the methodologies used meet requirements for future savings evaluations.

Through most of the 2022-2024 term, Eversource does not expect for the pilot to generate behavioral-based energy savings at a large scale. The focus of the pilot in the near term is to develop customized communication journeys that utilize behavioral-based principles and an experimental design that allows for any generated savings to be evaluated and potentially claimed. The Energy Insights pilot will be administered as a behavioral-based strategy within the Residential Portfolio; however, the pilot is not expected to generate a large quantity of behavior-based energy savings for the first couple years of implementation and its nominal initial costs will be allocated to the marketing budgets, similar to the ramp-up period typically observed in traditional Home Energy Reports programs.

## 2.7.3 Program Design (United Illuminating)

#### Behavioral Initiative

For the 2022-2024 term, United Illuminating will look to harness its Advanced Metering Infrastructure (AMI) data to give customers insight into how they use energy and how to make better choices. This insight will be delivered through multiple digital touchpoints on the company's website when customers go online to pay their bills. The communications will be paired with energy bill payments so that customers are prompted to make an energy-efficient choice or are offered a rebate that is targeted for their home and the way they consume energy.

United Illuminating will use demographic and customer-specific data to make these energy efficiency recommendations and will be supported through the company's new behavioral-based and engagement software, the Global Energy Manager Platform. In the beginning of the 2022-2024 term, United Illuminating does not expect for the pilot to generate behavioral-based energy savings at a large scale. As such, the initial costs for the Behavioral Initiative will be allocated to the marketing budgets.

## 2.8 DEMAND MANAGEMENT PROGRAMS

The Independent System Operator-New England (ISO-NE) manage new England's generation and transmission infrastructure. ISO-NE is responsible for the reliability of the grid to meet the system load at every hour of the day on a year-round basis. Traditional asset-based energy efficiency programs result in load reductions year-round as the high-efficiency measures installed produce both energy savings and "passive" demand reductions. The Companies aggregate these demand reductions and bid them into ISO-NE's Forward Capacity Market (FCM). The revenues from FCM auctions help offset energy efficiency program costs.

During the 2019-2021 term, the Companies integrated active demand response programs into the Residential Portfolio to assess demand reductions (kW) of each offering, as well as customer participation rates vs. opt-out rates, and customer engagement. Active demand response programs require customers to make discrete actions that they would not have otherwise taken to reduce their electrical load for a specified period of time, such as allowing their smart thermostats to be remotely adjusted a few degrees or agreeing to have their electric vehicle charging times shifted to off-peak times. The Companies incentivize these brief reductions in customer load during targeted periods of high system demand. These incentives encourage customer participation and increase demand reductions.

The Companies' active demand response offerings result in a smaller generation, transmission, and distribution system which reduces customer costs and increases the reliability of the grid due to reduced peak demand. The peak demand reductions from the Companies' programs provide benefits to all customers by suppressing wholesale power prices during peak demand times and reducing the need to use generation that is more expensive and environmentally destructive. This offsets the need for fossil-fueled generation and also contributes to reduced greenhouse gas emissions.

## 2.8.1 Objectives & Target Market

The Companies' active demand response offerings are designed to decrease peak demand by incentivizing customers to enroll eligible communicating equipment. The reduction in peak demand results in lowered energy costs to customers, more reliability of the grid, and reduced greenhouse emissions. Currently, eligible technologies in the residential sector include plug load control devices, smart thermostats, electric vehicle chargers, residential storage (batteries), water heating equipment, and other smart, connected technologies. The Companies are always exploring additional opportunities and will consider including cost-effective measures as they are discovered. Incentives are given when a customer enrolls eligible equipment into an Active Demand Response offering. The customer can earn additional incentives by participating during a demand response event.

All residential customers of the Companies are eligible to participate in the Companies' active demand response offerings, provided their equipment meets program-specific criteria. The following figure summarizes the Companies' projected peak demand savings, program costs, benefits, and cost-effectiveness for the Demand Management programs.

Planned Results	Total
Number of Units Enrolled	103,498
Summer kW Peak Demand Reduction	62,436
Total Program Lifetime Benefits (\$000)	\$13,626
Total Program Costs (\$000)	\$12.044

Figure 2-P: 2022-2024 Residential Demand Management (Combined Electric)\*

## 2.8.2 2022-2024 Priorities

## Co-delivery of Energy Efficiency and Active Demand Response Programs

The Companies develop and implement active demand response offerings to provide a number of benefits to customers and the grid. These benefits include improving the reliability of the grid, reducing customer costs, and providing

significant environmental benefits by offsetting the need for fossil-fueled generation. Combining these benefits with those resulting from energy efficiency programs is critical to the success of the Residential Portfolio.

For the 2022-2024 term, the Companies are focused on educating customers to look at energy consumption from a holistic view in terms of both energy efficiency and demand reduction measures. To do so, the Companies will use existing energy efficiency program delivery channels and measures to promote and educate customers regarding active demand response technologies, such as HVAC controls, and electric vehicle chargers and storage technologies. The Companies are always exploring additional opportunities and will consider including cost-effective measures when they are discovered. The Companies will promote these active demand response technologies through their home performance services and new construction offerings. For the Residential New Construction program, the Companies will also establish make-ready requirements ensuring that homes have the capability to integrate building systems with demand reduction technologies in the future.

The Companies will increase their outreach to residential customers to educate them regarding active demand response technologies. This outreach will include the deployment of cross-promotional strategies to advertise the active demand response offerings to customers at the point-of-sale of plug load control devices, smart thermostats, electric vehicle chargers, water heating equipment, and other smart, connected technologies.

#### 2.8.3 Program Offerings

The Companies offer a number of active demand response offerings that are marketed to residential customers across the state. Customers are offered incentives to enroll their connected devices, such as thermostats connected to central air conditioning and residential storage (i.e., batteries), into an active demand response offering. Once a customer is enrolled, the Companies or a third-party service provider, send signals to the customer's equipment to reduce or offset (i.e., turn on/off) the customer's energy consumption during peak demand periods.

Typically, the Companies offer an incentive for a customer to sign up for a technology, and an additional incentive for the customer to participate in a demand response event and is based on how much electrical demand was reduced. A customer can elect to override a signal to reduce or offset their equipment; however, this will affect the level of incentive they receive and can make them ineligible for continued program participation. For some active demand response offerings, the Companies may combine the enrollment incentive with the pay-for-performance payment to offer a flat-rate participation incentive. As in previous Plan terms, the Companies plan to monitor program performance and incentive structures to determine if they need modifications during the 2022-2024 term.

## Eversource Programs

## **Bring Your Own Thermostat**

Central air conditioning represents one of the largest controllable loads in residential buildings and the use of air conditioning is highly coincident with ISO-NE system peaks. This makes homes with equipment that provides central air conditioning ideal candidates for participation in Eversource's Bring Your Own Thermostat (BYOT) program. The BYOT program is technology agnostic and allows customers to enroll any connected smart thermostat. For the 2022-2024 term, Eversource will continue to implement the BYOT program and offer a flat-rate participation incentive that includes both an enrollment payment and performance payment. Once customers are enrolled, Eversource initiates all demand response events and the equipment manufacturer is responsible for executing on that dispatch signal.

By adjusting the temperature settings on a connected thermostat during peak demand periods, the Companies can deliver substantial reductions in demand. With the increasing penetration of both connected thermostats and central air conditioning, the Companies expect this program will be a key area of continued growth and peak demand savings over the next three-year period.

#### Window A/C Controls

This program is designed to control costs and maintain persistent savings in homes with window A/Cs. In Connecticut and across New England, there is a segment of homes without central A/C due to the older housing stock without ductwork and the short cooling season. The initial launch of this program was in 2020 and customers were enrolled throughout the 2021 program year with some challenges related to savings persistence and device connectivity. For the 2022-2024 term, Eversource will look to overcome these challenges as the control of window A/Cs have a significant potential for demand savings.

#### Statewide Electric Storage Program

On July 1, 2021, PURA issued its final decision in Docket No. 17-12-03RE03 as part of its grid modernization docket. <sup>81</sup> The regulatory decision established a statewide electric storage program (Electric Storage Program) for all residential and C&I customers within the service territories of the electric distribution companies (EDCs). PURA established two compensation mechanisms for electric storage systems participating in the Electric Storage Program:

- An upfront incentive administered by the CT Green Bank, and
- Performance-based incentives administered by the EDCs (i.e., the Electric Companies).

Over the nine-year term of the Electric Storage Program, the CT Green Bank's and EDCs' efforts are expected to help PURA meet its goal of deploying at least 580 MW of electric storage in Connecticut by 2030. This program is expected to start in January 2022. During the 2022-2024 term (and the initial implementation of the Electric Storage Program), Eversource will monitor its Residential Battery Storage offering (see below) to determine how this initiative will interact with the Program or be replaced.

#### Residential battery storage offering

Battery storage is an ideal active demand reduction strategy, especially for the residential sector. Unlike C&I customers, there are no demand charges on residential customers' distribution bills. This means they have little to no incentive to charge and discharge their batteries (e.g., solar, electric vehicle) and creates a group of valuable energy assets which serve little purpose other than to provide backup during a power outage. By enrolling battery storage, the Companies or third-party providers can send dispatch signals to enrolled batteries instructing them to discharge (i.e., send power back to the grid) during peak demand periods. Further, unlike adjusting thermostat settings in the BYOT program, there are no direct impacts to customer comfort or convenience. Battery storage technology is envisioned as an optimal strategy, as it allows customers to provide load reduction in several ways, as the technology can provide capacity in daily and targeted periods.

PURA, Proposed Final Decision, Docket No. 17-12-03RE03: PURA Investigation Into Distribution System Planning of the Electric Distribution Companies-Zero Emissions Vehicles, issued Jul. 1, 2021, available online at: <a href="https://portal.ct.gov/-/media/PURA/electric/Electric-Storage-Proposed-Final-Decision-07-01-21.pdf">https://portal.ct.gov/-/media/PURA/electric/Electric-Storage-Proposed-Final-Decision-07-01-21.pdf</a>.

Eversource introduced its Residential Battery Storage offering to Connecticut in 2020. This offering was shaped by the results and findings from Eversource's deployment of residential battery storage projects in Massachusetts. In 2021, Eversource completed its three-state Request for Proposal for demand reduction vendors for targeted technologies, including battery storage. With over 800 batteries currently enrolled over the three states, Eversource plans to continue the offering for the 2022-2024 term. Eversource may explore new ways to expand the program to include new battery partners and explore new customer incentive structures to promote growth and increase system and customer benefits. For example, Eversource will provide charging incentives in the middle of the day (to take advantage of solar photovoltaic generation) and demand reduction incentives at the end of the day (to shave the system peak).

#### Statewide Electric Vehicle Charging Program

On July 14, 2021, PURA issued its final decision in Docket No. 17-12-03RE04 as part of its grid modernization docket.<sup>83</sup> This decision established a statewide zero emission electric vehicle program (Electric Vehicle Charging Program) for all customers and customer classes within the service territories of the Electric Companies. The Electric Vehicle Charging Program consists of a combination of incentives for networked Level 2 electric vehicle supply equipment (EVSE) and direct current fast chargers (DCFC), as well as accompanying rate design offerings.

The Electric Companies will administer the Electric Vehicle Charging Program in their respective service territories. There are five program areas, or market segments, in the program's design to optimize EVSE deployment and associated distribution system infrastructure necessary to meet Connecticut's transportation electrification goals:

- Residential Single-Family Level 2 Charging,
- Residential Multi-Unit Dwellings (MUDs) Level 2 Charging,
- DCFC,
- Destination Level 2 Charging, and
- Workplace & Light-Duty Fleet Level 2 Charging.

These five program areas represent a comprehensive, portfolio approach to enabling zero-emission vehicle deployment on the scale necessary for the State to meets its electric vehicle policy goals and greenhouse gas reduction targets. During the 2022-2024 term, Eversource will monitor its Electric Vehicle Charger Control and Direct Communication to the Electric Vehicle offerings (see below) to determine how they will coordinate or integrate the implementation of these initiatives with the Electric Vehicle Program.

Electric vehicle charger control offering

Since 2011, consumer demand for electric vehicles has increased significantly with over 1.5 million vehicles currently on the nation's roads and the Edison Electric Institute forecasts electric vehicle sales will surpass 3.5 million by 2030.<sup>84</sup> This increase has direct impacts on the electric power system as electric vehicles require chargers that draw power during

This decision rests on the success of the 2021 Summer season.

PURA, Decision, Docket No. 17-12-03RE03: PURA Investigation Into Distribution System Planning of the Electric Distribution Companies-Zero Emissions Vehicles, issued Jul. 14, 2021, available online at: <a href="https://portal.ct.gov/-/media/PURA/electric/PURA-Establishes-Statewide-Electric-Vehicle-Charging-Program.pdf">https://portal.ct.gov/-/media/PURA/electric/PURA-Establishes-Statewide-Electric-Vehicle-Charging-Program.pdf</a>.

<sup>&</sup>lt;sup>84</sup> Electric Edison Institute, *Issues & Policy: Electric Transportation*, available at: <a href="https://www.eei.org/issuesandpolicy/electrictransportation/Pages/default.aspx">https://www.eei.org/issuesandpolicy/electrictransportation/Pages/default.aspx</a>.

both peak and off-peak times. As the adoption and use of electric vehicles increase across the United States and in Connecticut, utilities must consider how best to manage this additional load to benefit the electric power system and customers.

Electric vehicle charging represents a growing load within Eversource's Connecticut service territory and is a load with the flexibility needed to be part of an Active Demand Response offering. Research suggests that 80 percent of charging is done at residences and may be coincident with system peaks. Eversource plans to continue the offering in the 2022-2024 term and to continue reaching out to other partners.

Direct communication to the electric vehicle offering

This offering is a plug-and-play electric vehicle load profiling and shifting program developed to better understand the technology's load on the grid and shift vehicle charging to more desirable times while reducing the cost of charging for electric vehicle customers. During the 2021 program year, this initiative was deployed simultaneously in Connecticut and Massachusetts. It collected data on electric vehicle customers (who had opted in) regarding their driving and charging behaviors to evaluate demand response needs for vehicle charging. Customers received notifications designed to promote charging in periods more favorable to the grid.

For the 2022-2024 term, Eversource may implement demand-side managed charging strategies to incentivize customers to charge their electric vehicles during off-peak times. These strategies could potentially include:

- **Throttling.** This managed charging strategy will allow Eversource to send a signal to a networked level 2 charger to limit the instantaneous draw of power of the charger for a predefined period of time. A typical residential level 2 charger has a normal power draw of 7 kW. During a throttling demand management event, the Company could throttle down (decrease) the rate of charging from 7 kW to 0 or 1.8 kW for a period of time (typically 2-4 hours).
- **Scheduling.** This strategy is where a schedule is pushed to the electric vehicle charger, informing the device when it should start charging. Eversource could set a schedule that only allows for off-peak charging while allowing customers to opt out of the schedule if they have an emergency. Eversource would also stagger the scheduled charging times so that customers are not all brought back online simultaneously.

#### **Natural Gas Demand Reduction Programs**

Currently, Eversource is conducting a natural gas demand reduction pilot in Massachusetts. For the 2022-2024 term, Eversource may potentially offer natural gas demand response programs based on the results of the Massachusetts pilot.

#### United Illuminating Programs

## Smart Savers Rewards (Bring Your Own Thermostat)

Since 2018, United Illuminating has successfully implemented the Smart Savers Rewards program. This direct load control offering supports electric system reliability and includes a subprogram—BYOT—which allows residential and small business customers to enroll their own connected smart thermostat. The BYOT offering allows United Illuminating to have remote controllability of a customer's HVAC system via a connected smart thermostat. This allows United Illuminating to establish temperature-set points (shift thermostats up to 4 degrees from the current temperature) and schedules (up to 2 hours) while engaging customers to better understand and control their energy usage. United Illuminating can call up to 15 BYOT events per summer and once the event is over, the smart thermostat will return to its normal set point and/or

schedule. Participants can opt out of a thermostat adjustment at any time from their mobile device, web browser, or thermostat.

Through the Summer Savers Rewards program's flat-rate participation incentive structure, participants receive a \$35 Amazon e-gift card per device once enrolled in the BYOT program and receive another \$25 e-gift card per device at the end of each summer season for participating. Once enrolled, power reduction during demand response events is initiated by United Illuminating and through a third-party Demand Response Management System (DRMS).

#### Wi-Fi Enabled Heat Pump Water Heaters

United Illuminating began conducting its Wi-Fi Enabled Heat Pump Water Heater pilot in 2018. Since the start of the pilot, United Illuminating has held eight demand response events, three in the summer of 2018 and five in the summer of 2019. In addition, United Illuminating held five demand response events during the winter of 2018–2019. Initial results to date have yielded some interesting findings; however, more enrolled customers and events are needed to better understand the market and provide statistically valid demand response results. The Wi-Fi Enabled Heat Pump Water Heater pilot will continue in 2021.

Overall, demand reductions have been relatively low, and it is assumed that this is related to the highly efficient nature of heat pump water heaters. Winter event reductions have been greater and average 88 watts per demand response event hour, while summer event reductions are lower with an average 51 watts per demand response event hour. Heat pump water heaters are also a non-weather dependent measure with a typical load curve that show no daily consistency, thus making it extremely difficult to target peak usage times of the day. United Illuminating will continue to increase the number of heat pump water heater units through the co-delivery of existing efforts to this Demand Reduction program.

In 2021, United Illuminating will also look to deploy different demand reduction strategies to increase demand response event reductions beyond the current demand response strategy that is set by the heat pump water heater manufacturer called "Eco Mode". Other creative demand reduction strategies such as load shifting, temperature setbacks, or even powering the unit off for a two-hour event hold the potential for greater reductions with minimal customer impact. United Illuminating will continue to call events to better understand the market and its demand response potential.

#### CNG and SCG Demand Response Programs (Natural Gas)

During the 2021 program year, CNG and SCG launched several natural gas demand response pilots designed to better understand natural gas demand reduction potential and customer receptiveness to creative and innovative natural gas demand reduction strategies. These pilots assessed the feasibility of incentivizing residential customers to provide net reductions of natural gas demand during peak gas demand days on the coldest days of the winter.

#### Residential Natural Gas Demand Response Pilots

In 2021, CNG and SCG will launch the following two Residential Natural Gas Active Demand Response pilots utilizing their current Residential Energy Hub DRMS to initiate demand response events and calculate baseline usage, event reductions, and incentives earned by each participant.

Residential system load balancing (natural gas)

CNG and SCG will continue to offer the Residential System Load Balancing program in the 2022-2024 term. The program incentivizes CNG and SCG Rate RSH (Residential Heating) customers to provide natural gas reductions on the coldest day

of the year. During an event, a customer's thermostat is setback by 4 degrees (with a preheat of 2 degrees for one hour prior). Customers receive an enrollment incentive plus an end-of-winter season incentive based on performance (deductions from the incentive will be made for each opt-out event). CNG and SCG will typically call one event per season on days when the outside average daily temperature is forecasted at 18°F or below. The length of the active demand response event will be 24 hours. For the comfort and safety of the customer, temperature set points cannot go below 60°F. CNG and SCG will evaluate the results of the Residential System Load Balancing program with those of the Residential Direct Load Control program to determine the differences between the two approaches and what is optimal for future implementation.

The System Load Balancing pilot incentivizes CNG and SCG Rate RSH customers within specific low-pressure areas to provide net reductions of natural gas demand during a 24-hour period on a peak natural gas demand day. The objective of the program is to address natural gas distribution system constraints. The pilot is marketed to residential natural gas customers in targeted areas and participating customers receive a coupon code for a free smart thermostat available through the UI Marketplace.

Participating customers are responsible for the installation of the smart thermostat and do not have the ability to opt-out of any demand response events. Participants earn an end-of-winter-season incentive for their participation. One event is called per season. This event is typically called on a day when the outside average daily temperature is forecasted at 18°F or below. The length of the active demand response event is 24 hours (a full day) lasting from 10 a.m. to 10 a.m. on the following day. During an event, a customer's thermostat is setback by 4 degrees for 24 hours. For the comfort and safety of the customer, temperature set points cannot go below 60°F.

Residential direct load control (natural gas)

The Residential Direct Load Control offering is similar to the BYOT program. A customer installs a thermostat of their choice, dispatch events are called, and United Illuminating and/or program implementation vendor control the thermostat settings during dispatch event. The program offers both an enrollment incentive, as well as an end-of-the-winter incentive for customers who participate in and do not opt-out of demand response events. For the 2022-2024 term, CNG and SCG will continue to cross-promote the program through the UI Marketplace. Eligibility requirements and guidelines are automatically checked prior to allowing customers to enroll in the program.

CNG and SCG Rate RSH customers are incentivized to provide net reductions of natural gas demand during a two-to-four-hour period during a peak natural gas demand day. This offering's strategy is similar to the Smart Savers Rewards program offered to United Illuminating's electric customers. The Direct Load Control pilot is opt-in and targets residential natural gas customers with smart thermostats. The Direct Load Control pilot allows CNG and SCG to have remote controllability of a customer's natural gas heating system via connected smart thermostat. During an event, a customer's thermostat is setback by 3 degrees (with a preheat of 2 degrees for one hour prior). Customers receive an enrollment incentive plus an end-of-winter season incentive based on performance (deductions from the incentive will be made for each opt-out event). CNG and SCG will typically call up to six events per season on days when the outside average daily temperature is forecasted at 18°F or below. The average length of the active demand response event will be 2 to 4 hours.

## SECTION THREE: COMMERCIAL & INDUSTRIAL PORTFOLIO

#### 3.1 OVERVIEW

For over two decades, the Companies have delivered innovative and cost-effective energy efficiency programs to commercial, industrial, and municipal customers across Connecticut. The Companies' C&I Portfolio is nationally recognized by the EPA, DOE, and the ACEEE for its innovative energy efficiency and demand management programs and initiatives. The Companies are also known for tailoring their offerings to market segments (e.g., grocery stores, manufacturers, restaurants, and retail stores) and types of customers (e.g., industrial, municipal, microbusiness, large commercial enterprise, and small business). This individualized or "customer-centric" approach allows the Companies to better understand the market actions, technical support, energy-efficient equipment, process improvements, and financing options required to meet an individual customer's business and energy needs, as well as to identify the needs of market segments. The Companies plan to continue using market segmentation to tailor energy efficiency and demand management solutions to C&I customers for the 2022-2024 term.

Energy efficiency and demand management programs reduce energy costs and make business operations more affordable, as well as the ancillary benefits of improved facility operations and productivity, and increased health and safety standards. The reduction in energy consumption also results in the decrease of greenhouse gas emissions and offsets the need for fossil-fueled generation, something shareholders, boards of directors, citizens, and regulators value and demand of C&I customers to effectively mitigate the increasingly visible effects of climate change worldwide.

#### 3.1.1 Plans for the 2022-2024 Term

During the two previous three-year terms, the Companies have been gradually shifting their incentive structures and technical support away from basic energy-efficient lighting projects to supporting comprehensive projects pairing multiple energy-efficient measures together. A comprehensive project could include: (1) pairing the installation of energy-efficient lighting with commercial kitchen equipment, or (2) combining the installation of high-efficiency HVAC equipment and controls with demand response technologies, or (3) pairing building energy management system upgrades with lighting controls. This shift was catalyzed by the increasing market penetration of high-efficiency lighting in the C&I sector, the Companies' increased knowledge regarding market segments and how C&I customers consume energy, and the need to address customers' energy-related needs more comprehensively and drive deeper energy savings.

In the 2019-2021 term, these catalysts resulted in the expansion of active demand response offerings to C&I customers, enhanced market channel offerings supporting more upstream and midstream incentives, increased workforce development efforts for C&I contractors and trade allies, a renewed focus on lighting controls and design, the introduction of strategic energy management initiatives, and a redesign in 2021 of the new construction, renovations, and equipment offering to drive the marketplace toward zero-energy buildings with low energy-use intensity ratings.

For the 2022-2024 term, the Companies remain focused on having commercial, industrial, and municipal customers install multiple measures and whole-building performance projects that influence decarbonization of the electric grid, increase energy affordability, and deliver energy savings in an equitable manner across all types of C&I customers and market segments. The Companies will increase their efforts to drive energy efficiency in the commercial building sector through an enhanced C&I weatherization effort. For the commercial building sector, weatherization measures (e.g., air sealing,

insulation) will provide energy and cost savings for C&I customers. Additionally, increased weatherization will prepare customers for the installation of high-efficiency, low-carbon space and water heating technologies, such as heat pumps. The Companies will support the increased adoption of low-carbon HVAC and water heating technologies through collaborative channel partnerships, higher incentives, and the continued use and expansion of their online training platform. This platform, launched during the 2021 program year, is designed to train and certify contractors regarding these technologies.

Through the Small Business Energy Advantage program, the Companies will continue to offer virtual, energy preassessments to support the installation of efficiency measures. This innovative offering, introduced during the pandemic, helps small commercial enterprises and microbusinesses lower their energy costs through virtual assessments where qualified contractors identify energy-saving opportunities and work with the customer to install them. For the 2022-2024 term, the Companies will also introduce two new program offerings: (1) the Small Manufacturer Initiative and (2) the Benchmarking Initiative.

For the upcoming three-year term, the Companies will look to offer increased financing options allowing business customers to make long-term energy efficiency investments that provide immediate energy savings with little to no upfront capital costs. The Companies will also continue to offer increased financial assistance to customers to motivate them to make long-term, strategic energy efficiency choices.

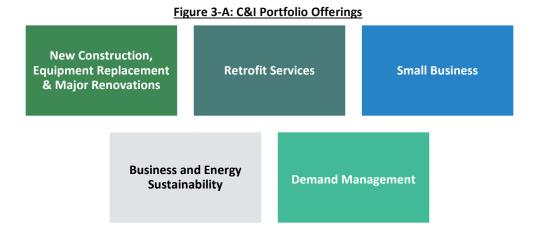
The C&I Portfolio supports a large workforce of skilled contractors and professionals who are essential in helping the Companies meet their program goals. These workers include architects, engineers, builders, and energy auditors, as well as product distributors of high-efficiency commercial kitchen equipment, HVAC equipment and systems, lighting and energy management controls, and active demand response technologies. The C&I marketplace is constantly evolving and this change necessitates the expansion of contractor training efforts, field staff training that includes soft skills, technical training and certifications, and an increased push to include workers who reflect the diversity of the communities they serve. The Companies' workforce development efforts (detailed in Section 4) are designed to support the needs of the current and future energy efficiency workforce in Connecticut.

For the upcoming term, the Companies have designed a C&I Portfolio capable of rapidly changing to meet customer demands, federal and local regulations, emerging technologies, energy code modifications, and changes to state energy policy. The rest of Section 3 details the key priorities, themes, and designs of the C&I Portfolio's programs and initiatives for the upcoming term.

## 3.1.2 Commercial & Industrial Programs

For the 2022-2024 term, the Companies will continue to deliver a comprehensive C&I Portfolio to commercial, industrial, and municipal market segments, including new construction, retrofit and renovation, small and medium commercial enterprises, microbusinesses, municipalities, and manufacturers. The Companies have designed their programs to be versatile and address C&I customers' energy needs comprehensively. From an antique store on Main Street to a town hall complex, the Companies' programs help all C&I customers reduce their energy costs, reduce and manage their peak demand, decrease greenhouse gas emissions, and meet their corporate or municipal sustainability goals.

The 2022-2024 C&I Portfolio programs and initiatives are:



- New Construction, Equipment Replacement & Major Renovations. The Energy Conscious Blueprint program targets all commercial new construction, remodeling, renovation, and expansion projects in Connecticut, as well as end-of-life equipment replacement purchases. The Companies offer midstream rebates for HVAC and commercial kitchen equipment through the Energy Conscious Blueprint program. The objective of this offering is to influence the stocking and selling practices of distributors. By offering instant discounts at the point of sale, the Companies can tip the financial scales in favor of energy-efficient options, leading distributors to change what they stock and sell, and contractor purchases which benefit the customer. The program offers four pathways to cost effectively exceed performance of building code and to achieve zero net energy.
- **Retrofit Services.** This umbrella initiative includes retrofit offerings and provides an extensive array of retrofit measures, energy-efficient incentives, and some ancillary technical services to encourage business and municipal building owners to replace functioning, yet efficient equipment with premium-efficiency equipment. This includes the Energy Opportunities retrofit program, the new Benchmarking Initiative, and Eversource's medium-sized businesses offering. The Companies offer upstream incentives for lighting measures through the Energy Opportunities program.
- Business and Energy Sustainability. This sustainable services platform focuses on helping customers make
  continuous improvements in the day-to-day operations of their business and/or facility resulting in reduced
  greenhouse gas emissions and increased cost savings. Participation in this platform's offerings help businesses
  become more competitive, reduces operations and maintenance costs, streamlines manufacturing and industrial
  processes, and helps organizations meet their corporate sustainability goals. The platform includes several
  offerings to increase efficiencies for corporate, industrial, and manufacturing customers, including Strategic
  Energy Management, Retro-commissioning, Energy Utilization Assessments, and Process Reengineering for
  Increased Manufacturing Efficiency (PRIME).
- Small Business. This is the Companies' flagship program for small commercial enterprises and microbusinesses
  who may not have the in-house experience, financial resources, and time necessary to analyze and reduce their
  energy consumption. The program offers turn-key energy efficiency services, incentives, and on-bill financing to
  help small business customers reduce their energy consumption and reduce operations and maintenance costs.
  This includes the medium-sized business offering (Eversource only), the Microbusiness Initiative, and the new
  Small Manufacturer Initiative.

Demand Management. The Companies provide incentives to customers who enroll their devices (e.g., smart
thermostats, HVAC equipment, electric vehicle chargers) into active demand response offerings that promote a
decrease in energy consumption during periods of electric system peak demand. These offerings include electric
vehicle chargers, batteries, and connected solutions.

#### 3.1.3 Key Priorities and Themes

## **Priority 1: Equity**

Equity is defined as the process of establishing more equal access to and participation in energy efficiency and demand management programs, particularly among those groups who have historically participated at lower rates, including small business and microbusiness customers. The first step in reducing inequities in energy efficiency is understanding where they exist. Across all market segments, the Companies are working to increase participation by researching and deploying the most effective strategies to engage and motivate the above-referenced customer groups.

The Companies will implement the following strategies in the 2022-2024 term to increase equity:

- Introduction of new incentives that make energy efficiency more affordable to C&I customers.
- Streamline the verification process for enhanced incentives.
- Market in multiple languages to capture more of an audience.
- Include extra weighting for certified minority-owned, women-owned, and veteran-owned businesses when evaluating and scoring competitive requests for proposals for program vendors.
- Increase diversity, equity, and inclusion training to ensure that Connecticut's energy efficiency workforce is as
  diverse as the communities and municipalities the workers serve. This includes the deployment of multilingual
  contractors.
- Identify customer barriers to participation using customer segmentation studies.

## <u>Identification of Customer Barriers</u>

The Companies have conducted an analysis of customers by quartile and segment to understand what customers, segments, and quartiles have not participated in the C&I Portfolio and received lower contributions in the past five years. Within each market segment, the Companies looked at distressed municipalities, non-participants, and arrearage customers to determine if there was a correlation between customers on these lists. To determine the targeted quartiles and sectors, the Companies analyzed participation rates, fund contributions received, energy usage, annual kWh savings, and lifetime kWh savings.

The Companies also wanted to ensure equitable distribution of funds and the benefits derived from energy efficiency in developing the new C&I equity metric for the 2021 Plan Update to the 2019-2021 Plan. To meet the C&I equity metric, the Companies had to generate an appropriate increase in energy efficiency savings for the targeted market segments. For the 2022-2024 term, the focus is on underserved customers and market segments to ensure equity across the entire C&I customer base. The Companies will target customers in one market segment (that is under-participating and has received lower contributions) within each quartile. The Companies' plan is to provide a specific approach by sector. The

goal is to serve enough customers to increase program participation in the targeted market segment, as well as to increase funds received. As a result of the above evaluation, in 2021, the goals were to:

- Increase annual electric savings in Quartile 1 Healthcare sector by 4 percent.
- Increase annual electric savings in Quartile 2 Financial, Real Estate & Insurance sector by 3 percent.
- Increase annual electric savings in Quartile 3 Healthcare sector by 2 percent.
- Increase annual electric savings in Quartile 4 Retail sector by 0.44 percent.

The Companies will reevaluate targeted segments and goals on an annual basis based on DEEP's rulings in its Equitable Energy Efficiency proceeding, input and recommendations from the EEB's Diversity, Equity, and Inclusion (DEI) Consultant, <sup>85</sup> participation, energy savings, and contributions received. In the 2022-2024 term, the Companies will target equity improvements including addressing issues around race and language, and address contractors as well as customers.

## **Priority 2: Decarbonization**

Connecticut's communities, particularly those situated near or in the 600 miles of the state's coastline, are extremely vulnerable to the impacts of weather and climate events caused by the increase in carbon dioxide and other greenhouse gas emissions in the atmosphere due to anthropogenic activities. Connecticut businesses, municipalities, and state government are already experiencing the effects of climate change and the need to build a more resilient building sector that is less dependent on fossil-fuel generation and consumes less energy is critical in helping the state meet its goals for reducing greenhouse gas emissions over the next few decades.

The Companies will implement the following strategies in the 2022-2024 term to increase decarbonization and electrification:

- Enhance weatherization efforts for commercial, industrial, municipal, and state buildings.
- Increase technical and financial support for low-carbon technologies in retrofit applications.
- Increase promotion of low-carbon space and water heating technologies in retrofit and new construction projects.
- Leverage manufacturer and distributor networks to promote heat pumps and their benefits to customers and contractors.
- Increase general customer education and outreach as it pertains to heat pumps and their benefits.
- Expand their focus on C&I systems such as variable refrigerant flow and ground source heat pumps.

DEEP in its Final Determination for the E3 Proceeding—Phase I Goals and Actions determined that Action Item 1.1 is to hire a Diversity, Equity, and Inclusion Consultant for the Energy Efficiency Board. See DEEP, E3 Proceeding-Phase I Goals Actions, Jul. 21, 2021, available online at: <a href="https://portal.ct.gov/-/media/DEEP/energy/ConserLoadMgmt/Final-E3-Phase-I-Determination.pdf">https://portal.ct.gov/-/media/DEEP/energy/ConserLoadMgmt/Final-E3-Phase-I-Determination.pdf</a>.

 Expand active demand response offerings to support electrification and carbon neutrality, including smart thermostats, air conditioner cycling, lighting/dimming, solar photovoltaic and battery storage, industrial shutdowns, and electric vehicle chargers.

In January 2021, the GC3 released its Phase 1 report on near-term actions to address climate change, build a more resilient Connecticut, and to reduce greenhouse gas emissions. For the C&I Portfolio, the Companies have integrated several of the GC3's recommendations into their preparations for the 2022-2024 term, including an enhanced weatherization effort for commercial and municipal buildings and the promotion of low-carbon space and water heating technologies in retrofit and new construction projects. The Companies will use the same manufacturer and distributor channels used in the Residential Portfolio to promote heat pumps to C&I customers. The Companies will promote and finance heat pumps to small businesses through their existing trade ally networks and vendors. Additionally, the Companies will apply the lessons learned from the 2021 heat pump pilot toward the program's implementation in the 2022-2024 Plan, including an expanded focus on C&I systems such as variable refrigerant flow and ground source heat pumps. The Companies will offer increased technical and financial support for low-carbon technologies in retrofit applications.

In the upcoming term, the Companies will also expand their active demand response offerings to support decarbonization and carbon neutrality, including smart thermostats, air conditioner cycling, lighting/dimming, solar photovoltaic and battery storage, industrial shutdowns, and electric vehicle chargers. More information regarding the Companies' active demand response offerings and priorities can be found in Section 3.7.1. Additional decarbonization strategies will include a renewed push for Zero Net Energy, Zero Net Energy Ready, and Passive House certifications for commercial new construction projects. The Companies will introduce packaged energy efficiency program offerings for all-electric new construction projects through the C&I Portfolio. During the 2022-2024 term, the Companies will also begin to align the Energy Conscious Blueprint (new construction and major renovations program) with the DOE's Grid Interactive Efficient Building initiative and research and identify opportunities to integrate battery storage and distributed renewable energy technologies to displace carbon emissions. These initiatives are further discussed in Section 3.2.

## **Priority 3: Energy Affordability**

The C&I Portfolio promotes economic development through lower energy bills, enhanced energy security, and increased reliability. For the 2022-2024 term, the Companies are focused on reaching more C&I customers to make them aware of, and to participate in, energy efficiency and active demand response programs. Energy affordability is a major concern for businesses, particularly micro-businesses and small commercial enterprises. By participating in the C&I Portfolio's offerings, businesses can save energy and money which helps them reduce operational costs and focus on maintaining their competitive niche in the marketplace.

Many businesses struggle to maintain their profitability, pay competitive wages, sustain staffing levels, and keep production lines running. These struggles were exasperated by the pandemic in 2020, requiring the Companies to work extensively to create innovative solutions that allowed them to drive energy savings, improve facility operations, and reduce energy bills. When less dollars are directed toward energy bills, this means that businesses have more money to invest in new products and services or hire additional staff. This in turn promotes economic development for the state and the Northeast region. Investment in energy efficiency strengthens the economy and makes businesses viable.

To make energy more affordable for C&I customers, the Companies will implement the following strategies in the 2022-2024 term:

- Enhance promotion of existing loan products and increase financing options to C&I customers to support longterm energy efficiency investments that provide immediate energy savings with little to no upfront capital costs.
- Enhance affordability and equal access to program offerings.
- Continue to offer virtual, pre-assessments through the Small Business Energy Advantage program to support the installation of electric and natural gas energy efficiency and active demand response programs.
- Through the Microbusiness Initiative, offer a simplified program for small business customers to make participation and the adoption of comprehensive measures easier.
- Conduct additional education and outreach to businesses to increase participation in energy efficiency and active demand response programs across market segments and customer classes.
- Promote comprehensive energy efficiency measures so C&I customers can reinvest energy savings into employees, new production lines, services and implementing further operational efficiencies.

#### Other Goals

#### Workforce Development

For the upcoming term, the Companies will continue to focus resources and technical support to promote clean energy workforce development in the state and region. Planned C&I trainings will include topics such as HVAC technologies and controls, refrigeration equipment and controls, active demand response strategies, emerging technologies, advanced lighting and controls, whole building design, code-plus initiatives, and salesforce training.

In addition to specific measure or process trainings, the Companies will also implement workforce development trainings that focus on specific segments, such as agriculture and industrial processes (e.g., compressed air, steam, pumps, etc.). Details regarding specific trainings are discussed in Section 4 of this Plan.

#### Co-delivery of Energy Efficiency and Active Demand Response Programs

There are several benefits of integrating the Companies' energy efficiency and demand response offerings including increased utility bill savings through demand management, reduced energy use, total utility cost reduction through active demand response incentives, increased program participation and satisfaction, and increased ease of participation through a single, clear program entry point or enrollment process. Additionally, there are fewer power outages and lower program costs. Reference to the Companies offer a "Level 2"87 integration of energy efficiency and active demand response programs. For the 2022-2024 term, the Companies will explore other degrees of integration for the co-delivery of energy efficiency and active demand response offerings to transition into providing a single combined program or "Level 4."

<sup>&</sup>lt;sup>86</sup> York, D., Relf, G., and Waters, C. 2019. *Integrated Energy Efficiency and Demand Response Programs*. DC, American Council for an Energy-Efficient Economy.

<sup>&</sup>lt;sup>87</sup> See York 2019), there are four levels of energy efficiency and demand reduction integration: Level 1 – recognition of energy efficiency or demand reduction capabilities, Level 2 – cross promotion, Level 3 – administrative coordination, and Level 4 – single program.

#### Transition from Lighting to Non-Lighting Savings

In the 2022-2024 term, the Companies will focus on the growth of network and the increased adoption of luminaire level lighting controls. In addition, the Companies will provide building energy efficiency offerings compatible with post-pandemic practices, such as remote audits or virtual pre-assessments. As noted earlier in this section, the Companies will also target other non-lighting savings opportunities through HVAC equipment and controls, retro-commissioning, weatherization, process improvements, refrigeration measures, and strategic energy management.

## **Heat Pump Contractor Education & Training**

In support of the state's goals for reducing greenhouse gas emission reductions and the GC3's recommendations from their Phase 1 report, the Companies will look to reduce greenhouse gas emissions from the building sector by promoting high-efficiency, low-carbon space and water heating technologies, such as heat pumps and heat pump water heaters. In 2020, the Companies, in partnership with other efficiency program administrators and utilities, developed a comprehensive state and regional heat pump training strategy for contractors. The purpose of this strategy is to drive adoption from the supply chain to the contractor to the end user.

For the upcoming term, the Companies will continue to work with other regional program administrators to maintain a regional QPL for heat pumps. This regional QPL was established to standardize the efficiency and qualifying criteria for air source heat pump technologies installed in Connecticut and in multiple states throughout the Northeast region. The QPL ensures that qualifying product inventory is available to contractors within the local supply chain and prior to expanded trainings across the region and all 2022-2024 trainings will reflect the new QPL. Additionally, the Companies will develop customer-facing tools, such as a contractor locator tool to direct customers to qualified heat pump installers. To advance electrification of heating and cooling equipment, the Companies will prioritize marketing tactics that promote the benefits of heat pump technologies, refresh the EnergizeCT.com website, create an "All Things Heat Pumps" webpage, and conduct ongoing pulse surveys to better understand and track customer awareness and perceptions of heat pump technologies.

During the 2022-2024 term, the Companies will continue to implement the comprehensive heat pump training strategy to ensure that C&I contractors understand how to sell, install, and service heat pump systems. The Companies' strategy to increase awareness, educate, and ensure proper installation is to reach HVAC and other contractors using various channels and paths. The two main pathways identified are online learning resources and collaborative channel partnership trainings.

#### Online learning resources

The Companies have developed an online Learning Center to educate the contractor community about heat pump technologies. The online training resources allow contractors to take classes and educate themselves based on their interests, schedule, and availability. The feedback from the HVAC community has been positive and the Learning Center is recognized as a resource that will be used. During the upcoming term, the Companies will leverage existing vendor contracts and online resources to adapt the training to the needs of Connecticut's marketplace. Some current courses include:

Air Conditioner and Heat Pump High-Performance Tune-Up. This course provides technical training to help
residential and commercial diagnostic tune-ups meet specifications. The tune-up process focuses on non-capacity
verification.

- HVAC Equipment Energy Usage: Charge Levels Refrigerant Leaks. This training details the topics of subcooling, superheat, and system design considerations according to Manual J using an interactive HVAC simulation to effectively illustrate these points.
- HVAC Equipment Energy Usage: Obstructed Air Flow-Condenser or Filter. This course provides an analysis of both indoor and outdoor airflow, associated tool usage, and a general discussion related to SEER using an interactive HVAC simulation to highlight these points.
- measureQuick Start to Finish. This course trains participants on how to use measureQuick to calculate the airflow, measure total/sensible/latent capacity, and determine the efficiency of heat pumps.
- Measuring Air Distribution. This training explains airflow, how HVAC systems are designed and configured to
  deliver the correct amount of air to each room of a building, how to accurate measure airflow, and how to
  address common air distribution problems.

## Collaborative channel partnership trainings

The Companies understand that they need to leverage the capabilities and resources of manufacturers to increase the number of low-carbon space and water heating technologies installed in the C&I sector. For the 2022-2024 term, the Companies' internal teams will work closely with global manufacturers to allow for a stronger go-to-market strategy that benefits from the supply chain's resources, such as existing trainings and certifications. By creating collaborative channel partnerships, the Companies can leverage the knowledge of experts and build on existing resources rather than starting from nothing.

In the 2022-2024 term, the Companies will work with manufacturers and distributors to leverage their education and training efforts to support the purchase and installation of more high-efficiency HVAC and water heating equipment across the state. Many of the larger heat pump manufacturers have robust contractor networks that are based on contractor experience and their completion of manufacturer-led trainings. For the 2022-2024 term, the Companies have a two-fold approach to collaborating with heat pump manufacturers:

- Work with manufacturer partners to identify contractors (in Connecticut and New England) who have successfully completed heat pump installation trainings and engage these firms through program support, and
- Encourage untrained contractors to attend and complete manufacturer-led heat pump trainings to broaden the base of qualified installers.

This work already began in the 2019-2021 term through the development of the Air Source Heat Pump Working Group. This group includes regional manufacturer representatives from major heat pump manufacturing companies.

## **Customer Education**

The Companies' two primary goals for consumer education are: 1) awareness of heat pumps as a heating and cooling option, and 2) confidence in heat pump technology performance. The Companies plan to leverage industry efforts, working with manufacturers to co-brand manufacturer-created educational materials, when warranted. For the 2022-2024 term, the Companies will continue to develop and enhance customer-facing content regarding the basics and

benefits of heat pump technologies. The site will include engaging animation that depicts how the technology works. The Companies have previously used animated graphics to create engaging experiences for consumers and stakeholders. 88

The Companies plan to conduct ongoing "pulse" surveys to better understand and track customer awareness and perceptions of heat pump technologies. In the upcoming term, the Companies will focus on prioritizing marketing tactics that promote the benefits of heat pump technologies and simplifying customer-facing messaging and terminology. The Companies will also refresh the EnergizeCT.com website and create an "All Things Heat Pumps" webpage. Additionally, the Companies will develop customer-facing online tools, such as a contractor locator to direct customers to qualified heat pump installers. These online tools will help educate customers regarding the benefits of heat pumps, current incentives, and also help interested businesses and municipalities in locating qualified contractors.

## 3.1.4 Process for Continued Improvement

In the 2022-2024 term, the Companies will streamline and simplify contracts with customers. This includes the alignment of contracts between individual Companies when there are different Electric and Natural Gas Companies for the same project (e.g., Eversource provides the electric service and CNG provides the natural gas service). The Companies will also explore changing definitions such that follow-on projects completed within one year will be considered comprehensive due to earlier energy-saving projects. This will encourage more customers to participate in comprehensive energy-saving projects. In addition, the Companies will continue to pilot and assess innovative approaches to program design, incentives, and offerings.

#### 3.1.5 Codes and Standards

For the 2022-2024 term, the Companies will provide the following support for codes and standards in the C&I sector: (1) provide compliance support for base and stretch code and (2) provide stretch code development support. Figure 3-B below details the schedule of code compliance and the Companies' planned activities.

To provide compliance support for base and stretch code, the Companies will collaborate with architects, local builders, contractors, and building enforcement officials to increase the number of buildings complying with the locally applicable energy code. The Companies will implement a series of code trainings, as well as outreach and technical support in the form of circuit riders, compliance documentation tool development, and review support. <sup>89</sup> These significant code training efforts should improve compliance with the 2021 IECC and mitigate the drop in code compliance which typically occurs with large code changes.

In the upcoming term, the Companies will provide technical and program support in the development of any stretch codes adopted by a local government. During the 2021 legislative session, the Connecticut General Assembly advanced stretch code legislation (HB 6572) out of committee. 90 The legislation proposed that municipalities would be allowed to establish a requirement that new or substantially renovated buildings over 40,000 square feet must demonstrate that

https://www.cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Bill&bill\_num=HB6572&which\_year=2021.

The Companies created animated graphics for the Energy Education program (see Section Four of this Plan) and the Energy Efficiency Board's Annual Legislative Report.

<sup>&</sup>lt;sup>89</sup> Circuit riders are experts who meet with targeted groups of market actors (in this instance the new construction community) to address their specific needs and issues, enhance their knowledge, provide technical assistance, and modify their practices.

<sup>90</sup> HB 6572 was advanced out of committee but was tabled as the 2021 legislative session ended prior to coming to a vote before the entire Connecticut General Assembly. Proposed legislation is available online at:

they use at least 10 percent per square foot less energy than maximum levels permitted under the state building code. If HB 6572, or a similar code stretch bill, does become law during the 2022-2024 term, then the Companies will provide technical and program support to participating municipalities.

Figure 3-B: Schedule of Code Compliance & Activities

## 3.1.6 Incentives and Financing

#### Incentives

The Companies use incentives to motivate customers to implement comprehensive energy efficiency and demand management measures when replacing failed equipment, constructing a new facility, making renovations to an existing building, and optimizing the efficiency of their business operations. A well-designed incentive will be attractive to induce a customer to install energy-efficient equipment or implement a process that saves energy; however, it should not reduce the program's cost effectiveness.

The Companies must design incentives to reflect the customer's purchasing decisions. For example, the Companies can design smaller incentives for new construction, renovations, or for when an existing piece of equipment fails, because the customer has already made their purchasing decision, independent of the energy efficiency benefits. A reasonable incentive that covers the incremental cost of installing an efficient unit rather than a standard piece of equipment should be sufficient.

The Companies utilize an array of incentives to motivate customers to purchase energy-efficient equipment. Some common incentive types used include:

- Midstream incentives and rebates. Midstream rebates are incentives given to distributors to encourage the stocking and promotion of high volume, standard energy-efficient equipment, such as LEDs in their warehouses. Contractors will be motivated to purchase the energy-efficient equipment as it is fully stocked and similarly priced to standard equipment. The Companies' goal in establishing midstream incentives is to eliminate the price barrier between standard and highly-efficient equipment. The Companies are constantly reviewing the need to add new products and whether revisions are needed due to market conditions. Additionally, stocking behaviors and workforce development opportunities must be maximized in order to continue to aid the market in its evolution to best uses.
- **Unit incentives and rebates.** These are pre-determined prescriptive incentives for common energy-efficient technologies where energy savings are easily quantified in a variety of standard applications and circumstances. Unit incentives and rebates are meant primarily for smaller projects where a customer can quickly and easily

identify a piece of standard equipment (e.g., HVAC units or lighting fixtures) and compare it to a high-efficiency alternative.

- Incremental cost incentives. This incentive is designed to pay some of the incremental costs associated with upgrading from standard-efficiency to premium-efficiency equipment. This incentive is designed to entice the customer away from standard-efficiency (defined as the minimum efficiency needed to meet building code requirements) or improve above baseline when code does not apply or baseline practice is above code. Typically, incremental cost incentives are used in new construction or "lost opportunity" equipment placement projects where a customer's older equipment fails and is being replaced, or when existing equipment is near the end of its useful lifetime and the customer is planning for a replacement.
- Whole building incentives. These incentives are typically used for new construction and major renovation
  projects to reward high-performance energy-efficient designs and construction. The Companies use a tieredincentive approach where the incentive increases the more efficient the design and resulting construction is
  relative to building code.
- **Design incentives.** These incentives are available for design teams to compensate them for some of the additional costs associated with running multiple building simulations. Building simulations, or energy models, are used by design teams to systematically evaluate multiple energy-efficient measures and designs. The energy models assist builders and designers in evaluating a new construction or major renovation project holistically and in determining the interactive effects of various pieces of energy-efficient equipment together. Design incentives are used to motivate design teams to maximize energy efficiency in new buildings and to ensure that energy-efficient design and equipment survive the value-engineering process.
- **Technical study costs.** This incentive subsidizes the customer for costs when performing studies to evaluate energy efficiency opportunities, such as compressed-air system evaluations, and focused studies on high-consumption electrical or natural gas equipment. Typically, the C&I customer and the Companies will agree that a study would help explore and identify opportunities for cost-effective measures.
- **Tiered incentives.** Incentives will be structured to encourage comprehensiveness in energy efficiency projects. The goal of providing a tiered incentive is to help customers capture energy savings from all identified energy-saving measures within a phased implementation. The Companies plan to continue to encourage comprehensiveness throughout the C&I Portfolio with the use of tiered incentive structures to promote multi-measure and multi-end use comprehensive projects. On a periodic and ongoing basis, the Companies evaluate their tiered incentive structure for effectiveness.
- Multi-year energy-saving agreements. For the 2022-2024 term, the Companies will continue to support select
  customers in multi-year energy saving agreements. As these agreements involve all implementable and costeffective energy projects over the agreement period, the Companies structure their commitments in a manner
  that helps that customer overcome its barriers.

# **Financing**

The Companies continue to collaborate with private third-party vendors and the CT Green Bank to reintroduce recapitalization strategies that leverage private capital and that also extend lean term limits for local and state government customers to further encourage comprehensiveness in energy efficiency projects. For the 2022-2024 term, the Companies will continue working with third-party providers and the CT Green Bank to offer joint financing programs, such as C-PACE loans and energy storage. Eversource will extend the SBEA financing process through the 2022-2024 Plan.

The SEBA loan process is the financing approved by the EEB and DEEP to allow Eversource to sell energy efficiency loans to third-party lenders (including the CT Green Bank) to reduce the Conservation & Load Management interest expenses and leverage third-party capital (see Section 3.5). In 2021, the Companies issued a Request for Proposal for new C&I financing partners. The new financing offerings will take effect in the 2022-2024 term.

Figure 3-C: 2022-2024 C&I Financing Solutions

Financing Product	Loan Limits	Terms	Interest Rate	Funding Source
Small Business & Municipal Loan	On-Bill  • \$500 to \$100,000 (on-bill repayment for electric and natural gas measures)  • \$1,000,000 per municipality and/or State project (Eversource)  • \$500,000 per municipality/United Illuminating  • \$250,000 per State agency (United Illuminating)	Max. 48 months	0% for cap of \$100,000, above \$100,000 (market rate) Municipal & State Loans 0%	Energy Efficiency Fund, Utility Capital, and third-party providers
Business Energy Advantage (Eversource only)	On-Bill: \$500 to 100,000 (on-bill repayment for electric and natural gas measures)	Max. 48 months	0% for \$100,000 (through reduced incentive), above \$100,000 market rates	
Commercial & Industrial Loan	\$2,000 to \$1,000,000	Max. 60 months	Low-interest rates up to \$100,000 (market rates above \$100,000)	Third-party provider
C-PACE	For energy improvements \$30,000 and above	5 to 25 years	5% to 5.99%	Third-party provider
PURA Loan	\$1,000,000 and over	Max. 120 months	1% below customer's eligible rate or prime rate	Electric ratepayers (funding through Federally Mandated Congestion Charges)
CT Hospital Association Trust.	Varies	5 to 7 years	0%	Eversource Grant (self- funding)

# 3.1.7 Performance Management Incentive Metrics

As discussed in Section 1.7, the Companies earn an annual performance management incentive for managing Connecticut's energy efficiency and demand management programs and budgets. The incentive is tied to program specific-oriented metrics, such as energy savings and net economic benefits. Performance management incentives are typically based on a percentage of energy efficiency program costs and this percentage varies dependent on if goals and/or targets are met or exceeded. For the 2022-2024 term, the Companies have developed energy and demand savings metrics for measuring the success of the C&I Portfolio's programs and initiatives. The Companies will earn a performance management incentive for meeting the following program specific-oriented secondary metrics:

Figure 3-D: 2022-2024 C&I Performance Management Incentive (Secondary Metrics)

Program	Incentive Metric	Description		
Electric				
Energy Opportunities	Continue to promote comprehensive projects	Companies must develop and implement comprehensive offerings that consist of a tailored combination of measure and service bundles, and technical assistance for strategic energy management and benchmarking		
Energy Conscious Blueprint	Continue to advance projects that are more efficient than the State Energy Code	This metric increases the number of new construction/major renovation projects that are more efficient than the State Energy Code and are 30% > ASHRAE 90.1-2013 or IECC 2015, or utilize Whole Building Performance, or Near Net Zero		
Small Business Energy Advantage	Continue to promote comprehensive projects	Companies must develop and implement comprehensive offerings that consist of a tailored combination of measure and service bundles, and technical assistance for strategic energy management and benchmarking		
Equitable Distribution	Increase the equitable distribution of savings across all customer quartiles	This metric is designed to increase savings from customers in the Quartile 1 Healthcare sector, the Quartile 2 Financial, Real Estate & Insurance sector, the Quartile 3 Healthcare sector, and the Quartile 4 Retail sector (relative to the baseline average). Quartiles may change over term		
Strategic Energy Management	Promote Strategic Energy Management Initiatives	This metric is designed to engage companies that are part of a cohort (one or more) with each company saving a minimum of 10 annual MWh and the Companies also will engage with 10 individual companies with each Company's savings a minimum of 25 annual MWh		
	Natur	al Gas		
Energy Opportunities and Energy Conscious Blueprint	Continue to promote comprehensive projects	Companies must develop and implement comprehensive offerings that consist of a tailored combination of measure and service bundles, and technical assistance for strategic energy management and benchmarking		
Small Business Energy Advantage	Continue to promote comprehensive projects	Companies must develop and implement comprehensive offerings that consist of a tailored combination of measure and service bundles		

# 3.2 NEW CONSTRUCTION, MAJOR RENOVATIONS & EQUIPMENT REPLACEMENT

For more than 20 years, the Energy Conscious Blueprint program has helped drive energy efficiency in the new construction, major renovations, and new equipment and equipment replacement marketplaces. For the 2022-2024 term, the Companies remain committed to promoting the integration of energy efficiency, active demand response and renewable energy strategies, financing programs, and solutions into the program. Active demand response strategies could include controls, automatic shades, thermal storage, or battery storage (freestanding or in electric vehicles). The Companies plan to engage more architects, engineers, and buildings during the schematic and conceptual design phase to maximize energy efficiency and demand reduction planning into the building projects.

The following figure summarizes the Companies' projected energy savings, program costs, benefits, and cost-effectiveness for the Energy Conscious Blueprint program, including both electric and natural gas values.

Figure 3-E: 2022-2024 Energy Conscious Blueprint (Combined Electric and Natural Gas)\*

Planned Results	Total
Number of Customers Served	808
Total Program Lifetime Savings, Electric (MWh)	1,148,867
Total Program Lifetime Savings, Natural Gas (ccf)	36,501,183
Total Program Lifetime Savings, Oil (Gal)	36,720
Total Program Lifetime Savings, Propane (Gal)	30,600
Total Program Lifetime Savings (MMBtu)	7,683,793
Lifetime CO₂ Emissions Reduced (tons)*	708,358
Total Program Lifetime Benefits (\$000)	\$232,249
Total Program Costs (\$000)	\$70,133

<sup>\*</sup>Please note that these are short tons.

## 3.2.1 Objectives & Target Market

In 2021, the Energy Conscious Blueprint program was redesigned as a transformative four-pathway offering to drive the new construction marketplace toward zero-energy buildings with low energy-use intensity (EUI) ratings. The Companies will continue to provide four pathways to cost effectively exceed energy code requirements during design and construction and to achieve zero net energy. The four-pathway offerings include:

- 1. Net Zero Energy/Deep Energy Savings.
- 2. Whole Building with Energy Use Index Reductions.
- 3. Whole Buildings Streamlined.
- 4. Systems and Measures.

The Energy Conscious Blueprint program supports integrated design and whole-building energy modeling (BEM) at the feasibility phase and offers incentives for customers to incorporate energy reduction strategies through post occupancy. For the new construction market, the target market includes architects, designers, distributors, engineers, equipment specifiers, manufacturers, suppliers, commissioning agents, and the owners or developers of new buildings. In the equipment replacement market, key decision makers include building owners or managers, equipment supply houses, and facility staff. The Companies plan to continue to reduce barriers for adoption of emerging and traditional, high-efficiency building technologies by working with the appropriate parties to intervene and introduce energy efficiency in the planning phase. The Companies will create feedback loops to encourage continuous energy use improvement through monitoring of energy use indexes in new buildings.

## 3.2.2 2022-2024 Themes & Priorities

For the 2022-2024 term, the Energy Conscious Blueprint program's key themes and priorities include:

Engage the design and construction community.

- Increase adoption of Zero Net Energy, Zero Net Energy Ready, and Passive House for commercial new construction projects.
- Drive and monitor low energy use intensity in commercial and municipal buildings.
- Support integration of renewable energy, grid interactive buildings, and active demand response programs.
- Provide packaged energy efficiency and active demand response program offerings for all-electric new construction projects.
- Work with the State of Connecticut to modify offerings for state and municipal projects in order to resolve existing funding cap for state-funded projects.
- Provide strategic support to major renovation projects occurring as a result of the post-pandemic economy and commercial real estate impacts. Work with industry guiding organizations (e.g., ASHRAE) in developing adjusted ventilation baselines.
- Prepare packaged offerings to streamline adoption for commonly-paired HVAC technologies such as variable refrigerant flow and dedicated outside air system.
- Reduce greenhouse gas emissions.
- Promote codes and standards compliance and training.

## 3.2.3 Midstream Rebates

The Companies offer midstream rebates for HVAC and commercial kitchen equipment through the Energy Conscious Blueprint program. The objective of this offering is to influence the stocking and selling practices of distributors. By offering instant discounts at the point of sale, the Companies can tip the financial scales in favor of energy-efficient options, leading distributors to change what they stock and sell, and contractor purchases which benefit the customer. Since 2016, the Companies have demonstrated success in delivering midstream incentives through their Residential and C&I Portfolios. Midstream incentives alter the way retailers and distributors stock their shelves with energy-efficient products, help streamline the rebate process for the customer, and lower the processing costs for the Companies.

For the 2022-2024 term, the Companies will offer midstream incentives for commercial kitchen equipment, including freezers, fryers, griddles, and refrigerators. In addition, the Companies will continue to offer incentives for high-efficiency electric commercial HVAC products and high-efficiency natural gas HVAC equipment. The Companies will look to add more midstream products, such as heat pumps, natural gas measures, and additional HVAC and commercial kitchen equipment to their Midstream Rebates offering as warranted.

## 3.3 RETROFIT SERVICES (ENERGY OPPORTUNITIES)

A major portion of the C&I Portfolio's energy savings comes from the Energy Opportunities program. Energy Opportunities is an umbrella retrofit initiative that provides incentives and ancillary technical services to encourage existing C&I building owners to replace functioning, but outdated and inefficient equipment with high efficiency units. As a result, the Companies continuously review incentive structures and delivery mechanisms to reflect new technologies, the changing marketplace, and economic conditions.

# 3.3.1 Objectives & Target Market

The Energy Opportunities program targets non-residential electric and natural gas customers on a firm rate. In addition to focusing on above mentioned specialized segments, the Companies will focus on equity and participation to increases participation of underrepresented market segments.

The Energy Opportunities program has three delivery mechanisms:

- 1. For large commercial, industrial, and municipal customers with electric usage greater than 5,000,000 kWh annually across all of their properties or customers of any size working outside of a qualified vendor network, the Companies primarily use their internal staff of technical experts and account managers, supplemented with third-party technical support, to work directly with customers to identify and delivery energy efficiency solutions. The customer can also use their own vendor for technical expertise and to implement energy conservation measures.
- 2. For medium-sized commercial, industrial, and municipal customers with electric usage between 1 million kWh and 5 million kWh annually across all of their properties, Eversource may deliver energy efficiency solutions through the medium-sized business offering, primarily a vendor-driven initiative. This initiative is discussed in detail in Section 3.3.3.
- 3. For small commercial, industrial, and municipal customers with electric consumption of up to 1 million kWh annually (special considerations for nonprofits and long-term care facilities), the Companies may deliver energy efficiency solutions through the Small Business Energy Advantage program, a vendor-driven initiative. The Companies will work closely with trade allies and associations and employ market actions designed for an individual customer's market segment. This initiative is discussed in detail in Section 3.5.

The following figure summarizes the Companies' projected energy savings, program costs, benefits, and cost effectiveness for the Energy Conscious Blueprint program, including both electric and natural gas values.

Figure 3-F: 2022-2024 Energy Opportunities (Combined Electric and Natural Gas)\*

Planned Results	Total
Number of Customers Served	3,213
Total Program Lifetime Savings, Electric (MWh)	1,508,077
Total Program Lifetime Savings, Natural Gas (ccf)	24,416,987
Total Program Lifetime Savings, Oil (Gal)	73,008
Total Program Lifetime Savings, Propane (Gal)	65,403
Total Program Lifetime Savings (MMBtu)	7,674,164
Lifetime CO <sub>2</sub> Emissions Reduced (tons)*	749,390
Total Program Lifetime Benefits (\$000)	\$302,737
Total Program Costs (\$000)	\$138,972

<sup>\*</sup>Please note that these are short tons.

#### 3.3.2 Themes & Priorities

#### Decarbonization

The Companies will pursue the further adoption of the statewide decarbonization initiative by removing barriers and increasing the benefit to customers installing electric fuel heat pumps and investing in building envelope improvements. Changes to the comprehensive benefit structure (described later in this section) combined with efforts to expand relationships with heat pump suppliers and manufacturers as described in Section 3.6 will provide a framework that supports the installation of electric fueled heat pumps for customers participating in the Energy Opportunities program's offerings. Customers will have an increased selection of products and access additional benefits when they choose to pursue a heat pump installation while contemplating other building upgrades.

To expand the implementation of underutilized decarbonization measures, the Companies will connect with the workforce specializing in weatherization, refrigeration leaks, and industrial process equipment to identify and remove barriers to participation. The Companies will look to simplify submission requirements and increase training on application processes to encourage new vendors to participate.

During the 2019-2021 term, the Companies initiated an HVAC Modernization pilot to increase adoption rates of high-efficiency HVAC systems and equipment. In 2019, the Companies released a Request for Proposal for chillers and expanded the pilot in 2020 to include rooftop units and boiler systems. The bids submitted for these RFPs by C&I customers and contractors helped the Companies consider more insightful incentive strategies and to determine any significant impact to market elasticity and demand for HVAC equipment and systems. In addition, the Companies are looking to use a similar process to increase the adoption of heat pumps to replace electric resistance heating and to pilot heat pumps to displace existing oil and propane heating. In the 2022-2024 term, the Companies will explore transitioning the learnings from the HVAC Modernization pilot to a program offering and will continue to review similar opportunities for HVAC Demonstration program pilots based on market assessment opportunities.

## Workforce Development

The Companies will increase their focus on developing the workforce to improve effectiveness delivering well-fitted solutions to customers. Trainings on effective use of the comprehensive and lighting control benefits will aim to increase the effectiveness of complex proposals with deeper energy impacts. Details of these training efforts are outlined in Section 4.3.

## Comprehensiveness

The Companies continue to strive to achieve comprehensive and controlled lighting projects as opposed to prescriptive lighting projects. In 2021, to increase comprehensiveness, the Companies expanded customer eligibility for comprehensive benefits to include measures completed within a year of an initial project and across various programs. The Companies will use the restructured incentives to encourage more non-lighting measures and explore new market segments such as agriculture, cannabis, grocery, telecom buildings, and unmanned telecom shelters and cabinets.

Expanding the comprehensiveness benefits to customers using multiple programs throughout the year allows the Companies to accommodate customers' limited resources and financial timelines while addressing deeper energy opportunities. The Companies will look to increase cross-program promotions and improve internal tracking coordination to maximize customer benefits of these 2021 extended comprehensive eligibility guidelines.

While continuing to promote higher benefits to customers to implement new network lighting control projects, the Companies will explore opportunities to add controls to existing LED installations using their existing project records to identify customers. Education to customers and contractors on the benefits of network lighting controls and the correct application will remain a priority within the Companies partnering with efforts expressed in Section 3.6. Targeting by customer segment, the Companies will drive the adoption of energy-saving strategies by leveraging industry association reach and focused messaging. Simplifying the identification of eligible measures and grouping into relevant offering packages will allow the Companies to connect with customers on the opportunities that resonate with their facilities.

#### Customer Barriers

The Companies have identified that some customers are unable to receive the full benefits of the Energy Opportunities program offerings. Structuring incentives to overcome the division of the utility benefit and the construction cost among tenants and landlords, addressing language preferences, and increasing diversity among supporting vendors to serve minority businesses fully and expanding lending options. The Companies will look to increase the number of customers benefiting from the retrofit initiatives.

Working with a network of landlords and tenants and related associations, the Companies will look to understand how to design incentives to work with different leasing structures and provide access to the comprehensive benefits by bridging tenant improvements and whole-building upgrades. By increasing involvement with trade associations across the state, the Companies hope to increase awareness of program benefits, targeting minority-owned businesses, and low participating segments. The Companies will support presentations at association meetings, assist in question and answer sessions, and provide information across several organizations over the next three years to remove the educational and information barriers present in low participating segments.

Customers preferring non-English communication will see an increase in messaging, information, and more in their language of preference. The Companies are mapping the customer journey through an energy efficiency project to determine where to position personnel and develop collateral to support an immersive experience for non-English speakers. By supporting preferred languages across the project lifecycle, the Companies aim to increase participation among minority-owned businesses who have been unable or reluctant to ask questions or understand program benefits.

Additionally, the Companies will look to build off of the lessons learned from implementation of weatherization measures in the residential sector, developing paths from remediation to participation for C&I customers. Remediation of health and safety barriers will allow broader reach of weatherization measures such as air sealing and insulation in the C&I space.

# **Customer Opportunities**

When customers are open for business, they are using energy and the Companies will expand support of new and changing energy consuming operations while meeting health, safety and other code requirements. Further, supporting larger or unique opportunities by identifying alternative paths to participation outside the custom and prescriptive path such as specialized studies, focus on non-energy benefits and the HVAC modernization bid cycle.

While continuing to promote higher benefits to customers to implement new network lighting control projects, the Companies will explore opportunities to add controls to existing LED installations using our existing project records to identify customers. Education to customers and contractors on the benefits of network lighting controls and the correct application will remain a priority within the Companies partnering with efforts expressed in Section 3.6.

The Companies will revisit program opportunities surrounding mechanical ventilation, optimizing occupant-based airflow in COVID environment. Specifically, targeting K-12 school buildings and assist them in responding to viral and bacterial outbreaks with the installation of enhanced ventilation systems. Among new opportunities the Companies will explore savings potential remediate refrigerant leaks in grocery and industrial customer facilities, building a network of vendors specializing in the detection of refrigerant leaks and conducting a pilot study to design a detection and remediation process strategy.

The Companies will explore adding non-energy benefits beyond standard benefit-cost analysis to access higher incentives for HVAC measures. Additionally, to increase awareness, environmental impact messaging will be included on project contracts to educate customers on the non-energy benefits of energy efficiency improvements. The Companies look to prioritize strategies that increase implementation of HVAC and process modernization projects such as compressed air systems, steam systems, vacuum systems, process refrigeration, process boilers and furnaces, and thermal oxidizers. Building off the findings of the modernization projects developed in the last three years to increase awareness of these opportunities and targeting projects or equipment with long run hours or high environmental impact potential.

# 3.3.3 Medium-Sized Business Offering (Eversource only)

## Objectives & Target Market

This offering is for mid-size businesses that consume between >1,000,000 kWh and 5,000,000 kWh annually. The program will use a preferred vendor structure, incentives, and solutions similar to the Energy Opportunities program. This mid-size business initiative bridges the current gap for providing customized solutions and services to businesses that fall between the small business offering and the consultant management of larger energy consumers. These businesses typically are not managed by a utility account manager (similar to most small-sized C&I customers). Currently, there are 2,600 Eversource C&I customers who are eligible to participate in the medium-sized business initiative.

Eversource plans to focus on delivering comprehensive solutions to these mid-size businesses and move away from fundamental lighting projects using the workforce and benefit strategies referenced in Section 3.3. In 2022, Eversource will on-board a new group of preferred vendors following a 2021 Request for Proposal. The preferred vendors will be selected based on their ability to provide HVAC measures, advanced lighting controls, air compressors and refrigeration measures through in-house expertise or proven sub-contractor relationships.

In the 2022-2024 term, Eversource will look to improve the integration of its qualified contractor programs. Eversource will provide incentives and education to qualified contractors to introduce customer opportunities outside the contractor's own expertise and supported by other qualified contractor groups.

#### 3.3.4 Benchmarking Initiative

Benchmarking is tracking energy performance against a standard. It measures and compares a building's energy to similar buildings, past consumption, or a referenced performance level. 91 The Companies continue to encourage the use of EPA's ENERGY STAR Portfolio Manager software for building benchmarking and to measure energy and water consumption, as

<sup>&</sup>lt;sup>91</sup> EPA, available online at: www.energystar.gov/buildings/benchmark.

well as greenhouse gas emissions. Benchmarking is also a requirement for participating in the Retro-commissioning offering.

For the 2022-2024 term, the Companies will continue their partnership with the EPA and provide ENERGY STAR Portfolio Management technical support related to the automatic transfer of billing data to the Portfolio Manager software. The Companies will encourage SBEA vendors to attend these EPA online seminars and explore how this benchmarking software can help them target specific customer market segments and identify energy efficiency opportunities.

As part of the 2021 Plan Update approval, DEEP has asked the Companies to develop a proposal for savings attribution for building benchmarking that would align with the concepts in S.B. 177, *An Act Concerning Energy Consumption Data and Labeling* from the 2020 session regarding building benchmarking: "The proposal shall include a program to voluntarily encourage large building owners to benchmark their buildings and address associated data access and aggregation issues." This Benchmarking Initiative proposal is included as part of this 2022-2024 Plan (see Appendix D).

One aspect of the benchmarking initiative that is currently under evaluation includes assessing energy savings through changes in benchmarked EUI data, with the potential for realized savings be tied to a pay-for performance incentive structure. The Companies are reviewing methods for data normalization between measurement periods including weather, space use, vacancy, and concurrent implementation of energy conservation measures through other C&I programs. The Companies have attached the benchmarking initiative proposal as Appendix D to this 2022-2024 Plan.

#### 3.3.5 Midstream Rebates

The Companies offer midstream rebates for lighting through the Energy Opportunities program. The objective of this offering is to influence the stocking and selling practices of distributors. The Companies also work with manufacturers to understand market trends and communicate product qualification criteria. By offering instant discounts at the distributor's point of sale, the Companies can tip the financial scales in favor of energy-efficient options, leading distributors to change what they stock and sell, and contractor purchases which benefit the customer. Since 2016, the Companies have demonstrated success in delivering midstream incentives through their Residential and C&I Portfolios. Moving incentives upstream from the consumer alters the way retailers and distributors stock their shelves with energy-efficient products, helps streamline the rebate process for the customer, and lowers the processing costs for the Companies. For the 2022-2024 term, the Companies will offer midstream incentives for lighting and examine pathways to expand network lighting control offerings through midstream rebates.

#### 3.4 BUSINESS AND ENERGY SUSTAINABILITY

The Companies offer several Business and Energy Sustainability offerings that seek to integrate energy efficiency into day-to-day operations of C&I customers through services and innovative products. A collection of energy efficiency and sustainability initiatives, the program helps C&I customers make continuous improvements in their business and facility operations that lead to sustainability and competitive business advantages.

The following figure summarizes the Companies' projected energy savings, program costs, benefits, and cost-effectiveness for the Business and Energy Sustainability program, including both electric and natural gas values.

Figure 3-G: 2022-2024 Business and Energy Sustainability (Combined Electric and Natural Gas)\*

Planned Results	Total
Number of Customers Served	771
Total Program Lifetime Savings, Electric (MWh)	247,946
Total Program Lifetime Savings, Natural Gas (ccf)	11,352,271
Total Program Lifetime Savings, Oil (Gal)	29,091
Total Program Lifetime Savings, Propane (Gal)	19,011
Total Program Lifetime Savings (MMBtu)	2,019,911
Lifetime CO <sub>2</sub> Emissions Reduced (tons)*	179,699
Total Program Lifetime Benefits (\$000)	\$62,164
Total Program Costs (\$000)	\$17,706

<sup>\*</sup>Please note that these are short tons.

## 3.4.1 Objectives & Target Market

The Business and Energy Sustainability program's primary objective is to help C&I customers make continuous improvements in their business and facility operations that lead to sustainability and competitive business advantages. Due to its highly-specialized initiative offerings, the portfolio of Business & Energy Sustainability offerings can help all C&I target markets make continuous improvements to their buildings. This includes Strategic Energy Management (SEM) offerings of Energy Utilization Assessments (EUAs), Process Reengineering for Increased Manufacturing Efficiency, Retrocommissioning (RCx) and Monitoring-Based Commissioning (MCx), and Operations and Maintenance (O&M) Services. Figure 3-H shows the solutions offered under the Business & Energy Sustainability program umbrella.

#### Strategic Energy Management

The SEM approach is a long-term engagement to pursue energy efficiency that focuses on setting goals, tracking progress, and reporting results. The SEM approach establishes long-term relationships with energy users to target persistent low-and no-cost measures, as well as prioritize capital project opportunities. Though this program contains all of the value of a traditional SEM program that other states' energy efficiency portfolios present to customers, the offering provides many additional aspects of sustainability that help define it as a cutting-edge program. For the 2022-2024 term, the Companies are evaluating opportunities to integrate ongoing benchmarking to document and claim savings achieved through SEM processes.

The figures below depict the Companies' SEM approach and program process.

Strategic
Energy
Management Strategies

Customer Driven Energy
Management Strategies

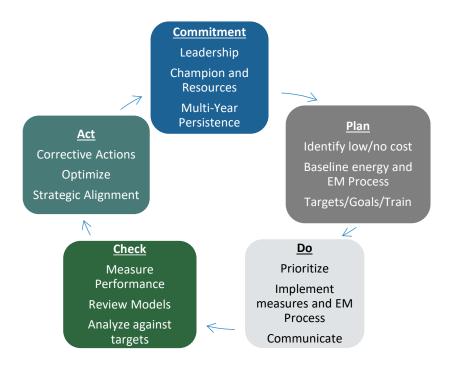
Low-Cost/No
Cost O&M
Savings

New or Existing Equipment
Replacement Incentives

Standard Incentives for Qualifying and Approved
Projects

Figure 3-H: Business and Energy Sustainability Program Design

Figure 3-I: SEM Program Process



#### **Energy Utilization Assessments**

The EUA Initiative is a tool in the Business and Energy Sustainability portfolio that focuses on delivering a standard approach to industrial facility audits. This approach is action-oriented and geared toward finding holistic energy efficiency solutions for C&I customers that can generate substantial energy and financial savings as well as quick payback. The Companies have a select group of vendors that provide audit services that are cost-shared with the participating C&I customer.

## Process Reengineering for Increased Manufacturing Efficiency

The PRIME initiative specifically targets Connecticut's manufacturing sector. PRIME engages manufacturers in a systematic approach to identifying inefficiencies and waste in their business operations. Through the PRIME initiative, manufacturers receive training in lean manufacturing techniques to eliminate or reduce waste, improve product efficiency, reduce operating inefficiencies, minimize environmental impacts (reduced greenhouse gas emissions), reduce electrical energy consumption, and to streamline manufacturing processes.

Through the PRIME initiative, the Companies conduct a competitive solicitation process for highly-qualified lean manufacturing vendors. These vendors conduct a site-survey to determine what site-specific and market segment-oriented lean manufacturing techniques should be implemented. The Companies offer incentives for energy-efficient equipment through their Energy Conscious Blueprint and Energy Opportunities solutions and provide funding for lean manufacturing training that is based on the energy savings associated with the training.

## **Commissioning**

#### Retro-commissioning

The Retro-commissioning (RCx) Initiative is designed to identify energy-saving opportunities in existing C&I buildings by improving the existing buildings and systems to make them operate optimally. As buildings age and the occupancy and building use changes, it is important to maintain a building's energy management systems and sequences of operation to reduce operational inefficiencies and energy use. The RCx initiative helps C&I customers identify low-cost and no-cost non-capital energy-efficient measures that can result in energy savings for the building or facility owner. According to a study by Lawrence Berkeley Laboratory, RCx projects often have simple payback periods of two to four years; therefore, investments in RCx usually have attractive financial returns.

#### Monitoring-Based Commissioning

The Companies will look to expand participation with customers interested in pursuing monitoring-based commissioning (MBCx) opportunities. Many customers are hesitant to invest in MBCx tools due to first investment costs and subscription fees. The Companies will clarify methodologies to derive energy savings that can contribute to or offset subscription fees as measures are implemented. Additionally, the Companies intend to educate MBCx vendors on requirements for submitting qualified projects and optimizing savings for customers.

## Virtual-Based Commissioning (United Illuminating Only)

In 2021, United Illuminating launched a Virtual Commissioning pilot for small and medium-sized businesses. The pilot used United Illuminating's investment in Advanced Metering Infrastructure (AMI) technologies to help small and medium-sized businesses make O&M improvements to their equipment and procedures. As part of this offering, a third-party commissioning consultant reviews a customer's AMI data to determine and analyze their energy load. The energy load

analysis combined with a virtual audit of the business or facility enables the consultant to give recommendations for low-cost and no-cost modifications to equipment and processes. The results from the 2021 pilot were successful and as a result, United Illuminating will transition the offering to a full-fledged program in the 2022-2024 term.

## Operations & Maintenance Services

The O&M Services Initiative enables C&I customers to "tune-up" or improve the electrical and thermal efficiencies of their operations by making changes and repairs to equipment. The O&M Services Initiative provides a number of improvements that maximize operational efficiency and optimize performance, including compressed-air system leak studies and repairs (e.g., Compressed Air System Optimization offering), modifications and/or repairs to building management system control components and software programming, and stream trap repairs and upgrades. Either the Companies' staff or an O&M Services contracted vendor will partner with a participating customer to identify energy efficiency opportunities and support their implementation.

For the 2022-2024 term, the Companies are evaluating new O&M measures, including refrigerant leak detection, repair, and charging. The Companies have designed custom incentives that are based on the associated costs and energy savings resulting from the energy efficiency improvements.

## 3.4.2 Themes & Priorities

## Strategic Energy Management

The 2022-2024 key themes and priorities for the SEM offering include:

- Establish cohorts of non-competing customers who can collaborate and progress together.
  - o Recruiting multi-site customers.
  - Expanding outreach to industry networks.
- Optimize effort in capturing SEM savings.
  - o Collaborative training sessions with SEM providers, engineering reviewers, and internal evaluation staff.
- Support large customers who want to pursue SEM individually.
- Support customers who want to pursue ISO 50001 certification.
- Support C&I customers through the Benchmarking Initiative.
- Provide new offering for virtual treasure hunts and engaging resource-strapped customers with SEM Lite options.

#### Energy Utilization Assessments

In 2021, improvements to customer outreach strategies, process flow, and vendor management were identified during Kaizen events supported across the Companies. Over the next three years, the Companies will conduct a new outreach strategy, focusing on pre-qualification of customer candidates through public and utility data and increased internal training to increase awareness of the offering among staff working with potential customers. As this is a very custom offer, efforts to standardize the type of information needed to pre-approve an opportunity and increasing performance

feedback to vendors on will increase the consistency and quality of projects across all customers. These efforts are meant to increase participation and support manufacturing customers in achieving non-lighting energy savings.

## Process Re-engineering for Increased Manufacturing Efficiency

In the 2022-2024 term, the Companies will explore expanding customer eligibility guidelines for this offering to serve small to mid-size manufacturing customers while redefining the value proposition to better capture the benefits of the PRIME program. When expanding the eligibility guidelines, the Companies will focus on adapting the current program model to serve customers less likely to have energy-focused staff members and who have smaller or fewer machines.

## Operations & Maintenance

The following are the 2022-2024 key themes and priorities for the Operations & Maintenance offering:

- Expand marketing and outreach efforts for steam trap surveys/wraps and trap repair.
- Expand marketing and outreach efforts for compressed air leak studies, leak repair, and optimization.
- Pursue Internet of Things (IOT) for manufacturing efficiency.

## **Commissioning**

The following are the 2022-2024 key themes and priorities for the Companies' Commissioning offering:

- Expanding vendors to perform retro-commissioning (United Illuminating only).
- Explore pay-for-performance incentive structure.
- Evaluate best options to encourage continuous commissioning platforms
- Increase customer education for monitoring-based commissioning opportunities.
- Prescriptive offering for low-cost tuning measures for HVAC equipment maintenance and performance optimization.
- Equipment & Systems Performance Optimization (ESPO) maintenance measures under development.<sup>92</sup>

#### 3.5 SMALL BUSINESS PROGRAM

The Small Business Energy Advantage (SBEA) program is one of the more well-known and recognized programs in the C&I Energy Efficiency Portfolio. SBEA is designed as a cost-effective, turnkey energy efficiency service for small C&I customers who do not have the financial resources, in-house expertise, or time necessary to analyze and reduce their energy consumption.

This offering will be similar to the Mass Saves ESPO program and its three channels: (1) low-cost measures, (2) targeted systems tuning, and (3) whole building and process tuning.

# 3.5.1 Small Business Energy Advantage Program

#### Objectives & Target Market

For the 2022-2024 term, the SBEA program will continue to offer a financial platform that combines incentives for relevant energy efficiency measures within cost-effective restraints and a zero-percent financing option to credit-qualifying customers to cover the balance of energy efficiency project costs in a cash positive scenario. The Companies are also simultaneously increasing the hurdles necessary to reach true comprehensiveness through a tiered incentive structure.

The financed contract amount appears as a line item on the SBEA customer's electric bill. The loan repayment term is typically determined by the simple payback of the project and set at a level which typically provides the customer with a positive or at least neutral annual cash flow based on the estimated energy savings of the installed measures. Like electric measures, the cost of natural gas energy-saving measures is also financed as part of the on-bill financing. When the simple payback of measures or amounts to be financed exceed maximums established by the Companies, SBEA customers are given access to the same types of third-party financing offered through the Energy Opportunities program. Eversource will extend the SBEA financing process through the 2022-2024 Plan. This is the financing approved by the EEB and DEEP to allow Eversource to sell energy efficiency loans to third-party lenders (including the CT Green Bank) to reduce the Conservation & Load Management interest expenses and leverage third-party capital.

Since 2020, the Companies have been providing virtual pre-assessments through the SBEA program and Eversource's medium-sized business offering. While the technician-led virtual pre-assessment is similar to the on-premises SBEA and medium-sized business program audits, it cannot provide the diagnostics, testing, and direct install of energy efficiency upgrades that are normally completed during a traditional on-site assessment. The virtual pre-assessment does help technicians identify "low-hanging fruit" energy-saving opportunities that can be made once an SBEA vendor can physically go on site and perform the installations.

As part of promoting heat pump technologies, the Companies will include training SBEA contractors on the benefits of heat pumps and how to best identify businesses that could benefit the most from the installation of heat pump technologies. The Companies see these trainings as imperative to the increased adoption of heat pump technologies by small business customers. Small and micro customers are the best target for decarbonization through retrofit, especially customers who have delivered fuels, electric resistance space, domestic hot water, and/or inefficient central air conditioning equipment that needs to be upgraded.

As part of the Microbusiness Initiative, the Companies will target businesses that use less than 25 kW average monthly demand (United Illuminating) or consume less than 100,000 kWh annually (Eversource) across all facilities and are underserved as their percentage of savings relative to usage as the C&I group. The Companies will target this segment of the market with potentially enhanced incentives especially when a customer installs non-lighting or comprehensive measures.

The following figure summarizes the Companies' projected energy savings, program costs, benefits, and cost-effectiveness for the Small Business program, including both electric, natural gas, and oil values.

Figure 3-J: 2022-2024 Small Business Energy Advantage (Combined Electric and Natural Gas)\*

Planned Results	Total
Number of Customers Served	3,146
Total Program Lifetime Savings, Electric (MWh)	673,527
Total Program Lifetime Savings, Natural Gas (ccf)	7,059,361
Total Program Lifetime Savings, Oil (Gal)	42,725
Total Program Lifetime Savings, Propane (Gal)	57,027
Total Program Lifetime Savings (MMBtu)	3,035,616
Lifetime CO <sub>2</sub> Emissions Reduced (tons)	307,088
Total Program Lifetime Benefits (\$000)	\$131,753
Total Program Costs (\$000)	\$54,431

<sup>\*</sup>Please note that these are short tons.

#### 3.5.2 Themes & Priorities

For the 2022-2024 term, the SBEA program will model the themes and priorities discussed in Section 3.3.2 applying special considerations where needed to address the unique characteristics of small business customers as discussed below.

## **Outreach**

The Companies will look to increase small business adoption of weatherization measures, targeting businesses in converted residences. In addition to the support of preferred languages and industry association outreach outlined in Section 3.3, the Companies will note the languages supported by the qualified vendors in their sales, auditing, and install teams, identifying gaps in preferred language support. In addition to collaborating with associations to communicate savings benefits to their members, priority will be given to those organizations affiliated with distressed or underserved customer groups and customers in distressed municipalities, environmental justice communities, or underserved markets will be targeted by the Companies through outreach campaigns. The Companies will explore opportunities to provide enhanced benefits to customers through unique incentive and lending offerings when possible.

## **Workforce**

In the upcoming term, the Companies will look to increase small business adoption of weatherization measures, targeting businesses in converted residences. The Companies have identified a gap in the workforce and will look to develop training to help residential or out-of-state contractors handle the needs of Connecticut's commercial building sector. Submission tools and streamlined review processes are under development to aid in the implementation of weatherization measures among this new workforce.

# Non-Lighting

The Companies will identify barriers to engage specialty subcontractors (e.g., weatherization, PRIME, and process) in the SBEA program. To motivate vendors to promote specialty measures, the Companies will increase opportunities for qualified SBEA vendors to network with specialty subcontractors by developing alternative incentive payment processes and mitigating risk of the SBEA vendor acting as the general manager when engaging subcontractors. The Companies will

increase training opportunities to identify submission requirements and incentive potential of non-lighting measures. Efforts in process improvement mentioned later in this section will also support increased submission of non-lighting measures.

#### Process Improvement

In 2021, the Companies conducted a Kaizen event and developed strategies to eliminate non-value added administrative and approval tasks, reduce project rejections and send-backs, and simplify contract paperwork. For the upcoming term, the Companies will look to implement these strategies to deliver accurate and concise proposals to customers for approval quickly. Additionally, the Companies will simplify the communication of benefits for non-lighting measures to reduce customer confusion when making a decision to approve the install and use marketing materials to provide relevant contact information for customers who have questions post-install.

# 3.5.3 Small Manufacturing Initiative

Small manufacturers are responsible for approximately 40 percent of annual electric consumption in the state and are the driving force behind Connecticut's economy. During 2021, the Companies launched this new initiative targeting small manufacturers to help them stay competitive and reduce energy consumption. This initiative focuses on marketing all the industrial energy efficiency program offerings together into a coherent package that makes it easy for small manufacturers to navigate and capitalize on the wide variety of C&I energy efficiency offerings. The Companies intend to promote EUAs and PRIME under the Small Manufacturing Initiative. Additionally, the Companies will promote compressed air measures, such as leak remediation and prescriptive measures (e.g., variable speed drive compressor, cycling dryer, no loss drain, air nozzles). Specific tactics to promote this initiative are expected to include targeted digital display advertising, direct mail, email marketing campaigns, webinars, and paid social. The Companies will develop messaging in the latter part of 2021.

#### 3.6 FOCUS ON MANUFACTURING

The Companies will pursue a strategic outreach to Connecticut manufacturers who have had no or minimum historical participation in energy efficiency. The Companies will focus on simplifying the communication of a value proposition to manufacturing customers that more effectively connect manufacturing needs and business challenges to relevant energy efficiency solutions. Additionally, the Companies will focus expansion of energy efficiency offerings to manufacturers that support their pursuit of leveraging information and data and technology advancements in their business operations.

To support this increased focus on manufacturing, the Companies will launch a Small Manufacturer Initiative to help small manufacturers save energy and remain in the state (see Section 3.5.3 above). This initiative will focus on marketing all of the Companies' industrial program offerings together into a coherent package that makes it easy for small manufacturers to navigate and capitalize on the wide variety of C&I incentives. The C&I Portfolio offerings promoted will include EUAs and PRIME.

The Companies intend to integrate their workforce development efforts with the Industrial Assessment Center to provide a pipeline of qualified workers who understand the link between energy efficiency and economics to help Connecticut's small manufacturers to remain competitive in today's global economy. Please see Section 4.3.4 for more information regarding the Industrial Assessment Center.

# 3.6.1 Outreach to Engage More Manufacturing Participation

#### **Engaging Non-Participants**

The Companies will pursue outreach strategies to Connecticut manufacturers who have had no or minimum historical participation in energy efficiency. During the 2022-2024 term, the Companies will establish a more simplified concierge process to leverage outreach efforts to the manufacturing community. This would extend beyond internal account executives and energy efficiency consultants/energy engineers, and also leverage contractors and vendors who work primarily in the manufacturing markets. The Companies will offer consultative sales training updates specifically geared to the manufacturing market for those contractors and vendors who frequently engage with manufacturing customers. This training will include guiding customers through a journey map process to employ with manufacturers and identify their specific needs to link customers with appropriate energy efficiency solutions.

## Expand Relationships with Manufacturing Service Providers

Connecticut has numerous industry organizations that offer support resources to assist manufacturers in areas such as workforce development, technology development, and training. The Companies plan to expand relationships and strategically engage in new partnerships that can leverage value for participating organizations and manufacturing customers. These partnerships are intended to provide additional engagement opportunities with more manufacturing customers through broader outreach.

## Expand Efforts with "Frequent Flyers"

The Companies have had continued participation from a segment of the manufacturing community year over year. The customers, known as "frequent flyers" (repeat participation year over year), present opportunities to engage in more strategic Behavior & Energy Sustainability programs such as SEM or PRIME. The Companies will engage these customers to pursue additional behavioral enhancement and strategic plan development opportunities.

# 3.6.2 Simplify Communications to Manufacturing Customers

## Effectively Connect to Manufacturers

The Companies recognize some of the unique challenges faced by manufacturers including rapidly changing technology, global competition, and supply chain demands. Providing clear solutions that manufacturers can easily connect as value added support to achieve their business objectives is highly desired. Design of "Program" outreach and communications (e.g., collateral, website) will explore ways to clearly articulate specific solutions in a way that resonates with manufacturers and enhances their ability to find the solutions they are seeking. The Companies will focus on providing a more solutions-based communication pathway that better resonates with manufacturing needs for specific areas of interest such as reduced carbon emissions, lean manufacturing, or improvement toward sustainability objectives. The Companies will pursue collaborative efforts to not only improve collateral and website content, but also improve guidance and "journey mapping " efforts with their customers to address their specific manufacturing needs more effectively and efficiently.

# 3.6.3 Leveraging Information and Data

#### Keeping Pace with Technology

As manufacturing moves toward Industry 4.0 and beyond, the Internet of Things (IoT) on the shop floor is a critical infrastructure that supports improved manufacturing processes. For the upcoming term, the Companies will seek to leverage newly available data that can integrate into energy management information systems (EMIS) or other processes that can directly generate energy information that can influence business operations. Opportunities such as real-time energy management, expanded MBCx, supervisory controls on legacy equipment, and other technologies may provide manufacturers greater visibility into their processes and leverage operational strategies that generate energy savings. The Companies intend to invest funding in the research and development of these advanced technology opportunities and evolve cost-effective program offerings that capture sustainable energy savings.

## New Technology Introduction and Training

As mentioned previously regarding expanding relationships with key strategic manufacturing service providers, the Companies will leverage those relationships and other industry resources to provide information on new manufacturing technologies to customers through training events and webinars. The objective is to introduce manufacturing customers to new technologies that increase throughput, reduce operating costs (including energy) and reduce defects and waste. In many cases, energy savings can be achieved through the deployment of new technologies. The Companies will collaborate where possible with key service providers and technologies manufacturers to offer these training resources.

## 3.7 DEMAND MANAGEMENT PROGRAMS

As noted in Section 2.8, the Independent System Operator-New England (ISO-NE) manages New England's generation and transmission infrastructure. ISO-NE is responsible for the reliability of the grid to meet the system load at every hour of the day on a year-round basis. The Companies' traditional asset-based energy efficiency programs result in load reductions year-round as the high-efficiency measures installed produce both energy savings and "passive" demand reductions. The Companies aggregate these demand reductions and bid them into ISE-NE's Forward Capacity Market (FCM). The revenues from FCM auctions help offset energy efficiency program costs.

During the 2019-2021 term, the Companies began to integrate active demand response strategies into the C&I Portfolio to assess demand reductions (kW) of each offering and customer engagement. Active demand response programs require customers to make discrete actions that they would not have otherwise taken to reduce their electrical load for a specified period of time, such as allowing their smart thermostats to be remotely adjusted a few degrees or agreeing to have their electric vehicle charging times shifted to off-peak times. The Companies incentivize these brief reductions in customer load during targeted periods of high system demand. These incentives encourage C&I customer participation and increase demand reductions.

As a result of the Companies' active demand response offerings, all customers benefit from the lower costs of a smaller generation, transmission, and distribution system. The active demand response offerings also increase the reliability of the grid due to reduced peak demand. The peak demand reductions from the Companies' programs provide benefits to all customers by suppressing wholesale power prices during peak demand times and reducing the need to use generation that is more expensive and environmentally destructive. This offsets the need for fossil-fueled generation and also contributes to reduced greenhouse gas emissions.

The Companies' active demand response offerings are designed to decrease peak demand by incentivizing customers to enroll eligible communicating equipment. The reduction in peak demand results in lowered energy costs to customers, more reliability of the grid, and reduced greenhouse emissions. Currently, eligible technologies in the C&I sector include smart thermostats, electric vehicle chargers, storage (batteries), water heating equipment, and other smart, connected technologies. The Companies are always exploring additional opportunities and will consider including cost-effective measures as they are discovered. Incentives are given when a customer enrolls eligible equipment into an Active Demand Response offering. The customer can earn additional incentives by participating during a demand response event.

## 3.7.1 Themes & Priorities.

In the 2022-2024 term, the Companies' active demand response programs' key themes and priorities include:

- Expand offering for electric vehicle charging strategies.
- The Statewide Electric Storage program will begin in 2022. The Companies will maximize cross coordination between their battery storage offerings and energy efficiency programs.
- Increase offerings for Connected Solutions.
- Continue to explore opportunities with PCM/Ice Storage.
- Add a small businesses direct load control smart thermostat offering.
- Look for opportunities to implement the DOE Grid Interactive Efficient Buildings concepts.

## 3.7.2 Target Market & Objectives

All C&I customers of the Companies are eligible to participate in the Companies' active demand response offerings, provided their equipment meets program-specific criteria. The following figure summarizes the Companies' projected peak demand savings, program costs, benefits, and cost-effectiveness for the Demand Management programs.

Planned Results

Number of Units Enrolled

1,141

Summer kW Peak Demand Reduction

253,705

Total Program Lifetime Benefits (\$000)

\$35,043

Total Program Costs (\$000)

\$14,922

Figure 3-K: 2022-2024 C&I Demand Management (Combined Electric)\*

# 3.7.1 Eversource Active Demand Response Offerings

# Objectives & Target Market

Throughout the 2019-2021 term, Eversource implemented a variety of strategies aiming to provide demand reductions for large C&I customers. These included targeted dispatch, daily dispatch, and winter dispatch strategies which are detailed in the figure below.

Figure 3-L: Eversource Demand Management Offerings

Targeted Dispatch	Daily Dispatch	Winter Dispatch
<ul><li> 3 hours per event</li><li> \$35/kW-summer (technology agnostic)</li></ul>	<ul> <li>30 - 60 events per summer</li> <li>2-3 hours per event</li> <li>\$200/kW-summer (storage)</li> <li>Typical dispatch strategies and technologies: <ul> <li>Usually, automatic dispatch</li> <li>Batteries</li> <li>Flywheels</li> <li>Thermal storage</li> <li>Industrial freezers</li> </ul> </li> </ul>	<ul> <li>5 events per winter</li> <li>3 hours per event</li> <li>\$25/kW-winter (technology agnostic)</li> <li>\$50/kW-winter (storage)</li> <li>Typical dispatch strategies and technologies:         <ul> <li>Usually, manual dispatch</li> <li>Snowmaking</li> <li>Industrial processes</li> <li>Generators</li> </ul> </li> </ul>

## Electric Vehicle Charging

In 2020, DEEP issued an "Electric Vehicle Roadmap for Connecticut: A Policy Framework to Accelerate Electric Vehicle Adoption," a document that discusses the role of electric vehicles in the state's evolving transportation sector. Prior to the issue of this roadmap, the Companies had begun evaluating active demand response opportunities available in the electric vehicle charging process. Specifically, the Companies assessed offerings for C&I customers that would provide a mechanism to charge (and potentially discharge) electric vehicle batteries at times most beneficial to the electric grid (e.g., during periods with excess solar generation, outside of grid peak periods).

On July 14, 2021, PURA issued its final decision in Docket No. 17-12-03RE04 as part of its grid modernization docket.<sup>93</sup> This decision established a zero emission electric vehicle program (Electric Vehicle Charging Program) for all customers and customer classes within the service territories of the Electric Companies. The Electric Vehicle Charging Program consists of a combination of incentives for networked Level 2 electric vehicle supply equipment (EVSE) and direct current fast chargers, as well as accompanying rate design offerings.

The Electric Companies will administer the Electric Vehicle Charging Program in their respective electric service territories. There are five program areas, or market segments, in the program's design to optimize EVSE deployment and associated distribution system infrastructure necessary to meet Connecticut's transportation electrification goals: (1) Residential Single-Family Level 2 Charging, (2) Residential Multi-Unit Dwellings (MUDs) Level 2 Charging, (3) Direct-Current Fast Charging, (4) Destination Level 2 Charging, and (5) Workplace & Light-Duty Fleet Level 2 Charging.

These five program areas represent a comprehensive, portfolio approach to enabling zero-emission vehicle deployment on the scale necessary for the State to meets its electric vehicle policy goals and greenhouse gas reduction targets. During the 2022-2024 term, Eversource will monitor its Electric Vehicle Charger Control and Direct Communication to the Electric

<sup>93</sup> PURA, Decision, Docket No. 17-12-03RE03: PURA Investigation Into Distribution System Planning of the Electric Distribution Companies-Zero Emissions Vehicles, issued Jul. 14, 2021, available online at: https://portal.ct.gov/-/media/PURA/electric/PURA-Establishes-Statewide-Electric-Vehicle-Charging-Program.pdf.

Vehicle offerings (see below) to determine how they will coordinate or integrate the implementation of these initiatives with the Electric Vehicle Program.

## **Electric Vehicle Offerings**

As of July 2021, the Companies' current electric vehicle offerings include:

- **Eversource:** Residential customers can pursue upfront and performance incentives for enrolling home electric vehicle chargers in the Connected Solutions program.<sup>94</sup>
- Eversource: Electric Vehicle Rate program available for separately metered, publicly available charging stations. 95
- United Illuminating: UI Smart Solutions Online Marketplace offers variety of Wi-Fi enabled electric vehicle charging stations and accessories.<sup>96</sup>

In June 2021, PURA issued a proposed final decision on "Docket No. 17-12-03RE04: PURA Investigation Into Distribution System Planning of the Electric Distribution Companies - Zero Emission Vehicles". The document provides a proposed program design that defines electric vehicle charging program guidelines, incentive structures, and implementation goals. Participants are eligible for an upfront incentive upon installing charging equipment enrolled in a "Managed Charging" program (managed electric distribution company or third-party aggregator to support demand response and direct load control efforts). The program has an anticipated start date of January 2022.

## Statewide Electric Storage Program

On July 28, 2021, PURA issued its final decision in Docket No. 17-12-03RE03 as part of its grid modernization docket.<sup>97</sup> The regulatory decision established a statewide electric storage program (Electric Storage Program) for all residential and C&I customers within the service territories of the electric distribution companies (EDCs). PURA established two compensation mechanisms for electric storage systems participating in the Electric Storage Program:

- An upfront incentive administered by the CT Green Bank, and
- Performance-based incentives administered by the EDCs (i.e., the Electric Companies).

The final program design calls for 580 MW of electric storage to be implemented between 2022-2030, with a goal of 290 MW to be installed in C&I Applications. A goal of 50 MW for C&I storage projects is being pursued during the 2022-2024 term. Upfront incentives are scheduled with a declining block structure, based on a \$/kWh installed, which will gradually reduce as the program becomes subscribed. Performance-based incentives are set at a \$/kW deployed during Electric Company-scheduled events, primarily between 2 PM and 7 PM during June 1 and September 30.

Eversource, Electric Vehicle Home Charger Demand Response program website, available at: <a href="https://www.eversource.com/content/ct-c/residential/save-money-energy/explore-alternatives/electric-vehicles/ev-charger-demand-response">https://www.eversource.com/content/ct-c/residential/save-money-energy/explore-alternatives/electric-vehicles/ev-charger-demand-response</a>.

<sup>&</sup>lt;sup>95</sup> Eversource, Electric Vehicle Rate program website, available at: <a href="https://www.eversource.com/content/ct-c/business/my-account/billing-payments/about-your-bill/rates-tariffs/electric-vehicle-rate-program">https://www.eversource.com/content/ct-c/business/my-account/billing-payments/about-your-bill/rates-tariffs/electric-vehicle-rate-program</a>.

<sup>96</sup> United Illuminating, Electric Vehicle Chargers, available at: <a href="https://uismartsolutions.com/Electric-Vehicle-Chargers/">https://uismartsolutions.com/Electric-Vehicle-Chargers/</a>.

<sup>&</sup>lt;sup>97</sup> PURA, Proposed Final Decision, Docket No. 17-12-03RE03: PURA Investigation Into Distribution System Planning of the Electric Distribution Companies-Zero Emissions Vehicles, issued Jul. 28, 2021, available online at: <a href="https://portal.ct.gov/-/media/PURA/electric/Electric-Storage-Proposed-Final-Decision-07-01-21.pdf">https://portal.ct.gov/-/media/PURA/electric/Electric-Storage-Proposed-Final-Decision-07-01-21.pdf</a>.

#### **Thermal Storage**

During the 2019-2021 term, the Companies continued to explore multiple advanced demand response opportunities utilizing thermal storage, primarily through custom path projects. These strategies will continue to be pursued during the 2022-2024 cycle, including a direct focus on ice and phase change material (PCM) applications.

In 2019, Eversource completed a thermal storage pilot<sup>98</sup> across multiple locations in Massachusetts examining two opportunity types: HVAC Ice Storage and PCM thermal mass additions in refrigerated spaces. The HVAC ice storage solution makes ice at night when ambient conditions and electric rates are favorable and thaws the ice during the day (peak periods) to provide air conditioning. The second solution uses PCM thermal mass in refrigerated storage warehouse space with controls to reduce compressor usage during peak hours by strategically storing and discharging heat energy from the PCM. The Companies intend to continue pursuing thermal storage opportunities during the 2022-2024 term, potentially piloting a large-scale ice/phase change material and thermal storage pilot in Connecticut.

# 3.7.2 United Illuminating Programs

# C&I DR Pilot (Natural Gas)

In 2021, CNG and SCG launched their C&I Natural Gas Active Demand Response pilot using their current C&I Honeywell DRMS to initiate demand response events and calculate baseline usage, event reductions, and incentives earned by each participant.

## C&I Performance Based DR Pilot (Natural Gas)

In the 2022-2024 term, CNG and SCG will continue to offer the C&I Performance-based Demand Reduction program. This program is technology agnostic and will be marketed to all SCG and CNG large and medium general service customers with daily demand service and who are not currently on an interruptible rate. The program incentivizes CNG and SCG large and medium general service customers to provide natural gas reductions on the coldest day of the year. During an event, a customer will be asked to reduce their natural gas load for a full 24-hour-period starting at 10 AM and ending the following day at 10 AM.

All incentives are performance based and calculated based on actual event natural gas (ccf) reductions. CNG and SCG will typically call up to 6 events per season on days when the outside average daily temperature is forecasted at 18°F or below. The length of the active demand response event will be 24 hours. Customers are responsible for their participation strategy on natural gas demand response event days, which could include pre-heating spaces or suspending economizer outdoor air provisions.

## Small Business DLC Wi-Fi Thermostat Offering

Very similar to the residential Room A/C Smart Plug program, United Illuminating's Small Business BYOT program will continue to target small C&I customers with installed connected smart thermostats. The thermostats used for these small businesses are the exact same connected smart thermostats used in residential households. Therefore, the participating

<sup>&</sup>lt;sup>98</sup> 2019 Consolidated Demand Demonstration Project Report, prepared for Eversource by Energy & Resource Solutions and DNV GL, Apr. 15, 2020, available at: <a href="https://ma-eeac.org/wp-content/uploads/2019-Consolidated-Demand-Demonstration-Project-Evaluation-Report\_04-15-2020\_clean.pdf">https://ma-eeac.org/wp-content/uploads/2019-Consolidated-Demand-Demonstration-Project-Evaluation-Report\_04-15-2020\_clean.pdf</a>.

small businesses are treated as a subset of customers controlled through the utility portal for the United Illuminating's Residential Direct Load Control Wi-Fi Thermostat program.

For the 2022–2024 term, United Illuminating will look to expand their existing program customer base with additional customers beyond the original pilot's targeted 50 customers. United Illuminating will experiment with different marketing approaches to reach more customers and try to better understand the incentives required to motivate and sign up customers.

## Building Management System and Network Lighting Control

Targeted demand response used to defer investments in distribution systems can be a valuable tool to solve localized load growth issues. Targeted demand response programs, such as United Illuminating's C&I Auto Demand Response pilot, can often defer distribution system investments for multiple years.

For the 2022-2024 term, United Illuminating will look to grow its C&I Auto Demand Response pilot by adding additional customers. Initial customers targeted are those that are served by the Woodmont and Ash Creek substations in southwest Connecticut and who are able to commit a minimum of 50 kW in demand reductions. These two substations have been identified by United Illuminating and ISO-NE as critical peak demand reduction areas, particularly for the FCM. Geo-targeting could potentially increase the cost effectiveness of this C&I demand response pilot, and increase the benefits attributed to demand response programs.

C&I demand response programs tend to require a high degree of customization around specific customer capabilities and will often only target non-process or critical loads. Besides the typical HVAC loads associated with typical C&I demand response programs, the C&I Auto Demand Response pilot is also looking to identify new and advanced demand response technologies and practices, including connected equipment, and energy management and analytic systems. <sup>99</sup> These new demand response technologies include advanced thermostat controls for HVAC systems, and advanced/smart energy management systems that through sensing, feedback, and the use of algorithms, can control a building's performance holistically for minimized energy use and cost

Customers within this pilot will receive a base \$/kW for committed load reductions plus a \$/kWh performance incentive based on actual energy reduced during an event. The Companies will employ strategies to decrease peak energy consumption (electric and natural gas) among C&I customers.

The Companies will review a recent Massachusetts study to claim savings from controlling food service equipment at coffee shops. Savings were 4 percent of site usage. <a href="https://ma-eeac.org/wp-content/uploads/MA20C07-E-DUN-Final-Report.pdf">https://ma-eeac.org/wp-content/uploads/MA20C07-E-DUN-Final-Report.pdf</a>.

# SECTION FOUR: EDUCATION, WORKFORCE, COMMUNITY OUTREACH & TECHNICAL ENGAGEMENT

## 4.1 OVERVIEW

Over the past 20 years, the Companies have developed and implemented Energy Education, Workforce Development, Community Outreach, and Technical Engagement initiatives to drive energy efficiency across the state. For the 2022-2024 term, the Companies remain committed to delivering these comprehensive initiatives to support the Residential and C&I Portfolios. These initiatives provide additional support by driving greater participation in programs, increasing the understanding and awareness of energy efficiency, preparing the local and regional workforce for clean energy jobs, and providing technical support for energy efficiency data sharing platforms. In addition, these initiatives enhance the Portfolios and advance energy efficiency goals in the home, at school, in the workplace, and across Connecticut's diverse towns, cities, and neighborhoods. These initiatives include:

- **Energy Education.** The Energy Education program provides several offerings, including science-based lessons, professional development workshops for educators, in-classroom outreach and support, engaging educational presentations, career and trade school trainings, and an annual student contest.
- Workforce Development. The Companies invest in upskilling the current energy efficiency workforce and reaching out to prospective future workers through trainings, contractor education, learning laboratories, and outreach regarding new building codes, energy-efficient technologies, demand reduction strategies, zero energy building design, and sales strategies. The Companies' Workforce Development Initiative supports both the Residential and C&I Portfolios.
- Community Outreach. The Community Outreach strategies employed by the Companies include the Community Partnership Initiative, an enhanced place-based approach that seeks to increase partnerships with community-based organizations to expand their outreach to municipalities, neighborhoods, and communities where opportunities for energy efficiency remain. In addition, the Companies deliver entertainment-based exhibits and programming that inspire energy efficiency advocacy, educate Connecticut students, educators, residents, and businesses about energy efficiency, and expand opportunities for leadership through behavioral-based learning.
- Technical Engagement. The Companies provide platform, software, and technical support to engage
  communities in energy efficiency, including the EPA's ENERGY STAR Portfolio Manager software (Portfolio
  Manager). In addition, Eversource will implement customer engagement tools to digitally engage customers with
  embedded experiences similar to those deployed in the utility's Residential Behavior Initiative.

## 4.1.1 Priorities

# **Priority 1: Equity**

For the 2022-2024 term, the Companies remain focused on the equitable distribution and expansion of their Energy Education, Workforce Development, Community Outreach, and Technical Engagement initiatives. According to a recent ACEEE report, energy efficiency is the largest employer in the clean energy sector and can be a pathway to financial security and career advancement. However, the ACEEE study reports that despite the sector's competitive pay, ethnic and racial minorities, as well as women, make up a smaller percentage of the energy efficiency workforce than the national workforce.

For the 2022-2024 term, the Companies are focused on supporting equity in the energy efficiency workplace. Diversity, equity, and inclusion training will ensure that Connecticut's energy efficiency workforce is as diverse as the communities the workers serve. The more diverse the workforce, the more shared experiences that workforce representatives (technicians, contractors, builders) will have with communities, businesses, municipalities, and neighborhoods. Additionally, the Companies will include extra weighting for certified minority-owned, women-owned, and veteranowned businesses when evaluating and scoring competitive requests for proposals for program vendors.

Throughout the 2022-2024 term, the *Energize CT Energy in Action* mobile exhibit will tour 40 K-12 schools and 40 community events on an annual basis to promote the Residential and C&I Portfolios. Approximately 60 percent of these tours will be conducted in neighborhoods, towns, and cities where energy efficiency opportunities exist; ensuring communities with high potential for efficiency are reached. This Community Outreach offering is designed to empower visitors to become energy efficiency advocates by making them aware of energy-saving opportunities available to them.

## **Priority 2: Decarbonization**

The Energy Education program is designed to inspire students and educators in the K-12 school community to become energy advocates who understand the inextricable link between energy consumption and climate change. The program's curriculum and lessons focus not only on the fiscal benefits of energy efficiency, but also the environmental benefits, including the reduction of greenhouse gas emissions and other harmful air pollutants through energy efficiency, behavioral changes, and the adoption of carbon neutral technologies.

The Workforce Development Initiative's offerings will provide education and training regarding low-carbon technologies, such as heat pumps and heat pump water heaters. Code-plus and Passive House trainings will educate architects, builders, and contractors regarding zero net energy buildings, high-efficiency construction, and advanced building techniques. In addition, the Companies will provide weatherization training to ensure that contractors working in the Residential and C&I Portfolios are prepared to make existing building stock more energy efficient through air sealing, duct sealing, and building envelope improvements (e.g., windows, doors, insulation, proper ventilation). To support the C&I Portfolio's expanded weatherization efforts, the Companies will ramp up their technical and sales training for the C&I

ACEEE, <u>Expanding Opportunity through Energy Efficiency Jobs: Strategies to Ensure a More Resilient, Diverse Workforce</u>, Oct. 20, 2020, at iv, available online at: <a href="https://www.aceee.org/research-report/u2010">https://www.aceee.org/research-report/u2010</a>.

energy efficiency workforce. These trainings will show C&I contractors how to use calculation tools (e.g., fuel calculator) to predict savings and how to sell weatherization to customers.

The Portfolio Manager software helps businesses and municipalities track their energy and water consumption, as well as their greenhouse gas emissions. Through the Technical Engagement Initiative, the Companies work with groups to ensure that energy data is automatically transferred into the Portfolio Manager software. This ensures a high-speed, accurate transfer of data to help a business or municipality establish energy efficiency and greenhouse gas emissions reductions goals for their buildings and facilities. This technical support also supports clean energy task forces, community-based organizations, and environmental groups in tracking the environmental benefits associated with their energy efficiency efforts.

# **Priority 3: Energy Affordability**

A key component of the Companies' 2022-2024 efforts will be to help customers, the K-12 school community, and the current and future workforce to understand how energy efficiency reduces customer costs. The Energy Education program helps students, educators, and parents understand how installing an energy-efficient technology results in the reduction of a household's energy consumption; resulting in lower energy bills. The program's energy efficiency curriculum promotes no-cost and low-cost energy conservation behaviors that households, regardless of income, can implement to reduce energy costs and increase affordability. In addition, the program's career and technical training program helps students explore how their school building uses energy and water and guides them toward energy efficiency recommendations for their school. This saves towns and cities on operation and maintenance costs (energy bills and fixing old equipment) and allows those funds to be applied toward in-classroom activities and resources.

Customer education regarding energy affordability is further advanced through the Community Partnership Initiative. This community-based approach focuses on partnerships between the Companies, community-based organizations, nonprofits, and municipalities to reach neighborhoods and communities who have historically not participated or who have low levels of participation in the Residential and C&I Energy Efficiency Portfolios. The Initiative is designed to break down barriers to participation (e.g., language, ethnic, cultural) and allows the energy affordability message to reach more customers.

The Workforce Development Initiative will also promote energy affordability through contractor education and technical trainings that highlight how energy efficiency helps to reduce residential and C&I customers' bills. Ensuring that the workforce understands how energy efficiency reduces the energy burden of low-and-moderate income customers and optimizes the productivity of businesses is vital to the Companies increasing participation in the programs and driving energy savings in the upcoming term.

## 4.2 ENERGY EDUCATION

## 4.2.1 Objective

The primary objective of the Energy Education program is to instill an energy-efficient ethic in Connecticut's K-12 schools and empower students and educators to be agents of change in their communities. To implement change, students and educators must have a primary understanding of energy conservation, energy-efficient buildings and technologies, clean

energy jobs, renewable energy sources, and how electricity is generated, transmitted, and distributed to homes, businesses, and schools across the grid. A secondary program objective is to engage Connecticut's K-12 school community—educators, administrators, facilities personnel, and municipal officials—to work toward more energy efficient and sustainable schools. This includes ensuring that the buildings and systems in K-12 schools are sustainable and energy efficient, that the personnel and students who use the school building(s) practice and model energy conservation behaviors, and that the school's curriculum promotes energy efficiency and clean energy technologies.

The Energy Education program provides several offerings, including professional development workshops for educators, in-classroom outreach and support, individual class and large assembly presentations, career and technical trainings, an annual student contest, and a science-based curriculum with energy efficiency, clean energy, and climate change educational lessons and materials. During the upcoming term, the Companies will focus on expanding Energy Education program efforts to ensure that resources and initiatives are equitably distributed statewide.

## 4.2.2 Target Market

During the 2022-2024 term, the Companies will target the K-12 school community across the state, including students, educators, facilities and support personnel, administrators, and municipal officials. All Energy Education program efforts are offered statewide, with a particular emphasis on serving K-12 schools located in distressed and Environmental Justice communities. The Companies have made some of these resources available in Spanish and will develop additional resources in other languages as needed.

#### 4.2.3 K-12 Education

## K-12 Education Curriculum

Since 2004, the Companies have delivered K-12 curriculum and programming to schools statewide under the *eesmarts*<sup>™</sup> brand. All *eesmarts* lessons focus on the science, technology, engineering, arts, and mathematics (STEAM) related to energy efficiency, clean energy, and climate change topics and are developed to create an engaging learning environment with hands-on activities. The lessons are aligned with Next Generation Science Standards (NGSS) and Common Core Standards for Mathematics and English Language Arts. In addition to the core *eesmarts* curriculum, the Companies have historically partnered with other national energy and sustainability educational organizations to use some of their lessons and activities as supplemental materials. These partnerships are advantageous as they leverage the expertise of other organizations and allow the Companies to focus resources and support on other programmatic offerings.

## New for 2022-2024

An important measure in the effectiveness of *eesmarts* is to determine how educators are using the lessons and materials in the classroom. For the upcoming term, the Companies will implement a tracking survey or evaluation form to obtain valuable feedback from the implementors of energy efficiency curriculum in the classroom—the educators. Some outcomes from these surveys may include finding out that educators need additional materials to conduct lessons in the classroom or that they need additional training. Throughout the 2022-2024 term, the Companies will solicit educator feedback and execute modifications that enhance program delivery.

In addition, the Companies are focused on supporting the K-12 school community through an expansion of online offerings. During the upcoming term, the Companies will initiate the conversion of *eesmarts* lessons into a web-based or application (App) platform. A finding from program implementation during the pandemic is that K-12 educators need

access to online and consumable lessons on a 24/7/365 basis. This transition to a web-based platform will expand the target market to include home schoolers, distance learners, and parents.

In 2021, the Companies introduced Teacher Mini-Grants to the eesmarts platform. On an annual basis, the Energy Education program will award up to five (5) Connecticut formal or informal educators each a \$500 mini-grant for their creation of an original clean energy themed lesson and/or learning sequence for students in grades 7 through 12. These \$500 grants are given to educators who develop and share energy curriculum that enhances teaching, encourages academic excellence, and maximizes opportunities for middle school and high school students to study clean energy sources and technologies. 101 These lessons must be: (1) based on the 5E instructional model (Engage-Explore-Explain-Elaborate-Evaluate) 102 and (2) aligned with NGSS performance expectations and dimensions. 103 The Companies have created a grant application process for educators to submit their clean energy lesson plans and/or learning sequences. The winning lessons and/or learning sequences will be adapted for presentation at the annual eesmarts Summer Institute in 2022 and in subsequent years. The Companies plan to integrate winning lessons or learning sequence plans into the eesmarts platform.

## Professional Development Workshops

To ensure that educators are prepared to implement eesmarts lessons in the classroom, the Companies deliver professional development workshops through a third-party educational outreach provider. The purpose of these workshops is to transform K-12 educators into ambassadors who can take back the message of energy efficiency to thousands of students and their families, as well as their professional peers. The workshops focus on modeling inquirybased STEAM activities regarding energy efficiency and clean energy technologies.

Workshops are offered on school district professional development days and during summer vacation through the eesmarts Summer Institute. These workshops typically run for one or two days and focus on energy-related topics, including: energy transformations, energy conservation, energy-efficient technologies, clean energy technologies (solar photovoltaics and wind energy—harnessing the wind), the sun and the water cycle, and climate change. The Companies may continue to offer professional development online to ensure that they reach more educators statewide.

For the 2022-2024 term, the Companies will continue the eesmarts District Trainer initiative, which is designed to empower educators, build district capacity, and aid in the adoption and delivery of standards-aligned lessons. The initiative provides an opportunity for educators, coaches, and department heads to become experts in the eesmarts energy curriculum and prepares them to deliver training to colleagues in their schools and districts. The eesmarts District Trainer virtual professional development is provided at no cost to educators and districts. In addition, the initiative provides incentives to cover the cost of attending the virtual training and workshop materials. Once they have completed their training, eesmarts District Trainers agree to deliver a professional development workshop to their colleagues within one year.

For the upcoming term, the Companies will continue to increase the number of educators participating in professional development workshops and to recruit educators who reflect the diversity of the state. These objectives will require an

Annually, up to five educators can receive a Teacher Mini-Grant. Educators can submit only one Mini-Grant application per year.

The 5E Inquiry-Based Instructional Model is based upon cognitive psychology, constructivist theory to learning, and best practices in STEM instruction. See Bybee, R. W., and Landes, N. M. 1990, "Science for Life & Living: An Elementary School Science Program from Biological Sciences Curriculum Study," The American Biology Teacher, 52(2), at 92-98.

NGSS has three dimensions for curriculum (engineering practices, disciplinary core ideas, and crosscutting concepts).

increase in the number of professional development workshops offered. To encourage educator participation, the Companies will explore offering educator stipends, as well as expanding their workshop offerings and educator resources.

## School Assemblies

The *eesmarts* platform has long supported the implementation of school assembly performances and educational presentations on the topics of energy conservation, energy efficiency, clean energy technologies, climate change, and sustainability. These presentations are performed by third-party contractors who specialize in delivering highly engaging and educational performances. For the upcoming term, the Companies will look to expand the number of performances to reach more K-12 schools across the state, especially in distressed and environmental justice communities.

#### In-Class Lessons

For the 2022-2024 term, the Companies will continue to promote in-class lessons as an additional educational channel to reach K-12 students and schools in distressed and Environmental Justice communities. For in-class lessons, a certified educator travels to K-12 schools across the state to teach and reinforce grade-level concepts regarding energy efficiency and clean energy technologies. A key focus of these lessons is to cross-promote programs and technologies supported by the Residential Portfolio.

#### 4.2.4 Student Contest

Since 2004, the Companies have offered an annual Student Contest for Grades K-12 students across the state. <sup>104</sup> Students are asked to answer grade-level prompts regarding energy efficiency, clean energy technologies, and sustainability. For the 2022-2024 term, the Contest will continue to include prompts such as posters, persuasive images (in words, pictures, or video), narratives, news articles, persuasive essays, book review, limericks, public service announcements, and community-based projects.

The Companies will continue to use an online portal to streamline the Student Contest entry submission process. Student contest finalists are honored at a special awards ceremony held at the Connecticut State Capitol or virtually.

## 4.2.5 Green Sustainable Technical Education Program

Since 2010, the Companies have worked with the Connecticut Technical Education & Career System (CTECS) to increase the knowledge and awareness of energy efficiency and clean energy technologies to CTECS instructors and students. This educational and training collaboration has developed over the years into the Green Sustainable Technical Education Program (Green STEP), an education and training initiative designed to help CTECS students gain the knowledge, expertise, and certification to implement sustainable building practices, energy efficiency renovations, and energy-efficient equipment upgrades. For the 2022-2024 term, the Companies and CTECS have established new milestones for Grades 9-12 that introduces career and trade students to energy efficiency basics during their freshman and sophomore years and culminates in trade-related certifications, training programs, science fair projects, and career basics and networking opportunities during their junior and senior years.

The Student Contest was not offered during the 2018 program year due to the legislative diversion of energy efficiency funds.

The Companies provide technical and project management of Green STEP with the support of a third-party contractor to implement and manage presentations, workshops, and day-to-day coordination with CTECS administrators. The individual milestones for each grade are detailed in Figure 4-A.

Figure 4-A: Milestones Overview of Green STEP (Grades 9-12)

#### Grade 9

 Introduction to Green STEP Workshop. Reviews Green STEP, how to read an electric/natural gas bill, and how to read an electric meter

## **Grade 10**

- Introduction to Energy 101 - Home Performance Workshop. Reviews basics of energy efficiency and clean energy technologies, home performance services, energy conservation, and sustainability
- Introduction to Fair Workshop. Reviews scientific method, how to begin projects, and potentially compete in annual fair. Green STEP career and science educators participate (1-3 projects per school)

## **Grade 11**

- eesmarts Workshops.
   eesmarts Solar Curriculum
   and PLT GreenSchools
   Investigations (Energy and
   Water)
- Employer & Career Fairs.
   There are 3-4 fairs at locations across state.
   Includes workshops and opportunities for networking, internships, and full-time employment
- CSEF Projects. Students continue projects, potentially compete in CSEF. Green STEP career and science educators participate (1-3 projects per school)

#### Grade 12

- Trade-Related Trainings.
- *Duct blasting* (HVAC and Plumbing, Heating & Cooling departments)
- *Blower door* (Carpentry, Masonry, and Architecture departments)
- Heat pump water heaters (Plumbing & Heating or Plumbing, Heating & Cooling departments)
- Lighting design and energy codes (Electrical and Bioscience Environmental Technology departments)
- CSEF Projects. Students continue projects, potentially compete in the Fair. Green STEP career and science educators participate (1-3 projects per school)
- Optional Track: BPI Building Science Principles
   Certification. There are 3-4 trainings per school year locations across state, minimum 1 per region
- Optional Track: BPI Building Analyst and Envelope Certification. There are 3-4 trainings per school year locations across state, minimum 1 per region

# Grade 9

## Introduction to Green STEP Workshop

This presentation provides ninth-grade students with an overview of the program's goals and milestones. In addition, the two-hour workshop provides students with hands-on activities that teach them how to read an electric and natural gas bill and how to read an electric meter.

#### Grade 10

## Introduction to Energy 101 - Home Performance Workshop

This one-day workshop reviews the basics of energy efficiency, clean energy technologies, energy conservation, sustainability, and home performance services offered through the Residential Energy Efficiency Portfolio.

## Introduction to Connecticut Science & Engineering Fair Workshop

This workshop introduces tenth-grade students to the fair and provides an overview of the Connecticut Science & Engineering Fair's (Fair) Sustainability and Alternative/Renewable Energy judging categories. In addition, the workshop models how to develop and implement a science and engineering project, including a review of the scientific method, the basics of scientific research and inquiry, how to test or conduct trials, and how to analyze results. By the conclusion of the workshop, students will have completed a basic project concept map.

#### Grade 11

## eesmarts Workshop

This one-day workshop trains students on how to conduct investigations into the sustainability of K-12 school buildings. Students conduct hands-on activities using *eesmarts* Grades 9-12 curriculum that focuses on clean energy technologies, such as solar photovoltaic and solar thermal. In addition, the workshop introduces students to two of Project Learning Tree's (PLT) *GreenSchools Investigations* curriculum lessons—Energy and Water. The Energy and Water Investigations are hands-on, student-led explorations to identify areas where improvements can be made to make schools more energy efficient, greener, and healthier.

## **Employer & Career Fairs**

This offering gives students the opportunity to network with potential employers and learn about careers in the clean energy sector. In addition, students attend skills training workshops on job interviews and career readiness, including how to write a resume, job interview skills, and business writing skills. Critical feedback from stakeholders in the energy efficiency workforce suggests that these potential recruits should also understand how to meet professional requirements once they are actively employed. For the upcoming term, the Companies may introduce skills training workshops on teamwork, problem solving, interpersonal skills training, and professional conduct.

Outcomes of employer and career fairs include internships, apprenticeships, and full-time employment with energy efficiency and other clean energy sector employers. The Companies will work to develop a performance matrix to track the skills training workshops, develop surveys for feedback for continuous improvement in program delivery, and work with employers at these fairs to track resulting apprenticeships, internships, and full-time job employment. Annually, Green STEP holds three to four employer and career fairs across the state.

In Connecticut, PLT is jointly coordinated by DEEP and the Connecticut Forest and Parks Association. *GreenSchools Investigations* is a five-part series exploring the sustainability of K-12 schools and is available online at: <a href="https://www.plt.org/green-schools/download-student-investigations/">https://www.plt.org/green-schools/download-student-investigations/</a>. As noted in Section 4.2.3, the Companies use other sustainable lessons to supplement the *eesmarts* curriculum.

#### Fair Projects

Students take their basic project concept maps created in the tenth-grade workshop and begin their investigations into their selected scientific or engineering project. CTECS career instructors and science educators provide support to students throughout the fair process. Typically, there are one to three projects from each school entered in the Fair.

#### Grade 12

### Fair Projects

This is a continuation of the Grade 11 milestone.

## <u>Trade-related Trainings</u>

These one-day workshops are held at each CTECS location and focus on trade-related skills for each career or trade department (e.g., Carpentry, Sustainable Architecture). These interactive hands-on workshops reinforce the message to CTECS students that energy-efficient technologies and training will provide them with the knowledge and skills needed to secure employment opportunities in tomorrow's clean energy workforce.

- **Blower door testing.** Students learn how to safely conduct combustion testing on all equipment in order to set-up and run and conduct blower door tests to identify air changes per hour within conditioned spaces. This training is held for students enrolled in the Architecture, Carpentry, and Masonry departments. For the 2022-2024 term, the Companies plan to expand this workshop by creating a certificate program regarding blower door testing for Carpentry, Architecture, and Masonry trade students.
- Duct leakage testing. This hands-on workshop introduces duct diagnostics and allows students to set-up and
  directly pressure test the duct system for air leaks themselves. This training is held for students enrolled in either
  the HVAC or Plumbing, Heating and Cooling departments. This workshop will also include duct leakage testing
  training.
- Heat pump water heaters. This training introduces this clean energy technology and instructs students on how to
  properly install the equipment. This workshop is for students enrolled in either the Plumbing & Heating or
  Plumbing, Heating & Cooling departments.
- **Lighting design and energy codes.** Students learn about high-efficiency lighting, lighting controls, and related technologies in this workshop. In addition, students will learn about energy codes and how they are integrated into the design and construction process. This training is for students enrolled in the Electrical and Bioscience Environmental Technology departments.

For the 2022-2024 term, the Companies are exploring ways to effectively track and monitor Green STEP metrics and outcomes. This will include tracking the number of students receiving certifications, how many internships or apprenticeships resulted from employer and career fairs, and if participants elect to pursue energy efficiency careers. In addition, the Companies will also look to align trainings and certifications with identified career pathways to becoming part of the energy efficiency workforce.

### Optional: Building Performance Institute (BPI) Building Science Principles Certification

This two-day training prepares students to take the certification exam for BPI Building Science Principles. The training focuses on how the various components of a home interact to affect the home's overall performance. Students learn about the relationships between the building envelope, heating, air conditioning, insulation, mechanical ventilation, lighting, appliances, and other systems of the home and how these systems affect the comfort, health, and safety of occupants and the durability of the home. This pathway also sets aside one day for students to take the exam. For the 2022-2024 term, the Companies plan to include a Building Analyst and Envelope training and certification pathway.

# 4.3 WORKFORCE DEVELOPMENT

# 4.3.1 Connecticut's Clean Energy Workforce

In September 2021, the Joint Committee of the Energy Efficiency Board and CT Green Bank Board of Directors released its 2021 Connecticut Clean Energy Industry Report, an in-depth analysis of the state's clean energy workforce and its resulting economic benefits. <sup>106</sup> This report found that since 2015, Connecticut has established a robust clean energy workforce with more than 41,500 clean energy workers employed in over 4,300 companies within the state's \$6.5 billion clean energy economy. A clean energy job is defined as any worker who is directly involved with the research, development, production, manufacture, distribution, sales, implementation, installation, or repair of components, goods, or services related to the following sectors: clean energy generation, clean grid and storage, energy efficiency, clean fuels, and alternative transportation.

The report found that growth from 2015 to 2019 was over 9 percent with more than 80 percent of these workers employed within the energy efficiency sector. In 2020, clean energy employment declined by 5.9 percent (2,600 workers) over the 12-month period. The COVID-19 pandemic resulted in wiping out nearly four years of clean energy employment growth across the state, which resulted in sending the clean energy labor market back to 2016 employment levels. Despite these losses, the clean energy industry does predict an 8.2 percent

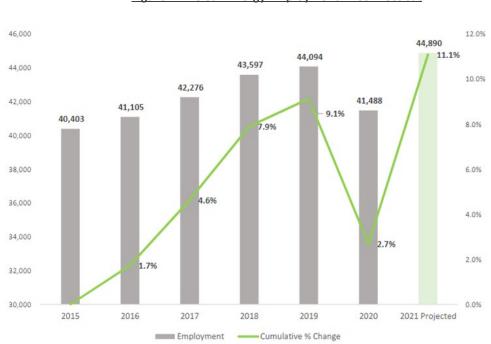


Figure 4-B: Clean Energy Employment in Connecticut

<sup>2021</sup> Connecticut Clean Energy Industry Report, produced for the Joint Committee of the Energy Efficiency Board and the CT Green Bank Board of Directors by BW Research, Sep. 2021, available online at: <a href="https://www.ctgreenbank.com/wp-content/uploads/2020/11/2020-Connecticut-Clean-Energy-Industry-Report.pdf">https://www.ctgreenbank.com/wp-content/uploads/2020/11/2020-Connecticut-Clean-Energy-Industry-Report.pdf</a>. Note: Numbers subject to change between the draft and final report.

employment growth in 2021 with the addition of around 3,400 clean energy jobs. HVAC and ENERGY STAR and efficient lighting technologies accounted for the majority of growth in the energy efficiency workforce since 2017 (1,257 new jobs). The majority of the clean energy workforce is made up of essential construction workers, followed by utilities, professional services, trade, and other services. <sup>107</sup> Clean energy employment is also concentrated across three counties (Hartford, Fairfield, and New Haven) which account for approximately eight in ten clean energy workers in Connecticut (79.4 percent or 32,973 jobs). <sup>108</sup>

The report also studied the diversity, equity, and inclusion of Connecticut's clean energy workforce and determined that 9.9 percent of clean energy jobs are held by Veterans of the US Armed Forces in the state; higher than the national average of 9.0 percent. However, the diversity of Connecticut's clean energy workforce is lower than the national average for Hispanic or Latinix workers (11.1 percent compared to 16.5 percent) and Black or African-American workers (6.3 percent compared to 8.4 percent). This snapshot of the makeup of Connecticut's current clean energy workforce will help inform the Companies in their development of a workforce development strategy focused on diversity, equity, and inclusion for the 2022-2024 term. The Companies remain focused on growing and diversifying the state's energy efficiency workforce which will help them meet the state's energy efficiency and demand management goals.

# 4.3.2 Objectives

The Companies play an essential role in preparing and training current and future workers in the energy efficiency sector. The primary objective of the Workforce Development Initiative is to ensure that Connecticut and the Northeast region have a well-trained, diverse energy efficiency workforce that supports both the Residential and C&I Portfolios.

For the 2022-2024 term, the Companies' key objectives for the Workforce Development Initiative are to:

- Build upon the 2017 Connecticut Energy & Energy Efficiency Workplace Needs Survey, previous reports from external stakeholders, and the recently administered Connecticut Energy Efficiency Workforce Development Contractor Survey and Residential and C&I focus groups by administering an Energy Efficiency Workforce Study. This study will serve to increase access to data that can inform the current landscape of energy efficiency workforce development in Connecticut and will focus on identifying key stakeholders in energy efficiency workforce development to expand the Companies' understanding of energy efficiency roles and how the utilities can best engage in this ecosystem. This study will comprise of additional research to include a deeper analysis on resource, landscape forecasting, understanding the role of diversity in the workforce, and identify barriers in the workforce and the role of geography in the workforce. This study will provide recommendations on how to best support and advance equity for current and future employees and contractors in the workforce.
- Invest in upskilling the current and future energy efficiency workforce through trainings, contractor education, and outreach regarding topics such as new building codes, energy-efficient technologies, demand reduction strategies, zero energy building design, and sales strategies.

<sup>&</sup>lt;sup>107</sup> Clean energy jobs also include supporting services such as consulting, finance, legal, and tax services related to energy. See <u>2020</u> Connecticut Clean Industry Report, at 35.

<sup>&</sup>lt;sup>108</sup> 2020 Connecticut Clean Industry Report, at 30.

<sup>&</sup>lt;sup>109</sup> <u>2021 Connecticut Clean Industry Report</u>, at 20.

- Explore proactive workforce development strategies that focus on growing the energy efficiency workforce by engaging with community-based organizations, business and community partners, state agencies, and educational institutions in ongoing workforce development efforts.
- Work in partnership with external stakeholders to identity opportunities to recruit and train a more diverse workforce as to collectively invest and impact the energy efficiency workforce.
- Design the Workforce Development Initiative's offerings to be flexible so modifications can be made quickly to address policy changes, new technologies, identified gaps in training or certifications, and workforce needs.
- Increase the Companies' outreach to CTECS, vocational, other public high schools, community colleges, and community-based organizations to promote technical trainings and certifications as pathways into the energy efficiency workforce.

# 4.3.3 Regional Training Coordination

In April 2020, due to the pandemic, the Companies collaborated with other energy efficiency administrators in the Northeast to quickly launch an online delivery platform. Virtual workshops provided back-to-work safety trainings that had to be conducted prior to on-premises work in homes and businesses beginning again in June 2020. The Companies and other state program administrators also collaborated to deliver multiple virtual skillset workshops and trainings to the Residential and C&I contractor communities in Connecticut and across the Northeast. For the upcoming term, the Companies will continue to leverage regional training efforts, best practices, and research to inform the strategy for the Workforce Development Initiative. In addition, the virtual training platform proved to be a successful pathway in engaging the contractor community and the Companies will continue to offer trainings online and in-person to expand their reach statewide to current and future energy efficiency workers.

The Companies recognize the need to identify pathways for individuals to join the energy efficiency workforce. Other careers and trades, such as welders and manufacturing technicians, typically have a clear, set pathway and progressive steps to joining that industry's workforce. For energy efficiency careers, there are multiple pathways to becoming a member of the workforce and the uncertainty of which certifications, trainings, and expertise are needed to enter and advance up the career ladder can serve as a barrier to recruitment and retention. In 2019, the Connecticut legislature passed Public Act 19-35, *An Act Concerning a Green Economy and Environmental Protection*, which charged the Connecticut Department of Labor's Office of Work Competitiveness (OWC) with establishing a career ladder for jobs in the green technology industry (e.g., HVAC mechanics and installers, electricians, engineers). 110

For the upcoming term, the Companies will work with contractors, stakeholders, and state agencies (i.e., DEEP, OWC) to assess the needs of the energy efficiency workforce. This will include identifying energy efficiency employer needs for different markets (e.g., low-income homes, manufacturers, municipalities, and small businesses) and determining what the skills, education, certification, and experience requirements are for energy efficiency jobs. A similar effort was conducted for the Massachusetts Program Administrators and the Companies will integrate the lessons learned in that needs assessment to determine what the progressive steps are (e.g., certifications, trainings, etc.) to joining the energy

Public Act 19-35, An Act Concerning a Green Economy and Environmental Protection. Ten career profiles in clean energy were created in collaboration with the OWC, BW Research, and the Joint Committee of the Energy Efficiency Board and CT Green Bank Board of Directors and are posted at <a href="https://www.ctgreenjobs.com">www.ctgreenjobs.com</a>.

efficiency workforce. <sup>111</sup> Stakeholder collaboration will focus on how to effectively recruit and retain energy efficiency workers through effective communications regarding job expectations, career ladders, required certifications and trainings, salary levels, and career advancement.

# 4.3.4 Training the Workforce

The design of the Workforce Development Initiative is flexible in order to change with the continuously shifting needs of the energy efficiency sector and its workforce. Over the last several years, the Companies have collected feedback from workforce partners (primarily community-based organizations), CTECS and other vocational schools, contractors, trade allies, and active participants in the workforce in order to use the data and information to determine upcoming and future goals for the Workforce Development Initiative. Through these feedback sessions, the Companies have identified opportunities to expand and increase the effectiveness of the Workforce Development Initiative, including the need to reach younger audiences and the need to expand trades and technical training outside of two- and four-year college degree programs.

For the 2022-2024 term, the Companies will focus on expanding their current workforce partnerships with government agencies, municipalities, Community Action Agencies, community-based organizations, and educational institutions to broaden their recruitment efforts to reach younger audiences. This will allow the Companies to engage with ongoing workforce development efforts and leverage the resources and expertise of business, community, municipal, and state partners.

# High Schools and Community Colleges

To reach a younger workforce, 18-to-24-year-olds, the Companies plan to expand workforce development beyond CTECS and to provide technical trainings and certifications similar to Green STEP's offerings to public high schools, vocational, and community colleges. At first, these offerings may develop slowly with the introduction of only one or two trainings and certifications at these educational institutions. Once the Companies and educational institutions have seen successful engagement and recruitment, the offering could expand to encompass additional trainings, job skills workshops, and internship/apprenticeship pathways. The effectiveness of these pilot offerings will be determined by establishing metrics that will track progression and success.

In addition, the Companies will reinitiate efforts with the 17 Connecticut State Colleges & Universities to promote workforce development degree programs, certificate programs, and trainings. Currently, Connecticut's 12 community colleges are consolidating into one singly accredited institution and are working to align academic programs, assessments, policies, and procedures. This consolidation provides the Companies with an opportunity to collaborate again with the state's community colleges to develop degree and certificate programs to prepare students for careers in the energy efficiency sector. 112

Massachusetts Energy Efficiency Workforce Development Needs Assessment, conducted by BW Research Partnership on behalf of the Massachusetts Program Administrators, available online at: <a href="https://ma-eeac.org/wp-content/uploads/Massachusetts-Energy-Efficiency-Workforce-Development-FINAL-REPORT-CAREER-PROFILES.pdf">https://ma-eeac.org/wp-content/uploads/Massachusetts-Energy-Efficiency-Workforce-Development-FINAL-REPORT-CAREER-PROFILES.pdf</a>

<sup>&</sup>lt;sup>112</sup> Connecticut Board of Regents for Higher Education, Endorsement of Revised Students First Plan, Jun. 21, 2018, available online at: <a href="https://www.ct.edu/files/pdfs/SF-Update.pdf">https://www.ct.edu/files/pdfs/SF-Update.pdf</a>.

#### Learning Laboratories

The E-House Initiative created on-site learning laboratories for the Connecticut Technical Education and Career System's (CETCS) high school students and trade instructors where hands-on learning and green workforce development flourished. The laboratories were designed and built by CTECS students and instructors. Built between 2011 and 2018, these structures featured high-efficiency and clean energy technologies and were funded through a joint collaboration between the Energy Efficiency Fund and the CT Green Bank. Students involved in the construction of the buildings learned about high-efficiency building techniques, energy-efficient design and technologies, and how to integrate energy efficiency and clean energy technologies in buildings to reduce energy consumption and greenhouse gas emissions. There were nine E-Houses completed across the state and some are still used to implement components of the Companies' Green STEP offering. 113

For the 2022-2024 term, the Companies will work with CTECS to make upgrades to existing E-Houses and to establish new Learning Laboratories. The growth of the Learning Laboratories Initiative will be organic over the 2022-2024 term; thus, allowing the Companies to develop comprehensive metrics that can track outcomes (i.e., completed trainings, job placement, apprenticeships, internships).

### Industrial Assessment Center

Small, medium, and large manufacturers are responsible for approximately 40 percent of annual electric consumption in the state and are the backbone of Connecticut's economy. For the 2022-2024 term, the Companies plan to provide support for the Industrial Assessment Center that will be located at the University of Connecticut, as well as a satellite center at the University of New Haven. The Industrial Assessment Center will support the Companies' efforts to fill a knowledge gap in the current energy efficiency workforce—a key understanding of energy engineering and energy economics. The opening of this facility will offer valuable training and workforce development opportunities to engineers and other energy professionals in Connecticut, as well as serve as a complementary pipeline of workers to support the Companies' new C&I Portfolio offering, the Small Manufacturing Initiative.

### C&I Trainings

For the upcoming term, the Companies will continue to focus resources, educational programming, and technical support to promote clean energy workforce development in the state and region. Planned C&I trainings will include topics such as HVAC technologies and controls, refrigeration equipment and controls, demand reduction strategies, emerging technologies, advanced lighting and controls, whole building design, code-plus initiatives, and salesforce training. Descriptions of some of the planned C&I trainings are detailed below:

Building Operator Certification. This nationally recognized training and certification program focuses on energyefficient building operations and preventative maintenance procedures. Facilities with BOC graduates are proven
to save energy, have lower energy bills, and offer an improved comfort for occupants. For the upcoming term,
the Companies will also offer BOC sales training.

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<sup>113</sup> Completed E-Houses were constructed at E.C. Goodwin (New Britain), Henry Abbott (Danbury), Howell Cheney (Manchester), Oliver Wolcott (Torrington), Platt (Milford), Vinal (Middletown), W.F. Kaynor (Waterbury), Bullard-Havens (Bridgeport), and Ella T. Grasso (New London).

- Portfolio Manager. The EPA's online software tool is used to measure and track a building's energy and water consumption, as well as greenhouse gas emissions. The software can benchmark the performance of one building or a whole portfolio of buildings. The Companies encourage C&I vendors, particularly SBEA contractors, to attend these online seminars and explore how the benchmarking software can help them target market segments and identify energy and carbon-saving opportunities.
- Salesforce Training. This is a series of courses designed to teach contractors about sales approaches to varied market segments and to make the case for energy efficiency (e.g., reduced energy bills, improved productivity, lower O&M costs). This market segment training will review energy efficiency opportunities typically used for business and customers in similar market segments, such as restaurants and grocery stores.
- Certified Energy Manager (CEM) Training. This intensive four-and-a-half-day course is designed as a preparatory
  training for the CEM examination. This course, offered through the Association of Energy Engineers (AEE), is
  widely accepted as a measure of professional accomplishment within the energy management field. The CEM
  training and credential certificate reviews the basics of energy-efficient improvements as they relate to electrical,
  utility, building, and combustion systems.
- Green Professional Building Skills (GPRO) Training. This is a series of courses and certificate exams designed to
  teach the principles of sustainability combined with trade-specific green construction knowledge. GPRO training
  will help participants meet the expectations of owners and tenants who want healthier, environmentally
  sustainable, and energy-efficient homes and businesses. The Companies will offer these trainings in partnership
  with the CT Green Building Council.
- **Code Trainings.** The Companies will offer technical trainings and educational outreach to the C&I design and build community to make them aware of the IECC 2021 and Connecticut-specific amendments. The Companies plan to conduct multiple code trainings throughout the 2022-2024 term to prepare architects, builders, engineers, code officials, and contractors for the new building code.
- **Refrigeration Equipment and Controls.** Participants will learn about high-efficiency refrigeration equipment and controls and how to properly identify the correct technology and design for different market sectors.
- **Lighting and Lighting Controls.** These trainings will review connected lighting systems (CLS), advanced lighting control systems (ALCS), and emerging LED technologies. Participants will learn how to identify appropriate comprehensive applications for these technologies, and how to access energy-efficient incentives through the Companies' Energy Efficiency Portfolios.
- **Networked Lighting Controls (NLC).** This course prepares participants to explain the features and benefits that NLC offer and how to configure them to maximize the benefit for any given situation. The course reviews the different types of NLCs and how to select the right systems for a given customer and application.
- Heat Pump and High-Efficiency HVAC Equipment and Controls. The Companies will offer trainings regarding high-efficiency HVAC equipment and controls, including heat pump technologies.

- Compressed Air Challenge. The Compressed Air Challenge is a series of training seminars to help energy
  managers and facility personnel evaluate their facility's compressed air system and apply proven techniques
  to reduce operating costs and improve productivity, product quality, system reliability and competitiveness.
- Variable Refrigerant Flow (VRF) Systems—Designs and Opportunities. This is introductory training regarding
  energy-efficient heat pump and VRF technologies. The workshop explains how these technologies and systems
  work, compares their performance to other heating and cooling equipment, helps contractors identify
  appropriate applications for the technologies, and educates customers and contractors regarding how they can
  access energy-efficient incentives through the Companies' Energy Efficiency Portfolios.

# Residential Workforce Trainings.

For the 2022-2024 term, the Companies will offer a comprehensive Residential Workforce training platform for customers, contractors, trade allies, and other stakeholders. These trainings will focus on high-efficiency HVAC equipment and controls, heat pump technologies, sales training, code-plus training, HERS rating, Passive House certification, Zero Energy Ready Homes, and demand reduction strategies. Descriptions of some of the planned Residential trainings are detailed below:

- Code Trainings. The Companies will offer technical trainings and educational outreach to the residential new
  construction community to make them aware of the IECC 2021 and Connecticut-specific amendments. The
  Companies plan to conduct multiple code trainings throughout the 2022-2024 term to prepare architects,
  builders, designers, developers, engineers, estimators, raters, municipal officials, verifiers, code officials, and
  contractors for the new building code.
- BPI Infiltration and Duct Leakage (IDL) Training. These training sessions will focus on helping HES and HESIncome Eligible technicians gain the skills needed to offer duct leakage and blower door tests, in compliance with
  IECC codes for new home construction or existing home remodels. By earning the IDL certification, technicians
  will prove they can conduct duct leakage tests to the STM E1554-07 standard and blower door tests to the ASTM
  E779 standard.
- Heat Pump Technologies. In 2021, the Companies launched a comprehensive heat pump training plan that will continue in the upcoming term with modifications. These trainings will predominately target the HVAC contractor community. This training plan will also provide Home Performance vendors with fundamental training on heat pumps to strengthen their conversational competence regarding heat pump technologies and learn how the integration of HVAC controls can optimally operate the heat pump and the existing heat source.
- Passive House Training. The objective of the Passive House training is to transform the energy efficiency and building construction industries by providing up-to-date credentials from PHI and PHIUS. There are three training channels: lunch and learns, building science workshops, and Passive House accreditations. The Companies will offer these trainings in partnership with Passive House Connecticut.
- **Sales Training.** These trainings will focus on helping HES and HES-Income Eligible vendors identify and implement effective sales and marketing strategies to promote home performance services programs and rebates.
- Insulation Boot Camps. These "boot camps" will drive best-of-class performance from HES and HES-Income Eligible vendors, as well as insulation contractors. These trainings will focus on how to identify insulation needs in

the home, proper installation techniques, and how to complete the insulation form or rebate properly for submittal to the Companies. HES and HES-Income Eligible will have a tiered-incentive process where vendors and contractors who attend these trainings will be eligible for a higher incentive.

#### 4.4 COMMUNITY OUTREACH

The Companies created the Community Outreach program to educate the public regarding Connecticut's energy efficiency and demand management programs and the resulting economic, environmental, and societal benefits realized by their implementation. For the upcoming term, the Companies plan to implement two Community Outreach program offerings: Community Engagement and Educational Exhibits. These offerings are designed to deliver the message of energy efficiency to different communities—neighborhood, educational, ethnic, cultural, and/or social—and to empower residents, businesses, and students within those communities to participate in Residential and C&I Portfolio programs.

# 4.4.1 Community Engagement

Launched during the 2021 program year, the Community Partnership Initiative is an enhanced place-based approach to engaging communities in Connecticut's energy efficiency and demand management programs. This engagement initiative focuses on increased partnerships with community-based organizations to reach neighborhoods and communities who have historically lower engagement levels with energy efficiency. The Partnership emphasizes outreach to the following select groups:

- Customers within a distressed community or census block,
- Residents with limited English proficiency,
- Low- and moderate-income customers,
- Renters in single-family homes or multifamily buildings up to 4 units, and
- Small businesses.

The Community Partnership Initiative leverages community-based organizations' trusted relationships and knowledge of communities to strengthen awareness of energy efficiency and to measurably increase program participation by residential customers and small businesses. The Companies note that these partnership efforts will not supplant current and future residential and small business marketing in Connecticut by the Companies but are viewed as an additional layer of marketing and outreach to customers in the select groups referenced above.

The Companies solicit applications from community groups, nonprofit organizations, and municipalities willing to partner with the Companies to join the Community Partnership Initiative and receive funding for energy efficiency outreach efforts. Applicants describe their planned outreach efforts, marketing campaigns, which communities will be served, and key performance metrics (i.e., which energy efficiency programs they intend to increase participation in within the community). If the partnership application is accepted, participating community groups, nonprofit organizations, and municipalities will receive start-up funds, technical support, marketing materials and support, and performance-based incentives for increasing participation in energy efficiency and demand management programs. The Companies will give preference to organizations and municipalities who partner together on the application and who plan to conduct joint grassroots organizing, public education, and engagement activities.

Proposed energy efficiency outreach projects must reach at least 200 to 500 households or at least 5 to 30 unique businesses per community. Partnership funding awards range from \$5,000 to \$25,000 and are based on the project submitted on the application. Partnerships located in designated high-need communities, as defined by the Connecticut Department of Economic and Community Development (DECD) as a distressed municipality will be 20 percent higher than for other projects. Once participants are selected, the Companies will coordinate with the selected participants via meetings, periodic calls, and best practices trainings throughout the term of the Partnership.

The Companies have applied the best practices and lessons learned from previous community-based programming to develop components of the Community Partnership Initiative. The inclusion of start-up funds is a direct result from feedback from community-based organizations and environmental groups about the initial investments needed in a community before performance-based metrics can be met. In addition, the Companies have established a one-year term on meeting the key performance indicators and program participation goals to factor in the time it takes to initiate, develop, and earn the trust of a community when conducting outreach efforts. The intent of the Community Partnership Initiative is to earn the trust of, and engage, communities across the state. As with all their programs, the Companies will continuously review the Initiative's results and processes to determine where improvements can be continuously made. The Community Partnership Initiative is designed as a dynamic engagement tool that is flexible enough to shift and morph based on the events and needs that shape Connecticut's communities.

For the 2022-2024 term, the Companies will continue to implement the Community Partnership Initiative as an engagement channel to communities to promote energy efficiency and demand management programs. If successful and demand is high, the Companies will look to expand the offering. The Companies will collaborate with community-based organizations, clean energy task forces, environmental groups, municipal and local governments, and faith-based organizations from across the state to reduce the racial, social, cultural, ethnic, and economic barriers that limit participation levels in Connecticut's energy efficiency programs.

# 4.4.2 Educational Exhibits

For more than 20 years, the Companies have developed community partnerships with museums, science centers, nature centers, and community groups to promote energy efficiency and its benefits through educational exhibits and programming. For the upcoming term, the Companies are focused on delivering mobile entertainment-based and behavioral learning-based exhibits, programming, and learning experiences directly to communities across the state. The Educational Exhibits Initiative will inspire Connecticut adults and children to be agents of change in their homes, schools, communities, and businesses. Through interactive and hands-on activity stations, the Educational Exhibits Initiative will inspire energy efficiency advocacy, promote the Residential and C&I Portfolios, and educate visitors regarding career opportunities in the energy efficiency workforce.

# Energize CT Energy in Action Mobile Exhibit

The *Energize CT Energy in Action* mobile exhibit's (Exhibit) objective is to inspire energy efficiency advocacy through entertainment-based and interactive learning programming and exhibits. The Exhibit will focus on energy efficiency topics including energy efficiency concepts, energy conservation behaviors, weatherization services, clean energy sources and technologies, and energy-efficient technologies, such as lighting/controls, insulation, induction cooktops, HVAC

These areas are defined as municipalities or U.S. Census blocks with high concentrations of unemployment and poverty, aging housing stock and low or declining rates of growth in job creation, population, and per-capita income.

equipment, building techniques, and windows. In addition, the Exhibit will also explore career opportunities in the energy efficiency workforce and highlight the Workforce Development Initiative.

The Exhibit will be designed to challenge visitors to become advocates who share their knowledge gained regarding energy efficiency with their families, friends, and communities. The Companies and implementation contractor have formulated four main concepts and/or groups for the Exhibit's various hands-on, interactive stations and career explorations:

- Energy efficiency concepts. These Exhibit stations will explore: (1) light energy and conservation through highefficiency lighting and LED technologies, (2) heat energy and how proper insulation and air sealing techniques can save energy, (3) energy vampires and the use of smart plugs/advanced power strips, (4) water conservation behaviors and technologies, and (5) carbon footprints and how visitors can reduce theirs to positively affect the environment.
- Clean energy sources and technologies. This Exhibit station will explore the intersectionality of energy efficiency and clean energy source. The stations will explore what is a renewable vs. non-renewable source, windmills and solar photovoltaic/thermal technologies and how they work, and the global environmental impacts of using more renewable energy sources and technologies (i.e., reduced greenhouse gas emissions).
- Visitor challenge. This Exhibit station will ask visitors to put all the information together and determine which changes they will make with their newfound knowledge of energy efficiency. The station will quiz them on their knowledge gained and focus on what they can do in their own homes, businesses, and communities to drive energy efficiency, reduce energy costs, and decrease greenhouse gas emissions. This reflection station will culminate in a pledge regarding which energy efficiency action steps they will take after leaving the Exhibit.
- Career explorations. This Exhibit station will allow visitors to explore the careers and career paths in energy
  efficiency.

During the 2022-2024 term, the Exhibit will tour 40 K-12 schools and 40 community events on an annual basis to promote the Residential and C&I Portfolios. Approximately 60 percent of these tours will be conducted in communities with historically lower engagement levels with energy efficiency due to economic, social, racial, ethnic, and/or cultural barriers. For K-12 schools, the exhibit's implementation contractor will develop an educator's resource guide (pre- and post-experiments), cross-curricular links, science literacy and digital resources, assessment quizzes, custom Kahoot quizzes to be used by educators to reinforce show's content, home labs for at home activities linked to the show's content, and a survey using Survey Monkey or Google Forms to keep track of metrics. Similar resources will be created for visitors at community events who wish to explore the topic of energy efficiency further.

#### Museum Partnerships

The Companies will continue to explore community partnerships with museums, nature centers, and science centers in the upcoming term. As needed, the Companies will work with science and educational centers to support local community outreach, educational programming, installation of exhibits, and special events to promote energy efficiency. Support will be provided to those Museum Partnerships focused on direct outreach within communities, especially those designated by the DECD as distressed.

#### 4.5 TECHNICIAL ENGAGEMENT

For the 2022-2024 term, the Companies will continue to provide platform, software, and technical support to engage Connecticut's residents, businesses, and municipalities in energy efficiency. This technical engagement support includes providing data sharing and training for the EPA's ENERGY STAR Portfolio Manager software. In addition, Eversource has developed several customer engagement tools to digitally engage customers with embedded experiences similar to those deployed in the utility's Residential Behavior offering (see Section 2.8).

# 4.5.1 ENERGY STAR Portfolio Manager

For the 2022-2024 term, the Companies will continue to encourage municipalities and businesses to utilize the Portfolio Manager software to track their energy and water consumption, as well as related greenhouse gas emissions. The Companies will continue to provide technical support in the automatic transfer of billing data to Portfolio Manager. This automatic data transfer eliminates the need for municipal and small business employees to enter utility billing data manually.

In addition, the Companies will continue to provide benchmarking and data analysis support to Connecticut towns and cities who request support. This support will be provided through the technical expertise of the Companies and third-party experts. The ENERGY STAR program requires third-party verification by a professional engineer or registered architect prior to awarding ENERGY STAR building certification. Over the previous Plan terms, this verification requirement has served as a barrier for Connecticut municipalities looking to achieve ENERGY STAR status for their buildings and facilities. To overcome this barrier in the 2022-2024 term, the Companies will provide funding support to municipalities to hire professional engineers and registered architects to verify applications.

# 4.5.2 Customer Engagement Tools (Eversource only)

For the upcoming term, Eversource plans to integrate customer tools on its website to digitally engage residential electric and natural gas customers with embedded experiences similar to those used for the Residential Behavior Initiative. These digital engagement tools (e.g., data browsers, bill comparisons) create meaningful interactions between Eversource and the customer on the company's website. These tools provide digital interactions where a customer can track and compare their energy consumption over time while providing Eversource with the opportunity to use embedded messaging to promote customized energy efficiency solutions. For example, if the bill comparison tool indicates that a customer's electric bill was high compared to the previous year's, than the customer engagement tools would push embedded behavioral prompts to the customer on the website (e.g., purchase a smart thermostat, purchase a high-efficiency HVAC unit, or turn your thermostat up to 78 degrees).

The integration of these digital tools will provide customers with embedded experiences consistent with the web and email communications received through the Residential Behavioral Initiative. Eversource sees this integration as an important communication tool to digitally engage customers. These behavioral prompts will be implemented by Eversource in-house through the use of third-party software.

#### 4.5.3 Research, Design & Development

Another process for continuous improvement is the joint-utility Research, Design & Development (RD&D) and Program and Policy Working Group. The Policy Working Group is responsible for conducting technical reviews and determinations

of a fully commercialized energy-efficient product's eligibility, suitability, or applicability for referral to an existing program in the Companies' Portfolios. The proposed products or technologies must reflect verifiable and persistent energy efficiency improvements to be approved. This is another pathway for innovation and the introduction of fully-tested and piloted energy efficiency measures to the Residential and C&I Portfolios. For the 2022-2024 term, the Companies, in consultation with the EEB, will investigate having the Policy Working Group review its charter and identify opportunities for the group to take a more active role in investigating new technologies for the Residential and C&I Portfolios.

# 4.6 ANNUAL BUDGETS

Throughout the 2022-2024 term, the Companies will continue to deliver an Education, Workforce, Community Outreach, and Technical Engagement Portfolio that delivers innovative solutions, customer outreach, comprehensive education, and valuable workforce development opportunities across the state. The annual program year budgets for the 2022-2024 term are detailed below.

Figure 4-C: 2022 Budget for Education, Workforce, Community Outreach & Technical Engagement

PROGRAM NAME	Eversource Electric	United Illuminating Electric	Eversource Gas	CNG	scg	Total
	Eı	nergy Education	1			
K-12 Professional Development and Outreach	\$352,000	\$88,000	\$36,667	\$36,667	\$36,667	\$550,000
Green STEP	\$320,000	\$80,000	\$33,333	\$33,333	\$33,333	\$500,000
Student Contest	\$64,000	\$16,000	\$6,667	\$6,667	\$6,667	\$100,000
Total: Energy Education	\$736,000	\$184,000	\$76,667	\$76,667	\$76,667	\$1,150,000
	Work	force Developn	nent	,	,	
Training	\$496,800	\$99,200	\$41,333	\$41,333	\$41,333	\$720,000
Learning Laboratories	\$320,000	\$80,000	\$33,333	\$33,333	\$33,333	\$500,000
Industrial Assessment Center	\$76,800	\$19,200	\$8,000	\$8,000	\$8,000	\$120,000
Total: Workforce Development	\$893,600	\$198,400	\$82,667	\$82,667	\$82,667	\$1,340,000
	Con	nmunity Outrea	ich			
Community Engagement	\$320,000	\$80,000	\$33,333	\$33,333	\$33,333	\$500,000
Educational Exhibits	\$448,000	\$112,000	\$46,667	\$46,667	\$46,667	\$700,000
Total: Community Outreach	\$768,000	\$192,000	\$80,000	\$80,000	\$80,000	\$1,200,000
	Custome	r Engagement I	nitiative			
Customer Engagement Tools	\$320,000	\$ -	\$50,000	\$ -	\$ -	\$370,000
Portfolio Manager	\$130,000	\$80,000	\$20,000	\$50,000	\$50,000	\$330,000
Total: Customer Engagement Initiative	\$450,000	\$80,000	\$70,000	\$50,000	\$50,000	\$700,000
TOTAL	\$2,847,600	\$654,400	\$309,333	\$289,333	\$289,333	\$4,390,000

# SECTION FIVE: BENEFIT-COST SCREENING

# **5.1 OVERVIEW**

For the 2022-2024 Plan, the Companies used identical benefit-cost (B/C) methodologies for program and measure screening. The B/C screening tools contain consistent methodologies and the same sources for program-induced avoided costs and benefits. The electric and fossil fuel avoided costs are based on a regional avoided energy supply cost study completed in 2021 for New England<sup>115</sup> (2021 AESC). The transmission and distribution (electric) avoided costs are based on studies conducted by the Companies in 2017. <sup>116</sup>

The 2022-2024 Plan was screened on an annual basis by each Company for the 2022, 2023, and 2024 program years (5 sets of Company B/C tables x 3 years). In addition, a combined statewide B/C table is provided for each program year. These statewide combined B/C tables include all benefits and costs from the electric and natural gas programs rolled up into three annual portfolio tables.

The Companies use the Connecticut Program Savings Document (PSD) to verify savings assumptions, including the results of program evaluations. <sup>117</sup> The PSD provides engineering estimates, savings algorithms, and measure life estimates used by the Companies within their programs. The PSD also reflects the results of evaluations by providing realization rates to "true-up" savings based on third-party independent evaluations.

All electric and natural gas conservation measures in the 2022-2024 Plan are evaluated within an integrated supply-and-demand planning framework to ensure that the programs are cost-effective and yield positive net benefits to customers. Use of common cost-effectiveness testing methodologies and savings assumptions allows DEEP, the Connecticut Public Utilities Regulatory Authority (PURA), the EEB, and others to compare the benefits, costs, and B/C ratios on a program and measure basis. This chapter provides details on the B/C tests utilized in the 2019-2021 Plan and this 2022-2024 Plan, include:

- Use of avoided costs from the 2021 AESC;
- Types of B/C tests to be used in the 2022-2024 Plan; and
- Benefits used within each of the B/C tests and their source.

Synapse Energy Economics, Resource Insight, Les Deman Consulting, North Side Energy, Sustainable Energy Advantage, <u>Avoided Energy</u> Supply Cost Study in New England: 2018 Report, Mar. 30, 2018.

Eversource values are based on: ICF International, <u>Assessment of Avoided Cost of Transmission and Distribution</u>, Jul. 17, 2017. United Illuminating values are based on: Harbourfront Group, Inc., <u>Avoided Transmission & Distribution Cost Study Report, 2000-2026</u>, Aug. 1, 2017.

The Companies' PSD is filed annually as part of the Electric and Natural Gas Companies' C&LM Plan or Plan Update. The PSD is a centralized reference of savings (e.g., energy, capacity, fossil fuel, and other non-electric) assumptions used by the Companies within the energy efficiency programs.

### 5.2 AVOIDED ENERGY SUPPLY COST STUDY

Most of the avoided costs used in the Companies' B/C testing were updated for the 2022-2024 Plan based on the completed 2021 AESC study. AESC study. AESC study that allowed for the creation of avoided cost tables for specific states and scenarios. The 2021 AESC was sponsored by New England energy efficiency program administrators. In addition, other non-utility parties (e.g., regulators and consultants) formed the Avoided Cost Study Group to oversee the development of the 2021 AESC. Previous iterations of an avoided cost study were conducted on a biennial basis. However, beginning in 2015, the AESC moved to a three-year cycle which coincides with the current three-year planning cycle in Connecticut. The 2022-2024 Plan coincided with the release of the 2021 AESC.

# **5.3 BENEFIT-COST TESTS**

#### 5.3.1 Benefit-Cost Tests

The following three B/C tests were utilized for the 2022-2024 Plan. The B/C tests compare the net present value of program induced avoided costs with the cost to achieve the benefits. These three B/C tests have been used since the 2015 Plan and include: (1) the Utility Cost Test, (2) the Modified Utility Cost Test, and (3) the Total Resource Cost Test. These tests are summarized below, and additional details are provided in Figure 5-A.

- The Utility Cost Test (UCT) includes the value of utility-specific benefits and program costs associated with those benefits. For example, the UCT includes energy avoided costs from electric and natural gas conservation measures/programs and all program costs associated with acquiring those benefits. The UCT does not include customer out-of-pocket costs, or costs or benefits associated with oil or propane savings. Nor does the UCT include NEIs or the non-embedded value of greenhouse gas emissions reductions.
- The Modified Utility Cost Test (MUCT) includes all benefits and costs as the UCT. In addition, the MUCT includes oil and propane-avoided costs, and the program costs associated with acquiring oil and propane savings. In 2021, in coordination with the launch of the C&I Heat Pump pilot and consistent with DEEP's direction in their Approval with Conditions of the 2020 Plan Update, the MUCT will also be applied to electric C&I programs that have oil or propane savings.
- The Total Resource Cost Test (TRC) includes all energy and non-energy benefits, such as water savings, non-embedded emissions, environmental attributes, and non-energy impacts. On February 19, 2020, DEEP issued their Approval with Conditions for the 2020 Plan Update, including Compliance Order No. 2 directing the Companies to include NEIs into the HES-Income Eligible program.<sup>119</sup> In addition, the TRC includes all costs associated with acquiring these savings. This includes program costs and customer out-of-pocket costs.

Synapse Energy Economics, Inc., Avoided Energy Supply Component in New England: 2021 Report, Mar. 15, 2021.

NEIs are based on Table A6-1 in the 2021 PSD manual per DEEP's Approval with Conditions of the 2020 Plan Update, Conditional Item No. 2, available online at:

 $<sup>\</sup>underline{https://www.energizect.com/sites/default/files/Approval\%20of\%20CLM\%202020\%20Plan\%20Update\_Conditions\%20of\%20Approval.pdf.}$ 

Figure 5-A provides the benefits (numerator) and costs (denominator) that are used within the three B/C tests, as well as their value and source.

Figure 5-A: Benefit/Cost Testing Summary (including the source of the avoided costs/benefits)

Benefit Type (numerator)	Units	15 Year-Value Levelized Cost (\$ 2021)	Utility Cost Test (Natural Gas/Electric)	Modified Utility Cost Test	Total Resource Cost Test	Source
Electric Program Benefits						
Energy	\$/kWh	\$0.038	X	Х	Х	2021 AESC
Capacity	\$/kW	\$48.00	X	Х	Х	2021 AESC
Transmission	\$/kW	\$0.86	X	Х	Х	EDCs (Note 1)
Distribution	\$/kW	\$30.89	X	Х	Х	EDCs (Note 1)
Pooled Transmission Facilities (Note 2)	\$/kW	\$84.00	X	Х	Х	2021 AESC
Reliability (Note 2)	\$/kW	\$0.50	Х	X	Х	2021 AESC
Energy DRIPE (Note 3)	\$/kWh	\$0.025	Х	X	Х	2021 AESC
Capacity DRIPE (Note 4)	\$/kW	\$76.60	Х	X	Х	2021 AESC
Natural Gas (Note 5)	\$/MMBtu	\$6.48	Х	Х	X	2021 AESC
DRIPE (Note 6)	\$/MMBtu	\$1.17	X	X	X	2021 AESC
DRIPE (Note 6)	Ş/IVIIVIBLU	\$1.17	^	^	^	ZUZI AESC
Oil	\$/MMBtu	\$14.04		X	Х	2021 AESC
Oil DRIPE	\$/MMBtu	\$0.11		Х	Х	2021 AESC
Propane	\$/MMBtu	\$38.79		Х	Х	2021 AESC
Water	\$/Gallons	\$0.014			Х	CT rates (Note 7
Non-Energy Impacts	\$ (varies)	N/A			Х	Various
Non-Embedded Emissions	\$/kWh	\$0.0482			Х	2021 AESC
Fossil Emissions (Note 8)	\$/ton	\$125/ton CO <sub>2</sub> \$14,700/ton NOx			X	2021 AESC
Cost (denominator)			Natural Gas/Electric	Program Cost (including oil,	Total Cost (program +	
			Cost (no oil/propane)	propane)	customer)	

**Note 1:** Transmission and Distribution benefits are based on Electric Distribution Companies' (EDC) studies conducted in 2017. The Companies use weighted average values for T (\$0.84/kW) and D (\$30.29/kW) from those studies.

Note 2: Connecticut counterfactual 1 using a 15-year levelized basis; all values are in 2021 dollars.

**Note 3:** Includes all DRIPE identified in 2021 AESC, including own-fuel DRIPE and cross-fuel DRIPE (Connecticut DRIPE and rest-of-pool). CT counterfactual 1, summer on-peak, on a 15-year levelized basis; all values are in 2021 dollars.

Note 4: Capacity DRIPE includes Connecticut and rest-of-pool components, counterfactual 1, cleared capacity values, on a 15-year levelized basis; in 2021 dollars.

Note 5: Values are for the Southern New England Region, all retail end-uses, on a 15-year levelized basis; in 2021 dollars.

Note 6: Includes all DRIPE identified in 2021 AESC including own-fuel DRIPE and cross-fuel DRIPE (Connecticut DRIPE and rest-of-pool). Values based on all retail enduses and in 2021 dollars.

Note 7: Water-avoided costs based on 2016 Tighe and Bond water and sewer data for Connecticut. http://rates.tighebond.com/index.aspx.

Note 8: CO2 avoided cost value uses the "New England-based marginal abatement cost, derived from the electric sector."

In Connecticut, the UCT (or MUCT for electric programs that save fossil fuels) is the primary test. The TRC is used as a secondary test to provide a broader perspective of program performance, including the incorporation of NEIs, particularly for low-income programs. The flow chart below (Figure 5-B) illustrates the use of three B/C tests and the iterations that may be used to refine program performance and optimize the energy efficiency portfolio.

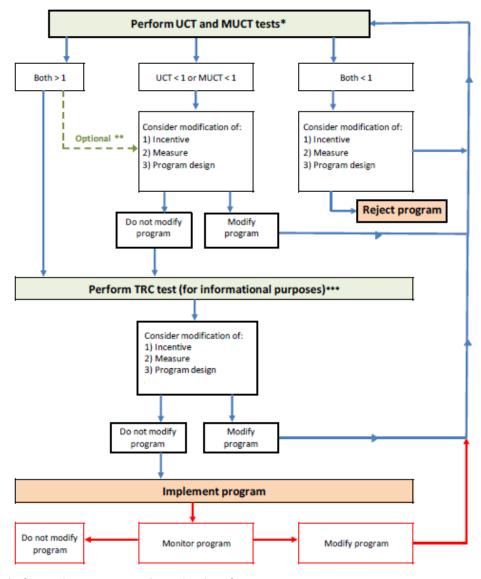


Figure 5-B: Connecticut B/C Testing Process 120

<sup>\*</sup>Multiple rounds of UCT and MUCT testing may be employed to refine a program.

 $<sup>\</sup>hbox{**Modifications to improve savings and benefits might be considered.}\\$ 

<sup>\*\*\*</sup>TRC test is not used as pass/fail test. Judgement about whether a program passes muster is based on the UCT and MUCT. For the HES-Income Eligible program, the TRC test is used as the primary B/C metric. The TRC test merely provides an indication of whether participant contribution and program incentives are appropriate without further modification.

<sup>&</sup>lt;sup>120</sup> The Connecticut B/C flowchart was developed through a collaborative effort between DEEP staff and the Companies.

In addition to the continuation of the three B/C tests, the Companies will maintain the basic framework of the B/C tests to remain consistent with prior DEEP feedback. This includes the following: (1) the use of nominal avoided costs, and (2) a nominal discount rate of 3 percent all B/C testing. The discount rate is used to calculate the net present value of the avoided costs over the life energy efficiency measures. The nominal avoided costs are calculated using a 2.0 percent inflation factor on the 2021 AESC.

DEEP Resolution of Conditions, Sep. 26, 2014.

Discount rate is based on DEEP's Approval with Conditions of the <u>2019-2021 Plan</u> (dated Nov. 11, 2018), filed on Dec. 20, 2018, Compliance Item No. 5. Please see Appendix E of the updated <u>2019-2021 Plan</u> for more details.

# **SECTION SIX: EVALUATIONS**

## **6.1 PURPOSE OF EVALUATIONS**

Since the inception of Connecticut's energy efficiency and demand management programs, independent evaluation, measurement, and verification (EM&V) has been an integral component. EM&V helps the EEB, the Companies, policy makers, and stakeholders better understand the success of the programs and if they are meeting the goals and objectives they were created to achieve. EM&V has many objectives, including verifying program energy savings, estimating future energy savings, identifying ways to improve program delivery and results, and helping expand the reach of programs by identifying barriers to participation. In addition, evaluations are used to verify efficiency programs' demand savings for resources participating in ISO-NE's FCM.

A critical aspect of the Companies' commitment to continued improvement is Connecticut's independent third-party evaluation process. <sup>123</sup> Managed by the EEB, this independent evaluation process results in findings and recommendations that assist the Companies in determining the lessons learned and the process modifications needed to improve the delivery of energy efficiency and demand management programs. Evaluations are selected and prioritized based on criteria such as the length of time since the most recent evaluation of a program, the relative contribution of program savings to the portfolio, and the level of spending on the program. Independent evaluators working on behalf of the EEB have conducted more than 100 studies of the evolving suite of energy efficiency programs since 2005. <sup>124</sup> These studies have included: (1) impact evaluations, which measure the savings resulting from efficiency measures and programs and detail the factors driving those savings; (2) process evaluations, which assess program design and implementation to understand and improve program performance; and (3) market studies, which assess how energy efficiency markets function and analyze market participant behaviors.

In addition to evaluations conducted through the EEB, the Companies work collaboratively with other regional and national entities to share and leverage evaluation results from other jurisdictions to make best use of available resources and avoid duplicating studies conducted elsewhere. For instance, due to the centralized implementation of Eversource's demand response programs across the multi-state Eversource service territory, Eversource has joined with counterparts in Massachusetts and New Hampshire on regional evaluations of several demand response programs. <sup>125</sup> This approach allows for higher quality results at a lower cost than would be possible through a study limited to Connecticut participants and evaluation funding, and it builds upon similar cross-state studies Connecticut has joined in recent years.

In addition, the Companies, in collaboration with DEEP, Northeast Energy Efficiency Partnerships (NEEP), and the Lawrence Berkeley National Laboratory, have completed the Advanced M&V pilot that began in 2017 under a US DOE grant. This grant-funded pilot has provided the Companies with experience with advanced data collection and analytical

See <a href="https://www.energizect.com/connecticut-energy-efficiency-board/energy-efficiency-board-committees/evaluation-committee">https://www.energizect.com/connecticut-energy-efficiency-board/energy-efficiency-board-committees/evaluation-committee</a> for additional information on the EEB evaluation process.

See <a href="https://www.energizect.com/connecticut-energy-efficiency-board/evaluation-reports">https://www.energizect.com/connecticut-energy-efficiency-board/evaluation-reports</a> for final and draft versions of EEB evaluation reports and studies, along with related documents such as project descriptions, stakeholder comments, and supplementary materials.

See ERS, Cross-State C&I Active Demand Reduction Initiative Summer 2019 Evaluation Report, Apr. 15, 2020, available online at: <a href="http://ma-eeac.org/wordpress/wp-content/uploads/Cross-State-CI-DR-S19-Evaluation-Report">http://ma-eeac.org/wordpress/wp-content/uploads/Cross-State-CI-DR-S19-Evaluation-Report</a> 04-15-2020 clean.pdf and Navigant, 2019.

tools that can produce timely feedback on savings from energy efficiency projects, supporting project implementation and evaluation efforts.

Figure 6-A: 2022-2024 Evaluation Performance Management Incentive (Secondary Metrics)

Incentive Metric	Description	Annual Target Goal
Evaluation	Promote timely turnaround for ongoing evaluations	This metric is designed to ensure timely turnaround on purchase orders and evaluation data requests based on agreed upon timelines for studies

#### 6.2 2021 EVALUATION RECOMMENDATIONS

One of the outcomes of the EEB's evaluation process is a set of recommendations for the Companies regarding how to improve the evaluated programs. The Companies carefully reviewed the recommendations from evaluation studies completed in 2021. The figures below detail the 2021 Evaluation recommendations and how the Companies plan to incorporate these recommendations into the 2022-2024 Plan's program offerings.

Figure 6-B: R1973 Retail Non-Lighting

Study Recommendations	Companies' Responses
Engage DEEP and other Connecticut stakeholders to develop a market transformation framework for ESRPP. The elements of a market transformation framework would include – agreements on evaluation, mechanism for claiming savings, and cost-effectiveness methodology. Some components, such as baselines and program tracking, will need to be established ahead of time.	The Companies agree with this recommendation, though note this recommendation requires collective work between the EEB, the Companies, and stakeholders. The Companies will work to develop a framework as recommended by the EEB Residential Committee and work to keep the Evaluation team updated on its formation.
Implement the recommended ESRPP market transformation indicators (MTIs) to track Connecticut's market transformation progress. Recommended indicators are Program Qualified Sales Share (PQS), and Program Qualified Model Assortment Share.	The Companies have implemented this recommendation.
Monitor key performance indicators (KPIs) for ESRPP to help identify where the Connecticut ESRPP program is having success in the shorter-term and where it is lagging. Recommended KPI's include total deemed savings, net benefit, number of participating store locations, number of product categories, efforts to recruit retailers, and total incentive dollars paid.	The Companies have implemented this recommendation.
Begin tracking ESRPP upright and chest freezer purchases separately (if Companies are not doing so already) to allow the freezer type specific savings estimates to be applied for upright and chest types.	The Companies have implemented this recommendation.
Participate actively with ESRPP national partners specifications and standards tasks, such as providing data and engaging in comment process for standards.	The Companies have implemented this recommendation.
Work with the national collaborative to recruit regional peer utilities into the ESRPP program.	The Companies agree with this recommendation; however, they note the Companies do not directly recruit (but provide feedback) to help the national ESRPP program to support recruitment efforts.
Provide specific directions to national retailer partners on purchasing and promoting specific products (e.g., marketing strategies and content) and establish relationships with local retailers to ensure national guidance is implemented.	The Companies agree with this recommendation; however, they note the national program is the entity working directly with local retailers. The Companies assist and collaborate with the national program where possible to support them in this endeavor. However, the national program is the direct contact with local retailers.
Incorporate a structured assessment of incentive levels for ESRPP.	This recommendation is related to the recommendation to adopt a market transformation framework for the program. The Companies agree with this recommendation and use a structured bi-annual review of incentive levels. The Companies will work to keep the Evaluation team apprised of any updates in this area.

Figure 6-B: R1973 Retail Non-Lighting (continued)

Study Recommendations	Companies' Responses
Institute two-year or more incentive levels and budgets for the Connecticut ESRPP programs instead of current annual process, even if other Program Sponsors are budgeting annually.	The Companies aspire to offer as much information and stability to retailers as possible and agree a longer horizon would be beneficial. The Companies, however, are bound by the budget approval regulatory process. This recommendation would require collective work between the Companies, DEEP, and the stakeholder.
Continue to improve the design and user experience of E-commerce platforms. The Companies should continue to use non-utility E-commerce platforms that customers are familiar with as a benchmark for platform design. The Companies should also consider the possibility of offering a single, combined E-commerce platform as a way to streamline the user experience. A single platform could be administered similarly to the Mass Save E-commerce site that serves customers across six different Massachusetts utilities.	The Companies generally agree with the recommendation and are seeking a balance between continuity of experience for customers within each utility (Company), as well as within different regions. While the Companies have opted against a single platform, there are quarterly meetings in CT to assure continuity and standardization for customers. The Companies' new ecommerce platform strives for a customer experience similar to other popular e-commerce sites.
Create a dashboard of tracking metrics to gauge monthly E-commerce platform performance. Work with E-commerce platform developers to gather regular insights into customer engagement through tracking monthly unique visitors, product category page views, clickthrough rates, and customer satisfaction. Other metrics to consider are the number of pages customers visit, referral sources (how the customer found the site), and customer net promoter scores.	The Companies agree with this recommendation. The new e-commerce platforms in CT includes a platform performance dashboard which tracks the customer engagement metric referenced.
Continue to add educational information to help customers understand the benefits of buying efficient products. The Companies' E-commerce sites should clearly show users; which products receive incentives, product information such as energy efficiency scores and buyers guide information (e.g., how the Advanced Power Strips have higher power surge protection for your devices) and customer ratings and reviews to give products more credibility.	The Companies have implemented this recommendation. Educational information is provided in depth on the Energize CT site and touched upon within the ecommerce platform which allows customers to view product ratings and reviews.
Leverage direct email for effective E-commerce marketing outreach (if not already doing so).	The Companies have implemented this recommendation.
Continue to offer E-commerce special promotions to drive customer engagement.	The Companies have implemented this recommendation.
Continue to increase the number of product categories available on E-commerce platforms.	The Companies have implemented this recommendation. The Companies also continue to look for measures that can be added to existing categories.

Figure 6-B: R1973 Retail Non-Lighting (continued)

Study Recommendations	Companies' Responses
Track Wi-Fi and Smart (learning) thermostat purchases separately, as well as Tier I and Tier II purchases separately (if not doing so already) to better understand their impact.	The Companies are working to determine the feasibility of tracking the items separately based on features. ENERGY STAR does not delineate between thermostats based on features, which makes tracking them separately difficult. If it becomes possible to track separately, the Companies would be interested in doing so. The Companies will work to keep the Evaluation team updated on the feasibility of this analysis through the Evaluation committee meetings.
Conduct additional research to identify if E-commerce platforms are leading to additional savings from purchases outside of the platform.	This recommendation requires collective work between the Evaluation team and the Companies.

Figure 6-C: X1941 Multifamily Impact Evaluation

Study Recommendations	Companies' Responses
Section 3 – Dwelling unit lighting: The research team recommends that the 2021 PSD specify a "backstop" for the baseline that is EISA-compliant. This backstop should apply even for "known" values of the replaced bulbs, given the difficult discerning a halogen vs. incandescent bulb in the field, and since a bulb that is truly incandescent would have been installed more than five years ago, so would most likely have a much lower HOU than the PSD assumes.	No updates will be made to the PSD based on this recommendation. The Multifamily program is no longer offering any dwelling unit lighting in the HES program and will phase out dwelling unit lighting in the HES-Income Eligible program in 2022. In addition, inspectors on-site verify bulbs being replaced to ensure that contractors are replacing working incandescent bulbs or halogen, not LEDs.
Section 3 - Dwelling unit lighting. The research team recommends that the 2021 PSD move the heating interactive effect calculation out of the Non-Energy Benefits section and into the main body of the measure calculation description, to clarify that heating interactive effects should be applied to all projects using fossil fuel heating.	Heating interactive effects added in 2022 CT PSD, measure 4.1.1, filed on November 1, 2021. See Table 4-B.
Section 3 – ECM Pumps. The 2020 PSD does not have a central ECM pump measure for an ECM pump serving multiple dwelling units. Projects should follow the VFD calculation, since a VFD also modulates the speed of a motor and the VFD calculation includes custom inputs (such as motor horsepower) for an accurate calculation.	A new measure was added to the C&I retrofit section in the 2022 CT PSD. The measure, 2.2.11 ECM Circulating Pumps, will be used for multifamily projects. ECM pumps serving multiple units are typically on commercial accounts.
Section 3 – Reduced Infiltration (Blower Door). To account for leakage from conditioned spaces (instead of using the building factor in the PSD), all multifamily projects should use the Steven Winter and Associates (SWA) Excel-based calculator in the Eversource 2020 Multifamily Fill-Out Form workbook. The SWA calculator determines the allowable CFM reductions that can be claimed based on a calculator that was calibrated based on guarded blower door test values. The research team views the SWA calculation method based on the SWA prescriptive calculator (based by Eversource 2019 through March 2020) as preferred because it is based on guarded blower door data and requires inputs that are easier to determine (e.g., ceiling height, square footage, number of stories) than the 2020 PSD building factor calculation inputs (shared surface area and envelope perimeter).	Eversource used the SWA Excel-based calculator through March 2020. Once restrictions from running a blower door test in multifamily buildings are lifted, Eversource will again use the SWA Excel-based tool.
Section 6 – Common Area and Exterior Lighting. Eversource should update the coincidence factors in its calculator. Eversource should also improve documentation to ensure that all claimed projects have invoices, and that all installed projects are claimed and allocate all lighting measures as either common area or in unit, rather than "Other Lighting."	Eversource will update the calculators to match the PSD lighting common areas' coincidence factors. Note that in the 2022 PSD, the winter CF is 100% and not 90.4% as suggested in the study.

Figure 6-C: X1941 Multifamily Impact Evaluation (continued)

Study Recommendations	Companies' Responses
Section 6 – Dwelling Unit Lighting. Consider phasing out this measure, given the high prevalence of LEDs in the residential market. In the meantime, require all projects to use an EISA-compliant baseline. Given the natural market adoption of LEDs, require documentation that the bulbs removed were not LEDs (i.e., halogens or CFLs), such as requiring photos for a sample of units or showing a box of removed bulbs.	The Multifamily Initiative is no longer offering any dwelling unit lighting in the HES program and will phase out dwelling unit lighting in the HES-Income Eligible program in 2022. In addition, inspectors on-site verify bulbs being replaced to ensure that contractors are replacing working incandescent bulbs or halogen bulbs, not LEDs. Inspectors also take photos of removed bulbs for documentation.
Section 6 – Dwelling Unit Lighting. The Companies should true up claimed savings based on what was installed (invoices or post-inspection report), instead of what was planned (LOA). Eversource should remove the 90% reduction factor for HES projects in its calculator because it does not align with the PSD, unless there is data indicating that market-rate projects should have savings reduced by 10%.	The Multifamily Initiative is no longer offering any dwelling unit lighting in the HES program and will phase out dwelling unit lighting in the HES-Income Eligible program in 2022.
Section 6 – Refrigerators. Improve documentation and set rules in calculator so that lost opportunity savings (savings above ENERGY STAR) are not overclaimed.	Program documentation has been reviewed with the Multifamily team to set rules in the calculator so that lost opportunity savings are not overclaimed. The Companies will continue to improve their processes for reviewing program documentation.
Section 6- Air Sealing. Eversource should ensure that the CCF "peak demand" is not incorrectly applied to winter kW demand and multiply demand by BF.	The Companies confirmed that the peak demand savings are not using correct formula in the 2022 PSD. The implementation team will ensure that the CCF gas peak is not entered in winter kW.
Section 6 – ECM Pumps. Update the PSD to allow for use of the VFD calculator for central ECM pumps.	The 2022 PSD, measure 2.2.11, for central ECM pumps has been added to the C&I section which will be used for the central ECM pump calculation.
Section 6 – Windows. Improve the review of fuels to ensure the correct fuel type is claimed and review the prevalence of air conditioning in project applications to correctly claim summer demand.	Program documentation has been reviewed with the Multifamily team to ensure that the correct fuel type and summer demand are claimed in project applications. The Companies will continue to improve their processes for reviewing program documentation.
Section 6 – HVAC Heat Pumps. Improve documentation and add a check for agreement between the database entry and the project calculator.	Program documentation has been reviewed with the Multifamily team to ensure agreement between database entry and the project calculator.
Section 6 – Boilers. Increase the review of the boiler savings tab or add more automated checks.	Program documentation for boilers has been reviewed with the Multifamily team for accuracy. The Companies will continue to improve their processes for reviewing program documentation.

Figure 6-C: X1941 Multifamily Impact Evaluation (continued)

Study Recommendations	Companies' Responses
Section 6 – Boilers. Ensure that CCF "peak demand" is not incorrectly applied to winter kW demand.	The Companies confirmed that the peak demand savings are using the correct formula in the 2022 PSD. The implementation team will ensure that the CCF gas peak is not entered in winter kW.
Section 6 – Insulation. Improve the review of fuels and measure count in the project application compared to what is actually installed.	Program documentation has been reviewed with the Multifamily team to ensure fuels and measure count in the project application are consistent with what is installed. The Companies will continue to improve their processes for reviewing program documentation.
Section 6 – Low-Flow Fixtures. Update calculator to reflect the 2021 PSD.	The Multifamily calculator has been updated to reflect this.
Section 6 – Low-Flow Fixtures. Eversource should ensure the calculators show zero kW savings for this measure.	The Multifamily calculator has been updated to reflect this.
Section 6 – Low-Flow Fixtures. Create a separate category for low-flow fixtures and for all other DHW measures (e.g., heat pump water heaters or natural gas-fired water heaters), since they are very different measures.	A separate category for low-flow fixtures and for all other domestic hot water measures has been created.
Section 7 – The Companies should continue to reduce savings to account for this; however, (once shelter-in-place lifts) the Companies should move to the Eversource calculation method (based on a SWA prescriptive calculator and used 2019 through March 2020) for calculating "CFM reduction for Remaining units", instead of the PSD blower door factor for estimating the reduction in leakage due to infiltration from conditioned spaces. Eversource should apply its calculation method consistently across projects and drop the 0.925 multiplier, since this double-penalizing savings.	Eversource has reviewed program documentation to ensure consistent calculation across projects. The calculator has been updated to drop the 0.925 multiplier. The AVANGRID companies will use the same process and calculators for future multifamily projects.
Section 7 - Third-party inspectors should test, or do visual inspections of, a sample of units separate from the contractor's sample to check that the contractor's sampled work represents the remainder. Inspectors should do some independent blower door testing instead of just shadowing the contractor for blower door testing, and inspectors should spot check sample of "logged data" from blower door software. The inspector's "pre-testing" could be done the same days as the contractor's sample testing, and the "post" could be done while contractor is sealing the remaining units to reduce disruption to tenants.	In 2022, Eversource will create a defined post-inspection process for a representative sample of units outside of the contractor's sample to ensure that the contractor's sampled work represents the remaining units.

Figure 6-C: X1941 Multifamily Impact Evaluation (continued)

Study Recommendations	Companies' Responses
Section 7 – The Companies should consider providing an option in the performance path to incentivize air sealing of common areas adjacent to dwelling units (e.g., attics, basements) to reduce dwelling unit leakage, and highlight offering in training.  • Require invoices to show materials and their costs.  • After one year, investigate costs of labor and materials (from invoices) compared to incentive, and readjust offering as needed.	The Companies agree with this recommendation. The Multifamily Initiative now has a mechanism in place for incentivizing attics and basement air sealing.
Section 7 - Prohibit use of glued-on sealing materials (such as V-seal for doorways) and require door kits that are nailed or screwed to the door frame, preferably with a rubber gasket that butts up against the door when it is closed. Per above, require invoices to show materials, and check that prohibited materials are not used.	Eversource will update the Multifamily Initiative Process Guide to ensure contractors are using a more permanent solution for door kits.
Section 7 - Develop a final review process for each project to verify the following: o All measure installations are documented, o The number of measure installations align with the correct PSD calculations, o The correct heating fuel is identified, o Winter demand is claimed only for electric measures, and o The presence of air conditioning is captured correctly.	Program documentation has been reviewed with the Multifamily team for accuracy. The Companies will improve the process for reviewing each project to prevent these types of inconsistencies.
Section 7 - Correct measure-level program calculators as noted in Section 6, including: o Correct coincidence factors for demand calculations. o Ensure that ECM Pump projects follow calculation for that measure. o Update the low-flow fixture calculation to align with the 2021 PSD.	The program calculators have been reviewed and updated based on this recommendation. All low-flow fixtures are updated in the 2022 PSD.
Section 7 - Consider "rolling up" the savings for measures listed twice for the same site. As noted above, several projects had the same measure listed twice in the databased, and the second entry often had a zero or low realization rate.	This recommendation has been implemented for Eversource. The AVANGRID companies are instituting a new tracking system and will endeavor to add this capability.
Recommendation for UIL (AVANGRID) companies to track savings at the measure level in the database.	The AVANGRID companies from January 1, 2020, on all multifamily projects, have measure level savings tracked individually. A new tracking system is being implemented and will continue to track at the measure level.

Figure 6-C: X1941 Multifamily Impact Evaluation (continued)

# Study Recommendations Companies' Responses

Section 8 - Sunset dwelling unit lighting measures as soon as possible, and sunset common area and exterior lighting in the next few years.

- Continue to incentivize common area and exterior lighting short term, since this serves retrofits and incumbent technologies (fluorescent indoors, and HID outdoors) which have long measure lives. But as natural market adoption replaces these incumbent technologies with LEDs, phase out this measure.
- Consider removing the dwelling unit lighting measure offering, since LEDs are standard practice and incumbent technologies (incandescent) have short measure lives. Eversource reports they are discontinuing the dwelling unit lighting measure offering except for low-income customers. If the Companies continue to offer these measures for low-income customers, change the baseline wattage to an EISA-compliant lamp, and require photo documentation for a sample (10%) of removed lamps to show they are incandescent/halogen or CFL.

The Companies agree with this recommendation. The Multifamily Initiative is no longer offering any dwelling unit lighting in the HES program and will phase out dwelling unit lighting in the HES-Income Eligible program in 2022. The program continues to incentivize common area and exterior lighting but will revisit incentivizing this measure as natural market adoption replaces incumbent technologies with LEDs.

Section 8 - Encourage installation of non-lighting measures and discourage reliance on lighting.

- Continue to offer the comprehensive bonus and potentially increase it, or provide an additional kicker for non-lighting measures, like HVAC or DHW replacements, duct insulation, or for ≥ 15% whole building savings on a BTU-basis.
- Consider requiring < 50% savings max from lighting.
- Highlight case studies of HVAC or DHW measures at annual meeting and/ or provide annual awards for projects with diverse scopes of work or that installed a less commonly installed measure.
- Investigate measures with future savings opportunities. This should include an investigation of electrification measures (e.g., estimates of energy and carbon impacts from moving from fossil-fueled based HVAC and DHW measures to electric sources such as heat pumps) to inform policy discussions that could consider allowing fuel switching in the program. Also investigate the impact of different measures on both energy and demand savings, since winter and summer demand are important for statewide goals.
- Ensure that a diversity of in-unit measures are provided for HES-IE participants, particularly HVAC and envelope measures which can reduce energy bills and provide better comfort, to improve equity and inclusion.

The Companies agree with this recommendation to encourage installation of non-lighting measures and are already working on efforts to diversify sources of savings.

The Companies continue to offer a comprehensive bonus for multiple measures in the Multifamily Initiative. Eversource has already developed several case studies that speak to the diversity of measures available for multifamily buildings, including heat pumps and has conducted direct customer outreach to encourage installation of nonlighting measure.

The Companies will continue to work to encourage nonlighting measures in multifamily buildings and will consider the recommended actions as part of its ongoing effort.

Table 6-D: R1959 Single-Family Renovations & Additions Potential Analysis

Study Recommendations	Companies' Responses
As soon as feasible, expand the program out of its pilot phase.	The Companies are considering if and how they might expand this program out of its pilot phase and into a full-scale program. It requires further internal coordination and discussion, but the Companies agree it is worth exploring.
As a part of the program's expansion, the Companies should (a) apply relevant lessons learned from the comparable program launched in Massachusetts in 2019, (b) look to lessons from the Companies' work in the residential new construction market, and (c) work to target both small and large projects.	The Companies agree it makes sense to apply the relevant lessons learned from the Massachusetts Program Administrators' additions and renovations program and the Companies' current work in the residential new construction market. Additionally, the Companies will consider ways to target both small and large projects.
Adopt a hybrid baseline for renovations: ISP for the portion of the home initially included in the project scope and pre-existing conditions for measures added to the scope due to the program (e.g., wall cavities that would not have been opened otherwise).	The Companies agree that the process of establishing and adopting a hybrid baseline for renovations would be best informed with the guidance of an expert working group. The Companies recommend the creation of an expert working group for this purpose, including members from the Remodelers Council from the Homebuilders and Remodeler's Association of Central CT, HERS raters, and NEEP.
Use the Residential New Construction program's new homes baseline as the baseline for major addition projects, rather than a baseline based on code compliance.	The Companies will consider how to adopt the RNC program's new homes baseline for major additional projects in the future once the new study that is updating the Residential New Construction program's baselines is completed. The Companies can also have the working group (that will be formed to develop hybrid baselines for renovation projects) consider principals for addition project baselines.
Streamline program eligibility criteria, in particular the distinction between major and minor project paths (should the program follow a two-path approach).	The Companies will investigate and develop criteria for the different pathways and focus on clarifying the pathway eligibility criteria.
To the extent allowed under Connecticut law and regulations, the Companies should claim savings from R&A program projects achieved via fuel switching.	The Companies will consider this idea, but we need further guidance that will be based on the approval of the 2022-2024 Plan. Fuel switching in general requires approval from DEEP and the EEB to allow for the Companies to claim these savings.

Table 6-E: X1939 Early Retirement Best Practices Research

Study Recommendations	Companies' Responses
Data and Lifetime Savings Calculations 1: Adopt clearly defined protocols with respect to assigning an event type (retrofit, replace on failure, early retirement). This practice includes collecting evidence such as trend data, metered data, dated photos/videos of operation, bid quotations or similar demonstrating the condition and operation of existing equipment.	The Companies currently only use a retrofit baseline (i.e., existing conditions) for modification to existing equipment (e.g., controls or EMS), and otherwise have considered measures outside of the early retirement pilot program to be lost opportunity. The Companies will adopt the use of early retirement dual baselines for measures outside of the early retirement pilot program where applicable.  The Companies will update internal guidelines to distinguish retrofit vs. early retirement projects and to use
	the definitions from the early retirement report. The Companies will encourage implementers to use these guidelines for custom C&I projects where applicable. Collecting evidence to support the guidelines will depend on what information participants are able to provide.
	For prescriptive C&I and residential programs, the Companies will rely on the Evaluation Administrator to conduct market studies as needed to determine the average age of equipment in the market and the overall mix of ROF and ER measures that are implemented.
Data and Lifetime Savings Calculations 2: Use the values in the CT PSD where they are listed for remaining useful life (RUL), site specific data to support an RUL, or a survival curve if appropriate data exists, and elsewhere where dual baseline calculations should be adopted, use 1/3 of the EUL.	The Companies will adopt the 1/3 EUL as the RUL and investigate collecting data on equipment age for future reference.  The Companies will need assistance from the Evaluation Administrator to conduct/review the dual baseline calculations for the specified measures in Table 4-7, and to make related updates to Appendix 4 of the PSD.
Data and Lifetime Savings Calculations 3: Collect additional information on RUL to calculate a site-specific RUL using a survival curve analysis, to reference X2001 or to inform that 1/3 EUL assumption. For custom early retirement-specific programs: Recommendation: Site-specific equipment age information should be collected for any program where equipment is being targeted for early replacement. For residential/high volume programs, market research should be conducted.	As noted above, the Companies will investigate collecting site specific RUL data, but will need assistance from the Evaluation Administrator to conduct market studies. The Companies suggest using a similar approach to MA in conducting market studies to determine the mix of ROF vs ER. This approach considers multiple factors, including but not limited to equipment age.
Data and Lifetime Savings Calculations 4: Expanded use of dual baseline calculation approaches should be adopted when calculating lifetime gross savings for retrofit measures unless it can be established that the baseline would not have changed over time due to evolving codes or standard practice.	As noted above, the Companies will adopt expanded use of dual baseline calculations and will need assistance from the Evaluation Administrator to conduct/review the dual baseline calculations for the specified measures in Table 4-7, and to make related updates to Appendix 4 of the PSD.

Table 6-E: X1939 Early Retirement Best Practices Research (continued)

Study Recommendations	Companies' Responses
Data and Lifetime Savings Calculations 5: Use of a calculation tool can help dual baseline adoption in the state. In this case, Evaluators recommend adopting and converting the MA Custom Screening Tool for use in CT.	Rather than updating the MA Custom Screening tool for CT, the Companies would prefer to update the existing calculator tools in use in CT considering the early retirement guidance. For example, DNV had developed a calculator for the Early Retirement RFP, and this could be used to adapt existing CT calculator tools.
Evaluation Considerations 6: Clear, defensible documentation is the most important aspect in ensuring that savings are upheld through evaluation. This starts with evidence collected during the measure installation.	See comments on documentation related to recommendation 1 and 2.
Early Retirement Program Design 7: Extend competitive bid RFP solicitation timelines. Timing is critical for the customer decision process. The study team recommends performing a survey of all top tier customers regarding when their fiscal calendars begin and end and how their budget planning is conducted.	The Companies may change the purpose of their RFPs within the HVAC modernization program (i.e., changing from a focus on early retirement to strategic electrification). The Companies will consider these suggestions on increased response period or promoting the bid earlier to accommodate time needed for customer planning. The Companies will need to balance the desire for longer lead time with the need to manage the number of participants, available budget, and customer expectations.
Early Retirement Program Design 8: Plan programs further in advance and hold vendor trainings well in advance of program release to build vendor relationships and help them succeed in promoting early retirement for the programs.	See response for Recommendation 7. The Companies will consider training on the general RFP process as well as additional training ahead of a specific RFP to assist vendors in targeting customers.
Early Retirement Program Design 9: Use energy studies to bolster customer relationships and to identify target equipment for early replacement. The study team recommends that whenever an energy study is conducted, information be collected on the age of all major energy consuming equipment, not just the equipment that is the focus of the study.	Many of the vendors identify prospective customers and savings opportunities at their own cost. If the extent of the data collection were more expansive, it may limit the prospecting by contractors and thus their participation. Eversource does collect system data such as pumps or fans for the technology, but the goal of doing so is to find other EE savings opportunities. Since the RFP process is competitive, customers/contractors not awarded approved incentives may not participate in future events if the lift is too heavy and they don't win an incentive. For these reasons, Eversource does not believe it is feasible to request information on all equipment at the customer site during the RFP process. This recommendation would be unduly burdensome for customers and contractors and would likely deter them from participating in the early retirement offering.

Table 6-E: X1939 Early Retirement Best Practices Research (continued)

Study Recommendations	Companies' Responses
Early Retirement Program Design 10: Consider reviewing the measure cost levels, and if the program design changes from a competitive bid model to a traditional prescriptive or custom incentive model, we recommend testing the projects using BCR models at varying incentive levels and incentivizing up to 40% of the cost to maximize market impact.	To date, the Companies' RFPs within the HVAC modernization program have offered incentives unique to each project as requested in the response to the RFP. The BCR of the requested incentive is considered in the awarding of the bid. Eversource will use the results of the relevant bids to help inform our incentives for our other program offerings.
Early Retirement Program Design 11: Use of market studies can be beneficial to identify opportunities and target replacement in bulk such as with residential or small commercial programs.	The Companies suggest using a similar approach to Massachusetts in conducting market studies to determine the mix of ROF vs ER. This approach considers multiple factors, including but not limited to equipment age.

# Figure 6-F: X1931-1 Industry Standard Practice Commercial Boiler and Furnace Study

Study Recommendations	Companies' Responses
Adopt the updated table of baseline efficiency recommendations for furnaces and boilers.	The baselines were updated in the 2022 CT PSD, measure 2.2.6, filed on November 1, 2021.

# Figure 6-G: X1931-2 Coincidence Factor & Load Shape

Study Recommendations	Companies' Responses
The study team recommends updates to four C&I load shapes and four residential load shapes. The DNV team also recommends adopting four new residential load shapes.	The load shapes were added to the 2022 CT PSD, Appendix 2, filed on November 1, 2021.
The study team recommends updates of coincidence factors for 48 different types of equipment.	The load shapes were added to the 2022 CT PSD, Appendix 1, filed on November 1, 2021.

# Figure 6-H: X1931-3 C&I Air Compressors New Measures for PSD

Study Recommendations	Companies' Responses
Add new measures to the PSD: high-efficiency compressed air systems (VSD), high-efficiency air dryers, efficient air nozzles, and compressed air leak detection.	The compressed air measures were included in Section 3.5 of the 2022 CT PSD filed on November 1, 2021.

Figure 6-I: X1931-4 Advanced Lighting and Controls (New Measure)

Study Recommendations	Companies' Responses
The three new measures developed as part of this study were:  1. Commercial Interior Lighting Controls (including networked lighting controls (NLC), luminaire-level lighting controls (LLLC), the combination of high-end trim with	The three new measures were included as measures 2.1.3 Interior Lighting Controls, 4.1.2 Connected LED Lighting, and 4.1.3 Occupancy Sensors (residential) in the 2022 CT PSD filed on November 1, 2021.
daylight dimming or occupancy sensors, dual occupancy and daylight controls, high-end trim, daylight dimming, and occupancy sensors),  2. Residential Connected LED Lighting, and	Additionally, new upstream lighting calculations and factors were included in measure 2.1.2 of the 2022 CT PSD filed on November 1, 2021.
3. Residential Occupancy Sensors.	Phase 2 of this study is taking place in 2022 to further refine these measures.

Figure 6-J: X1931-6 Hours of Use Update and Documentation

Study Recommendations	Companies' Responses
Update the PSD's C&I default HOU/FLH values table in Table A5-1, Appendix Five with the updated HOU/FLH values table presented in Table 1-1 of the final report.	Appendix 5 of the 2022 CT PSD, filed on November 1, 2021, was updated to include the HOU and FLH values from the study.
The modeling based updated HOU/FLH values presented in this study are developed based on the simulation of commercial building prototypes using Hartford (inland) weather data. We recommend running the prototypes using Bridgeport (coastal) weather data as well and reporting separate inland and coastal C&I HOU/FLH values. If one set of statewide HOU/FLH values is desired, the values should reflect a weighted average of inland and coastal values.	The Companies currently plan to use the HOU/FLH values from Table 1-1 in the final report, per recommendation 1. The Companies will need the Evaluation team and study teams' assistance to produce the coastal values. The Companies currently plan to use the recommended values coming out of the study; however, they will assess the feasibility of incorporating inland and coastal designations into their tracking systems.
The 22 commercial building prototypes that we used in the study are based on weather and local building practices adjustments made for Poughkeepsie, NY. The results of those 22 NY commercial building prototypes were assigned to one of the 60 PSD facilities based on operational similarities.	The Companies will review the key building description assumptions and keep this recommendation in mind for future studies. This recommendation may be used in place of a CT specific modeling-based approach.
We recommend reviewing the key building description assumptions of the NY commercial building prototypes (presented in Appendix A) in future.	
We recommend reviewing and updating as needed the mapping of NY building prototypes to the PSD facilities presented in Appendix B. For future studies, we also recommend developing CT-specific building prototypes for all 60 PSD facilities.	

Figure 6-K: X1931-7 Cooling and Heating Degree Days Update

Study Recommendations	Companies' Responses
Update the current PSD to include the inland and coastal HDD and CDD values presented in this study. Moving forward, Eversource and UI should revise program tracking systems and savings calculators to reflect the revised inland/coastal values based on project ZIP code. The inland/coastal designation simplifies the degree-day values as much as possible while acknowledging the state's two distinct climatological regions. Should it be difficult to implement separate inland and costal HDD and CDD values due to program tracking limitations, we recommended revising the PSD with utility-specific HDD and CDD values.	Utility-specific HDD and CDD values were updated in the 2022 PSD, filed on November 1, 2021, where applicable. The Companies plan to use the recommended values coming out of the study but will assess the feasibility of incorporating inland and coastal designations into their tracking systems.
The CT PSD uses an adjustment factor (Fadj) of 0.64 in the savings algorithm of the impacted weather-dependent measures to account for the errors inherent to the degree day method. This adjustment factor (Fadj) was estimated based on the empirically derived correlation between degree days (Kelvin) and correction factor presented in the 1989 ASHRAE handbook. The CT PSD adjustment factor needs to be updated based on the new heating degree day values presented in this study.	The CT-specific ASHRAE adjustment factors were updated where applicable in the 2022 CT PSD, filed on November 1, 2021.

Figure 6-L: X1931-8 Small Business Advanced Thermostat New Measure for PSD (Phase 1)

Study Recommendations	Companies' Responses
Small business advanced thermostat measure developed in Phase 1 of this project to be incorporated in the PSD.	The commercial advanced thermostat measure developed in Phase 1 of this project was added as measure 3.2.5 to the 2022 CT PSD, filed on November 1, 2021. Commercial Advanced Thermostats were also added to the commercial midstream program offerings.

# APPENDIX A: 2022-2024 STATEWIDE MARKETING PLAN

## A.1. INTRODUCTION

Statewide marketing efforts will support the greater plan key themes of equity, energy affordability, and decarbonization by providing a place for all customers to easily access energy efficiency program information and resources. The 2022–2024 Plan years will focus and build on the EnergizeCT.com redesign. A site that provides clear information that is easily located allows us to confidently expand our use of the site and drive additional traffic to non-supplier choice pages. Content creation efforts for both the site and Energize Connecticut social media channels will continue to enhance the visitor's experience while directing visitors to information on key areas including heat pump education, a clear path to income-eligible solutions, weatherization education, and business solutions for underserved sectors.

The Energize Connecticut social media accounts will continue to reside in the Statewide Marketing Plan. Working with the social media partner onboarded in mid-2021, social media accounts, including the Instagram account added in late 2021, will continue to provide engaging content to increase awareness with topics pertinent to the Energize Connecticut stakeholders. Separately from the Statewide Marketing Plan, the Companies use paid social and boosted posts under their programmatic advertising plans to further promote the EnergizeCT social media audience (and grow this audience).

The estimated yearly costs for the 2022-2024 Marketing Plan are shown in Figures A-1, A-2, and A-3. The CT Green Bank will not provide financial support but will continue to dedicate in-kind resources.

Table A-1: 2022 Marketing Plan Estimated Yearly Costs

2022 Marketing Plan Task	Eversource	United Illuminating, CNG, and SCG	Total
Website maintenance, updates, and technical support	\$100,716	\$43,164	\$143,880
Website design and development	\$52,150	\$22,350	\$74,500
Website enhancements and upgrades	\$85,891	\$36,810	\$122,701
Acquia	\$18,200	\$7,800	\$26,000
Website utilities (e.g., JW Player, Ceros, GoDaddy)	\$52,500	\$22,500	\$75,000
Social media (management and content)	\$70,000	\$30,000	\$100,000
Paid search	\$21,000	\$9,000	\$30,000
Content creation & migration	\$70,000	\$30,000	\$100,000
Total	\$470,457	\$201,624	\$672,081

Table A-2: 2023 Marketing Plan Estimated Yearly Costs

2023 Marketing Plan Task	Eversource	United Illuminating, CNG, and SCG	Total
Website maintenance, updates, and technical support	\$100,716	\$43,164	\$143,880
Website enhancements and upgrades	\$138,041	\$59,160	\$197,201
Acquia	\$18,200	\$7,800	\$26,000
Website utilities (e.g., JW Player, Ceros, GoDaddy)	\$52,500	\$22,500	\$75,000
Social media (management and content)	\$70,000	\$30,000	\$100,000
Paid search	\$21,000	\$9,000	\$30,000
Content creation	\$70,000	\$30,000	\$100,000
Total	\$470,457	\$201,624	\$672,081

Table A-3: 2024 Marketing Plan Estimated Yearly Costs

2024 Marketing Plan Task	Eversource	United Illuminating, CNG, and SCG	Total
Website maintenance, updates, and technical support	\$118,944	\$50,976	\$169,920
Website enhancements and upgrades	\$119,813	\$51,348	\$171,161
Acquia	\$18,200	\$7,800	\$26,000
Website utilities (e.g., JW Player, Ceros, GoDaddy)	\$52,500	\$22,500	\$75,000
Social media (management and content)	\$70,000	\$30,000	\$100,000
Paid search	\$21,000	\$9,000	\$30,000
Content creation	\$70,000	\$30,000	\$100,000
Total	\$470,457	\$201,624	\$672,081

# A.2 METRICS AND GOALS

Website traffic is tracked via Google Analytics. Since 2018, the Companies' programmatic marketing drives customers to sign-up pages and the 877-WISE-USE energy efficiency hotline to provide the quickest path to program participation. Therefore, it is difficult to draw trending conclusions from the website's traffic (as advertising has been the primary driver of website visits historically). Paid search and paid social will allow greater measurement of traffic to the site. Program marketing continues includes secondary messaging to the site for additional information.

Social media metrics serve as a way to direct our efforts. The social media account analysis done in mid-2021 as the new social media partner came on board serves as a benchmark and goals are derived from that analysis.

# A.2.1 Three-Year Strategy (2022-2024)

The 2022-2024 term will focus on completing the upgrade to the website and building upon those upgrades. This includes a) increasing traffic to the site and b) providing new and engaging content to bring visitors back. Site maintenance, security and performance are ongoing in order to keep the site functioning properly. See Website Activities below for more.

Paid search will be used as a "pull" tactic to direct customers already looking for energy efficiency-related topics to the site. This targets people within Connecticut using broad awareness terms and phrases around energy efficiency and more specific terms around the Energize Connecticut brand. Close attention will be given to ensure paid search campaigns complement any paid search campaigns associated with program marketing by the Companies.

Social media platforms will engage followers with the brand with interesting, relevant posts and topics. Many of these posts will direct customers to EnergizeCT.com to learn more about a given topic. Although current social media accounts, namely Facebook, have a respectable number of followers, we look to reengage current subscribers as well as increase the overall number of followers. Content is a key component of social media and will continue to focus on topics important to stakeholders: including energy efficiency, energy-saving tips, renewable energy, financing opportunities, and supplier of choice with additional focus on content aligning with the key themes of the plan.

The new site will be engaging and user-friendly but maintaining that requires regular content updates and additions. While updating current content take precedence, creating new content that is featured, either on the site or via social media, is necessary to maintain interest of past visitors and encourage new visitors. As such, the strategy includes new content creation that complements the layout and user experience of the new site. Content will support the key themes of the plan including, but not limited to: heat pump education, a clear path to income-eligible solutions, weatherization education, and business solutions for underserved sectors.

# **Planned Website Activities**

- i. **Site maintenance.** Ongoing website maintenance and readiness is required to ensure that EnergizeCT.com—a well-visited, best-in-class energy efficiency and renewable energy website—is available 24-hours a day, seven days a week, and is as a trusted resource for all Connecticut consumers and businesses.
- ii. **Site security and performance.** Routine monitoring for security issues focused on the platform, server, and content will guard against threats and enable issues to be resolved quickly.
- iii. **Enhance engagement.** New key engagement features including a homepage animated key statistics section (e.g., energy saved, homes weatherized) along with the EEB's annual Legislative Report highlights, and an improved image gallery feature (e.g., Zero Energy Challenge, E-Houses).
- iv. **Site intercept surveys.** The continued use of website intercept surveys will assist the Website Strategy in understanding user behavior unique to the EnergizeCT.com site, to inform enhancements, and to support increased consumer engagement.
- v. **Website enhancements.** Focus on improving customer journey with enhancements such as Accessibility Testing, SEO program, and Analytics program. Site enhancements to support additional regulatory requirements for rate board, electric vehicles, battery storage, and clean energy facilities.

# APPENDIX B: PUBLIC INPUT SESSION

# **B.1 PUBLIC INPUT COMMENTS**



2022-2024 C&LM Plan - Public Input Comments

August 23, 2021

Note: All submitted written comments, and a list of stakeholders who provided written or verbal comments, may be access at Box.com: https://app.box.com/s/rl91prtnu6l1n81mcwkaolx76uapgd0n

1) Samantha Dynowski

**Representing:** Sierra Club of Connecticut **Date Input Received:** August 11, 2021

Input Method(s): Written and verbal comments

# **Requests/Comments:**

The Sierra Club indicated that we need to be undertaking an all-out effort to decarbonize our economy to avoid the worst future impacts of the climate crisis. Energy efficiency is a key component of this effort, and the CLM plan is one of the best tools that Connecticut has to advance climate policy while achieving its core function of increasing energy efficiency.

The Sierra Club believes the draft C&LM Plan does not take the urgent action necessary to meet the climate crisis head on, it does not adequately support the state's decarbonization goals or its strategic electrification goals, and it does not do enough to address equity. That's why Sierra Club Connecticut urges the EEB to:

- Stops subsidizing new fossil fuel appliances and heating systems now.
- Invest only in zero-emission electric appliances and zero-emission heat pump space and hot water heating.
- Include achievable numeric goals to reach underserved and energy burdened households, resources to support those goals, and accountability measures for ensuring they are met.

#### Companies' Response:

• **Decarbonization.** Please note the Companies have included additional Plan text regarding this topic since these comments were made. One of the three key priorities for the 2022-2024 term is decarbonization. The 2022-2024 Plan does support several zero greenhouse gas emissions strategies, including an all-electric package for both the Residential New Construction and Energy Conscious Blueprint (C&I) programs and the introduction of induction cooktops to the ESRPP (ENERGY STAR Retail Products Platform). See Section 2.2. In addition to these electrification strategies, the 2022-2024 Plan details how the Companies will expand their weatherization efforts for residential and commercial buildings, as well as work with DEEP and other stakeholders to address weatherization health and safety barriers.

• Heat pumps. The Companies note that decarbonization is one of the three key priorities for the 2022-2024 term and that heat pump technologies will play a critical role in achieving this objective. In the final draft of the Plan, the Companies address the ramp-up, promotion, and funding for heat pumps, as well as detail their plans for workforce development, contractor training, customer education, and cross-promotion of heat pump technologies across the Residential (Section Two), C&I (Section 3), and Education, Workforce & Community Outreach Portfolios (Section 4). The Companies will review evaluation findings of the 2019-2021 heat pump pilot and will address the study's findings in future Plan Updates or Budget Reconciliation filings (see Executive Summary for high-level schedule). The final Plan text includes quantifiable data regarding heat pump unit goals for the 2022-2024 term. The Companies will continue to track and report on heat pump goals (and other programs) at the EEB's monthly Residential committee meeting and in the Companies' compliance filings to DEEP.

The Companies will continue to work with other regional program administrators to maintain a regional Qualified Products List (QPL) for air source heat pumps. The QPL ensures that qualifying product inventory is available to contractors within the local supply chain and prior to expanded trainings across the region and all 2022-2024 trainings will reflect the new QPL. For more information regarding the Companies' heat pump technology training efforts, see Section 2.3.2. The Companies will develop customer-facing tools, such as a contractor locator tool to direct customers to qualified heat pump installers. To advance electrification of heating and cooling equipment, the Companies will prioritize marketing tactics that promote the benefits of heat pump technologies, refresh the EnergizeCT.com website, create an "All Things Heat Pumps" webpage, and conduct ongoing pulse surveys to better understand and track customer awareness and perceptions of heat pump technologies.

- Incentives. The Plan does not contain any fuel oil or propane rebates or instant discounts. There are scenarios where natural gas is the most economical choice for satisfying a customer's heating needs and customers will choose to purchase natural gas HVAC equipment rather than installing a heat pump technology. The best option in this instance is for the customer to purchase high-efficiency natural gas HVAC equipment rather than baseline/code compliant equipment.
- Quantifiable data. The Final Plan text includes EEB and EEB consultant-approved high-level summary budgets, savings, greenhouse gas emissions reductions, and customers savings in the Executive Summary and Section One of the Plan. In addition, the final Plan includes numerical goals for achieving energy reductions for individual Residential and C&I Portfolio programs. Each Residential and C&I Portfolio program section includes a high-level summary of the offering's planned three-year budgets, energy savings, greenhouse gas emissions reductions, and customer savings. The Companies have brought this data forward from *Appendix E: Budgets & Savings Tables* in response to public input comments (such as this one) so that the information included in the program sections in a high-level summary format. The Companies have included detailed historical and planned 2022-2024 data in the form of tables, pie charts, and graphs (see *Appendix E: Budgets & Savings Tables*).

# **Board Response:**

• State policy and goals. The C&LM programs play an important role in helping the State of Connecticut achieve its greenhouse gas emission goals, specifically in the building sector. Through energy efficiency and demand response we lower energy use and shift it away from times of day when generation resources are most constrained. Typically, these periods of high usage coincide with the operation of generation with higher emissions. The adoption of decarbonization as a one of the three key Plan Priorities of this Plan represents a clear commitment on the part of the Board and the Companies to an increased emphasis on greenhouse gas reductions. To this end we continue to work to assess the appropriate program support for heat pumps and gas-fired equipment in both existing and new buildings. Further, the Board continues to work closely with the CT Green Bank to support their efforts to promote renewable technologies in Connecticut buildings and homes.

- Fossil fuel incentives. The EEB will consider phasing out of incentives for new gas equipment for measures where backsliding to less efficient equipment is unlikely. For example, a recent evaluation has found that the C&I boiler market is largely transformed, such that it is now industry standard practice in many cases for customers to purchase an efficient condensing boiler for new construction or at end of life for an existing boiler. As a result of this finding, the baseline has risen to a point where it may not be cost effective anymore to offer incentives for many commercial boilers. Additionally, the Companies will investigate whether program supported condensing gas equipment is replacing existing condensing equipment and if so, whether there is continued need to do so. However, there are processes that currently use natural gas where there is either no cost-effective electric alternative or no electric alternative at all. For these measures the EEB supports continued incentives for gas-fired equipment in order to increase energy performance and reduce carbon emissions.
- **Decarbonization/heat pumps.** The EEB supports electrification when the project is cost effective, as required by statute, and where it makes financial sense for the customer (the customer will save money from making the change). Opportunities are most cost effective in new construction and when a heat pump replaces end-of-life existing air conditioning equipment. The results from the Companies' ongoing heat pump pilots and any related EM&V studies will inform future efforts in this area and will be incorporated into subsequent C&LM Plan updates.
- Quantifiable goals. To provide clearer quantifiable goals and metrics, a summary of the budgets, energy savings, greenhouse gas emissions reductions, and customer savings have been added to each program section. Detailed numbers for each program, sector and company are included in the tables in the Plan Appendix. The Companies will report on progress towards these goals and metrics at least monthly in the Connecticut Statewide Energy Efficiency Dashboard and quarterly at the Residential and C&I Committee meetings and at the EEB meeting. Quarterly reporting will be made available to the public in an easily accessible manner on the Energize CT website.
- Reaching underserved and burdened customers. Equitably serving those customers (both residential and C&I) who have not historically been adequately served and/or have high energy burdens has become a priority focus. With new performance management incentive (PMI) metrics that prioritize hardship and burdened customers and businesses, along with DEEP's new DEI Consultant whose primary focus will be the C&LM programs, equity issues are a top priority in the 2022-2024 Plan.

2) Matt Rusteika

Representing: Acadia Center

Date Input Received: August 11, 2021

**Input Method(s):** Written and verbal comments

# **Requests/Comments:**

Please note: Mr. Rusteika's written materials are in PowerPoint format and are located in the Box.com folder.

Mr. Rusteika stated that it's important the EEB and Energize Connecticut programs are structured to drive the emissions reductions that the State intends to achieve. Electrification, he shared, of space heating significantly reduces emissions and those reductions increase year after year as more renewables are added to the power grid.

- 1) Incentivizing, and supporting supply chain, for heat pump equipment should figure prominently in the next Plan.
- 2) Controls that help optimize heat pump equipment integration should be incentivized.
- 3) Training around heat pumps, heat pump applications, and heat pump integration is key to ensure uptake of heat pump measures.

#### Companies' Response:

• Decarbonization/heat pumps. The Companies note that decarbonization is one of the three key priorities for the 2022-2024 term and that heat pump technologies will play a critical role in achieving this objective. In the final draft of the Plan, the Companies address the ramp-up, promotion, and funding for heat pumps, as well as detail their plans for workforce development, contractor training, customer education, and cross-promotion of heat pump technologies across the Residential (Section Two), C&I (Section 3), and Education, Workforce & Community Outreach Portfolios (Section 4). The Companies are piloting a fuel optimization pilot which utilizes heat pump technology and integrated controls to displace fuel oil and propane consumption. The Companies will review evaluation findings of the 2019-2021 heat pump pilot and will address the study's findings in future Plan Updates or Budget Reconciliation filings (see Executive Summary for high-level schedule). The final Plan text includes quantifiable data regarding heat pump unit goals for the 2022-2024 term. The Companies will continue to track and report on heat pump goals (and other programs) at the EEB's monthly Residential committee meeting and in the Companies' compliance filings to DEEP.

# **Board Response:**

- **Decarbonization/heat pumps.** The EEB supports electrification when the project is cost effective, as required by statute, and where it makes financial sense for the customer (the customer will save money from making the change). Opportunities are most cost effective in new construction and when a heat pump replaces end-of-life existing air conditioning equipment. The results from the Companies' ongoing heat pump pilots and any related EM&V studies will inform future efforts in this area and will be incorporated into subsequent C&LM Plan updates.
- Workforce. The EEB recognizes and supports the on-going development, enhancement, and training of the workforce in Connecticut that we need in order to offer the C&LM programs as we anticipate evolving services and programs to meet our goals.

3) Shannon Laun

**Representing:** Conservation Law Foundation

Date Input Received: August 11, 2021

**Input Method(s):** Written and verbal comments

# **Requests/Comments:**

Conservation Law Foundation's comments focus on improving public participation, increasing accountability by adding quantifiable objectives and metrics, and aligning the C&LM Plan with Connecticut's climate policies, most notably by tracking and reporting on emissions reductions, eliminating incentives for gas heating and appliances, and expanding heat pump incentives.

- Remove unnecessary barriers to public participation to increase the public's ability to meaningfully comment on the draft C&LM Plan, specifically:
  - o Improve website navigation and visibility of Plan development steps
  - o Provide clear information on Plan development schedule and engagement opportunities
  - o Include relevant data in the draft Plan, and give stakeholders time to review it
- Include quantifiable objectives and metrics, as well as strategy and timeline for tracking and reporting, in the draft C&LM Plan to increase accountability and ensure that progress is accurately tracked, specifically:

- Connect EM&V evaluation reports with specific programs and objectives to make an assessment of performance clear
- provide a status of each program, as it relates to objectives, in the draft and subsequent updates
- Modify the Plan to Align with State Climate Policy, specifically:
  - Accelerate adoption of building thermal energy conservation improvements through protection of energy efficiency funds;
  - o Transition building fossil fuel thermal loads to efficient renewable thermal technologies
  - Develop sustainable funding mechanisms to incentivize replacement of fossil fuel space and water heating with efficient renewable thermal technologies
  - o Incentivize installation of renewable thermal technologies in new construction
  - o Require tracking and reporting for emissions metrics
  - o Eliminate incentives for gas heating and appliances
  - o Implement gas demand reduction programs
  - Expand incentives for heat pumps

### **Companies' Response:**

• **Public participation.** The EEB held three Public Input Sessions where contractors, municipal officials, regulators, and other stakeholders were able to voice their suggestions for modifications, improvements, new initiatives, and qualifying energy-efficient technologies in preparation for the Plan. The EEB and the Companies also solicit feedback through annual Public Input Sessions, as well as invite public comments at the EEB's monthly committee and board meetings, which also inform the development of the Plan and Plan updates. In response to public input comments (such as this one), the Companies have updated the EnergizeCT.com website to reposition three-year plan documents (e.g., draft Plan text, budgets and goals spreadsheets) to more prominent parts of the EEB's section of the website. In addition, the Companies' strategic marketing plan for the 2022-2024 term includes a plan to update the EnergizeCT.com website in 2022 (see Appendix A).

The EEB and Companies released the Plan timetable in February 2021 and included timing of public input sessions and Plan deliverables. The EEB and Companies gave updates regarding the timetable at all 2021 EEB meetings. The Companies have posted multiple iterations of the Plan and Budget & Savings Tables on the EnergizeCT.com/EEB meeting materials webpage for review. The early draft Plans never include budgets or savings data until the EEB, EEB consultants, and Companies have reviewed budget and savings models, evaluation findings, technical studies, and Program Savings Document manual updates. Please see Section 5 of this Plan and the 2022 Program Savings Document for in-depth discussions regarding the tests, calculation formulas, and data used to calculate the information detailed in Appendix E's budget and savings tables. Once approved by the EEB, the Companies integrate the approved numbers into the Plan text. DEEP will hold a public input session after the Companies file the Plan (November 1) before issuing its draft and final determinations.

• Quantifiable Data. The Final Plan text includes EEB and EEB consultant-approved high-level summary budgets, savings, greenhouse gas emissions reductions, and customers savings in the Executive Summary and Section One of the Plan. In addition, the final Plan includes numerical goals for achieving energy reductions for individual Residential and C&I Portfolio programs. Each Residential and C&I Portfolio program section includes a high-level summary of the offering's planned three-year budgets, energy savings, greenhouse gas emissions reductions, and customer savings. The Companies have brought this data forward from *Appendix E: Budgets & Savings Tables* in response to public input comments (such as this one) so that the information included in the program sections in a high-level summary format. The Companies have included detailed historical and planned 2022-2024 data in the form of tables, pie charts, and graphs (see *Appendix E: Budgets & Savings Tables*).

- Incentives. The Plan does not contain any fuel oil or propane rebates or instant discounts. There are scenarios where natural gas is the most economical choice for satisfying a customer's heating needs and customers will choose to purchase natural gas HVAC equipment rather than installing a heat pump technology. The best option in this instance is for the customer to purchase high-efficiency natural gas HVAC equipment rather than baseline/code compliant equipment.
- **Decarbonization.** The Companies note that decarbonization is one of the three key priorities for the 2022-2024 term and that heat pump technologies will play a critical role in achieving this objective. In the final draft of the Plan, the Companies address the ramp-up, promotion, and funding for heat pumps, as well as detail their plans for workforce development, contractor training, customer education, and cross-promotion of heat pump technologies across the Residential (Section Two), C&I (Section 3), and Education, Workforce & Community Outreach Portfolios (Section 4). The Companies will review evaluation findings of the 2019-2021 heat pump pilot and will address the study's findings in future Plan Updates or Budget Reconciliation filings (see Executive Summary for high-level schedule). The final Plan text includes quantifiable data regarding heat pump unit goals for the 2022-2024 term. The Companies will continue to track and report on heat pump goals (and other programs) at the EEB's monthly Residential committee meeting and in DEEP-issued compliance filings to DEEP.
- Heat pumps. The Companies note that decarbonization is one of the three key priorities for the 2022-2024 term and that heat pump technologies will play a critical role in achieving electrification of the grid. In the final draft of the Plan, the Companies address the ramp-up, promotion, and funding for heat pumps, as well as detail their plans for workforce development, contractor training, customer education, and cross-promotion of heat pump technologies across the Residential (Section Two), C&I (Section 3), and Education, Workforce & Community Outreach Portfolios (Section 4). The Companies will review evaluation findings of the 2019-2021 heat pump pilot and will address the study's findings in future Plan Updates or Budget Reconciliation filings (see Executive Summary for high-level schedule). The final Plan text includes quantifiable data regarding heat pump unit goals for the 2022-2024 term. The Companies will continue to track and report on heat pump goals (and other programs) at the EEB's monthly Residential committee meeting and in the Companies' compliance filings to DEEP.

The Companies will continue to work with other regional program administrators to maintain a regional Qualified Products List (QPL) for air source heat pumps. The QPL ensures that qualifying product inventory is available to contractors within the local supply chain and prior to expanded trainings across the region and all 2022-2024 trainings will reflect the new QPL. For more information regarding the Companies' heat pump technology training efforts, see Section 2.3.2. The Companies will develop customer-facing tools, such as a contractor locator tool to direct customers to qualified heat pump installers. To advance electrification of heating and cooling equipment, the Companies will prioritize marketing tactics that promote the benefits of heat pump technologies, refresh the EnergizeCT.com website, create an "All Things Heat Pumps" webpage, and conduct ongoing pulse surveys to better understand and track customer awareness and perceptions of heat pump technologies.

• **Future modifications.** The Plan will be modified in future annual Plan Updates or Budget Reconciliation filings (see Executive Summary for high-level schedule) in accordance with DEEP's 2022 Comprehensive Energy Strategy which is anticipated to be released later in 2021.

#### **Board Response:**

• Plan development process and public participation. As noted in the Companies' responses, there have been multiple opportunities for public participation and feedback during the development of the 2022-2024 Three-year Plan. That said, the Board recognizes that communications regarding the Plan development process and timeline can be improved so that stakeholders better understand how the process unfolds and to enhance access to Plan materials on the Energize CT website. Work has already started on improving access to Plan materials on EnergizeCT.com. The Board

will fully consider all of the comments received on Plan development and public participation when it begins its 2023 Plan Update process in mid-2022.

- Quantifiable goals. To provide clearer quantifiable goals and metrics, a summary of the budgets, energy savings, greenhouse gas emissions reductions, and customer savings have been added to each program section. Detailed numbers for each program, sector and company are included in the tables in the Plan Appendix. The Companies will report on progress towards these goals and metrics at least monthly in the Connecticut Statewide Energy Efficiency Dashboard and quarterly at the Residential and C&I Committee meetings and at the EEB meeting. Quarterly reporting will be made available to the public in an easily accessible manner on the Energize CT website.
- Decarbonization/heat pumps. The EEB supports electrification when the project is cost effective, as required by statute, and where it makes financial sense for the customer (the customer will save money from making the change).
   Opportunities are most cost effective in new construction and when a heat pump replaces end-of-life existing air conditioning equipment. The results from the Companies' ongoing heat pump pilots and any related EM&V studies will inform future efforts in this area and will be incorporated into subsequent C&LM Plan updates.
- State policy and goals. The C&LM programs play an important role in helping the State of Connecticut achieve its greenhouse gas emission goals, specifically in the building sector. Through energy efficiency and demand response we lower energy use and shift it away from times of day when generation resources are most constrained. Typically, these periods of high usage coincide with the operation of generation with higher emissions. The adoption of decarbonization as a one of the three key Plan Priorities of this Plan represents a clear commitment on the part of the Board and the Companies to an increased emphasis on greenhouse gas reductions. To this end we continue to work to assess the appropriate program support for heat pumps and gas-fired equipment in both existing and new buildings. Further, the Board continues to work closely with the CT Green Bank to support their efforts to promote renewable technologies in Connecticut buildings and homes.

#### 4) Alicia Dolce

Representing: Celebration Green Design and Build

Date Input Received: August 11, 2021

**Input Method(s):** Written and verbal comments

### Requests/Comments:

Based on the latest IPCC report, the critical timeline has been escalated so we need the boldest actions possible to scale-up the transformation of our existing building stock and new construction.

# RE: Metrics, goals, and data

- Provide a roadmap for how goals will be met and progress tracked, especially as it pertains to state mandates, as well
  as milestones for the Plan.
- o Provide data and metrics that will enable stakeholders to participate in the review process and build in accountability.

#### RE: Plan development timeline

• Allow more time for continued review and public comment for the draft Plan, especially during the height of the summer holiday season when many are aware on vacation.

### RE: Decarbonization

o In order to meet our decarbonization goals, we must ramp-up both promotion and funding for heat pumps.

o Provide more information about the heat pump pilot, and specify benchmarks for ASHP adoption to answer the key question: How many heat pumps installations are we striving to do each year?

#### **RE: Workforce Development & Training**

o Include specific targets for expanding CT's workforce in this plan: How many sub-contractors and by when?

# Companies' Response:

- Quantifiable data. The Final Plan text includes EEB and EEB consultant-approved high-level summary budgets, savings, greenhouse gas emissions reductions, and customers savings in the Executive Summary and Section One of the Plan. In addition, the final Plan includes numerical goals for achieving energy reductions for individual Residential and C&I Portfolio programs. Each Residential and C&I Portfolio program section includes a high-level summary of the offering's planned three-year budgets, energy savings, greenhouse gas emissions reductions, and customer savings. The Companies have brought this data forward from Appendix E: Budgets & Savings Tables in response to public input comments (such as this one) so that the information is embedded in the program sections in a high-level summary format. Detailed historical and planned 2022-2024 data in the form of tables, pie charts, and graphs can always be found in Appendix E: Budgets & Savings Tables of the Plan.
- **Updates regarding metrics and goals.** Goals are tracked on a monthly basis against the goals noted in the Plan Tables, including, but not limited to units, savings (energy and demand), and greenhouse gas reductions. These metrics are updated on the ctenergydashboard.com website and in EEB meetings.
- Public participation. The EEB held three Public Input Sessions where contractors, municipal officials, regulators, and other stakeholders were able to voice their suggestions for modifications, improvements, new initiatives, and qualifying energy-efficient technologies in preparation for the Plan. The EEB and the Companies also solicit feedback through annual Public Input Sessions, as well as invite public comments at the EEB's monthly committee and board meetings, which also inform the development of the Plan and Plan updates. In response to public input comments (such as this one), the Companies have updated the EnergizeCT.com website to reposition three-year plan documents (e.g., draft Plan text, budgets and goals spreadsheets) to more prominent parts of the EEB's section of the website. In addition, the Companies' strategic marketing plan for the 2022-2024 term includes a plan to update the EnergizeCT.com website in 2022 (see Appendix A).

The Plan timetable was released in February 2021 and included timing of public input sessions and Plan deliverables. The timetable was re-published at all 2021 EEB meetings. Multiple iterations of the Plan and Budget & Savings Tables have been posted and reviewed. The early draft Plans never include budgets or savings data until the EEB, EEB consultants, and Companies have reviewed budget and savings models, evaluation findings, technical studies, and Program Savings Document manual updates. Please see Section 5 of this Plan and the 2022 Program Savings Document for in-depth discussions regarding the tests, calculation formulas, and data used to calculate the information detailed in Appendix E's budget and savings tables. Once approved by the EEB, these are integrated into the Plan text. DEEP will hold a public input session after the Plan is filed (November 1) before issuing its draft and final determinations.

• Heat pumps. The Companies note that decarbonization is one of the three key priorities for the 2022-2024 term and that heat pump technologies will play a critical role in achieving this objective. In the final draft of the Plan, the Companies address the ramp-up, promotion, and funding for heat pumps, as well as detail their plans for workforce development, contractor training, customer education, and cross-promotion of heat pump technologies across the Residential (Section Two), C&I (Section 3), and Education, Workforce & Community Outreach Portfolios (Section 4). The Companies will review evaluation findings of the 2019-2021 heat pump pilot and will address the study's findings in future Plan Updates or Budget Reconciliation filings (see Executive Summary for high-level schedule). The final Plan text includes quantifiable data regarding heat pump unit goals for the 2022-2024 term. The Companies will continue to

track and report on heat pump goals (and other programs) at the EEB's monthly Residential committee meeting and in the Companies' compliance filings to DEEP.

The Companies will continue to work with other regional program administrators to maintain a regional Qualified Products List (QPL) for air source heat pumps. The QPL ensures that qualifying product inventory is available to contractors within the local supply chain and prior to expanded trainings across the region and all 2022-2024 trainings will reflect the new QPL. For more information regarding the Companies' heat pump technology training efforts, see Section 2.3.2. The Companies will develop customer-facing tools, such as a contractor locator tool to direct customers to qualified heat pump installers. To advance electrification of heating and cooling equipment, the Companies will prioritize marketing tactics that promote the benefits of heat pump technologies, refresh the EnergizeCT.com website, create an "All Things Heat Pumps" webpage, and conduct ongoing pulse surveys to better understand and track customer awareness and perceptions of heat pump technologies.

• Workforce development. The latest Plan text expanded the description of the Companies' Workforce initiatives. The Companies will work with EEB Consultants to develop appropriate metrics.

- Plan development process and public participation. As noted in the Companies' responses, there have been multiple opportunities for public participation and feedback during the development of the 2022-2024 Three-year Plan. That said, the Board recognizes that communications regarding the Plan development process and timeline can be improved so that stakeholders better understand how the process unfolds and to enhance access to Plan materials on the Energize CT website. Work has already started on improving access to Plan materials on EnergizeCT.com. The Board will fully consider all of the comments received on Plan development and public participation when it begins its 2023 Plan Update process in mid-2022.
- Quantifiable goals. To provide clearer quantifiable goals and metrics, a summary of the budgets, energy savings, greenhouse gas emissions reductions, and customer savings have been added to each program section. Detailed numbers for each program, sector and company are included in the tables in the Plan Appendix. The Companies will report on progress towards these goals and metrics at least monthly in the Connecticut Statewide Energy Efficiency Dashboard and quarterly at the Residential and C&I Committee meetings and at the EEB meeting. Quarterly reporting will be made available to the public in an easily accessible manner on the Energize CT website.
- **Decarbonization/heat pumps.** The EEB supports electrification when the project is cost effective, as required by statute, and where it makes financial sense for the customer (the customer will save money from making the change). Opportunities are most cost effective in new construction and when a heat pump replaces end-of-life existing air conditioning equipment. The results from the Companies' ongoing heat pump pilots and any related EM&V studies will inform future efforts in this area and will be incorporated into subsequent C&LM Plan updates.
- Workforce. The EEB recognizes and supports the on-going development, enhancement, and training of the workforce
  in Connecticut that we need in order to offer the C&LM programs as we anticipate evolving services and programs to
  meet our goals.

# 5) Anne Hulick

Representing: Clean Water Action/Clean Water Fund

**Date Input Received:** August 11, 2021 **Input Method(s):** Verbal comments

#### Requests/Comments:

CWA/CWF says that reducing energy demand is critical to meet our state's climate goals but also provides significant benefits to residents that have a high energy burden due to leaky homes, inefficient appliances and weatherization barriers that harm health. Connecticut has robust greenhouse gas reduction goals and a statutory mandate to reduce energy demand by expanding energy efficiency solutions in buildings, but we are far from meeting that goal. To bridge this gap, the Plan should:

- 1. Develop a clear, transparent roadmap, with annual interim goals, on achieving 80% weatherization of residences by 2030, prioritizing equity and reporting on performances made in this regard.
- 2. Set a date certain (by 2030 at the latest) by which all fossil fuel use will no longer be subsidized or allowed in new construction.
- 3. Align the state's carbon and greenhouse gas reduction targets with the C&LM plan and set new goals for carbon reductions that are in line with the recent IPCC report—100% carbon neutrality by 2050 if not sooner.

### Companies' Response:

- Weatherization. The Companies have increased budgets in the 2022-2024 term toward their weatherization programs to continually increase the number of homes being weatherized in an attempt to help the State achieve its goal of weatherizing 80 percent of residences by 2030. The Companies are working with DEEP to report on the statistics. The Companies have been actively working to participate in efforts to address weatherization health and safety barriers in homes and have participated in discussions with DEEP and the EEB to secure additional funding to remediate these weatherization barriers (see Section 2.5.1). In addition, the Companies will continue their long-term partnership with the Community Action Agencies to assist in cost sharing energy efficiency measures for federal Weatherization Assistance Partnership (WAP) projects including direct-install measures, ductless heat pumps, water heating equipment, administrative fees, heating system replacements, insulation, and windows.
- Incentives and residential new construction. The Plan does not contain any fuel oil or propane rebates or instant discounts. There are scenarios where natural gas is the most economical choice for satisfying a customer's heating needs and customers will choose to purchase natural gas HVAC equipment rather than installing a heat pump technology. The best option in this instance is for the customer to purchase high-efficiency natural gas HVAC equipment rather than baseline/code compliant equipment. In the Residential New Construction program, the Companies have significantly reduced the incentives for customers that plan to heat with propane.
- Future modifications. The Plan will be modified in future annual Plan Updates or Budget Reconciliation filings (see Executive Summary for high-level schedule) in accordance with DEEP's 2022 Comprehensive Energy Strategy which is anticipated to be released later in 2021.

# **Board Response:**

• Weatherization. The EEB has strongly supported increased comprehensive weatherization through the Home Energy Solutions (HES) and Home Energy Solutions – Income Eligible (HES-IE) programs in addition to requiring more DOE Home Energy Scores be provided to program participant to encourage implementation of follow-on measures. We have also actively supported development of a Health and Safety Barriers Remediation program at DEEP to help

increase home eligibility for weatherization along with better integration with the low-income Weatherization Assistance Program (WAP). All of these efforts will help support reaching Connecticut's goal of weatherizing 80% of residences by 2030.

- Decarbonization/heat pumps. The EEB supports electrification when the project is cost effective, as required by statute, and where it makes financial sense for the customer (the customer will save money from making the change).
   Opportunities are most cost effective in new construction and when a heat pump replaces end-of-life existing air conditioning equipment. The results from the Companies' ongoing heat pump pilots and any related EM&V studies will inform future efforts in this area and will be incorporated into subsequent C&LM Plan updates.
- State policy and goals. The C&LM programs play an important role in helping the State of Connecticut achieve its greenhouse gas emission goals, specifically in the building sector. Through energy efficiency and demand response we lower energy use and shift it away from times of day when generation resources are most constrained. Typically, these periods of high usage coincide with the operation of generation with higher emissions. The adoption of decarbonization as a one of the three key Plan Priorities of this Plan represents a clear commitment on the part of the Board and the Companies to an increased emphasis on greenhouse gas reductions. To this end we continue to work to assess the appropriate program support for heat pumps and gas-fired equipment in both existing and new buildings. Further, the Board continues to work closely with the CT Green Bank to support their efforts to promote renewable technologies in Connecticut buildings and homes.

6) Peter Millman

Representing: Eastern Connecticut Green Action

Date Input Received: August 11, 2021

**Input Method(s):** Written and verbal comments

### Requests/Comments:

The three priorities of the Plan, equity, decarbonization, and affordability, as well as other aspects of the Plan are laudable. But the Pan could also do more to set out a new course consistent with the very real climate challenges we face in Connecticut.

- We should be curtailing, not encouraging, the burning of oil, natural gas, and propane. The EEB should be incentivizing ONLY zero-emission appliances, as well as clean heating and hot water systems.
- The Plan should also focus more resources on LMI (low to moderate income) ratepayers; specifically, the EEB should provide LMI customers with more than their proportional share of incentives.
- o Address the issue of split incentives in multifamily sector with innovative solutions and pilot programs.

### Companies' Response:

- Incentives. The Plan does not contain any fuel oil or propane rebates or instant discounts. There are scenarios where natural gas is the most economical choice for satisfying a customer's heating needs and customers will choose to purchase natural gas HVAC equipment rather than installing a heat pump technology. The best option in this instance is for the customer to purchase high-efficiency natural gas HVAC equipment rather than baseline/code compliant equipment.
- **Decarbonization.** The Companies note that decarbonization is one of the three key priorities for the 2022-2024 term and that heat pump technologies will play a critical role in achieving this objective. In the final draft of the Plan, the Companies address the ramp-up, promotion, and funding for heat pumps, as well as detail their plans for workforce

development, contractor training, customer education, and cross-promotion of heat pump technologies across the Residential (Section Two), C&I (Section 3), and Education, Workforce & Community Outreach Portfolios (Section 4). The Companies will review evaluation findings of the 2019-2021 heat pump pilot and will address the study's findings in future Plan Updates or Budget Reconciliation filings (see Executive Summary for high-level schedule). The final Plan text includes quantifiable data regarding heat pump unit goals for the 2022-2024 term. The Companies will continue to track and report on heat pump goals (and other programs) at the EEB's monthly Residential committee meeting and in the Companies' compliance filings to DEEP.

- **Proportionality of program budgets.** The Electric and Natural Gas budgets are both over-indexed (i.e., more program dollars allocated vs. customer contributions to the fund budget) to serve low-and-moderate income customers.
- **Split incentives.** The current Plan and Multifamily Initiative's incentive structure address the split incentive issue (i.e., landlord/tenant) for weatherization measures in multifamily buildings (5+ or more units).

#### **Board Response:**

- Decarbonization/heat pumps. The EEB supports electrification when the project is cost effective, as required by statute, and where it makes financial sense for the customer (the customer will save money from making the change). Opportunities are most cost effective in new construction and when a heat pump replaces end-of-life existing air conditioning equipment. The results from the Companies' ongoing heat pump pilots and any related EM&V studies will inform future efforts in this area and will be incorporated into subsequent C&LM Plan updates.
- **Decarbonization/heat pumps.** The EEB supports electrification when the project is cost effective, as required by statute, and where it makes financial sense for the customer (the customer will save money from making the change). Opportunities are most cost effective in new construction and when a heat pump replaces end-of-life existing air conditioning equipment. The results from the Companies' ongoing heat pump pilots and any related EM&V studies will inform future efforts in this area and will be incorporated into subsequent C&LM Plan updates.
- **Split incentives.** The current programs and Plan address landlord-tenant split-incentive issues in multifamily buildings. With the current focus on equity, ensuring program services to LMI renters remains a focus and priority for the EEB.

7) Kai Starn

Representing: Steven Winter Associates
Date Input Received: August 11, 2021
Input Method(s): Verbal comments

# **Requests/Comments:**

Steven Winter Associates (SWA) is a Connecticut-based firm specializing in building operations, decarbonization, and efficiency for all buildings types. Mr. Stern addressed contractor backlog due to workforce shortages. SWA has seen many savvier contractors solving the problem by raising prices. Even pre-COVID, SWA observed installed heat pump prices rise faster than inflation which was only exacerbated by supply shortages during the pandemic. Mr. Stern shared, anecdotally, that price increases are slowing energy efficiency implementation.

Mr. Stern asked Companies to recognize the rising cost of heat pumps and adjust incentives to meet actual market conditions, as well as climate imperatives.

# Companies' Response:

• **Heat pump incentives.** The Companies increased the incentives for heat pumps in May 2020. The Companies have seen an increase in heat pump activity commensurate with the incentive increase. The Companies have aligned Connecticut's incentives and heat pump qualification criteria with other states in the New England region.

# **Board Response:**

- Workforce. The EEB recognizes and supports the on-going development, enhancement, and training of the workforce
  in Connecticut that we need in order to offer the C&LM programs as we anticipate evolving services and programs to
  meet our goals.
- **Heat pump incentives.** In alignment with incentives in other states, heat pump incentives were increased in 2020 to spur interest and demand. The EEB will be watching closely to see whether and how much of an impact this has on market uptake and will consider adjustments accordingly.

#### 8) Daniel Robertson

Representing: Artis Energy Solutions

Date Input Received: August 11, 2021
Input Method(s): Verbal comments

### **Requests/Comments:**

Artis Energy Solutions (Artis) appreciates all the work and the public comment on the CL&M plan and particularly supports the addition of an Equity consultant. Artis said that global warming poses a risk to the planet and health, and aggressive action via a phased approach with the Plan is needed to drive better results and ultimately combat global warming.

#### **RE:** Decarbonization

- Engage a HVAC MEP consultant with design experience and an understanding of energy efficiency and market mechanisms
- Encourage heat pump conversion in non-residential sector, retrofits for both res and non-res, and new construction
  - Provide incentives for soft costs like HVAC evaluation and design of systems to increase heat pump participation.
  - Provide higher incentives to mitigate uptake barriers due to higher capital costs, while keeping incentives (for now) for higher efficiency fossil fuel solutions
  - For residential, incentives need to ensure the upfront capital outlay is close to traditional and perhaps provide a three-month return guarantee to build a strong installed base of heat pumps.
- Support strategic electrification that weighs impacts of higher electric demand and overall real impact

#### RE: Equity and Energy Affordability

- Provide higher incentives for EJC communities
- Commission a qualified and experienced Equity consultant to oversee and help develop this Plan, look to continually improve it, and gain buy-in from constituents.

#### Companies' Response:

- The Companies generally agree with the comments provided.
- **Diversity, equity, and inclusion (DEI) consultant.** On July 21, 2021, DEEP issued its Final Phase I Actions and Recommendations as part of its Equity in Energy Efficiency (E3) proceeding (see Section 1.3.2). The final determination contains eight high-level goals and nineteen associated action items. Action item 1.1. directs the EEB to develop a plan to hire a DEI consultant. Throughout the 2022-2024 term, the Companies will work with the DEI consultant's recommendations to design new pathways and make process improvements to align program delivery with the E3 proceeding's goals and associated action items. The Companies will provide updates regarding their efforts in the two Plan update filings (2022 and 2023) and the three budget reconciliation filings (2022, 2023, and 2024).
- Heat pump incentives. The Companies have also filed a heat pumps soft cost study. The Companies increased the incentives for heat pumps in May 2020. The Companies have seen an increase in heat pump activity commensurate with the incentive increase. The Companies have aligned Connecticut's incentives and heat pump qualification criteria with other states in the New England region. The Companies believe it makes sense to provide higher incentives for integrated controls. Heat pumps and other energy efficiency incentives are based on the present value (PV) of the benefits from the Avoided Energy Supply Cost (AESC) study completed in 2021; therefore, the Companies cannot include items such as providing a three-month return guarantee. See Section 5 for more details.
- Environmental justice communities. In the upcoming term, the Companies will introduce the Census Tract Tool to streamline customer outreach for contractors. For select census tracts, such as distressed or environmental justice communities, residents will be eligible to receive free weatherization services through the HES-Income Eligible program.

# **Board Response:**

- Decarbonization/heat pumps. The EEB supports electrification when the project is cost effective, as required by statute, and where it makes financial sense for the customer (the customer will save money from making the change).
   Opportunities are most cost effective in new construction and when a heat pump replaces end-of-life existing air conditioning equipment. The results from the Companies' ongoing heat pump pilots and any related EM&V studies will inform future efforts in this area and will be incorporated into subsequent C&LM Plan updates.
- Equity. The EEB strongly supports equity as a key pillar of the Plan. As one of the three Plan Priorities, we have attempted to include an equity lens for all programs. We have established metrics for the Companies focused on hardship customers and underserved businesses to ensure attention is paid to those customers who can benefit most from the C&LM programs. DEEP's Diversity, Equity and Inclusion (DEI) consultant will review all the programs in 2022 and provide additional recommendations and guidance for future Plans.

9) Shirley McCarthy Representing: Self

**Date Input Received:** August 19, 2021 **Input Method(s):** Written comments

Requests/Comments:

It is scary and bewildering that EnergizeCT will still offer rebates for natural gas, oil and propane fueled equipment in 2022-2024. Was not the catastrophic forecast in the recent IPCC taken seriously? Are we still in denial and want to protect fossil fuels and the utilities slow progress in shifting to renewables and educating the public about renewables?

The U.N. Secretary General called a "code red for humanity." The planet's already rapidly decreasing wildlife are burning up in wildfires or dying from drought, etc. Subsidies should be solely directed at clean energy. We must act swiftly. Please do the right thing and discourage the purchase of fossil fuel using equipment.

### Companies' Response:

- Decarbonization. The Companies note that decarbonization is one of the three key priorities for the 2022-2024 term and that heat pump technologies will play a critical role in achieving this objective. In the final draft of the Plan, the Companies address the ramp-up, promotion, and funding for heat pumps, as well as detail their plans for workforce development, contractor training, customer education, and cross-promotion of heat pump technologies across the Residential (Section Two), C&I (Section 3), and Education, Workforce & Community Outreach Portfolios (Section 4). The Companies will review evaluation findings of the 2019-2021 heat pump pilot and will address the study's findings in future Plan Updates or Budget Reconciliation filings (see Executive Summary for high-level schedule). The final Plan text includes quantifiable data regarding heat pump unit goals for the 2022-2024 term. The Companies will continue to track and report on heat pump goals (and other programs) at the EEB's monthly Residential committee meeting and in the Companies' compliance filings to DEEP.
- Incentives. The Plan does not contain any fuel oil or propane rebates or instant discounts. There are scenarios where natural gas is the most economical choice for satisfying a customer's heating needs and customers will choose to purchase natural gas HVAC equipment rather than installing a heat pump technology. The best option in this instance is for the customer to purchase high-efficiency natural gas HVAC equipment rather than baseline/code compliant equipment.

#### **Board Response:**

Decarbonization/heat pumps. The EEB supports electrification when the project is cost effective, as required by statute, and where it makes financial sense for the customer (the customer will save money from making the change).
 Opportunities are most cost effective in new construction and when a heat pump replaces end-of-life existing air conditioning equipment. The results from the Companies' ongoing heat pump pilots and any related EM&V studies will inform future efforts in this area and will be incorporated into subsequent C&LM Plan updates.

10) Paul Aresta

Representing: The Council on Environmental Quality

**Date Input Received:** August 13, 2021 **Input Method(s):** Written comments

# Requests/Comments:

The Council on Environmental Quality ("the Council") supports measures to conserve energy and improve energy efficiency. Addressing the issue of spill prevention at the same time as improving energy efficiency is a step towards eliminating silos in State programs. The following changes could be made to the CT Heating Loan Program:

- Require an inspection of the oil storage tank and associated supply lines whenever an oil-fired furnace or boiler repair or replacement is being considered for a loan under the program.
- Include oil storage tank replacements in eligible projects for financing.
- Include the financing of upgrades for fuel storage vessels and delivery systems that are in poor condition and pose a risk of an uncontrolled release.

#### Companies' Response:

- Incentives. The Plan does not contain any fuel oil or propane rebates or instant discounts. There are scenarios where natural gas is the most economical choice for satisfying a customer's heating needs and customers will choose to purchase natural gas HVAC equipment rather than installing a heat pump technology. The best option in this instance is for the customer to purchase high-efficiency natural gas HVAC equipment rather than baseline/code compliant equipment.
- Removal and/or replacement of oil storage tanks. Currently, a portion of the removal and/or replacement of oil
  storage tanks can be included in some of the financing programs offered to residential customers, such as the Smart ELoan and EnergizeCT Heating Loan.

#### **Board Response:**

See Companies' responses above.

**11)** Ashita Gona **Representing:** RMI

Date Input Received: August 18, 2021

**Input Method(s):** Written and verbal comments

Requests/Comments:

Given the scale of the CT C&LM Plan (\$750 million) and the importance of the goals the CLM plan sets out to achieve, RMI offers this feedback in order to help the Energy Efficiency Board (EEB) create the best plan possible. We urge the Energy Efficiency Board to ask the utilities to re-work the CLM plan with the following changes to address these concerns:

- Streamline CLM's programs and incentives to strongly promote all-electric new construction
  - Eliminate or significantly reduce gas equipment rebates, including upstream incentives noted in the CLM for the purchase of energy-efficient boilers and furnaces;
  - Modify the Energize CT Heating Loan Program, to offer zero or low-interest financing for efficient electric heating systems, not including fossil fuel boilers and furnaces.
- Move or significantly reduce fossil fuel incentives for new fossil fuel appliances; we recommend the DER Program include the following:
  - Meet Passive House certification standards OR not exceed a site Energy Use Intensity (EUI) of 30 kBtu/ft²/year and an air tightness of 2.0 ACH50;
  - Utilize heat pump-based technology for space heating and cooling;
  - Utilize energy or heat recovery ventilation technology;
  - Fully electrify domestic hot water systems;
  - Include serious consideration of material decisions related to embodied carbon.
- Invest more heavily in weatherization, electrification, and comprehensive retrofit programs.

# Companies' Response:

• Incentives and residential new construction. The Plan does not contain any fuel oil or propane rebates or instant discounts. There are scenarios where natural gas is the most economical choice for satisfying a customer's heating needs and customers will choose to purchase natural gas HVAC equipment rather than installing a heat pump technology. The best option in this instance is for the customer to purchase high-efficiency natural gas HVAC equipment rather than baseline/code compliant equipment. In the Residential New Construction program, the

Companies have significantly reduced the incentives for customers that plan to heat with propane. Incentive mechanisms are designed to reward builders and customers to construct more efficient buildings (i.e., all-electric package, net zero package, and bonus incentives for Passive House and LEED certifications).

- Decarbonization. The Companies note that decarbonization is one of the three key priorities for the 2022-2024 term and that heat pump technologies will play a critical role in achieving this objective. In the final draft of the Plan, the Companies address the ramp-up, promotion, and funding for heat pumps, as well as detail their plans for workforce development, contractor training, customer education, and cross-promotion of heat pump technologies across the Residential (Section Two), C&I (Section 3), and Education, Workforce & Community Outreach Portfolios (Section 4). The Companies will review evaluation findings of the 2019-2021 heat pump pilot and will address the study's findings in future Plan Updates or Budget Reconciliation filings (see Executive Summary for high-level schedule). The final Plan text includes quantifiable data regarding heat pump unit goals for the 2022-2024 term. The Companies will continue to track and report on heat pump goals (and other programs) at the EEB's monthly Residential committee meeting and in the Companies' compliance filings to DEEP.
- Modification of EnergizeCT Heating Loan program. The Companies are legislatively-mandated to offer zero or low-interest financing for HVAC systems. See *Public Act 05-01—An Act Concerning Electricity and Energy Efficiency* was passed by the Connecticut General Assembly and *Public Act 18-50—An Act Concerning Connecticut's Energy Future*. Public Act 18-50, § 9(d)(1). "...provided a customer of an electric distribution company may not be denied such services based on the fuel such customer uses to heat such customer's home."

- Decarbonization/heat pumps. The EEB supports electrification when the project is cost effective, as required by statute, and where it makes financial sense for the customer (the customer will save money from making the change).
   Opportunities are most cost effective in new construction and when a heat pump replaces end-of-life existing air conditioning equipment. The results from the Companies' ongoing heat pump pilots and any related EM&V studies will inform future efforts in this area and will be incorporated into subsequent C&LM Plan updates.
- Fossil fuel incentives. The EEB will consider phasing out of incentives for new gas equipment for measures where backsliding to less efficient equipment is unlikely. For example, a recent evaluation has found that the C&I boiler market is largely transformed, such that it is now industry standard practice in many cases for customers to purchase an efficient condensing boiler for new construction or at end of life for an existing boiler. As a result of this finding, the baseline has risen to a point where it may not be cost effective anymore to offer incentives for many commercial boilers. Additionally, the Companies will investigate whether program supported condensing gas equipment is replacing existing condensing equipment and if so, whether there is continued need to do so. However, there are processes that currently use natural gas where there is either no cost-effective electric alternative or no electric alternative at all. For these measures the EEB supports continued incentives for gas-fired equipment in order to increase energy performance and reduce carbon emissions.

12) Gioia Connell

Representing: CT Green Building Council Date Input Received: August 18, 2021 Input Method(s): Verbal comments

**Requests/Comments:** 

As sustainability specialists at the forefront of implementing many of the utilities' programs, we have direct comments in regard to three elements of the C&LM plan that we see as critical to its successful implementation. This includes—

- 1) Commercial energy efficiency support for medium sized businesses,
  - a. Expand the technical and financial support for commercial buildings of less than 20,000 SF.
  - b. Work with contractors, or consultants, to streamline a workflow and publish common zero-energy pathways leveraging existing incentives and programs on the EnergizeCT website.
- 2) Clarifying definitions—specifically decarbonization and equity
  - a. Explicitly define terms and include glossary
  - b. Incorporate metrics for equity based in the Governor's Council on Climate Change Equity and Environmental Justice Subcommittee work
- 3) Leverage best practices and resources for workforce development to conduct this work in a way that is effective for renters, homeowners, and workers, particularly in frontline communities, specifically:
  - a. Analyze how much more workforce is needed and in what areas to meet the goals of the C&LM plan.
  - b. Identify barriers to diverse workforce development, including the need for wraparound services like transportation, childcare, healthcare, paid training, and apprenticeship contracts.
  - c. Create concrete goals for how much the workforce will expand as a result of the C&LM plan, and specific metrics with regards to recruitment for low income and diverse populations.
  - d. Design workforce programs from these inputs.
  - e. Develop follow-up and report metrics for how much and what type of training occurred, how many trainees were placed into jobs, and how many of these were from minority communities. Tie this in with metrics for health, economy, and wellbeing for households.

#### Companies' Response:

- Glossary. The Plan text includes a glossary.
- Equity for Energy Efficiency proceeding. On July 21, 2021, DEEP issued its Final Phase I Actions and Recommendations as part of its E3 proceeding (see Section 1.3.2). The final determination contains eight high-level goals and nineteen associated action items. Throughout the 2022-2024 term, the Companies will design new pathways and make process improvements to align program delivery with the E3 proceeding's goals and associated action items. The Companies will provide updates regarding their efforts in the two Plan update filings (2022 and 2023) and the three budget reconciliation filings (2022, 2023, and 2024).
- Support for medium-sized and small businesses. Continuing into the 2022-2024 term, Eversource has a C&I offering for mid-size businesses that consume between >1,000,000 kWh and 5,000,000 kWh annually. The program will use a preferred vendor structure, incentives, and solutions similar to the Energy Opportunities program. This mid-size business initiative bridges the current gap for providing customized solutions and services to businesses that fall between the small business offering and the consultant management of larger energy consumers. These businesses typically are not managed by a utility account manager (similar to most small-sized C&I customers). Currently, there are 2,600 Eversource C&I customers who are eligible to participate.

As part of the Microbusiness Initiative, the Companies will target businesses that use less than 25 kW average monthly demand (United Illuminating) or consume less than 100,000 kWh annually (Eversource) across all facilities and are underserved as their percentage of savings relative to usage as the C&I group. The Companies will target this segment of the market with potentially enhanced incentives especially when a customer installs non-lighting or comprehensive measures.

• Workforce development. The latest Plan text includes more details regarding the Companies' Workforce Development Strategy and efforts. The Companies will work with EEB Consultants to develop appropriate metrics that will be tracked and reported to the EEB. The Companies will review the commentor's suggestions for metrics and work with the EEB consultants to determine what suggestions should be integrated into the Plan in future Plan updates.

# **Board Response:**

- See above for Companies' response to support for medium-sized businesses and glossary.
- Equity. The EEB strongly supports equity as a key pillar of the Plan. As one of the three Plan Priorities, we have attempted to include an equity lens for all programs. We have established metrics, including Performance Management Incentives, for the Companies focused on hardship customers and underserved businesses to ensure attention is paid to those customers who can benefit most from the C&LM programs. DEEP's Diversity, Equity and Inclusion (DEI) consultant will review all the programs in 2022 and provide additional recommendations and guidance for future Plans.
- Workforce. The EEB recognizes and supports the on-going development, enhancement, and training of the workforce in Connecticut that we need in order to offer the C&LM programs as we anticipate evolving services and programs to meet our goals.

13) Bernard Pelletier

Representing: People's Action for Clean Energy

Date Input Received: August 18, 2021

Input Method(s): Written and verbal comments

# **Requests/Comments:**

# **General Comments:**

Mr. Pelletier provided multiple general and specific requests of the Plan.

#### **General:**

- Timing of the CLM should be aligned to the upcoming CES
- Tracking adoption metrics should be included for every goal:
  - Weatherization
  - Adoption of Heat Pumps and Renewable Thermal Technology
  - Tracking aggregate energy consumed
  - Compliance with state greenhouse gas policy
- The plan should make an effort to include municipal utility data

# Specific:

- Expand the legislative and policy narrative to show how this CLM plan implements state policy
- Make an effort in 2022 to recoup funds lost in 2018 and 2019 to the General Fund

- Residential decarbonization:
  - Stop incentivizing all non- electric equipment
  - Connect incentives for HVAC to policy and performance goals (as NYSERDA does)
  - Track the deployment of RTT equipment
- Develop a trackable weatherization program that implements the state's 80% goal, defines

progress in a measurable way, and prepares Connecticut homes for electrification

• Focus on the developing issue of winter peak demand

### Companies' Response:

- **Future modifications.** The Plan will be modified in future annual Plan Updates or Budget Reconciliation filings (see Executive Summary for high-level schedule) in accordance with DEEP's 2022 Comprehensive Energy Strategy which is anticipated to be released later in 2021.
- Heat pump tracking and reporting. The Companies presently provide quarterly residential HVAC reports to the EEB
  that track the number of heat pump units receiving incentives (each quarter), which is indicative of the adoption rates.
  The savings are addressed in the 2022 Program Saving Document manual and are derived by third-party program
  evaluators.
- Legislative and policy narrative. The Plan already includes a detailed narrative of the history and policies affected by energy efficiency legislation passed by the Connecticut General Assembly (see Section 1.1). Once the 2022 Comprehensive Energy Strategy has been released, the Companies will include a detailed plan to address the goals and action items promulgated within the Plan updates to the 2022-2024 term (filed in November 2022 and November 2023) and in budget reconciliation filings (March 1, 2022, March 1, 2023, and March 1, 2024). Please see Appendix C: Compliance Orders which gives a detailed overview of DEEP compliance orders to previous Plans and Plan Updates. The 2022-2024 Plan is compliant with all legislative mandates, filed DEEP regulatory decisions, and EEB directives.
- **Diverted energy efficiency funds.** As noted in the Plan's review of energy efficiency legislation (see Section 1.1), *Public Act 18-50—An Act Concerning Connecticut's Energy Future* resulted in partial restoration of funds for Program Year 2019, and full funding for Program Years 2020 and 2021. To deter future funding diversion efforts, Public Act 18-50 changed the structure of how energy efficiency programs are funded in the state. The Companies note that there was a third-party effort to restore these funds which was unsuccessful in court.
- Weatherization. The Companies have increased budgets in the 2022-2024 term toward their weatherization programs to continually increase the number of homes being weatherized in an attempt to help the State achieve its goal of weatherizing 80 percent of residences by 2030. The Companies are working with DEEP to report on the statistics. The Companies have been actively working to participate in efforts to address weatherization health and safety barriers in homes and have participated in discussions with DEEP and the EEB to secure additional funding to remediate these weatherization barriers (see Section 2.5.1). In addition, the Companies will continue their long-term partnership with the Community Action Agencies to assist in cost sharing energy efficiency measures for federal Weatherization Assistance Partnership (WAP) projects including direct-install measures, ductless heat pumps, water heating equipment, administrative fees, heating system replacements, insulation, and windows.
- **Cost-effectiveness tests.** The Companies follow the current guidance from DEEP regarding the use of cost-effectiveness tests. Please see Section 5 for more details regarding the cost-effectiveness tests used to develop the Plan's programs, budgets, and savings.
- Winter peak demand. The Plan increases efforts for demand management programs for both electric and natural gas customers. CNG and SCG will conduct several natural gas demand response programs in the 2022-2024 term. Input

- was used from the Avoided Energy Supply Cost (AESC) study completed in 2021 and the value of benefits are included in program design and incentives. See Section 5 for more details regarding the AESC study.
- Incentives. The Plan does not contain any fuel oil or propane rebates or instant discounts. There are scenarios where natural gas is the most economical choice for satisfying a customer's heating needs and customers will choose to purchase natural gas HVAC equipment rather than installing a heat pump technology. The best option in this instance is for the customer to purchase high-efficiency natural gas HVAC equipment rather than baseline/code compliant equipment.
- Municipal energy data. The Companies track and report the aggregate energy consumption data by municipality on the Clean Energy Communities dashboard (<a href="www.ctenergydashboard.com">www.ctenergydashboard.com</a>) on an annual basis. For the 2022-2024 term, the Companies will continue their partnership with the EPA and provide ENERGY STAR Portfolio Management technical support related to the automatic transfer of billing data to the Portfolio Manager software. The Portfolio Manager software helps businesses and municipalities track their energy and water consumption, as well as their greenhouse gas emissions. This technical support also supports clean energy task forces, community-based organizations, and environmental groups in tracking the environmental benefits associated with their energy efficiency efforts. In addition, the Companies will continue to provide benchmarking and data analysis support to Connecticut towns and cities who request support. This support will be provided through the technical expertise of the Companies and third-party experts.

- See Companies' responses above regarding the CES timing, winter peak demand and municipal energy data.
- Decarbonization/heat pumps. The EEB supports electrification when the project is cost effective, as required by statute, and where it makes financial sense for the customer (the customer will save money from making the change).
   Opportunities are most cost effective in new construction and when a heat pump replaces end-of-life existing air conditioning equipment. The results from the Companies' ongoing heat pump pilots and any related EM&V studies will inform future efforts in this area and will be incorporated into subsequent C&LM Plan updates.
- Fossil fuel incentives. The EEB will consider phasing out of incentives for new gas equipment for measures where backsliding to less efficient equipment is unlikely. For example, a recent evaluation has found that the C&I boiler market is largely transformed, such that it is now industry standard practice in many cases for customers to purchase an efficient condensing boiler for new construction or at end of life for an existing boiler. As a result of this finding, the baseline has risen to a point where it may not be cost effective anymore to offer incentives for many commercial boilers. Additionally, the Companies will investigate whether program supported condensing gas equipment is replacing existing condensing equipment and if so, whether there is continued need to do so. However, there are processes that currently use natural gas where there is either no cost-effective electric alternative or no electric alternative at all. For these measures the EEB supports continued incentives for gas-fired equipment in order to increase energy performance and reduce carbon emissions.
- Quantifiable goals. To provide clearer quantifiable goals and metrics, a summary of the budgets, energy savings, greenhouse gas emissions reductions, and customer savings have been added to each program section. Detailed numbers for each program, sector and company are included in the tables in the Plan Appendix. The Companies will report on progress towards these goals and metrics monthly in the Connecticut Statewide Energy Efficiency Dashboard and quarterly at the Residential and C&I Committee meetings and at the EEB meeting. Quarterly reporting will be made available to the public in an easily accessible manner on the Energize CT website.
- **State policy and goals.** The C&LM programs play an important role in helping the State of Connecticut achieve its greenhouse gas emission goals, specifically in the building sector. Through energy efficiency and demand response we

lower energy use and shift it away from times of day when generation resources are most constrained. Typically, these periods of high usage coincide with the operation of generation with higher emissions. The adoption of decarbonization as a one of the three key Plan Priorities of this Plan represents a clear commitment on the part of the Board and the Companies to an increased emphasis on greenhouse gas reductions. To this end we continue to work to assess the appropriate program support for heat pumps and gas-fired equipment in both existing and new buildings. Further, the Board continues to work closely with the CT Green Bank to support their efforts to promote renewable technologies in Connecticut buildings and homes.

• Weatherization. The EEB has strongly supported increased comprehensive weatherization through the Home Energy Solutions (HES) and Home Energy Solutions – Income Eligible (HES-IE) programs in addition to requiring more DOE Home Energy Scores be provided to program participant to encourage implementation of follow-on measures. We have also actively supported development of a Health and Safety Barriers Remediation program at DEEP to increase home eligibility for weatherization along with better integration with the low-income Weatherization Assistance Program (WAP). All of these efforts will help support reaching Connecticut's goal of weatherizing 80% of residences by 2030.

# 14) Dwayne Escola

Representing: Ridgefield Action Committee for Climate

Date Input Received: August 18, 2021

Input Method(s): Written and verbal comments

# **Requests/Comments:**

Mr. Escola suggested:

- 1) That the 2022-2024 Energy Efficiency Plan be modified to eliminate all incentive payments to homeowners and businesses owners who purchase equipment that burns fossil fuels such as #2 oil, natural gas, or propane;
- 2) Any of the funds currently in the plan targeting oil and natural gas furnaces should be added to the incentives for heat pumps;

Mr. Escola also disapproves of any dollars he pays each month to Eversource per the electric bill charge labeled "Combo Public Benefit" going to an incentive given to a homeowner or business owner as an incentive to help purchase equipment that burns fossil fuel!

# Companies' Response:

- Incentives. The Plan does not contain any fuel oil or propane rebates or instant discounts. There are scenarios where natural gas is the most economical choice for satisfying a customer's heating needs and customers will choose to purchase natural gas HVAC equipment rather than installing a heat pump technology. The best option in this instance is for the customer to purchase high-efficiency natural gas HVAC equipment rather than baseline/code compliant equipment.
- Natural gas energy efficiency programs. The 2022-2024 Plan covers years 16-18 of natural gas energy efficiency programs as legislative required by *Public Act 05-01—An Act Concerning Electricity and Energy Efficiency*. This legislation created a funding mechanism for the Natural Gas Companies to develop and implement cost-effective energy efficiency programs that reduce natural gas consumption for residential and C&I customers. Legislation does

not allow the Companies to use contributions from natural gas customers (on firm rates) through the natural gas Conservation Adjustment Mechanism (CAM) to pay for electric measures, including heat pump technologies.

# **Board Response:**

- Decarbonization/heat pumps. The EEB supports electrification when the project is cost effective, as required by statute, and where it makes financial sense for the customer (the customer will save money from making the change).
   Opportunities are most cost effective in new construction and when a heat pump replaces end-of-life existing air conditioning equipment. The results from the Companies' ongoing heat pump pilots and any related EM&V studies will inform future efforts in this area and will be incorporated into subsequent C&LM Plan updates.
- Fossil fuel incentives. The EEB will consider phasing out of incentives for new gas equipment for measures where backsliding to less efficient equipment is unlikely. For example, a recent evaluation has found that the C&I boiler market is largely transformed, such that it is now industry standard practice in many cases for customers to purchase an efficient condensing boiler for new construction or at end of life for an existing boiler. As a result of this finding, the baseline has risen to a point where it may not be cost effective anymore to offer incentives for many commercial boilers. Additionally, the Companies will investigate whether program supported condensing gas equipment is replacing existing condensing equipment and if so, whether there is continued need to do so. However, there are processes that currently use natural gas where there is either no cost-effective electric alternative or no electric alternative at all. For these measures the EEB supports continued incentives for gas-fired equipment in order to increase energy performance and reduce carbon emissions.

**15)** Charles Rothenberger

Representing: Save the Sound

**Date Input Received:** August 18, 2021 **Input Method(s):** Verbal comments

#### **Requests/Comments:**

# RE: Equity

Mr. Rothenberger stated that due to the disparate energy burden faced by low- income households, we must provide building weatherization and energy efficiency improvements for low-income households

### **RE:** Decarbonization

With respect to the decarbonization goals in the plan, he said we should:

- Increase the deployment of heat pumps systems to replace fossil- fuel heating systems.
- Discontinue subsidies for fossil-fuel fired heating equipment and appliances.
- Expand clean distributed energy systems such as solar and build out a smart grid that can provide both energy and bill savings through demand response programs.
- Improve consumer outreach and education around heat pump systems.

# Companies' Response:

• Incentives. The Plan does not contain any fuel oil or propane rebates or instant discounts. There are scenarios where natural gas is the most economical choice for satisfying a customer's heating needs and customers will choose to

purchase natural gas HVAC equipment rather than installing a heat pump technology. The best option in this instance is for the customer to purchase high-efficiency natural gas HVAC equipment rather than baseline/code compliant equipment.

• Heat pumps. The Companies note that decarbonization is one of the three key priorities for the 2022-2024 term and that heat pump technologies will play a critical role in achieving this objective. In the final draft of the Plan, the Companies address the ramp-up, promotion, and funding for heat pumps, as well as detail their plans for workforce development, contractor training, customer education, and cross-promotion of heat pump technologies across the Residential (Section Two), C&I (Section 3), and Education, Workforce & Community Outreach Portfolios (Section 4). The Companies will review evaluation findings of the 2019-2021 heat pump pilot and will address the study's findings in future Plan Updates or Budget Reconciliation filings (see Executive Summary for high-level schedule). The final Plan text includes quantifiable data regarding heat pump unit goals for the 2022-2024 term. The Companies will continue to track and report on heat pump goals (and other programs) at the EEB's monthly Residential committee meeting and in the Companies' compliance filings to DEEP.

The Companies will continue to work with other regional program administrators to maintain a regional Qualified Products List (QPL) for air source heat pumps. The QPL ensures that qualifying product inventory is available to contractors within the local supply chain and prior to expanded trainings across the region and all 2022-2024 trainings will reflect the new QPL. For more information regarding the Companies' heat pump technology training efforts, see Section 2.3.2. The Companies will develop customer-facing tools, such as a contractor locator tool to direct customers to qualified heat pump installers. To advance electrification of heating and cooling equipment, the Companies will prioritize marketing tactics that promote the benefits of heat pump technologies, refresh the EnergizeCT.com website, create an "All Things Heat Pumps" webpage, and conduct ongoing pulse surveys to better understand and track customer awareness and perceptions of heat pump technologies.

• Electrification and clean energy systems. The Companies will promote the co-delivery of energy efficiency and demand management programs that support decarbonization and carbon neutrality, including smart thermostats, electric vehicle chargers, and battery storage. Additionally, the Companies will continue to support and implement the Public Utility Regulatory Authority's (PURA) grid modernization efforts. The Companies will encourage customers to adopt "smart" technologies that enable two-way communications between customers' equipment/systems with electric grid operators. In addition, the Companies will scale up their active demand response offerings for electric vehicle charging by establishing make-ready requirements for residential new construction projects, in addition to continuing to incentivize new construction projects that comply with solar photovoltaic make-ready protocols.

- Equity. The EEB strongly supports equity as a key pillar of the Plan. As one of the three Plan Priorities, we have attempted to include an equity lens for all programs. We have established metrics, including Performance Management Incentives, for the Companies focused on hardship customers and underserved businesses to ensure attention is paid to those customers who can benefit most from the C&LM programs. DEEP's Diversity, Equity and Inclusion (DEI) consultant will review all the programs in 2022 and provide additional recommendations and guidance for future Plans.
- Decarbonization/heat pumps. The EEB supports electrification when the project is cost effective, as required by statute, and where it makes financial sense for the customer (the customer will save money from making the change).
   Opportunities are most cost effective in new construction and when a heat pump replaces end-of-life existing air conditioning equipment. The results from the Companies' ongoing heat pump pilots and any related EM&V studies will inform future efforts in this area and will be incorporated into subsequent C&LM Plan updates.

• Fossil fuel incentives. The EEB will consider phasing out of incentives for new gas equipment for measures where backsliding to less efficient equipment is unlikely. For example, a recent evaluation has found that the C&I boiler market is largely transformed, such that it is now industry standard practice in many cases for customers to purchase an efficient condensing boiler for new construction or at end of life for an existing boiler. As a result of this finding, the baseline has risen to a point where it may not be cost effective anymore to offer incentives for many commercial boilers. Additionally, the Companies will investigate whether program supported condensing gas equipment is replacing existing condensing equipment and if so, whether there is continued need to do so. However, there are processes that currently use natural gas where there is either no cost-effective electric alternative or no electric alternative at all. For these measures the EEB supports continued incentives for gas-fired equipment in order to increase energy performance and reduce carbon emissions.

16) Gannon Long

**Representing:** Operation Fuel

**Date Input Received:** August 18, 2021 **Input Method(s):** Verbal comments

#### Requests/Comments:

- CT's \$707 million, 3-year, ratepayer funded investment must leverage every opportunity to address our global climate crisis, which accelerates by the day.
  - Do more to democratize and disclose data throughout the year so stakeholders can more easily engage in Plan development.
  - o Include explanations of how previous initiatives, such as the heat pump pilot and the weatherization barriers pilot, have performed.
  - Measure and track progress toward CT's goal of net zero emissions by 2040 (DEEP Integrated Resource Plan, 2019), and find ways to increase participation each year.
  - o Include strategies for how to update stakeholders on the process, data and information could and should be presented via dashboard on the Energize CT website, throughout the year.
- Provide a clear accounting of how energy savings are achieved, and how equitably the benefits are allocated in order to align with the State's climate goals
- To accurately measure the companies' impact on decarbonizing CT's economy, we need DEEP and the EEB to account
  for utilities' carbon-intensive business ventures, such as the gas expansion program (Docket 13-02-06RE05) and include
  the added emissions in an evaluation of the Companies' overall performance.
- Adjust goals so that they increase, rather than decrease, over time AND ensure they are proportionate to each Companies' share of the market
- Ramp up heat pump deployment;
  - o Improve websites, marketing plans to increase education and awareness of heat pump systems.
  - o Provide performance data from the heat pump pilot so stakeholders can engage.
- Expand and develop a workforce with the technical labor and expertise involved.
- Improve customer education around energy efficient appliances, especially expensive, large household devices; see full text for multiple, specific ideas.
- Include performance metrics for equity that the companies are incented to meet and penalized for missing.
  - Advance equity goals every year and regularly update metrics on an accessible dashboard
  - The 2022-24 plan should refer to the previous C&LM document, sharing with readers what was achieved and what was missed, so that we can progress over the next three-year cycle.
- Combat bad actors and misinformation in the market, both by tracking instances more actively and proactively clarifying misinformation and protecting consumers from fraud.
- Develop maps of high energy burdened communities and community-based organizations

- Focus behavior-based programs on wealthy households with large carbon footprints due to excessive consumption rather than burdened households.
- Equity doesn't mean "equal" or "proportional;" as they have been overburdened and underserved by our energy efficiency plans for years, energy burdened communities in our state merit additional investment now.

### Companies' Response:

- Diversity, equity, and inclusion (DEI) consultant. On July 21, 2021, DEEP issued its Final Phase I Actions and Recommendations as part of its Equity in Energy Efficiency (E3) proceeding (see Section 1.3.2). The final determination contains eight high-level goals and nineteen associated action items. Action item 1.1. directs the EEB to develop a plan to hire a DEI consultant. Throughout the 2022-2024 term, the Companies will work with the DEI consultant's recommendations to design new pathways and make process improvements to align program delivery with the E3 proceeding's goals and associated action items. The Companies will provide updates regarding their efforts in the two Plan update filings (2022 and 2023) and the three budget reconciliation filings (2022, 2023, and 2024).
- Cost-effectiveness tests. The Companies follow the current guidance from DEEP regarding the use of cost-effectiveness tests. Please see Section 5 for more details regarding the cost-effectiveness tests used to develop the Plan's programs, budgets, and savings.
- **Updates regarding metrics and goals.** Goals are tracked on a monthly basis against the goals noted in the Plan Tables. These goals include: units, savings (energy and demand), and greenhouse gas reductions. These metrics are updated on the ctenergydashboard.com website and in EEB meetings.
- Workforce development. The latest Plan text expanded the description of the Companies' Workforce initiatives. The Companies will work with EEB Consultants to develop appropriate metrics.
- Heat pumps. The Companies note that decarbonization is one of the three key priorities for the 2022-2024 term and that heat pump technologies will play a critical role in achieving this objective. In the final draft of the Plan, the Companies address the ramp-up, promotion, and funding for heat pumps, as well as detail their plans for workforce development, contractor training, customer education, and cross-promotion of heat pump technologies across the Residential (Section Two), C&I (Section 3), and Education, Workforce & Community Outreach Portfolios (Section 4). The Companies will review evaluation findings of the 2019-2021 heat pump pilot and will address the study's findings in future Plan Updates or Budget Reconciliation filings (see Executive Summary for high-level schedule). The final Plan text includes quantifiable data regarding heat pump unit goals for the 2022-2024 term. The Companies will continue to track and report on heat pump goals (and other programs) at the EEB's monthly Residential committee meeting and in the Companies' compliance filings to DEEP.

The Companies will continue to work with other regional program administrators to maintain a regional Qualified Products List (QPL) for air source heat pumps. The QPL ensures that qualifying product inventory is available to contractors within the local supply chain and prior to expanded trainings across the region and all 2022-2024 trainings will reflect the new QPL. For more information regarding the Companies' heat pump technology training efforts, see Section 2.3.2. The Companies will develop customer-facing tools, such as a contractor locator tool to direct customers to qualified heat pump installers. To advance electrification of heating and cooling equipment, the Companies will prioritize marketing tactics that promote the benefits of heat pump technologies, refresh the EnergizeCT.com website, create an "All Things Heat Pumps" webpage, and conduct ongoing pulse surveys to better understand and track customer awareness and perceptions of heat pump technologies.

### **Board Response:**

• Plan development process and public participation. As noted in the Companies' responses, there have been multiple opportunities for public participation and feedback during the development of the 2022-2024 Three-year Plan. That

said, the Board recognizes that communications regarding the Plan development process and timeline can be improved so that stakeholders better understand how the process unfolds and to enhance access to Plan materials on the Energize CT website. Work has already started on improving access to Plan materials on EnergizeCT.com. The Board will fully consider all of the comments received on Plan development and public participation when it begins its 2023 Plan Update process in mid-2022.

- Data availability. A wealth of detailed program data is available on historic and current program and portfolio level performance. However, the Board acknowledges that these data and reporting are not optimally organized and presented in a manner that facilitates their accessibility by the public. The Board, the Companies and DEEP are already starting to address the issue of program data availability and accessibility and plan to make significant changes to the Energize CT website over the coming months to address this matter, much of this as part of the planned update to the EnergizeCT.com website in 2022.
- Decarbonization/heat pumps. The EEB supports electrification when the project is cost effective, as required by statute, and where it makes financial sense for the customer (the customer will save money from making the change).
   Opportunities are most cost effective in new construction and when a heat pump replaces end-of-life existing air conditioning equipment. The results from the Companies' ongoing heat pump pilots and any related EM&V studies will inform future efforts in this area and will be incorporated into subsequent C&LM Plan updates.
- Equity. The EEB strongly supports equity as a key pillar of the Plan. As one of the three Plan Priorities, we have attempted to include an equity lens for all programs. We have established metrics, including Performance Management Incentives, for the Companies focused on hardship customers and underserved businesses to ensure attention is paid to those customers who can benefit most from the C&LM programs. DEEP's Diversity, Equity and Inclusion (DEI) consultant will review all the programs in 2022 and provide additional recommendations and guidance for future Plans.
- Reaching underserved and burdened customers. Equitably serving those customers (both residential and C&I) who have not historically been adequately served and/or have high energy burdens has become a priority focus. With new performance management incentive (PMI) metrics that prioritize hardship and burdened customers and businesses, along with DEEP's new DEI Consultant whose primary focus will be the C&LM programs, equity issues are a top priority in the 2022-2024 Plan.
- Fossil fuel incentives. The EEB will consider phasing out of incentives for new gas equipment for measures where backsliding to less efficient equipment is unlikely. For example, a recent evaluation has found that the C&I boiler market is largely transformed, such that it is now industry standard practice in many cases for customers to purchase an efficient condensing boiler for new construction or at end of life for an existing boiler. As a result of this finding, the baseline has risen to a point where it may not be cost effective anymore to offer incentives for many commercial boilers. Additionally, the Companies will investigate whether program supported condensing gas equipment is replacing existing condensing equipment and if so, whether there is continued need to do so. However, there are processes that currently use natural gas where there is either no cost-effective electric alternative or no electric alternative at all. For these measures the EEB supports continued incentives for gas-fired equipment in order to increase energy performance and reduce carbon emissions.
- State policy and goals. The C&LM programs play an important role in helping the State of Connecticut achieve its greenhouse gas emission goals, specifically in the building sector. Through energy efficiency and demand response we lower energy use and shift it away from times of day when generation resources are most constrained. Typically, these periods of high usage coincide with the operation of generation with higher emissions. The adoption of decarbonization as a one of the three key Plan Priorities of this Plan represents a clear commitment on the part of the Board and the Companies to an increased emphasis on greenhouse gas reductions. To this end we continue to work to assess the appropriate program support for heat pumps and gas-fired equipment in both existing and new buildings.

Further, the Board continues to work closely with the CT Green Bank to support their efforts to promote renewable technologies in Connecticut buildings and homes.

17) Stephen Lewis

**Representing:** Greater Hartford Sierra Club **Date Input Received:** August 18, 2021

Input Method(s): Written and verbal comments

# Requests/Comments:

Sierra Club Connecticut urges the Energy Efficiency Board to send the draft CLM Plan back to the utilities for redrafting to strengthen the decarbonization and equity components of the plan so that it:

- Stops subsidizing new fossil fuel appliances and heating systems now.
- Invests only in zero-emission electric appliances and zero-emission heat pump space and hot water heating.
- Includes achievable numeric goals to reach underserved and energy burdened households, resources to support those goals, and accountability measures for ensuring they are met.
- Creates more significant savings targets for Natural Gas overall.
- Sets measurable goals and timeframes for heat pump deployment.
- Increases Natural Gas savings goals.
- Develops robust metrics to track and measure equity objectives.

#### Companies' Response:

- Incentives. The Plan does not contain any fuel oil or propane rebates or instant discounts. There are scenarios where natural gas is the most economical choice for satisfying a customer's heating needs and customers will choose to purchase natural gas HVAC equipment rather than installing a heat pump technology. The best option in this instance is for the customer to purchase high-efficiency natural gas HVAC equipment rather than baseline/code compliant equipment.
- **Decarbonization.** The Companies note that decarbonization is one of the three key priorities for the 2022-2024 term and that heat pump technologies will play a critical role in achieving this objective. In the final draft of the Plan, the Companies address the ramp-up, promotion, and funding for heat pumps, as well as detail their plans for workforce development, contractor training, customer education, and cross-promotion of heat pump technologies across the Residential (Section Two), C&I (Section 3), and Education, Workforce & Community Outreach Portfolios (Section 4). The Companies will review evaluation findings of the 2019-2021 heat pump pilot and will address the study's findings in future Plan Updates or Budget Reconciliation filings (see Executive Summary for high-level schedule). The final Plan text includes quantifiable data regarding heat pump unit goals for the 2022-2024 term. The Companies will continue to track and report on heat pump goals (and other programs) at the EEB's monthly Residential committee meeting and in the Companies' compliance filings to DEEP.
- **Diversity, equity, and inclusion (DEI) consultant.** On July 21, 2021, DEEP issued its Final Phase I Actions and Recommendations as part of its Equity in Energy Efficiency (E3) proceeding (see Section 1.3.2). The final determination contains eight high-level goals and nineteen associated action items. Action item 1.1. directs the EEB to develop a plan to hire a DEI consultant. Throughout the 2022-2024 term, the Companies will work with the DEI consultant's recommendations to design new pathways and make process improvements to align program delivery with the E3

proceeding's goals and associated action items. The Companies will provide updates regarding their efforts in the two Plan update filings (2022 and 2023) and the three budget reconciliation filings (2022, 2023, and 2024).

- Natural gas tables. Similar to other Plan filings, the Companies have included natural gas savings in the Plan.
- Heat pumps. The Companies note that decarbonization is one of the three key priorities for the 2022-2024 term and that heat pump technologies will play a critical role in achieving this objective. In the final draft of the Plan, the Companies address the ramp-up, promotion, and funding for heat pumps, as well as detail their plans for workforce development, contractor training, customer education, and cross-promotion of heat pump technologies across the Residential (Section Two), C&I (Section 3), and Education, Workforce & Community Outreach Portfolios (Section 4). The Companies will review evaluation findings of the 2019-2021 heat pump pilot and will address the study's findings in future Plan Updates or Budget Reconciliation fillings (see Executive Summary for high-level schedule). The final Plan text includes quantifiable data regarding heat pump unit goals for the 2022-2024 term. The Companies will continue to track and report on heat pump goals (and other programs) at the EEB's monthly Residential committee meeting and in the Companies' compliance filings to DEEP.

The Companies will continue to work with other regional program administrators to maintain a regional Qualified Products List (QPL) for air source heat pumps. The QPL ensures that qualifying product inventory is available to contractors within the local supply chain and prior to expanded trainings across the region and all 2022-2024 trainings will reflect the new QPL. For more information regarding the Companies' heat pump technology training efforts, see Section 2.3.2. The Companies will develop customer-facing tools, such as a contractor locator tool to direct customers to qualified heat pump installers. To advance electrification of heating and cooling equipment, the Companies will prioritize marketing tactics that promote the benefits of heat pump technologies, refresh the EnergizeCT.com website, create an "All Things Heat Pumps" webpage, and conduct ongoing pulse surveys to better understand and track customer awareness and perceptions of heat pump technologies.

- State policy and goals. The C&LM programs play an important role in helping the State of Connecticut achieve its greenhouse gas emission goals, specifically in the building sector. Through energy efficiency and demand response we lower energy use and shift it away from times of day when generation resources are most constrained. Typically, these periods of high usage coincide with the operation of generation with higher emissions. The adoption of decarbonization as a one of the three key Plan Priorities of this Plan represents a clear commitment on the part of the Board and the Companies to an increased emphasis on greenhouse gas reductions. To this end we continue to work to assess the appropriate program support for heat pumps and gas-fired equipment in both existing and new buildings. Further, the Board continues to work closely with the CT Green Bank to support their efforts to promote renewable technologies in Connecticut buildings and homes.
- Fossil fuel incentives. The EEB will consider phasing out of incentives for new gas equipment for measures where backsliding to less efficient equipment is unlikely. For example, a recent evaluation has found that the C&I boiler market is largely transformed, such that it is now industry standard practice in many cases for customers to purchase an efficient condensing boiler for new construction or at end of life for an existing boiler. As a result of this finding, the baseline has risen to a point where it may not be cost effective anymore to offer incentives for many commercial boilers. Additionally, the Companies will investigate whether program supported condensing gas equipment is replacing existing condensing equipment and if so, whether there is continued need to do so. However, there are processes that currently use natural gas where there is either no cost-effective electric alternative or no electric alternative at all. For these measures the EEB supports continued incentives for gas-fired equipment in order to increase energy performance and reduce carbon emissions.

- Decarbonization/heat pumps. The EEB supports electrification when the project is cost effective, as required by statute, and where it makes financial sense for the customer (the customer will save money from making the change).
   Opportunities are most cost effective in new construction and when a heat pump replaces end-of-life existing air conditioning equipment. The results from the Companies' ongoing heat pump pilots and any related EM&V studies will inform future efforts in this area and will be incorporated into subsequent C&LM Plan updates.
- Quantifiable goals. To provide clearer quantifiable goals and metrics, a summary of the budgets, energy savings, greenhouse gas emissions reductions, and customer savings have been added to each program section. Detailed numbers for each program, sector and company are included in the tables in the Plan Appendix. The Companies will report on progress towards these goals and metrics at least monthly in the Connecticut Statewide Energy Efficiency Dashboard and quarterly at the Residential and C&I Committee meetings and at the EEB meeting. Quarterly reporting will be made available to the public in an easily accessible manner on the Energize CT website.
- Reaching underserved and burdened customers. Equitably serving those customers (both residential and C&I) who have not historically been adequately served and/or have high energy burdens has become a priority focus. With new performance management incentive (PMI) metrics that prioritize hardship and burdened customers and businesses, along with DEEP's new DEI Consultant whose primary focus will be the C&LM programs, equity issues are a top priority in the 2022-2024 Plan.

**18)** Leticia Colon de Mejias

Representing: Self

**Date Input Received:** August 18, 2021 **Input Method(s):** Verbal comments

# **Requests/Comments:**

Ms. Colon de Mejias indicated that it was impossible for individuals who are unaware of the policies, procedures, conservation and energy management plan to engage in the development process. Ms. Colon de Mejias believes there is a lack of qualified workforce available to address anything in the Plan as it relates to energy efficiency.

- Board should take intentional efforts to engage communities who have been historically left behind, including renters, communities of color, and low-to-moderate households.
- The Plan should improve its marketing strategy and outreach so consumers are more aware of programs, concepts, resources, and engagement opportunities.
- The Plan should include a robust workforce development program that is inclusive, diverse, and reaches communities we wish to serve and engage.
- Create an accessible and equitable curriculum for schools that educates students about energy, climate change, or any
  issues and information that would empower them to make informed decisions, participate in the workforce or engage
  in programs.

#### Companies' Response:

• Workforce development. Training and growing the energy efficiency workforce is a key priority for the Companies In the 2022-2024 term. The Companies plan to implement a proactive Workforce Development Strategy that focuses on growing the energy efficiency workforce and recruiting/training workers from underrepresented communities, such as ethnic and racial minorities, and women. In addition, the Companies plan to provide energy efficiency seminars to schools and community-based organizations to help educate students and educators on various careers and career paths in energy efficiency available to students. Please see Section 4.3 for more discussion regarding the Companies' workforce development efforts.

• **K-12 energy education.** The Companies administer the *eesmarts* program; an initiative designed to educate K-12 students about energy, energy efficiency, clean energy sources, and the inextricable link between energy consumption and climate change. In the 2022-2024 term, the Companies will empower educators and build district capacity in teaching energy efficiency by continuing to offer its *eesmarts District Trainer* initiative. The initiative offers in-person and virtual professional development at no cost to educators and districts and has allowed the Companies to reach more educators across the state. In an effort to recruit educators who reflect the diversity of the state, the Companies plan to increase the number of professional development workshops offered.

In addition, the Companies will initiate the conversion of *eesmarts* lessons into a web-based or application (App) platform. A finding from program implementation during the pandemic is that K-12 educators need access to online and consumable lessons on a 24/7/365 basis. This transition to a web-based platform will expand the target market to include home schoolers, distance learners, and parents.

- Outreach to underserved and energy-burdened households. The Companies have recently launched the Community Partnership Initiative, a community-based approach that focuses on partnerships between the Companies, organizations, nonprofits, and municipalities to reach neighborhoods and communities who have historically not participated or who have low levels of participation in the Residential and C&I Portfolios. These community organizations have the trust of the community and the insight to make inroads in awareness and to drive increased participation in energy efficiency and demand management. These outreach efforts will ensure that the benefits of energy efficiency and demand management reach all residential customers across the state, particularly for customers who reside in distressed, environmental justice, and non-English speaking communities.
- Marketing and outreach. The Companies have included their statewide marketing plan as Appendix A to the Plan. Statewide marketing efforts will support the greater plan key themes of equity, energy affordability, and decarbonization by providing a place for all customers to easily access energy efficiency program information and resources. The 2022–2024 Plan years will focus and build on the EnergizeCT.com redesign. A site that provides clear information that is easily located allows us to confidently expand our use of the site and drive additional traffic to non-supplier choice pages. Content creation efforts for both the site and Energize Connecticut social media channels will continue to enhance the visitor's experience while directing visitors to information on key areas including heat pump education, a clear path to income-eligible solutions, weatherization education, and business solutions for underserved sectors.

- See Companies' response to educational programs.
- Plan development process and public participation. As noted in the Companies' responses, there have been multiple opportunities for public participation and feedback during the development of the 2022-2024 Three-year Plan. That said, the Board recognizes that communications regarding the Plan development process and timeline can be improved so that stakeholders better understand how the process unfolds and to enhance access to Plan materials on the Energize CT website. Work has already started on improving access to Plan materials on EnergizeCT.com. The Board will fully consider all of the comments received on Plan development and public participation when it begins its 2023 Plan Update process in mid-2022.
- Workforce. The EEB recognizes and supports the on-going development, enhancement, and training of the workforce
  in Connecticut that we need in order to offer the C&LM programs as we anticipate evolving services and programs to
  meet our goals.
- **Equity.** The EEB strongly supports equity as a key pillar of the Plan. As one of the three Plan Priorities, we have attempted to include an equity lens for all programs. We have established metrics, including Performance

Management Incentives, for the Companies focused on hardship customers and underserved businesses to ensure attention is paid to those customers who can benefit most from the C&LM programs. DEEP's Diversity, Equity and Inclusion (DEI) consultant will review all the programs in 2022 and provide additional recommendations and guidance for future Plans.

**19)** Adelheid Keopfer **Representing:** Self

**Date Input Received:** August 18, 2021 **Input Method(s):** Verbal comments

# **Requests/Comments:**

At the time her heat pump was installed, Ms. Keopfer was told there were no residential heat pumps that could operate below 35 degrees. Ms. Keopfer stated that low-temperature equipment is available in other parts of the world, France and Canada. The Plan should improve training and understanding around heat pump systems so contractors and other third-party companies are aware of available equipment.

- Ms. Keopfer requested that municipal utilities be included in the Plan.
- The Plan should address the backlog for energy efficiency services. (she had to wait six months when she requested a HES)
- Distributed generation and storage should be included in the Plan, particularly as it relates to winter peak challenges for electric heating systems.

# Companies' Response:

- Municipal energy efficiency programs. Public Act 05-01—An Act Concerning Electricity and Energy Efficiency created
  energy efficiency programs and a funding mechanism for the Connecticut Municipal Electrical Energy Cooperative
  (CMEEC) and Wallingford Electric Company. The Companies do not administer CMEEC and Wallingford Electric
  Company programs and are not responsible for developing an energy efficiency and demand management plan for
  municipal utilities.
- Workforce development. Training and growing the energy efficiency workforce is a key priority for the Companies In the 2022-2024 term. The Companies plan to implement a proactive Workforce Development Strategy that focuses on growing the energy efficiency workforce and recruiting/training workers from underrepresented communities, such as ethnic and racial minorities, and women. In addition, the Companies plan to provide energy efficiency seminars to schools and community-based organizations to help educate students and educators on various careers and career paths in energy efficiency available to students. Please see Section 4.3 for more discussion regarding the Companies' workforce development efforts.
- Battery storage. In 2020, Eversource launched its Residential Battery Storage offering as a part of its Active Demand Response programs (see Section 2.8.3 for more details). On July 28, 2021, PURA issued its final decision in Docket No. 17-12-03RE03 as part of its grid modernization docket. The regulatory decision established a statewide electric storage program (Electric Storage Program) for all residential and C&I customers within the service territories of the electric distribution companies (EDCs). PURA established two compensation mechanisms for electric storage systems participating in the Electric Storage Program: (1) an upfront incentive administered by the CT Green Bank, and (2) performance-based incentives administered by the EDCs (i.e., the Electric Companies). The Electric Storage Program is administered and funded outside of the framework for the 2022-2024 Plan. During the 2022-2024 term, Eversource

will monitor its Residential Battery Storage offering to determine how this initiative will interact with PURA's Electric Storage Program or be replaced.

• Heat pumps. The Companies note that decarbonization is one of the three key priorities for the 2022-2024 term and that heat pump technologies will play a critical role in achieving this objective. In the final draft of the Plan, the Companies address the ramp-up, promotion, and funding for heat pumps, as well as detail their plans for workforce development, contractor training, customer education, and cross-promotion of heat pump technologies across the Residential (Section Two), C&I (Section 3), and Education, Workforce & Community Outreach Portfolios (Section 4). The Companies will review evaluation findings of the 2019-2021 heat pump pilot and will address the study's findings in future Plan Updates or Budget Reconciliation fillings (see Executive Summary for high-level schedule). The final Plan text includes quantifiable data regarding heat pump unit goals for the 2022-2024 term. The Companies will continue to track and report on heat pump goals (and other programs) at the EEB's monthly Residential committee meeting and in the Companies' compliance filings to DEEP.

The Companies will continue to work with other regional program administrators to maintain a regional Qualified Products List (QPL) for air source heat pumps. The QPL ensures that qualifying product inventory is available to contractors within the local supply chain and prior to expanded trainings across the region and all 2022-2024 trainings will reflect the new QPL. For more information regarding the Companies' heat pump technology training efforts, see Section 2.3.2. The Companies will develop customer-facing tools, such as a contractor locator tool to direct customers to qualified heat pump installers. To advance electrification of heating and cooling equipment, the Companies will prioritize marketing tactics that promote the benefits of heat pump technologies, refresh the EnergizeCT.com website, create an "All Things Heat Pumps" webpage, and conduct ongoing pulse surveys to better understand and track customer awareness and perceptions of heat pump technologies.

- See Companies' responses regarding municipal utilities and battery storage.
- Decarbonization/heat pumps. The EEB supports electrification when the project is cost effective, as required by statute, and where it makes financial sense for the customer (the customer will save money from making the change).
   Opportunities are most cost effective in new construction and when a heat pump replaces end-of-life existing air conditioning equipment. The results from the Companies' ongoing heat pump pilots and any related EM&V studies will inform future efforts in this area and will be incorporated into subsequent C&LM Plan updates.
- Workforce. The EEB recognizes and supports the on-going development, enhancement, and training of the workforce in Connecticut that we need in order to offer the C&LM programs as we anticipate evolving services and programs to meet our goals.

**20)** James Root **Representing:** Self

**Date Input Received:** August 18, 2021 **Input Method(s):** Written comments

# **Requests/Comments:**

The EEB energy efficiency Plan needs to be <u>brought into line with Connecticut's greenhouse gas (GHG) emission goals.</u> Please <u>stop subsidizing methane (natural gas) appliances.</u>

Also: a paragraph or two, at least, outside the education goals section, addressing the state's GHG goals, their in-congruence with methane promotion and investment, and the state's plan (or plan for a plan), to reconcile the two (GHG goals and efficiency) would be appreciated. Please, at least, acknowledge the need for EEB to start orienting itself on a post fossil fuel future.

#### Companies' Response:

- Alignment with State's greenhouse gas emissions reductions goals. The Plan contains quantifiable data regarding the Companies' greenhouse gas emissions reductions goals (overall, by Portfolio, and by program, where applicable). The Plan and its resulting greenhouse gas emissions reductions are designed to help the State of Connecticut to reduce its carbon footprint and meet its [the State's] legislative and regulatory goals of reducing carbon dioxide, sulfur oxides, and nitrous oxides. The Companies are in compliance with all legislative and regulatory decisions regarding greenhouse gas emissions reductions. The Plan will be modified in two Plan update filings (2022 and 2023) and the three budget reconciliation filings (2022, 2023, and 2024) to align all program goals (e.g., priorities, energy savings, and greenhouse gas emissions reductions) with DEEP's 2022 Comprehensive Energy Strategy which is anticipated to be released later in 2021.
- Incentives. The Plan does not contain any fuel oil or propane rebates or instant discounts. There are scenarios where natural gas is the most economical choice for satisfying a customer's heating needs and customers will choose to purchase natural gas HVAC equipment rather than installing a heat pump technology. The best option in this instance is for the customer to purchase high-efficiency natural gas HVAC equipment rather than baseline/code compliant equipment.

- State policy and goals. The C&LM programs play an important role in helping the State of Connecticut achieve its greenhouse gas emission goals, specifically in the building sector. Through energy efficiency and demand response we lower energy use and shift it away from times of day when generation resources are most constrained. Typically, these periods of high usage coincide with the operation of generation with higher emissions. The adoption of decarbonization as a one of the three key Plan Priorities of this Plan represents a clear commitment on the part of the Board and the Companies to an increased emphasis on greenhouse gas reductions. To this end we continue to work to assess the appropriate program support for heat pumps and gas-fired equipment in both existing and new buildings. Further, the Board continues to work closely with the CT Green Bank to support their efforts to promote renewable technologies in Connecticut buildings and homes.
- Fossil fuel incentives. The EEB will consider phasing out of incentives for new gas equipment for measures where backsliding to less efficient equipment is unlikely. For example, a recent evaluation has found that the C&I boiler market is largely transformed, such that it is now industry standard practice in many cases for customers to purchase an efficient condensing boiler for new construction or at end of life for an existing boiler. As a result of this finding, the baseline has risen to a point where it may not be cost effective anymore to offer incentives for many commercial

boilers. Additionally, the Companies will investigate whether program supported condensing gas equipment is replacing existing condensing equipment and if so, whether there is continued need to do so. However, there are processes that currently use natural gas where there is either no cost-effective electric alternative or no electric alternative at all. For these measures the EEB supports continued incentives for gas-fired equipment in order to increase energy performance and reduce carbon emissions.

# 21) Aziz Dehkan

Representing: Connecticut Roundtable on Climate and Jobs

**Date Input Received:** August 18, 2021 **Input Method(s):** Written comments

### Requests/Comments:

The Plan and its administrators should consider fair wages and accessibility/diversity (people of color, women, individuals from low-income zip codes, people who have formerly been incarcerated, and others who have historically been underrepresented or face barriers to employment in this sector) fundamental to workforce development.

- Consider whether contractors working under these programs can afford to pay the workers implementing these programs sufficient wages.
- Contractor bids for these programs must not be a "race to the bottom" and in addition to cost, factors like employee training, wages, and benefits should be considered as fair pay is an equity metric.
- Contractors should be evaluated not only on the basis of diverse leadership, but also by whether diversity is represented throughout the company's workforce.
- Leverage apprenticeship and pre-apprenticeship training programs that are specifically designed to give opportunities to underrepresented workers.
- Engage administrators of these programs in conversations on effectively recruiting and retaining energy efficiency workers through effective communications.

### Companies' Response:

• **Diversity, equity, and inclusion (DEI) consultant.** On July 21, 2021, DEEP issued its Final Phase I Actions and Recommendations as part of its Equity in Energy Efficiency (E3) proceeding (see Section 1.3.2). The final determination contains eight high-level goals and nineteen associated action items. Action item 1.1. directs the EEB to develop a plan to hire a DEI consultant. Throughout the 2022-2024 term, the Companies will work with the DEI consultant's recommendations to design new pathways and make process improvements to align program delivery with the E3 proceeding's goals and associated action items. The Companies will provide updates regarding their efforts in the two Plan update filings (2022 and 2023) and the three budget reconciliation filings (2022, 2023, and 2024).

# **Board Response:**

• Equity. The EEB strongly supports equity as a key pillar of the Plan. As one of the three Plan Priorities, we have attempted to include an equity lens for all programs. We have established metrics, including Performance Management Incentives, for the Companies focused on hardship customers and underserved businesses to ensure attention is paid to those customers who can benefit most from the C&LM programs. DEEP's Diversity, Equity and Inclusion (DEI) consultant will review all the programs in 2022 and provide additional recommendations and guidance for future Plans.

• Workforce. The EEB recognizes and supports the on-going development, enhancement, and training of the workforce in Connecticut that we need in order to offer the C&LM programs as we anticipate evolving services and programs to meet our goals.

22) Sandy Tosi
Representing: Self

**Date Input Received:** August 18, 2021 **Input Method(s):** Written comments

# **Requests/Comments:**

The Intergovernmental Panel on Climate Change report released on August 9, 2021, makes it very clear that we need to sharply cut our emissions now.

- Stop subsidizing new fossil fuel appliances and heating systems, investing only in zero-emission electric appliances, heating systems, and hot water heaters.
- Include achievable numeric goals to reach under-served and energy-burdened households, resources to support those goals, and accountability measures for ensuring that they are met.

#### Companies' Response:

- Incentives. The Plan does not contain any fuel oil or propane rebates or instant discounts. There are scenarios where natural gas is the most economical choice for satisfying a customer's heating needs and customers will choose to purchase natural gas HVAC equipment rather than installing a heat pump technology. The best option in this instance is for the customer to purchase high-efficiency natural gas HVAC equipment rather than baseline/code compliant equipment.
- Partnership Initiative, a community-based approach that focuses on partnerships between the Companies, organizations, nonprofits, and municipalities to reach neighborhoods and communities who have historically not participated or who have low levels of participation in the Residential and C&I Portfolios. These community organizations have the trust of the community and the insight to make inroads in awareness and to drive increased participation in energy efficiency and demand management. These outreach efforts will ensure that the benefits of energy efficiency and demand management reach all residential customers across the state, particularly for customers who reside in distressed, environmental justice, and non-English speaking communities.

# **Board Response:**

- Equity. The EEB strongly supports equity as a key pillar of the Plan. As one of the three Plan Priorities, we have attempted to include an equity lens for all programs. We have established metrics, including Performance Management Incentives, for the Companies focused on hardship customers and underserved businesses to ensure attention is paid to those customers who can benefit most from the C&LM programs. DEEP's Diversity, Equity and Inclusion (DEI) consultant will review all the programs in 2022 and provide additional recommendations and guidance for future Plans.
- Decarbonization/heat pumps. The EEB supports electrification when the project is cost effective, as required by statute, and where it makes financial sense for the customer (the customer will save money from making the change).
   Opportunities are most cost effective in new construction and when a heat pump replaces end-of-life existing air

- conditioning equipment. The results from the Companies' ongoing heat pump pilots and any related EM&V studies will inform future efforts in this area and will be incorporated into subsequent C&LM Plan updates.
- Fossil fuel incentives. The EEB will consider phasing out of incentives for new gas equipment for measures where backsliding to less efficient equipment is unlikely. For example, a recent evaluation has found that the C&I boiler market is largely transformed, such that it is now industry standard practice in many cases for customers to purchase an efficient condensing boiler for new construction or at end of life for an existing boiler. As a result of this finding, the baseline has risen to a point where it may not be cost effective anymore to offer incentives for many commercial boilers. Additionally, the Companies will investigate whether program supported condensing gas equipment is replacing existing condensing equipment and if so, whether there is continued need to do so. However, there are processes that currently use natural gas where there is either no cost-effective electric alternative or no electric alternative at all. For these measures the EEB supports continued incentives for gas-fired equipment in order to increase energy performance and reduce carbon emissions.

**23)** Suzanne Watson **Representing:** Self

**Date Input Received:** August 19, 2021 **Input Method(s):** Written comments

### **Requests/Comments:**

Radiant heat is the least understood of the heating technologies and its under-valued in the existing draft Plan; the Plan should increase education and awareness of radiant heat benefits and applications and include incentives for qualified radiant heat equipment. Radiant ceiling panels like Enerjoy have been vetted to be efficient and a zero emissions product, and as such should weigh heavily into the program.

## **Companies' Response:**

 Radiant heat technologies. The Companies will review and evaluate radiant heat technologies and see if additional benefits can be realized. Currently, the Companies offer an incentive for radiant heaters through the C&I programs (natural gas budgets).

## **Board Response:**

• The EEB supports radiation heat as a heat transfer mechanism, as well as conduction and convection. The EEB does not support offering incentives for any electric resistance heating technologies. Electric resistance heat does not compare favorably to electric heat pump heating technologies.

24) Laura Bozzi

Representing: Yale Center on Climate Change and Health (YCCCH)

**Date Input Received:** August 23, 2021 **Input Method(s):** Written comments

#### **Requests/Comments:**

The Yale Center on Climate Change and Health utilizes research, education, and public health practice to help safeguard the health of human populations from adverse impacts of climate change and human activities that cause climate change.

- Accelerate replacement of oil, kerosene, and natural gas space and water heating with efficient electric or renewable energy alternatives.
- End rebates for new oil or gas heating appliances by prioritizing heat pump deployment, supported by discounted rates and targeted subsidies, so that the switch is cost-neutral for low-income households.
- Expand equitable incentives and funding for building retrofits to achieve electrification of end uses.
- Renew and expand the heat pump incentive program to serve significantly more households, including natural gas customers, and to include financial incentives that will make equipment more accessible to underserved communities.

### **Companies' Response:**

- Incentives. The Plan does not contain any fuel oil or propane rebates or instant discounts. There are scenarios where natural gas is the most economical choice for satisfying a customer's heating needs and customers will choose to purchase natural gas HVAC equipment rather than installing a heat pump technology. The best option in this instance is for the customer to purchase high-efficiency natural gas HVAC equipment rather than baseline/code compliant equipment.
- Heat pumps. The Companies note that decarbonization is one of the three key priorities for the 2022-2024 term and that heat pump technologies will play a critical role in achieving this objective. In the final draft of the Plan, the Companies address the ramp-up, promotion, and funding for heat pumps, as well as detail their plans for workforce development, contractor training, customer education, and cross-promotion of heat pump technologies across the Residential (Section Two), C&I (Section 3), and Education, Workforce & Community Outreach Portfolios (Section 4). The Companies will review evaluation findings of the 2019-2021 heat pump pilot and will address the study's findings in future Plan Updates or Budget Reconciliation filings (see Executive Summary for high-level schedule). The final Plan text includes quantifiable data regarding heat pump unit goals for the 2022-2024 term. The Companies will continue to track and report on heat pump goals (and other programs) at the EEB's monthly Residential committee meeting and in the Companies' compliance filings to DEEP.

The Companies will continue to work with other regional program administrators to maintain a regional Qualified Products List (QPL) for air source heat pumps. The QPL ensures that qualifying product inventory is available to contractors within the local supply chain and prior to expanded trainings across the region and all 2022-2024 trainings will reflect the new QPL. For more information regarding the Companies' heat pump technology training efforts, see Section 2.3.2. The Companies will develop customer-facing tools, such as a contractor locator tool to direct customers to qualified heat pump installers. To advance electrification of heating and cooling equipment, the Companies will prioritize marketing tactics that promote the benefits of heat pump technologies, refresh the EnergizeCT.com website, create an "All Things Heat Pumps" webpage, and conduct ongoing pulse surveys to better understand and track customer awareness and perceptions of heat pump technologies.

#### **Board Response:**

- Equity. The EEB strongly supports equity as a key pillar of the Plan. As one of the three Plan Priorities, we have attempted to include an equity lens for all programs. We have established metrics, including Performance Management Incentives, for the Companies focused on hardship customers and underserved businesses to ensure attention is paid to those customers who can benefit most from the C&LM programs. DEEP's Diversity, Equity and Inclusion (DEI) consultant will review all the programs in 2022 and provide additional recommendations and guidance for future Plans.
- Fossil fuel incentives. The EEB will consider phasing out of incentives for new gas equipment for measures where backsliding to less efficient equipment is unlikely. For example, a recent evaluation has found that the C&I boiler market is largely transformed, such that it is now industry standard practice in many cases for customers to purchase an efficient condensing boiler for new construction or at end of life for an existing boiler. As a result of this finding, the baseline has risen to a point where it may not be cost effective anymore to offer incentives for many commercial boilers. Additionally, the Companies will investigate whether program supported condensing gas equipment is replacing existing condensing equipment and if so, whether there is continued need to do so. However, there are processes that currently use natural gas where there is either no cost-effective electric alternative or no electric alternative at all. For these measures the EEB supports continued incentives for gas-fired equipment in order to increase energy performance and reduce carbon emissions.
- Decarbonization/heat pumps. The EEB supports electrification when the project is cost effective, as required by statute, and where it makes financial sense for the customer (the customer will save money from making the change).
   Opportunities are most cost effective in new construction and when a heat pump replaces end-of-life existing air conditioning equipment. The results from the Companies' ongoing heat pump pilots and any related EM&V studies will inform future efforts in this area and will be incorporated into subsequent C&LM Plan updates.

25) Erin Cosgrove

**Representing:** Northeast Energy Efficiency Partnership (NEEP)

**Date Input Received:** August 19, 2021 **Input Method(s):** Written comments

## **Requests/Comments:**

The Plan should align cost-benefit practices with state policy, specifically to:

- Include societal cost and benefits metrics that account for air emissions
- Include participant and societal non-energy benefit metrics
- Include metric to measure the real time cost of energy generation to account for when and how energy is generated and used.
- Modify the EM&V process to better align with state goals and allow for more transparency through reporting on additional metrics and publishing the data (equity, participation and location, and climate change metrics)

## RE: Decarbonization

- Accelerate the transition to central air heat pumps by phasing out incentives for central air conditioning systems that are not heat pumps during this draft CL&M.
- Adopt additional strategies around weatherization and heat pump installation to prepare the market to deliver on these state goals.

 Consider designing a whole building strategy for the decarbonization strategy that includes weatherization plus beneficial electrification to ensure accelerated yet sustainable market growth and consumer adoption. Specific ideas for this strategy can be found in the full text.

## RE: Equity

- Use data to identify potential participants and alleviate the highest energy burden
- Provide comprehensive weatherization plus repairs.
- Use innovative financing mechanisms to lower upfront costs.

#### Other

- Re-consider the role and potential for active demand response and/or time of use rates programs, especially in residential programs for this cycle. These programs can provide more than energy savings through engaging consumers.
- NEEP encourages the Companies to expand this Virtual Home Energy Audit program and consider an energy audit that can be done by consumers without an appointment as well as a virtual re-score pilot.

#### **Company Response:**

- **Cost-effectiveness tests.** The Companies follow the current guidance from DEEP regarding the use of cost-effectiveness tests. Please see Section 5 for more details regarding the cost-effectiveness tests used to develop the Plan's programs, budgets, and savings.
- **Evaluation.** Third-party evaluations and processes are managed by the EEB's Evaluation Committee, third-party evaluation contractors, and the EEB's Evaluation Consultant. All evaluation recommendations are included in this Plan in Section 6: Evaluations.
- **Central air conditioner incentives.** During the 2022-2024 term, the Companies will encourage contractors to replace central air conditioning (ducted) units with central heat pumps by strengthening their existing channel and industry relationships and establishing a formalized contractor network for central heat pump installers. In addition, the Companies may offer larger incentives for the installation of central heat pumps.
- Energy burdens. In response to DEEP's Equity for Energy Efficiency (E3) proceeding, the Companies will monitor moderate-income participation and be prepared to adjust program outreach and incentives accordingly. The Companies will broaden their data collection and inclusion of multifamily properties to ensure that all buildings are receiving valuable home performance services that increase energy affordability and comfort. Outreach to multifamily building owners and tenants will also increase in the upcoming term to ensure more affordable and market-rate units are retrofitted to reduce energy consumption and customer costs. The Companies, DEEP, and the Community Action Agencies will also increase efforts to coordinate the HES-Income Eligible program with the federally-funded Weatherization Assistance Partnership (WAP) program to reach more low-income households. The Companies will use their Community Partnership Initiative as an extensive education and outreach platform to reach communities whose participation in energy efficiency programs is limited due to systemic inequity. The Companies will also work with DEEP's findings regarding a new Energy Efficiency Equity baseline (E3b) which will help identify areas of the state that have lower participation.

# **Board Response:**

• State policy and goals. The C&LM programs play an important role in helping the State of Connecticut achieve its greenhouse gas emission goals, specifically in the building sector. Through energy efficiency and demand response we lower energy use and shift it away from times of day when generation resources are most constrained. Typically, these periods of high usage coincide with the operation of generation with higher emissions. The adoption of

decarbonization as a one of the three key Plan Priorities of this Plan represents a clear commitment on the part of the Board and the Companies to an increased emphasis on greenhouse gas reductions. To this end we continue to work to assess the appropriate program support for heat pumps and gas-fired equipment in both existing and new buildings. Further, the Board continues to work closely with the CT Green Bank to support their efforts to promote renewable technologies in Connecticut buildings and homes.

- **Decarbonization/heat pumps.** The EEB supports electrification when the project is cost effective, as required by statute, and where it makes financial sense for the customer (the customer will save money from making the change). Opportunities are most cost effective in new construction and when a heat pump replaces end-of-life existing air conditioning equipment. The results from the Companies' ongoing heat pump pilots and any related EM&V studies will inform future efforts in this area and will be incorporated into subsequent C&LM Plan updates.
- Weatherization. The EEB has strongly supported increased comprehensive weatherization through the Home Energy Solutions (HES) and Home Energy Solutions Income Eligible (HES-IE) programs in addition to requiring more DOE Home Energy Scores be provided to program participant to encourage implementation of follow-on measures. We have also actively supported development of a Health and Safety Barriers Remediation program at DEEP to increase home eligibility for weatherization along with better integration with the low-income Weatherization Assistance Program (WAP). All of these efforts will help support reaching Connecticut's goal of weatherizing 80% of residences by 2030.
- Equity. The EEB strongly supports equity as a key pillar of the Plan. As one of the three Plan Priorities, we have attempted to include an equity lens for all programs. We have established metrics, including Performance Management Incentives, for the Companies focused on hardship customers and underserved businesses to ensure attention is paid to those customers who can benefit most from the C&LM programs. DEEP's Diversity, Equity and Inclusion (DEI) consultant will review all the programs in 2022 and provide additional recommendations and guidance for future Plans.

**26)** Twenty-seven (27) individual stakeholders

Representing: Self

**Date Input Received:** August 17, 2021 **Input Method(s):** Written comments

#### **Requests/Comments:**

Please note that this message was received via mass email communication from multiple stakeholders. The file "Comments on Draft Revisions to CT EEP" in the Box.com folder includes the written comment and its list of senders.

The current draft of revisions to Connecticut's energy efficiency program does not go far enough to make homes safer, more comfortable and reduce energy costs—particularly for those that are in environmental justice communities.

### We urge you to:

- Partner with and subsidize community-based groups to ramp up outreach and energy efficiency initiatives,
- Prioritize hard to reach communities that are overburdened by pollution and deal with arrearages and shutoffs due to high energy costs.
- Stop subsidizing new fossil fuel appliances and heating systems now while expanding opportunities/incentives for residents and landlords to shift to efficient heat pump sources.
- Include a clear roadmap to assure 80% weatherization with numeric goals to reach underserved and energy burdened households, resources to support those goals, and accountability measures for ensuring they are met.

## **Companies' Response:**

- Community outreach. In 2021, the Companies launched the Community Partnership Initiative, a community-based approach that focuses on partnerships between the Companies, organizations, nonprofits, and municipalities to reach neighborhoods and communities who have historically not participated or who have low levels of participation in the Residential and C&I Portfolios. These outreach efforts will ensure that the benefits of energy efficiency and demand management reach all residential customers across the state, particularly for customers who reside in distressed, environmental justice, and non-English speaking communities.
- The Companies' equity metric requires the Companies to track participation in the HES or HES-Income Eligible
  programs of all single family electric customers enrolled in the Matching Payment Program and to achieve a 2.1
  percent increase in participation by the end of the 2021 program year. For the 2022-2024 term, the Companies will
  broaden this residential equity metric to include financial and medical hardship customers.
- Incentives. The Plan does not contain any fuel oil or propane rebates or instant discounts. There are scenarios where natural gas is the most economical choice for satisfying a customer's heating needs and customers will choose to purchase natural gas HVAC equipment rather than installing a heat pump technology. The best option in this instance is for the customer to purchase high-efficiency natural gas HVAC equipment rather than baseline/code compliant equipment.

# **Board Response:**

- See Companies' response on community outreach.
- Equity. The EEB strongly supports equity as a key pillar of the Plan. As one of the three Plan Priorities, we have attempted to include an equity lens for all programs. We have established metrics, including Performance Management Incentives, for the Companies focused on hardship customers and underserved businesses to ensure attention is paid to those customers who can benefit most from the C&LM programs. DEEP's Diversity, Equity and Inclusion (DEI) consultant will review all the programs in 2022 and provide additional recommendations and guidance for future Plans.
- Fossil fuel incentives. The EEB will consider phasing out of incentives for new gas equipment for measures where backsliding to less efficient equipment is unlikely. For example, a recent evaluation has found that the C&I boiler market is largely transformed, such that it is now industry standard practice in many cases for customers to purchase an efficient condensing boiler for new construction or at end of life for an existing boiler. As a result of this finding, the baseline has risen to a point where it may not be cost effective anymore to offer incentives for many commercial boilers. Additionally, the Companies will investigate whether program supported condensing gas equipment is replacing existing condensing equipment and if so, whether there is continued need to do so. However, there are processes that currently use natural gas where there is either no cost-effective electric alternative or no electric alternative at all. For these measures the EEB supports continued incentives for gas-fired equipment in order to increase energy performance and reduce carbon emissions.
- Decarbonization/heat pumps. The EEB supports electrification when the project is cost effective, as required by statute, and where it makes financial sense for the customer (the customer will save money from making the change).
   Opportunities are most cost effective in new construction and when a heat pump replaces end-of-life existing air conditioning equipment. The results from the Companies' ongoing heat pump pilots and any related EM&V studies will inform future efforts in this area and will be incorporated into subsequent C&LM Plan updates.

• Weatherization. The EEB has strongly supported increased comprehensive weatherization through the Home Energy Solutions (HES) and Home Energy Solutions – Income Eligible (HES-IE) programs in addition to requiring more DOE Home Energy Scores be provided to program participant to encourage implementation of follow-on measures. We have also actively supported development of a Health and Safety Barriers Remediation program at DEEP to increase home eligibility for weatherization along with better integration with the low-income Weatherization Assistance Program (WAP). All of these efforts will help support reaching Connecticut's goal of weatherizing 80% of residences by 2030.

27) One hundred (100) individual stakeholders

Representing: Self

**Date Input Received:** August 14, 2021 **Input Method(s):** Written comments

# **Requests/Comments:**

Please note that this message was received via mass email communication from multiple stakeholders. The file "Message to EEB\_Strengthen the 3 yr plan" in the Box.com folder includes the written comment and its list of senders.

State law mandates economy-wide greenhouse gas emission reductions of 45% by 2030 and 80% by 2050, and equity and environmental justice are a top priority for the Governor's Council on Climate Change. We urge the EEB to exert its authority and demand a revised plan that meets the following criteria:

- Stop subsidizing new fossil fuel appliances and heating systems now.
- Invest only in zero-emission electric appliances and heat and hot water systems.
- Include achievable numeric goals to reach underserved and energy burdened households, resources to support those goals, and accountability measures for ensuring the goals are met.

### Companies' Response:

- Incentives. The Plan does not contain any fuel oil or propane rebates or instant discounts. There are scenarios where natural gas is the most economical choice for satisfying a customer's heating needs and customers will choose to purchase natural gas HVAC equipment rather than installing a heat pump technology. The best option in this instance is for the customer to purchase high-efficiency natural gas HVAC equipment rather than baseline/code compliant equipment.
- Community outreach. In 2021, the Companies launched the Community Partnership Initiative, a community-based approach that focuses on partnerships between the Companies, organizations, nonprofits, and municipalities to reach neighborhoods and communities who have historically not participated or who have low levels of participation in the Residential and C&I Portfolios. These outreach efforts will ensure that the benefits of energy efficiency and demand management reach all residential customers across the state, particularly for customers who reside in distressed, environmental justice, and non-English speaking communities.
- Environmental justice communities. In the upcoming term, the Companies will introduce the Census Tract Tool to streamline customer outreach for qualified residential weatherization contractors. For select census tracts, such as distressed or environmental justice communities, residents will be eligible to receive no-cost weatherization services through the HES-Income Eligible program.
- **Decarbonization.** The Companies note that decarbonization is one of the three key priorities for the 2022-2024 term and that heat pump technologies will play a critical role in achieving this objective. In the final draft of the Plan, the Companies address the ramp-up, promotion, and funding for heat pumps, as well as detail their plans for workforce

development, contractor training, customer education, and cross-promotion of heat pump technologies across the Residential (Section Two), C&I (Section 3), and Education, Workforce & Community Outreach Portfolios (Section 4). The Companies will review evaluation findings of the 2019-2021 heat pump pilot and will address the study's findings in future Plan Updates or Budget Reconciliation filings (see Executive Summary for high-level schedule). The final Plan text includes quantifiable data regarding heat pump unit goals for the 2022-2024 term. The Companies will continue to track and report on heat pump goals (and other programs) at the EEB's monthly Residential committee meeting and in the Companies' compliance filings to DEEP.

# **Board Response:**

- Fossil fuel incentives. The EEB will consider phasing out of incentives for new gas equipment for measures where backsliding to less efficient equipment is unlikely. For example, a recent evaluation has found that the C&I boiler market is largely transformed, such that it is now industry standard practice in many cases for customers to purchase an efficient condensing boiler for new construction or at end of life for an existing boiler. As a result of this finding, the baseline has risen to a point where it may not be cost effective anymore to offer incentives for many commercial boilers. Additionally, the Companies will investigate whether program supported condensing gas equipment is replacing existing condensing equipment and if so, whether there is continued need to do so. However, there are processes that currently use natural gas where there is either no cost-effective electric alternative or no electric alternative at all. For these measures the EEB supports continued incentives for gas-fired equipment in order to increase energy performance and reduce carbon emissions.
- Decarbonization/heat pumps. The EEB supports electrification when the project is cost effective, as required by statute, and where it makes financial sense for the customer (the customer will save money from making the change).
   Opportunities are most cost effective in new construction and when a heat pump replaces end-of-life existing air conditioning equipment. The results from the Companies' ongoing heat pump pilots and any related EM&V studies will inform future efforts in this area and will be incorporated into subsequent C&LM Plan updates.
- Quantifiable goals. To provide clearer quantifiable goals and metrics, a summary of the budgets, energy savings, greenhouse gas emissions reductions, and customer savings have been added to each program section. Detailed numbers for each program, sector and company are included in the tables in the Plan Appendix. The Companies will report on progress towards these goals and metrics monthly in the Connecticut Statewide Energy Efficiency Dashboard and quarterly at the Residential and C&I Committee meetings and at the EEB meeting. Quarterly reporting will be made available to the public in an easily accessible manner on the Energize CT website.

28) Seventy-nine (79) individual stakeholders

Representing: Self

**Date Input Received:** August 14, 2021 **Input Method(s):** Written comments

### **Requests/Comments:**

Please note that the EEB received this message via mass email communication from multiple stakeholders. The file "Public Comment on Draft CLM Plan" in the Box.com folder includes the written comment and its list of senders.

To that end, I urge the Energy Efficiency Board to require the following changes be made to the draft 2022-2024 Conservation & Load Management Plan submitted by the electric and natural gas utilities:

- (1) First, the C&LM plan must explicitly align itself with the greenhouse gas reduction goals of the Global Warming Solutions Act.
- (2) Second, eliminate any incentives or subsidies for natural gas appliances and heating systems.
- (3) The C&LM Plan must include a strong commitment to building electrification through the increased deployment of heat pump technologies and this commitment must be expressed in terms of quantified and measurable goals.
- (4) The Plan must include a comprehensive approach to addressing health and safety barriers to weatherization to ensure that the benefits of improved energy efficiency are available to all residents and that the state can reach its ambitious weatherization goals.

### **Companies' Response:**

- **Future modifications.** The Companies will modify the Plan in future annual Plan Updates or Budget Reconciliation filings (see Executive Summary for high-level schedule) in accordance with DEEP's 2022 Comprehensive Energy Strategy which is anticipated to be released later in 2021.
- **Weatherization barriers.** The Companies have been actively working to participate in efforts to address weatherization health and safety barriers in homes and have participated in discussions with DEEP and the EEB to secure additional funding to remediate these weatherization barriers (see Section 2.5.1).
- Heat pumps. The Companies note that decarbonization is one of the three key priorities for the 2022-2024 term and that heat pump technologies will play a critical role in achieving this objective. In the final draft of the Plan, the Companies address the ramp-up, promotion, and funding for heat pumps, as well as detail their plans for workforce development, contractor training, customer education, and cross-promotion of heat pump technologies across the Residential (Section Two), C&I (Section 3), and Education, Workforce & Community Outreach Portfolios (Section 4). The Companies will review evaluation findings of the 2019-2021 heat pump pilot and will address the study's findings in future Plan Updates or Budget Reconciliation filings (see Executive Summary for high-level schedule). The final Plan text includes quantifiable data regarding heat pump unit goals for the 2022-2024 term. The Companies will continue to track and report on heat pump goals (and other programs) at the EEB's monthly Residential committee meeting and in the Companies' compliance filings to DEEP.

The Companies will continue to work with other regional program administrators to maintain a regional Qualified Products List (QPL) for air source heat pumps. The QPL ensures that qualifying product inventory is available to contractors within the local supply chain and prior to expanded trainings across the region and all 2022-2024 trainings will reflect the new QPL. For more information regarding the Companies' heat pump technology training efforts, see Section 2.3.2. The Companies will develop customer-facing tools, such as a contractor locator tool to direct customers to qualified heat pump installers. To advance electrification of heating and cooling equipment, the Companies will prioritize marketing tactics that promote the benefits of heat pump technologies, refresh the EnergizeCT.com website, create an "All Things Heat Pumps" webpage, and conduct ongoing pulse surveys to better understand and track customer awareness and perceptions of heat pump technologies.

# **Board Response:**

• State policy and goals. The C&LM programs play an important role in helping the State of Connecticut achieve its greenhouse gas emission goals, specifically in the building sector. Through energy efficiency and demand response we lower energy use and shift it away from times of day when generation resources are most constrained. Typically, these periods of high usage coincide with the operation of generation with higher emissions. The adoption of decarbonization as a one of the three key Plan Priorities of this Plan represents a clear commitment on the part of the

Board and the Companies to an increased emphasis on greenhouse gas reductions. To this end we continue to work to assess the appropriate program support for heat pumps and gas-fired equipment in both existing and new buildings. Further, the Board continues to work closely with the CT Green Bank to support their efforts to promote renewable technologies in Connecticut buildings and homes.

- Fossil fuel incentives. The EEB will consider phasing out of incentives for new gas equipment for measures where backsliding to less efficient equipment is unlikely. For example, a recent evaluation has found that the C&I boiler market is largely transformed, such that it is now industry standard practice in many cases for customers to purchase an efficient condensing boiler for new construction or at end of life for an existing boiler. As a result of this finding, the baseline has risen to a point where it may not be cost effective anymore to offer incentives for many commercial boilers. Additionally, the Companies will investigate whether program supported condensing gas equipment is replacing existing condensing equipment and if so, whether there is continued need to do so. However, there are processes that currently use natural gas where there is either no cost-effective electric alternative or no electric alternative at all. For these measures the EEB supports continued incentives for gas-fired equipment in order to increase energy performance and reduce carbon emissions.
- Decarbonization/heat pumps. The EEB supports electrification when the project is cost effective, as required by statute, and where it makes financial sense for the customer (the customer will save money from making the change).
   Opportunities are most cost effective in new construction and when a heat pump replaces end-of-life existing air conditioning equipment. The results from the Companies' ongoing heat pump pilots and any related EM&V studies will inform future efforts in this area and will be incorporated into subsequent C&LM Plan updates.
- Weatherization. The EEB has strongly supported increased comprehensive weatherization through the Home Energy Solutions (HES) and Home Energy Solutions Income Eligible (HES-IE) programs in addition to requiring more DOE Home Energy Scores be provided to program participant to encourage implementation of follow-on measures. We have also actively supported development of a Health and Safety Barriers Remediation program at DEEP to increase home eligibility for weatherization along with better integration with the low-income Weatherization Assistance Program (WAP). All of these efforts will help support reaching Connecticut's goal of weatherizing 80% of residences by 2030.

29) Oliver Tully

Representing: Acadia Center

**Date Input Received:** August 23, 2021 **Input Method(s):** Written comments

# Requests/Comments:

Acadia Center respectfully submits the following comments:

- The decline of claimable savings from lighting and other low-touch measures is an opportunity for program administrators (PAs) to develop innovative programs that drive deeper savings in Connecticut.
- Acadia Center's <u>Next Generation Energy Efficiency</u> seeks to elevate the role of energy efficiency in improving
  housing quality, drive down emissions, and align efficiency and electrification. These principles should guide energy
  efficiency programs in Connecticut.
- Heat pumps and weatherization—both cost-effective efficiency measures—must be included as top-line goals for the 2022-2024 C&LM Plan.
- Weatherization can compound savings from electrification of space heating equipment.
- Program administrators must address inequitable access to efficiency services.

• The next C&LM Plan can increase savings and align more closely with state climate commitments at the same time by orienting programs more explicitly toward reducing emissions.

#### Companies' Response:

- Pursuing energy-saving opportunities. During the 2019-2021 term, the Companies recognized that the lighting
  marketplace had transformed and had already shifted their support (via programs and incentives) toward active
  demand response strategies, weatherization measures, and low-carbon technologies. For the 2022-2024 term, the
  Companies will promote the co-delivery of energy efficiency and demand management programs that support
  decarbonization and carbon neutrality, including smart thermostats, electric vehicle chargers, and battery storage.
- Weatherization. The Companies have increased budgets in the 2022-2024 term toward their weatherization programs to continually increase the number of homes weatherized (through HES or HES-Income Eligible programs) to help the State achieve its goal of weatherizing 80 percent of residences by 2030. The Companies are working with DEEP to report on the statistics. The Companies have been actively working to participate in efforts to address weatherization health and safety barriers in homes and have participated in discussions with DEEP and the EEB to secure additional funding to remediate these weatherization barriers (see Section 2.5.1). In addition, the Companies will continue their long-term partnership with the Community Action Agencies to assist in cost sharing energy efficiency measures for federal Weatherization Assistance Partnership (WAP) projects including direct-install measures, ductless heat pumps, water heating equipment, administrative fees, heating system replacements, insulation, and windows.
- Heat pumps. The Companies note that decarbonization is one of the three key priorities for the 2022-2024 term and that heat pump technologies will play a critical role in achieving this objective. In the final draft of the Plan, the Companies address the ramp-up, promotion, and funding for heat pumps, as well as detail their plans for workforce development, contractor training, customer education, and cross-promotion of heat pump technologies across the Residential (Section Two), C&I (Section 3), and Education, Workforce & Community Outreach Portfolios (Section 4). The Companies will review evaluation findings of the 2019-2021 heat pump pilot and will address the study's findings in future Plan Updates or Budget Reconciliation filings (see Executive Summary for high-level schedule). The final Plan text includes quantifiable data regarding heat pump unit goals for the 2022-2024 term. The Companies will continue to track and report on heat pump goals (and other programs) at the EEB's monthly Residential committee meeting and in the Companies' compliance filings to DEEP.

The Companies will continue to work with other regional program administrators to maintain a regional Qualified Products List (QPL) for air source heat pumps. The QPL ensures that qualifying product inventory is available to contractors within the local supply chain and prior to expanded trainings across the region and all 2022-2024 trainings will reflect the new QPL. For more information regarding the Companies' heat pump technology training efforts, see Section 2.3.2. The Companies will develop customer-facing tools, such as a contractor locator tool to direct customers to qualified heat pump installers. To advance electrification of heating and cooling equipment, the Companies will prioritize marketing tactics that promote the benefits of heat pump technologies, refresh the EnergizeCT.com website, create an "All Things Heat Pumps" webpage, and conduct ongoing pulse surveys to better understand and track customer awareness and perceptions of heat pump technologies.

#### **Board Response:**

• Fossil fuel incentives. The EEB will consider phasing out of incentives for new gas equipment for measures where backsliding to less efficient equipment is unlikely. For example, a recent evaluation has found that the C&I boiler market is largely transformed, such that it is now industry standard practice in many cases for customers to purchase an efficient condensing boiler for new construction or at end of life for an existing boiler. As a result of this finding, the baseline has risen to a point where it may not be cost effective anymore to offer incentives for many commercial

boilers. Additionally, the Companies will investigate whether program supported condensing gas equipment is replacing existing condensing equipment and if so, whether there is continued need to do so. However, there are processes that currently use natural gas where there is either no cost-effective electric alternative or no electric alternative at all. For these measures the EEB supports continued incentives for gas-fired equipment in order to increase energy performance and reduce carbon emissions.

- **Decarbonization/heat pumps.** The EEB supports electrification when the project is cost effective, as required by statute, and where it makes financial sense for the customer (the customer will save money from making the change). Opportunities are most cost effective in new construction and when a heat pump replaces end-of-life existing air conditioning equipment. The results from the Companies' ongoing heat pump pilots and any related EM&V studies will inform future efforts in this area and will be incorporated into subsequent C&LM Plan updates.
- Weatherization. The EEB has strongly supported increased comprehensive weatherization through the Home Energy Solutions (HES) and Home Energy Solutions Income Eligible (HES-IE) programs in addition to requiring more DOE Home Energy Scores be provided to program participant to encourage implementation of follow-on measures. We have also actively supported development of a Health and Safety Barriers Remediation program at DEEP to increase home eligibility for weatherization along with better integration with the low-income Weatherization Assistance Program (WAP). All of these efforts will help support reaching Connecticut's goal of weatherizing 80% of residences by 2030.

# **APPENDIX C: COMPLIANCE ORDERS**

# APPENDIX C.1 2013-2015 C&LM PLAN - COMPLIANCE WITH ORDER 12 AND ORDER 33

Item No.	Topic or Program	Condition of Approval	Due Date	Status
12	Docket No. 13- 03-02 – PURA/BETP	Order No. 12 states (Electric & Gas)  DEEP requires that performance incentives be calculated based upon	03/01/20	Filed on 02/28/20
	Consideration of 2013-2015 Conservation and Load Management	the actual expenditures and the savings achieved, which are to be scaled proportionally from the projected budget and savings goals to the actual budget at year's end. The Department's intent is for both EDC and LDC performance incentives mechanisms to operate identically. These calculations shall be done when year- end actual	03/01/21	Filed on 02/25/21
	Plan – Compliance with Order 12 and Order 33	data is available and submitted in an Annual Update to the Department no later than March 1 of interim years.	03/01/22	Filed on 02/25/22
13	Docket No. 13- 03-02 – PURA/BETP Consideration of 2013-2015	Order No. 33 states (Electric & Gas)  By March 1, 2015, and annually thereafter, the Companies shall provide a summary of actual data for the previous program year.	03/01/20	Filed on 02/28/2020
	Conservation and Load Management Plan – Compliance with Order 12 and Order 33		03/01/21	Filed on 02/25/22

# APPENDIX C.2 2019-2021 CONSERVATION & LOAD MANAGEMENT PLAN WITH APPROVAL

Item No.	Topic or Program	Condition of Approval	Due Date	Status
2	Equitable Distribution Data	Pursuant to CGS Sec. 16-245ee, each EDC must annually submit to DEEP and the Energy Efficiency Board the prior calendar year's Equitable Distribution data on a form prescribed and provided by DEEP no later	02/01/19	Filed on 01/25/19
		than July 1, and also submit an updated method of census tract identification and economic status that determines whether the census tract is distressed. This data shall be provided on a census tract basis, or if not available by census tract, on a town-by town basis, the amount of	07/01/19	Filed on 05/29/19
		conservation program funds assessed and the amount of incentives expended, disaggregated as small or large customers according the 100kW peak demand threshold, and further disaggregated by customer class (i.e., Residential and C&I). The residential data component for small	07/01/20	Filed on 06/29/20
		customers shall be disaggregated by the HES and HES-IE programs and identify the total number of projects participating in each program and disaggregate those project numbers by housing stock (i.e., single family, multifamily (2-4 units), and multi-family (> 4 units)). Though the statute requires submission on a census tract basis, the companies have noted in the past that a town-by-town submission is less costly, more useful to municipalities, and would streamline the analysis. DEEP requests that the companies provide written explanations of their position no later than February 1, 2019. This could include an analysis of the approximate number of homes that could be served in place of expending the budget on third-party census tract analysis.	07/01/21	Filed on 06/30/21
3	Propose a Frequency to Conduct	No later than March 1, 2019, the Companies shall propose, with a revised budget as needed, a process and frequency to routinely conduct a Financial Audit or alternately, Agreed Upon Procedures review, and to	03/01/19	Filed on 02/14/19
	Financial and Operational Audits; Conduct Such Audits on the Approved	routinely conduct an Operational Audit of the Conservation and Load Management Plan, consistent with standard practices. The processes should cover each program year for each audit, however multiple years may be included in a single audit. No later than July 1, 2019, the Companies shall develop and propose the timeline for routinely conducting the audits of the Conservation and Load Management Plan.	07/01/19	Requested extension from 07/01/19 to 9/30/19
Freq	Frequency Schedule	Frequency	09/30/19	Filed on 09/30/19
			09/30/20	Filed 09/30/2020
			09/30/21	Filed 09/30/21

# 2019-2021 Conservation & Load Management Plan with Approval (continued)

Item No.	Topic or Program	Condition of Approval	Due Date	Status
There is no Item Number	2021 Plan Update	2021 Update of the 2019 to 2021 combined Electric and Natural Gas Conservation and Load Management Plan (the 2019-2021 Plan) and the 2021 Program Savings Document (PSD)	11/01/20	Filed on 10/30/20
			03/01/21	Filed on 03/01/21
		2021 Plan Update – Refiled to include DEEP Conditions of Approval filed on March 4, 2021 after the Companies' March 1, 2021 Filing	03/15/21	Filed on 03/15/21

# APPENDIX C.3 DEEP FINAL DECISION FOR 2020 PLAN UPDATE TO THE 2019-2021 PLAN

Item No.	Topic or Program	Condition of Approval	Due Date	Status
10	Home Energy Score	<ul> <li>1-The Companies are directed to establish a working group on the Home Energy Score. The Companies are directed to establish a working group on the Home Energy Score.</li> <li>1- The Companies shall submit a report to DEEP that identifies barriers to increased participation and opting-in to a Home Energy Score in the Home Energy Solutions program and recommend solutions that will help increase participation. This report should also include recommended metrics for success indicators.</li> <li>2- As a component of the report required by (1) the Companies shall submit recommendations on how to streamline rescoring homes after completing add-on measures by 7/1/2020.</li> <li>3- The report shall also include a plan for updating the Android tool such that when a contractor submits data to the Home Energy Scoring tool, the Android must use the "initial" assessment type until the Score is successfully generated, i.e., the Android must validate that the score is successfully generated. Once successful, any subsequent Scores for a given address must use the "corrected" assessment type.</li> <li>2-Metrics related to re-scoring shall be incorporated into the required report.</li> </ul>	Working group by 04/01/2020  Proposals and reports by 06/01/2020	This was deferred until 2021  04/01/2021 Proposals  07/01/2021  Report Filed
11	Home Energy Score	Propose a secondary metric to PMI on market transformation that motivates the companies to increase the number of score opt-ins.	Part of 2021 Plan update process 03/01/2021	The Home Energy Score Market Transformation is addressed in Section 2.5 (ref. pages 65, 72)
16	Equitable Modern Grid Decisions	Propose updates to DEEP for review and approval, as needed, to align the Plan programs with the Distribution System Planning and Grid Modernization actions described in PURA dockets on those topics.	Ongoing	Ongoing

Item No.	Topic or Program	Condition of Approval	Due Date	Status
17	Heat Pump Pilot	The Companies shall propose increased pilot incentives to motivate customer participation. The benefit cost testing requirement is waived for the pilot. The Companies shall begin quarterly reporting on heat pump pilot results.	For March 30, 2020 and then ongoing quarterly thereafter	Filed on 03/30/20  Filed on 06/25/20 (Q2 2020 Update)  Filed on 09/28/20 (Q2 2020 Update)  Filed on 12/18/20 (Q3 2020 Update)  Filed on 03/29/21 (Q4 2020 and Q1 2021 Update)  Filed on 08/15/21 (Q2 2021 Update)  Filed on 11/9/21 (Q3 2021 Update)  Filed on 02/09/22 (Q4 2021 Update)
22	Electric Resistance Heat Program	The Companies shall develop and submit to DEEP for review and approval a plan to reach out to all electric heat customers with options to convert to heat pumps, including a plan to significantly increase participation by landlords whose tenants are responsible for utility bills. This proposal shall include building envelope improvements to minimize thermal load impact. The proposal should identify the optimum incentive level, including combined incentive packages and should provide a means of incentivizing efficient use during the heating season as well as the cooling season, including peak demand reduction, per the requirement below. This program should identify and track the customers, provide information on replacement programs and track the status and conversion rates. The Companies shall review and consider applicability of Seattle City Light's Energy Efficiency as a Service pilot program.  In the 2020 Plan Update, Compliance 2020 Condition No. 22 required a plan for converting electric resistance heat pump customers. This condition instructs the Utilities to continue this plan and provide quarterly reporting beginning with Quarter 1, 2021, to assess success and determine whether additional steps may be required. Now Compliance Item No. 9 from the 2021 Plan Update.	07/01/20	Filed on 06/29/20  Filed on 03/26/21  Reference No. 9 going forward

# APPENDIX C.4 DEEP DECISION FOR 2021 PLAN UPDATE TO THE 2019-2021 PLAN

Item No.	Topic or Program	Condition of Approval	Due Date	Status
1	Equity Metrics	The Companies and the EEB have been working to develop secondary metrics to reflect the ongoing work to examine equity within the 2019-2021 Plan. The Companies shall finalize those 2021 Plan Update secondary metrics and submit in the March 1, 2021 filing. DEEP will review, subject to approval, once filed. Additionally, the Companies shall coordinate with the EEB and DEEP to ensure that recommended metrics received through their public processes including the Equitable Energy Efficiency (E3) Proceeding are considered.	03/01/2021	Completed  Included in 2021 PMI tables in 2021 Plan Update (filed 3/01/2021)
2	HES Vendor Scorecard	The Companies shall provide a proposed HES vendor scorecard for DEEP review and approval no later than April 1, 2021. Vendors and other stakeholders will have an opportunity to comment on the proposal. Any requested revisions should be completed by July 1, 2021. The information provided to DEEP shall include a summary of any recent feedback related to performance improvement given to individual vendors.	04/01/2021	Filed on 03/26/21  No revisions Were requested
3	Pay-for- Performance Pilot	DEEP is considering a stakeholder proceeding to explore best practices for implementing pay for performance. The Companies are directed to propose a pilot where ex-post, calculated energy savings drive program and vendor/contractor performance. The pilot should allow third parties to participate by developing data sharing capabilities. These programs are sometimes referred to as pay for performance programs. Incentives may be given up-front, but the profit/revenue to the company installing the measures only comes if those measures perform as estimated.  DEEP is particularly interested in pilots with companies that support the decarbonization of home heating fuels through the deployment of technologies such as heat pumps. The Companies shall also consider how to leverage private finance or propose partnerships with companies that leverage private finance to deliver deep decarbonization while overcoming barriers to weatherization. Innovation and leveraging funds beyond the 2019-2021 Plan and other three-year plans are necessary to expand access to energy efficiency.  A straw proposal shall be submitted to DEEP by April 1, 2021, with a target of receiving final approval from DEEP by July 1, 2021. This pilot is intended to supplement the existing HES, HES-IE, and multifamily efficiency programs to help achieve the goal of weatherizing 80 percent of homes pursuant to C.G.S. Section 16-245m(d)(1).	04/01/2021	Filed on 03/25/21

Item No.	Topic or Program	Condition of Approval	Due Date	Status
4	Home Energy Score Working Group	The Companies are directed to establish a working group on the Home Energy Score, as follows: (1) The Companies shall submit a report to DEEP that identifies barriers to increased participation and opting-in to a Home Energy Score in the HES program and recommend solutions that will help increase participation. This report should also include recommended metrics for measuring the success of Home Energy Score program. (2) As a component of the report required by (1) the Companies shall submit recommendations on how to streamline rescoring homes after completing add-on measures and interim measures for facilitating rescoring until such recommendations can be adopted by April 1, 2021. (3) The report shall also include a plan for updating the Android tool such that when a contractor submits data to the Home Energy Scoring tool, the Android must use the "initial" assessment type until the Score is successfully generated, i.e., the Android must validate that the score is successfully generated. Once successful, any subsequent Scores for a given address must use the "corrected" assessment type. (4) Metrics related to re-scoring shall be incorporated into the required report. In addition, all qualifying customers must be offered the score, and customers must decline in writing. The Companies shall also submit to DEEP, the language given to customers regarding the privacy terms and conditions of the Home Energy Score by March 4, 2021.	04/01/2021	Filed on 03/26/21  Filed on 07/1/2021
5	Building Benchmarking Savings Attribution	The Companies, in consultation with the EEB, shall develop a proposal for savings attribution for building benchmarking that would align with the concepts in <i>S.B. 177, An Act Concerning Energy Consumption Data and Labeling</i> from the 2020 session regarding building benchmarking. The proposal shall include a program to voluntarily encourage large building owners to benchmark their buildings and address associated data access and aggregation issues. This proposal shall be developed for inclusion in the next three year plan.	11/01/2021	Included in 2022-2024 Plan filed on 11/1/2021
6	HES and HES-IE Renter Data Collection  The Companies shall develop a proposal regarding data collection on rental units within HES and HES-IE that do not proceed due to lack of landlord approval by April 1, 2021. Consistent with comments received through the E3 Proceeding, the Companies are directed to offer a roundtable with landlords on overcoming obstacles to weatherization, including HES and HES-IE notice and approval requirements. A variety of landlords will be asked to participate, such as from different towns, environmental justice communities, and Section 8 landlords. Roundtables will begin with those who are willing and interested.  Based on this gathered information, the Companies shall then develop a proposal by June 30, 2021, for options to increase penetration into this market. This should include changes that can be implemented in 2021 as well as longer term options to be included in the next three-year plan.		04/01/2021 06/30/2021	Filed on 03/25/21  Filed on 06/30/21

Item No.	Topic or Program	Condition of Approval	Due Date	Status
7	Crumbling Foundation Customer Outreach  In furtherance of Compliance Condition No. 23 of the 2020 Plan Update, the Companies shall coordinate with the CT Department of Housing to perform outreach for building envelope and heat pump programs to homeowners with a signed participation agreement from a captive insurance company established by the State of Connecticut to provide financial assistance for crumbling foundations. The Companies shall provide a report to DEEP no later than April 1, 2021.		04/01/2021	Filed on 03/26/21
8	Heat Pump Pilot Increased Participation	The Companies shall develop a proposal by April 1, 2021, to increase participation levels in the heat pump pilot program. The proposal shall include the barriers to date, and the changes made to address those barriers.	04/01/2021	Filed on 04/03/20
9	Electric Resistance Customer Conversion to Heat Pump Reporting	In the 2020 Plan Update, Compliance 2020 Condition No. 22 required a plan for converting electric resistance heat pump customers. This condition instructs the Companies to continue this plan and provide quarterly reporting beginning with Quarter 1, 2021, to assess success and determine whether additional steps may be required.  The Companies shall consider partnering with other organizations that have demonstrated success in this area and report to the EEB about such considerations by July 1, 2021, or within such time to allow for inclusion in the 2022-2024 Plan.	03/31/2021	Filed on 03/26/21 Filed on 8/13/21
10	Evaluation Penalty Metric	in the 2022-2024 Plan.  Evaluation  There have been significant delays in conducting evaluation studies due		Filed 03/1/2021  Included in 2021 PMI tables in 2021 Plan Update (filed on 03/1/2021).

Item No.	Topic or Program	Condition of Approval	Due Date	Status
10 (cont.)	Evaluation Penalty Metric (continued)	up to an additional 14 days to fulfill the request. The timeline for data requests outside the evaluation types previously mentioned, including those for multi-family and commercial programs, shall be mutually agreed upon by the evaluation administrator and the Companies, and shall not take longer than 60 days to fulfill. Data requests shall be considered fulfilled if they are to the satisfaction of the evaluation administrator or DEEP. The Companies have 90 days to execute a contract once the required documentation has been submitted. The Companies must notify the evaluation administrator within ten business days if the documentation is not complete. The evaluation administrator, in consultation with DEEP, may revise a deadline. Timely performed evaluation studies are key to the continuous improvement of the C&LM programs and delayed studies have a financial cost.		
11	Demand Response Program Reporting	The Companies are directed to continue the planned increase in demand response as described in the Companies' response dated December 2, 2020, to DEEP's Request for Supplemental Information dated November 24, 2020. These plans should focus on pay-for-performance programs where they demonstrate the greatest benefit. Pay for performance refers to customers receiving a greater incentive or participation payment for achieving more demand or energy savings. DEEP recognizes there may be valid reasons for structuring a program in other ways. In particular, the Companies implementing residential active demand response programs that have a flat participation incentive structure shall report to DEEP by April 1, 2021, the research that supports the program design.	04/01/2021	Filed on 03/26/21
12	Suspension of Municipal Engagement RFP	DEEP recognizes the efforts of the Companies to engage municipalities in C&LM outreach to local communities through a release of a request for proposals (RFPs). DEEP is planning to take additional steps to obtain public input on the Companies' proposed municipal engagement plan and RFP and directs the Companies to hold the RFP until instructed for release by DEEP.	Immediate	Completed (2021 Plan Update text is updated as well)
13	Distribution System & Grid Mod Planning Alignment	The Companies shall propose updates to DEEP for review and approval, as needed, to align the C&LM Plan's programs with the Distribution System Planning and Grid Modernization actions described in Public Utilities Regulatory Authority (PURA) dockets on those topics.	Ongoing	Ongoing

Item No.	Topic or Program	Condition of Approval	Due Date	Status
14	ASHP and GSHP Soft Cost Examination	DEEP directs the Companies to examine the soft costs of installing air-source and ground-source heat pumps. The Companies may work in consultation with the evaluation administrator to examine best practices to lower customer acquisition costs and installation costs beyond the hardware/technology costs. The Companies shall report initial findings by July 1, 2021 and propose any steps to be taken within such time to allow for inclusion in the 2022-2024 Plan.		Filed on 07/1/2021
15	Residential EE Concierge Service Offering	The Companies shall present to the EEB by the end of the first quarter of 2021, examples of residential energy efficiency concierge services that provide residential customers information about adoption of follow-on measures such as insulation, heat pumps, appliances, rooftop solar, or any opportunities to participate shared clean energy facilities.	04/01/2021	Filed on 03/26/21
16	Induction Cooktop Pilot	Studies have shown that gas cooking appliances negatively impact indoor air quality and lead to higher asthma rates for children. Additionally, the vast majority of customers have had little experience with induction cooktops which perform much better than traditional electric cooktops. Increasing customer familiarity with induction cooktops is likely to increase adoption of these cooktops, and the overall willingness to purchase all-electric homes. As such, DEEP directs the Companies, in consultation with the EEB, to investigate this topic and be prepared to include in the 2022-2024 Plan, a pilot program to provide incentives for induction cooktops that replace existing electric or gas cooktops and if appropriate, a plan or program to increase customer awareness of induction cooktops.	11/01/2021	Filed in 2022- 2024 Plan on 11/01/2021
17	CEE Super- Efficient Home Appliances Initiative	The Companies shall present to the EEB on the Consortium for Energy Efficiency's (CEE) Super-Efficient Home Appliances initiative as part of the development of the next three-year plan. More generally, the Companies are encouraged to report on other CEE initiatives that may be considered in the 2022-2024 Plan.	11/01/2021	Filed in 2022- 2024 Plan on 11/01/2021
18	HES & HES-IE Arrearage Marketing	Arrearage HES IE programs to those with the largest arrearages and the most		Filed on 04/05/21 Filed 08/11/21 (Q2 2021) Filed 11/10/21 (Q3 2021) Filed 02/13/22 (Q4 2021)

# APPENDIX D: BENCHMARKING INITIATIVE PROPOSAL

The proposal from the University of Connecticut to the Companies is to continue supporting and completing benchmarking of C&I buildings using the EPA's Portfolio Manager which includes all municipal, board of education, and commercial buildings in the Companies' services territories. The performance proposal includes:

- A building energy benchmarking summary report which will be provided by the University of Connecticut for each customer that provides all necessary documentation to be benchmarked.
- Any C&I customer can be connected to the data transfer system upon request if a portfolio is established by the customer.

An annual report will be prepared each year showing:

- 1. Key statistics by municipal buildings types, such as town halls and police departments, so that the Companies can use this data to plan targeted programs,
- 2. Customer satisfaction survey results based upon participation in the program,
- 3. Program impact data, such as energy reductions and greenhouse gas emissions reductions for buildings being benchmarked, and
- 4. A Diversity Plan that shows the hiring and development of underrepresented groups.

During the project period, five 2-hour training sessions will be conducted on the use of the EPA's Portfolio Manager for the purposes of training customers in building energy benchmarking techniques, methods, and software.

# **APPENDIX E: BUDGET & SAVINGS TABLES**

# E.1 BUDGET SUMMARY OF THE 2022-2024 PLAN PROGRAM YEARS

Table A – 2021 Combined Budgets (Electric and Natural Gas)

	2021	2021	2021	2021	2021	2021
	Eversource CT	UI Proposed	Eversource CT	CNG	SCG	Statewide
Statewide EE BUDGET	Electric Actual	Budget Actual	Gas Actual	Actual	Actual	Combined
Statewide LE BODGET	Results	Results	Results	Results	Results	Total
	12/31/2021	12/31/2021	12/31/2021	12/31/2021	12/31/2021	12/31/2021
Desidential Detail Duadwete	¢0.050.003	RESIDENTIAL		ć	ć	¢10 C15 272
Residential Retail Products	\$8,656,062	\$1,959,310	\$ -	\$ -	\$ -	\$10,615,372
Residential New Construction	\$2,965,128	\$770,213	\$822,508	\$21,028	\$6,016	\$4,584,893
Home Energy Solutions	\$33,889,599	\$6,327,483	\$4,608,942	\$4,516,900	\$3,888,662	\$53,231,586
HVAC & Water Heating Equipment	\$12,072,073	\$2,249,235	\$4,394,965	\$3,010,011	\$3,675,770	\$25,402,054
HES Income Eligible	\$19,925,766	\$4,956,531	\$6,126,982	\$3,696,772	\$3,088,035	\$37,794,086
Residential Behavior	\$ -	\$68,544	\$ -	\$62,321	\$145,113	\$275,978
Subtotal: Residential EE Portfolio	\$77,508,628	\$16,331,317	\$15,953,396	\$11,307,032	\$10,803,596	\$131,903,969
Farana Canasia a Bluerwint	¢10 500 007	COMMERCIAL & IND		¢2.742.602	¢2.000.000	¢20.001.411
Energy Conscious Blueprint	\$10,589,867	\$7,916,998	\$3,754,255	\$3,713,683	\$2,906,608	\$28,881,411
Energy Opportunities	\$37,034,760	\$5,801,717	\$732,274	\$925,543	\$750,905	\$45,245,199
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	\$842,631	\$433,054	\$408,183	\$308,472	\$249,022	\$2,241,362
Small Business	\$12,300,907	\$6,996,241	\$270,988	\$94,822	\$428,445	\$20,091,403
Subtotal: C&I EE Portfolio	\$60,768,165	\$21,148,011	\$5,165,700	\$5,042,520	\$4,334,980	\$96,459,376
		OTHER - LOAD MANA	GEMENT			
Residential Demand Response	\$2,510,467	\$610,010	\$ -	\$ -	\$ -	\$3,120,477
C&I Demand Response	\$3,375,613	\$174,610	\$ -	\$ -	\$ -	\$3,550,223
Subtotal: Load Management	\$5,886,079	\$784,620	\$ -	\$ -	\$ -	\$6,670,699
	ОТ	HER - EDUCATION & E	NGAGEMENT			
Energy Education	\$287,255	\$128,511	\$31,386	\$25,240	\$22,829	\$495,221
Workforce Development	\$323,082	\$100,987	\$22,485	\$15,434	\$15,434	\$477,422
Community Outreach	\$562,598	\$107,074	\$36,300	\$17,227	\$17,227	\$740,426
Customer Engagement Initiative	\$876,301	\$ -	\$137,851	\$ -	\$ -	\$1,014,152
Subtotal: Education & Engagement	\$2,049,236	\$336,571	\$228,023	\$57,901	\$55,490	\$2,727,221
	ОТ	HER - PROGRAMS/REC	QUIREMENTS			
Residential Loan Program (includes ECLF and OBR)	\$899,986	\$28,752	\$77,705	\$ -	\$ -	\$1,006,443
C&I Financing Support	\$812,014	\$ -	\$2,427	\$ -	\$ -	\$814,441
Research, Development & Demonstration	\$51,833	\$7,188	\$4,795	\$11,573	\$84,073	\$159,462
Subtotal: Programs/Requirements	\$1,763,833	\$35,940	\$84,927	\$11,573	\$84,073	\$1,980,346
	ОТН	IER - ADMINISTRATIVE	& PLANNING			
Administration	\$813,385	\$89,281	\$81,568	\$207,327	\$159,274	\$1,350,835
Marketing Plan	\$428,193	\$176,012	\$58,999	\$72,130	\$70,801	\$806,135
Planning	\$734,172	\$333,097	\$88,185	\$99,898	\$90,033	\$1,345,386
EM&V	\$1,920,000	\$480,000	\$200,000	\$200,000	\$200,000	\$3,000,000
Evaluation Administrator	\$256,933	\$52,635	\$28,548	\$21,931	\$21,931	\$381,978
Information Technology	\$1,606,701	\$692,058	\$178,639	\$339,848	\$328,131	\$3,145,377
Energy Efficiency Board Consultants	\$394,346	\$104,000	\$41,913	\$43,333	\$43,333	\$626,925
Audits - Financial and Operational	\$60,000	\$24,000	\$10,000	\$10,000	\$10,000	\$114,000
Performance Management Incentive	\$8,681,482	\$2,459,136	\$1,347,734	\$459,606	\$696,820	\$13,644,778
Subtotal: Admin/Planning Expenditures	\$14,895,212	\$4,410,219	\$2,035,586	\$1,454,074	\$1,620,324	\$24,415,414
TOTAL	\$162,871,152	\$43,046,678	\$23,467,632	\$17,873,100	\$16,898,463	\$264,157,025

Table A – 2022 Combined Budgets (Electric and Natural Gas)

	2022	2022	2022	2022	2022	2022
	Eversource CT	UI Proposed	Eversource CT	CNG	scg	Statewide
61 1 1 55 DUDGE	Electric Proposed	Budget	Gas Proposed	Proposed	Proposed	Combined
Statewide EE BUDGET	Budget		Budget	Budget	Budget	Total
	03/01/2022	03/01/2022	03/01/2022	03/01/2022	03/01/2022	03/01/2022
		RESIDENTIAL				
Residential Retail Products	\$4,158,000	\$757,358	\$ -	\$ -	\$ -	\$4,915,358
Residential New Construction	\$3,986,389	\$623,386	\$519,889	\$480,480	\$533,018	\$6,143,161
Home Energy Solutions	\$24,661,743	\$3,744,834	\$1,811,975	\$2,689,119	\$1,994,681	\$34,902,351
HVAC & Water Heating Equipment	\$14,463,704	\$2,228,156	\$3,752,230	\$1,356,035	\$1,412,138	\$23,212,263
HES Income Eligible	\$18,444,360	\$3,947,343	\$3,395,274	\$3,735,755	\$2,663,429	\$32,186,162
Residential Behavior	\$90,000	\$281,839	\$10,000	\$133,391	\$118,187	\$633,417
Subtotal: Residential EE Portfolio	\$65,804,196	\$11,582,916	\$9,489,368	\$8,394,780	\$6,721,453	\$101,992,713
	CC	OMMERCIAL & INDU	JSTRIAL			
Energy Conscious Blueprint	\$13,513,265	\$4,235,858	\$3,743,509	\$1,708,701	\$1,200,881	\$24,402,214
Energy Opportunities	\$36,833,451	\$7,856,527	\$1,497,489	\$1,011,722	\$822,946	\$48,022,134
Business & Energy Sustainability (O&M,						
RCx, PRIME, CSP/SEM)	\$3,175,966	\$1,154,085	\$473,952	\$536,581	\$369,558	\$5,710,142
Small Business	\$14,526,525	\$3,821,696	\$487,947	\$433,485	\$314,296	\$19,583,949
Subtotal: C&I EE Portfolio	\$68,049,207	\$17,068,167	\$6,202,896	\$3,690,489	\$2,707,681	\$97,718,440
	ОТ	HER - LOAD MANAG	SEMENT			
Residential Demand Response	\$3,340,000	\$565,015	\$ -	\$72,927	\$198,352	\$4,176,294
C&I Demand Response	\$4,753,000	\$359,419	\$ -	\$183,176	\$183,176	\$5,478,771
Subtotal: Load Management	\$8,093,000	\$924,434	\$ -	\$256,103	\$381,528	\$9,655,065
	OTHER	R - EDUCATION & EN	GAGEMENT			
Energy Education	\$736,000	\$184,000	\$76,667	\$76,667	\$76,667	\$1,150,001
Workforce Development	\$893,600	\$198,400	\$82,667	\$82,667	\$82,667	\$1,340,000
Community Outreach	\$768,000	\$192,000	\$80,000	\$80,000	\$80,000	\$1,200,000
Customer Engagement Initiative	\$450,000	\$80,000	\$70,000	\$50,000	\$50,000	\$700,000
Subtotal: Education & Engagement	\$2,847,600	\$654,401	\$309,333	\$289,334	\$289,334	\$4,390,001
	OTHER	R - PROGRAMS/REQ	UIREMENTS			
Residential Loan Program (includes ECLF and OBR)	\$2,750,000	\$157,992	\$84,523	\$86,292	\$86,292	\$3,165,099
C&I Financing Support	\$1,750,000	\$85,000	\$93,905	\$20,000	\$75,000	\$2,023,905
Research, Development & Demonstration	\$162,227	\$151,250	\$50,000	\$50,000	\$50,000	\$463,477
Subtotal: Programs/Requirements	\$4,662,227	\$394,242	\$228,428	\$156,292	\$211,292	\$5,652,481
		- ADMINISTRATIVE		7-00,-01	7,	70,000,000
Administration	\$902,597	\$185,015	\$150,933	\$188,011	\$188,007	\$1,614,563
Marketing Plan	\$430,380	\$121,400	\$40,100	\$40,100	\$40,100	\$672,081
Planning	\$753,170	\$194,043	\$79,158	\$122,148	\$63,502	\$1,212,021
EM&V	\$2,880,000	\$720,000	\$300,000	\$300,000	\$300,000	\$4,500,000
Evaluation Administrator	\$284,232	\$71,057	\$29,607	\$29,607	\$29,607	\$444,110
Information Technology	\$1,839,097	\$1,194,375	\$140,726	\$584,822	\$609,473	\$4,368,493
Energy Efficiency Board Consultants	\$512,001	\$1,194,373	\$53,333	\$53,333	\$53,333	\$800,000
Audits - Financial and Operational	\$60,000	\$24,000	\$10,000	\$10,000	\$10,000	\$114,000
<u>'</u>						
Performance Management Incentive  Subtotal: Admin/Planning Expenditures	\$7,813,074 <b>\$15,474,551</b>	\$1,651,950 <b>\$4,289,840</b>	\$847,047 <b>\$1,650,904</b>	\$701,104 <b>\$2,029,124</b>	\$575,618 <b>\$1,869,640</b>	\$11,588,793 \$25,314,060
TOTAL	\$164,930,780	\$34,914,000	\$17,880,931	\$14,816,121	\$12,180,928	\$244,722,760

Table A – 2023 Combined Budgets (Electric and Natural Gas)

	2023	2023	2023	2023	2023	2023
	Eversource CT	UI	Eversource CT Gas	CNG	scg	Statewide
	Electric	Proposed	Proposed	Proposed	Proposed	Combined
Statewide EE BUDGET	Proposed Budget	Budget	Budget	Budget	Budget	Total
	03/01/2022	03/01/2022	03/01/2022	03/01/2022	03/01/2022	03/01/2022
	00, 01, 1011	RESIDEN'	· ·	00,01,1011	00,02,2022	00,01,101
Residential Retail Products	\$4,158,000	\$761,887	\$ -	\$ -	\$ -	\$4,919,887
Residential New Construction	\$3,505,832	\$561,642	\$635,403	\$587,523	\$650,953	\$5,941,353
Home Energy Solutions	\$20,600,574	\$3,388,716	\$2,437,902	\$2,966,300	\$2,562,059	\$31,955,551
HVAC & Water Heating Equipment	\$13,428,670	\$2,168,934	\$4,641,653	\$1,627,346	\$1,807,236	\$23,673,838
HES Income Eligible	\$15,883,645	\$3,715,418	\$4,217,953	\$4,248,283	\$3,426,508	\$31,491,806
Residential Behavior	\$90,000	\$265,728	\$10,000	\$152,234	\$147,656	\$665,618
Subtotal: Residential EE Portfolio	\$57,666,721	\$10,862,324	\$11,942,911	\$9,581,687	\$8,594,411	\$98,648,054
		COMMERCIAL &				
Energy Conscious Blueprint	\$11,494,349	\$3,920,523	\$4,285,543	\$1,975,108	\$1,627,060	\$23,302,584
Energy Opportunities	\$32,403,888	\$7,466,578	\$3,912,565	\$1,152,718	\$1,072,738	\$46,008,487
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	\$3,101,155	\$1,105,723	\$727,122	\$608,763	\$481,971	\$6,024,733
Small Business	\$12,526,525	\$3,642,400	\$751,883	\$475,582	\$296,671	\$17,693,060
Subtotal: C&I EE Portfolio	\$59,525,917	\$16,135,225	\$9,677,112	\$4,212,170	\$3,478,441	\$93,028,864
		OTHER - LOAD MA	NAGEMENT			
Residential Demand Response	\$3,082,000	\$687,094	\$ -	\$151,003	\$206,534	\$4,126,630
C&I Demand Response	\$4,380,590	\$424,129	\$ -	\$187,385	\$200,260	\$5,192,364
Subtotal: Load Management	\$7,462,590	\$1,111,223	\$-	\$338,387	\$406,794	\$9,318,994
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Energy Education	\$736,000	\$184,000	\$76,667	\$76,667	\$76,667	\$1,150,000
Workforce Development	\$793,600	\$198,400	\$82,667	\$82,667	\$82,667	\$1,240,000
Community Outreach	\$768,000	\$192,000	\$80,000	\$80,000	\$80,000	\$1,200,000
Customer Engagement Initiative	\$400,000	\$80,000	\$70,000	\$50,000	\$50,000	\$650,000
Subtotal: Education & Engagement	\$2,697,600	\$654,401	\$309,333	\$289,334	\$289,333	\$4,240,001
		OTHER - PROGRAMS/	REQUIREMENTS			
Residential Loan Program (includes ECLF and OBR)	\$2,500,000	\$146,738	\$84,523	\$86,292	\$86,292	\$2,903,845
C&I Financing Support	\$1,000,000	\$85,000	\$93,905	\$20,000	\$75,000	\$1,273,905
Research, Development & Demonstration	\$162,227	\$151,250	\$50,000	\$50,000	\$50,000	\$463,477
Subtotal: Programs/Requirements	\$3,662,227	\$382,988	\$228,428	\$156,292	\$211,292	\$4,641,227
	0	THER - ADMINISTRAT	TIVE & PLANNING			
Administration	\$902,597	\$185,015	\$150,933	\$188,011	\$188,007	\$1,614,563
Marketing Plan	\$430,380	\$121,400	\$40,100	\$40,100	\$40,100	\$672,081
Planning	\$703,170	\$194,043	\$79,158	\$122,148	\$63,502	\$1,162,021
EM&V	\$2,880,000	\$720,000	\$300,000	\$300,000	\$300,000	\$4,500,000
Evaluation Administrator	\$284,232	\$71,057	\$29,607	\$29,607	\$29,607	\$444,110
Information Technology	\$1,839,097	\$725,375	\$140,726	\$284,822	\$332,473	\$3,322,493
Energy Efficiency Board Consultants	\$512,001	\$128,000	\$53,333	\$53,333	\$53,333	\$800,000
Audits - Financial and Operational	\$60,000	\$24,000	\$10,000	\$10,000	\$10,000	\$114,000
Performance Management Incentive	\$6,888,515	\$1,554,600	\$1,143,435	\$775,647	\$695,218	\$11,057,415
Subtotal: Admin/Planning	\$14,499,992	\$3,723,490	\$1,947,292	\$1,803,668	\$1,712,240	\$23,686,682
Expenditures						

Table A – 2024 Combined Budgets (Electric and Natural Gas)

	2024	2024	2024	2024	2024	2024
	Eversource CT Electric	2024 UI	Eversource CT	CNG	SCG	Statewide
	Proposed	Proposed	Gas	Proposed	Proposed	Combined
Statewide EE BUDGET	Budget	Budget	Proposed	Budget	Budget	Total
	03/01/2022	03/01/2022	Budget	03/01/2022	03/01/2022	03/01/2022
		RESIDENTIAL	03/01/2022			
Residential Retail Products	\$3,300,000	\$761,887	\$ -	\$ -	\$ -	\$4,061,887
Residential New Construction	\$3,398,786	\$539,724	\$635,403	\$562,810	\$673,793	\$5,810,515
Home Energy Solutions	\$20,630,532	\$3,262,881	\$2,853,980	\$2,954,523	\$2,545,775	\$32,247,691
HVAC & Water Heating Equipment	\$13,170,628	\$2,056,814	\$4,641,653	\$1,574,394	\$1,823,107	\$23,266,596
HES Income Eligible	\$15,312,025	\$3,583,349	\$4,217,953	\$4,305,853	\$3,506,727	\$30,925,907
Residential Behavior	\$90,000	\$243,841	\$10,000	\$151,745	\$153,821	\$649,406
Subtotal: Residential EE Portfolio	\$55,901,971	\$10,448,495	\$12,358,989	\$9,549,324	\$8,703,223	\$96,962,001
		OMMERCIAL & INDUS				
Energy Conscious Blueprint	\$10,622,972	\$3,839,995	\$4,285,543	\$2,032,228	\$1,647,316	\$22,428,054
Energy Opportunities	\$31,572,625	\$7,185,372	\$3,914,766	\$1,182,949	\$1,086,025	\$44,941,736
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	\$3,059,619	\$1,072,253	\$727,122	\$624,239	\$487,917	\$5,971,150
Small Business	\$12,039,216	\$3,578,597	\$751,883	\$484,608	\$299,602	\$17,153,905
Subtotal: C&I EE Portfolio	\$57,294,432	\$15,676,217	\$9,679,313	\$4,324,023	\$3,520,860	\$90,494,845
Subtotui. Cai EE i oi tiono		HER - LOAD MANAGE		74,324,023	<b>43,320,000</b>	<b>430,434,043</b>
Residential Demand Response	\$3,536,100	\$833,588	\$ -	\$156,408	\$214,717	\$4,740,813
C&I Demand Response	\$4,512,008	\$492,859	\$ -	\$191,720	\$204,981	\$5,401,568
·			·			
Subtotal Load Management	\$8,048,108	\$1,326,447	\$ -	\$348,128	\$419,698	\$10,142,381
		- EDUCATION & ENG				
Energy Education	\$736,000	\$184,000	\$76,667	\$76,667	\$76,667	\$1,150,000
Workforce Development	\$793,600	\$198,400	\$82,667	\$82,667	\$82,667	\$1,240,000
Community Outreach	\$768,000	\$192,000	\$80,000	\$80,000	\$80,000	\$1,200,000
Customer Engagement Initiative	\$400,000	\$80,000	\$70,000	\$50,000	\$50,000	\$650,000
Subtotal: Education & Engagement	\$2,697,600	\$654,401	\$309,333	\$289,334	\$289,333	\$4,240,001
	OTHER	R - PROGRAMS/REQU	IREMENTS	1	1	
Residential Loan Program (includes ECLF and OBR)	\$2,500,000	\$146,738	\$84,523	\$86,292	\$86,292	\$2,903,845
C&I Financing Support	\$1,000,000	\$85,000	\$93,905	\$20,000	\$75,000	\$1,273,905
Research, Development & Demonstration	\$162,227	\$151,250	\$50,000	\$50,000	\$50,000	\$463,477
Subtotal: Programs/Requirements	\$3,662,227	\$382,988	\$228,428	\$156,292	\$211,292	\$4,641,227
	OTHER	- ADMINISTRATIVE &	PLANNING			
Administration	\$902,597	\$185,015	\$150,933	\$188,011	\$188,007	\$1,614,563
Marketing Plan	\$430,380	\$121,400	\$40,100	\$40,100	\$40,100	\$672,081
Planning	\$703,170	\$194,043	\$79,158	\$122,148	\$63,502	\$1,162,021
EM&V	\$2,880,000	\$720,000	\$300,000	\$300,000	\$300,000	\$4,500,000
Evaluation Administrator	\$284,232	\$71,057	\$29,607	\$29,607	\$29,607	\$444,110
Information Technology	\$1,839,097	\$517,375	\$140,726	\$260,822	\$310,473	\$3,068,493
Energy Efficiency Board Consultants	\$512,001	\$128,000	\$53,333	\$53,333	\$53,333	\$800,000
Audits - Financial and Operational	\$60,000	\$24,000	\$10,000	\$10,000	\$10,000	\$114,000
Performance Management Incentive	\$6,717,979	\$1,511,319	\$1,164,349	\$778,909	\$702,324	\$10,874,881
Subtotal: Admin/Planning Expenditures	\$14,329,456	\$3,472,210	\$1,968,206	\$1,782,929	\$1,697,346	\$23,250,148
TOTAL	\$141,933,793	\$31,960,758	\$24,544,270	\$16,450,030	\$14,841,752	\$229,730,603

Table B – Statewide Electric and Natural Gas Costs and Benefits (2022)

2022	Cos	ts (\$000) Ele	ctric	С	osts (\$000)	Gas	E	enefits (\$00	0)		nefit Cost Ratios
2022 Statewide	Utility Cost	Modified Utility Cost	Total Resource Cost	Utility Cost	Modified Utility Cost	Total Resource Cost	Modified Utility Benefit	Total Resource Benefit	Utility Cost Test	Modifie d Utility Cost Test	Total Resource Cost Test
				R	esidential						
Retail Products	\$4,915	\$4,915	\$11,940	\$ -	\$ -	\$ -	\$9,370	\$15,792	1.89	1.91	1.32
New Construction	\$4,560	\$4,610	\$9,917	\$1,658	\$1,658	\$2,967	\$16,882	\$24,430	2.25	2.69	1.90
Home Energy Solutions	\$13,611	\$28,407	\$31,163	\$6,383	\$6,383	\$6,483	\$	\$110,401	1.02	2.19	2.93
HVAC & Water Heating Equipment	\$16,692	\$16,692	\$31,520	\$6,911	\$6,911	\$10,553	\$60,252	\$87,957	1.13	2.55	2.09
HES - Income Eligible	\$13,151	\$22,392	\$23,171	\$9,391	\$9,391	\$10,078	\$35,563	\$77,705	0.57	1.12	2.34
Behavior	\$372	\$372	\$372	\$262	\$262	\$262	\$1,139	\$1,922	1.80	1.80	3.03
Subtotal: Residential	\$53,302	\$ <b>77,387</b>	\$108,083	\$24,606	\$24,606	\$30,342	\$199,555	\$318,206	1.08	1.96	2.30
				Comme	rcial & Indu	strial					
Energy Conscious Blueprint	\$17,749	\$17,749	\$22,670	\$6,653	\$6,653	\$9,294	\$59,529	\$87,343	2.44	2.44	2.73
Energy Opportunities	\$44,690	\$44,690	\$80,722	\$3,332	\$3,332	\$5,572	\$74,777	\$108,219	1.56	1.56	1.25
BES	\$4,330	\$4,330	\$7,139	\$1,380	\$1,380	\$2,173	\$13,214	\$20,095	2.30	2.31	2.16
Small Business	\$18,348	\$18,348	\$34,505	\$1,236	\$1,236	\$2,172	\$34,782	\$49,382	1.78	1.78	1.35
Subtotal: C&I	\$ <b>85,117</b>	\$ <b>85,117</b>	\$ <b>145,036</b>	\$ <b>12,601</b>	\$ <b>12,601</b>	\$ <b>19,210</b>	\$ <b>182,302</b>	\$ <b>265,039</b>	1.87	1.87	1.61
				Dem	and Respon	se					
Demand Response - Res	\$3,905	\$3,905	\$3,905	\$ -	\$ -	\$ -	\$4,253	\$4,253	1.09	1.09	1.09
Demand Response - C&I	\$5,112	\$5,112	\$5,112	\$ -	\$ -	\$ -	\$10,698	\$10,698	2.09	2.09	2.09
Subtotal: Demand Response	\$9,017	\$9,017	\$9,017	\$ -	\$ -	\$ -	\$ <b>14,951</b>	\$ <b>14,950</b>	1.66	1.66	1.66
Subtotal: Other	\$ <b>28,323</b>	\$28,323	\$28,323	\$ <b>7,671</b>	\$ <b>7,671</b>	\$ <b>7,671</b>	\$ -	\$ -	-	-	-
TOTAL	\$175,759	\$ <b>199,845</b>	\$290,460	\$44,878	\$44,878	\$57,224	\$396,809	5\$98,196	1.28	1.62	1.72

	Electri	c Quantities		Electric Saving	S	Gas Qu	antities		Gas Savings	
2022 Statewide	No. of Elec Units	Units of Measure	Annual Savings (MWh)	Lifetime Savings (MWh)	Peak kW Impact (Y/E)	No. of Gas Units	Units of Measure	Annual Savings (ccf)	Lifetime Savings (ccf)	Peak Savings (ccf)
				Residential						
Retail Products	541,484	Bulbs, Fixtures	14,481	75,701	2,275	-	-	-	-	-
New Construction	2,122	No. of Units	3,791	75,474	802	1,100	Homes	256,029	6,400,734	1,511
Home Energy Solutions	25,303	No. of Ptcps.	8,349	101,913	2,075	4,435	Homes	392,377	7,913,160	3,890
HVAC & Water Heating Equipment	73,844	No. of Ptcps.	7,832	123,739	2,256	17,343	Units	662,318	12,705,077	5,873
HES - Income Eligible	18,851	Customers	5,642	42,785	772	5,616	Homes	496,827	10,342,895	12,949
Behavior	165,000	Customers	2,955	5,195	82	54,086	Units	278,759	548,301	90
Subtotal: Residential	-	-	43,050	424,808	8,262			2,086,311	37,910,166	24,314
			Coı	mmercial & Ind	lustrial					
Energy Conscious Blueprint	302	Projects	32,576	456,943	6,137	718	Projects	668,116	10,883,404	5,964
Energy Opportunities	1,162	Projects	78,244	561,605	11,933	156	Projects	479,665	4,717,083	3,451
BES	276	Projects	11,467	86,699	2,090	31	Projects	438,382	2,751,037	3,735
Small Business	1,150	Projects	32,112	253,361	5,950	472	Projects	148,151	1,995,099	1,292
Subtotal: C&I	-	-	154,399	1,358,607	26,110	-	-	1,734,314	20,346,623	14,442
				Demand Respo	nse					
Demand Response - Res	33,504	No. of Ptcps.	-	-	19,759	-	-	-	-	-
Demand Response - C&I	354	New Ptcps.	-	-	80,674	-	-	-	-	-
Subtotal: Demand Response	-	-	-	-	100,433	-	-	-	-	-
Subtotal: Other	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	197,449	1,783,416	134,804	-	-	3,820,625	58,256,788	38,756

Table B – Statewide Electric and Natural Gas Costs and Benefits (2022) (continued)

		Oil/Propane	Savings				Emissio	ns Savings
2022 Statewide	Annual Oil Savings (Gal)	Lifetime Oil Savings (Gal)	Annual Propane Savings (Gal)	Lifetime Propane Savings (Gal)	Annual MMBtu	Life Time MMBtu	Annual Tons CO2	Lifetime Tons CO2
			Resident	ial				
Retail Products	-68,836	-56,863	2,724	44,495	40,109	254,470	4,446	29,484
New Construction	-	-	35,030	875,755	42,479	996,136	3,636	83,495
Home Energy Solutions	762,829	15,792,207	75,312	1,603,455	181,539	3,498,657	17,263	329,732
HVAC & Water Heating Equipment	546,619	8,134,512	150,188	2,154,461	184,404	3,054,494	16,716	271,942
HES - Income Eligible	303,454	6,494,573	27,165	614,131	114,939	2,167,088	10,102	187,328
Behavior	-	-	-	-	38,767	74,145	3,197	6,051
Subtotal: Residential	1,544,066	30,364,429	290,420	5,292,298	602,238	10,044,991	55,361	908,032
		Co	mmercial & I	ndustrial				
Energy Conscious Blueprint	510	10,200	408	8,160	180,008	2,681,150	17,347	254,665
Energy Opportunities	2,028	20,280	1,775	17,745	316,768	2,406,017	32,961	246,512
BES	1,347	10,775	808	6,465	84,494	580,983	7,669	53,824
Small Business	720	12,960	954	17,172	124,999	1,073,129	13,172	110,515
Subtotal: C&I	4,605	54,215	3,945	49,542	706,270	6,741,279	71,149	665,516
			Demand Res	ponse				
Demand Response - Res	-	-	-	-	-	-	-	-
Demand Response - C&I	-	-	-	-	-	-	-	-
Subtotal: Demand Response	-	-	-	-	-	-	-	-
Subtotal: Other	-	-	-	-	-	-	-	-
TOTAL	1,548,671	30,418,645	294,364	5,341,840	1,308,507	16,786,270	126,510	1,573,548

Table B – Statewide Electric and Natural Gas Costs and Benefits (2023)

	Cos	sts (\$000) Elec	tric	Co	osts (\$000) G	as	Benefits	; (\$000)	Ber	nefit Cost Ratio	os
2023 Statewide	Utility Cost	Modified Utility Cost	Total Resource Cost	Utility Cost	Modified Utility Cost	Total Resourc e Cost	Modified Utility Benefit	Total Resource Benefit	Utility Cost Test	Modified Utility Cost Test	Total Resource Cost Test
					Residenti	al					
Retail Products	\$4,920	\$4,920	\$12,788	\$ -	\$-	\$ -	\$10,306	\$20,639	2.01	2.09	1.61
New Construction	\$4,022	\$4,067	\$8,889	\$1,977	\$1,977	\$3,663	\$17,176	\$25,945	2.44	2.84	2.07
Home Energy Solutions	\$11,070	\$23,989	\$26,414	\$7,941	\$7,941	\$7,941	\$66,883	\$97,791	1.06	2.09	2.85
HVAC & Water Heating Equipment	\$15,598	\$15,598	\$29,521	\$8,415	\$8,415	\$13,039	\$59,766	\$88,681	1.13	2.49	2.08
HES - Income Eligible	\$11,387	\$\$19,599	\$19,664	\$11,476	\$11,476	\$11,521	\$33,463	\$72,990	0.62	1.08	2.34
Behavior	\$356	356	\$356	\$310	\$310	\$310	\$1,144	\$1,916	1.72	1.72	2.88
Subtotal: Residential	\$47,351	\$68,529	\$97,632	\$30,119	\$30,119	\$36,475	\$188,738	\$307,961	1.13	1.91	2.30
				Coi	mmercial & II	ndustrial					
Energy Conscious Blueprint	\$15,415	\$15,415	\$19,792	\$7,888	\$7,888	\$11,279	\$50,650	\$75,510	2.18	2.17	2.43
Energy Opportunities	\$39,870	\$39,870	\$71,189	\$6,138	\$6,138	\$10,863	\$67,510	\$100,033	1.47	1.47	1.22
BES	\$4,207	\$4,207	\$6,887	\$1,818	\$1,818	\$3,045	\$13,793	\$21,608	2.28	2.29	2.18
Small Business	\$16,169	\$16,169	\$30,164	\$1,524	\$1,524	\$2,759	\$30,161	\$43,028	1.71	1.70	1.31
Subtotal: C&I	\$75,661	\$75,661	\$128,033	\$17,368	\$17,368	\$27,946	\$162,114	\$240,180	1.75	1.74	1.54
					Demand Res	ponse					
Demand Response - Res	\$3,769	\$3,769	\$3,769	\$ -	\$-	\$ -	\$4,376	\$4,376	1.16	1.16	1.16
Demand Response - C&I	\$4,805	\$4,805	\$4,805	\$ -	\$-	\$ -	\$11,383	\$11,383	2.37	2.37	2.37
Subtotal: Demand Response	\$8,574	\$8,574	\$8,574	\$ -	\$ -	\$ -	\$15,760	\$15,759	1.84	1.84	1.84
Subtotal: Other	\$25,621	\$25,621	\$25,621	\$7,692	\$7,692	\$7,692	\$ -	\$ -	-		
TOTAL	\$157,207	\$178,385	\$259,859	\$55,179	\$55,179	\$72,114	\$366,611	\$563,900	1.25	1.57	1.70

	Electri	c Quantities	E	lectric Saving	s	Gas Q	uantities		Gas Savings		
2023 Statewide	No. of Elec Units	Units of Measure	Annual Savings (MWh)	Lifetime Savings (MWh)	Peak kW Impact (Y/E)	No. of Gas Units	Units of Measure	Annual Savings (ccf)	Lifetime Savings (ccf)	Peak Savings (ccf)	
				Residential							
Retail Products	452,894	Bulbs, Fixtures	13,991	82,945	2,198	-	-	-	-	-	
New Construction	1,922	No. of Units	3,319	65,688	714	1,417	Homes	344,046	8,601,140	2,083	
Home Energy Solutions	23,827	No. of Ptcps.	6,293	84,407	1,590	5,839	Homes	504,769	10,198,845	7,188	
HVAC & Water Heating Equipment	69,194	No. of Ptcps.	7,310	115,482	2,108	21,881	Units	815,024	15,625,115	7,443	
HES - Income Eligible	17,163	Customers	4,682	36,035	750	7,297	Homes	605,764	12,664,526	15,260	
Behavior	163,250	Customers	2,843	4,971	82	52,482	Units	280,096	550,973	90	
Subtotal: Residential	-	-	38,438	389,528	7,442	-	-	2,549,698	47,640,599	32,064	
			Comr	nercial & Indu	ıstrial						
Energy Conscious Blueprint	261	Projects	25,943	364,451	5,132	966	Projects	808,359	12,855,337	7,225	
Energy Opportunities	1,046	Projects	67,179	483,241	10,212	336	Projects	989,902	9,861,738	6,417	
BES	249	Projects	10,954	82,868	1,981	49	Projects	668,900	4,295,492	5,232	
Small Business	1,021	Projects	27,725	218,334	5,092	686	Projects	194,030	2,533,475	1,660	
Subtotal: C&I	-	-	131,801	1,148,894	22,416	-	-	2,661,192	29,546,042	20,534	
			De	mand Respor	ise						
Demand Response - Res	33,063	No. of Ptcps.	-	-	20,109	-	-	-	-	-	
Demand Response - C&I	373	New Ptcps.	-	-	83,012	-	-	-	-	-	
Subtotal: Demand Response	-	-	-	-	103,121	-	-	-	-	-	
Subtotal: Other	-	-	-	-	-	-	-	-	-	-	
TOTAL	-	-	170,239	1,538,422	132,978	-	-	5,210,890	77,186,641	52,597	

Table B – Statewide Electric and Natural Gas Costs and Benefits (2023) (continued)

		Oil/Propane	Savings				Emissio	ns Savings
2023 Statewide	Annual Oil Savings (Gal)	Lifetime Oil Savings (Gal)	Annual Propane Savings (Gal)	Lifetime Propane Savings (Gal)	Annual MMBtu	Life Time MMBtu	Annual Tons CO2	Lifetime Tons CO2
			Resident	ial				
Retail Products	-28,140	29,808	3,370	48,907	44,142	291,610	5,009	34,040
New Construction	-	-	30,140	753,497	49,480	1,178,000	4,066	95,024
Home Energy Solutions	626,178	12,789,887	57,679	1,211,420	165,525	3,221,927	15,248	294,980
HVAC & Water Heating Equipment	510,251	7,593,336	140,169	2,010,764	192,375	3,238,612	17,059	281,703
HES - Income Eligible	250,460	5,346,885	22,538	501,218	115,103	2,213,466	9,741	184,926
Behavior	-	-	-	-	38,522	73,656	3,164	5,985
Subtotal: Residential	1,358,748	25,759,916	253,896	4,525,806	605,146	10,217,271	54,287	896,657
		Co	mmercial & I	ndustrial				
Energy Conscious Blueprint	612	12,240	510	10,200	171,830	2,568,949	15,869	234,165
Energy Opportunities	2,434	24,336	2,180	21,801	331,613	2,668,958	32,597	255,247
BES	1,322	10,578	793	6,347	106,460	726,798	9,178	63,781
Small Business	792	14,256	1,108	19,946	114,773	1,009,449	11,871	101,378
Subtotal: C&I	5,160	61,410	4,592	58,293	724,676	6,974,154	69,515	654,571
			Demand Res	ponse				
Demand Response - Res	-	-	-	-	-	-	-	-
Demand Response - C&I	-	-	-	-	-	-	-	-
Subtotal: Demand Response	-	-	-	-	-	-	-	-
Subtotal: Other	-	-	-	-	-	-	-	-
TOTAL	1,363,908	25,821,326	258,488	4,584,099	1,329,823	17,191,425	123,802	1,551,229

Table B – Statewide Electric and Natural Gas Costs and Benefits (2024)

	Со	sts (\$000) Ele	ctric	Co	osts (\$000) G	as	Benefit	s (\$000)	Bei	nefit Cost	Ratios
2024 Statewide	Utility Cost	Modified Utility Cost	Total Resource Cost	Utility Cost	Modified Utility Cost	Total Resource Cost	Modified Utility Benefit	Total Resource Benefit	Utility Cost Test	Mod. Utility Cost Test	Total Resource Cost Test
				Res	sidential						<u> </u>
Retail Products	\$4,062	\$4,062	\$10,302	\$ -	\$ -	\$ -	\$7,843	\$16,543	1.84	1.93	1.61
New Construction	\$3,893	\$3,939	\$9,277	\$1,998	\$1,998	\$3,679	\$16,827	\$25,506	2.43	2.83	1.97
Home Energy Solutions	\$11,040	\$23,893	\$26,312	\$8,332	\$8,332	\$8,332	\$68,377	\$98,896	1.04	2.12	2.85
HVAC & Water Heating Equipment	\$15,227	\$15,227	\$28,926	\$8,485	\$8,485	\$13,082	\$59,657	\$88,412	1.12	2.52	2.10
HES - Income Eligible	\$10,763	\$18,895	\$19,779	\$11,482	\$11,482	\$12,356	\$32,487	\$71,420	0.61	1.07	2.22
Behavior	\$334	\$334	\$334	\$316	\$316	\$316	\$1,068	\$1,787	1.64	1.64	2.75
Subtotal: Residential	\$45,319	\$66,350	\$ <b>94,930</b>	30,612	30,612	\$37,764	\$186,260	\$302,564	1.10	1.92	2.28
				Commerc	ial & Industr	ial					
Energy Conscious Blueprint	\$14,463	\$14,463	\$18,665	\$7,965	\$7,965	\$11,433	\$46,697	\$69,395	2.08	2.08	2.31
Energy Opportunities	\$38,758	\$438,758	\$68,839	\$6,184	\$6,184	\$10,933	\$64,031	\$94,485	1.43	1.42	1.18
BES	\$4,132	\$44,132	\$6,731	\$1,839	\$1,839	\$3,086	\$13,021	\$20,460	2.17	2.18	2.08
Small Business	\$15,618	\$415,618	\$28,986	\$1,536	\$1,536	\$2,787	\$27,798	\$39,343	1.62	1.62	1.24
Subtotal: C&I	\$72,971	\$72,971	\$123,221	\$ <b>17,524</b>	\$ <b>17,524</b>	\$ <b>28,238</b>	\$ <b>151,546</b>	\$ <b>223,683</b>	1.68	1.67	1.48
				Deman	d Response						
Demand Response - Res	\$4,370	\$4,370	\$4,370	\$ -	\$-	\$ -	\$4,998	\$4,997	1.14	1.14	1.14
Demand Response - C&I	\$5,005	\$5,005	\$5,005	\$ -	\$-	\$ -	\$12,962	\$12,961	2.59	2.59	2.59
Subtotal: Demand Response	\$9,375	\$9,375	\$9,375	\$ -	\$ -	\$ -	\$ <b>17,959</b>	\$ <b>17,959</b>	1.92	1.92	1.92
Subtotal: Other	\$25,199	\$25,199	\$25,199	\$7,700	\$7,700	\$7,700	\$ -	\$ -	-	-	-
TOTAL	\$152,863	\$173,895	\$252,725	\$55,836	\$55,836	\$73,703	\$355,766	\$544,206	1.21	1.55	1.67

	Electric Quantities		E	lectric Saving	gs	Gas Quantities		Gas Savings		
2024 Statewide	No. of Elec Units	Units of Measure	Annual Savings (MWh)	Lifetime Savings (MWh)	Peak kW Impact (Y/E)	No. of Gas Units	Units of Measure	Annual Savings (ccf)	Lifetime Savings (ccf)	Peak Savings (ccf)
			R	esidential						
Retail Products	286,717	Bulbs, Fixtures	9,765	64,047	1,660	-	-	-	-	-
New Construction	1,856	No. of Units	3,184	62,800	692	1,413	Homes	343,500	8,587,511	2,081
Home Energy Solutions	23,958	No. of Ptcps.	6,344	84,019	1,690	6,432	Homes	529,127	10,682,953	7,396
HVAC & Water Heating Equipment	68,005	No. of Ptcps.	7,169	113,267	2,051	21,806	Units	810,832	15,541,882	7,407
HES - Income Eligible	15,935	Customers	4,168	32,831	624	7,560	Homes	602,455	12,658,369	15,362
Behavior	161,587	Customers	2,737	4,758	82	50,958	Units	267,945	526,672	90
Subtotal: Residential	-	-	33,367	361,721	6,799	-	-	2,553,859	47,997,388	32,337
			Comme	rcial & Indust	rial					
Energy Conscious Blueprint	244	Projects	23,241	327,474	4,939	984	Projects	801,751	12,762,442	7,230
Energy Opportunities	1,005	Projects	64,340	463,231	9,804	338	Projects	987,779	9,838,166	6,419
BES	246	Projects	10,372	78,379	1,847	50	Projects	670,998	4,305,742	5,271
Small Business	976	Projects	25,503	201,832	4,845	687	Projects	193,900	2,530,788	1,657
Subtotal: C&I	-	-	123,457	1,070,915	21,437	-	-	2,654,427	29,437,138	20,577
Demand Response										
Demand Response - Res	36,930	No. of Ptcps.	-	-	22,568	-	-	-	-	-
Demand Response - C&I	413	New Ptcps.	-	-	90,020	-	-	-	-	-
Subtotal: Demand Response	-	-	-	-	112,588	-	-	-	-	-
Subtotal: Other	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	156,823	1,432,636	140,824	-	-	5,208,286	77,434,525	52,914

Table B – Statewide Electric and Natural Gas Costs and Benefits (2024) (continued)

		Oil/Propane	Savings				Emissio	ns Savings
2024 Statewide	Annual Oil Savings (Gal)	Lifetime Oil Savings (Gal)	Annual Propane Savings (Gal)	Lifetime Propane Savings (Gal)	Annual MMBtu	Life Time MMBtu	Annual Tons CO2	Lifetime Tons CO2
		'	Resident	ial		'		
Retail Products	-17,496	31,868	3,924	47,184	31,249	227,257	3,558	26,548
New Construction	-	-	28,773	719,326	48,839	1,163,625	3,999	93,536
Home Energy Solutions	626,067	12,782,040	57,617	1,210,130	168,185	3,269,210	15,448	298,307
HVAC & Water Heating Equipment	500,517	7,448,494	137,482	1,972,227	189,869	3,198,881	16,818	277,913
HES - Income Eligible	236,602	5,032,796	21,792	481,404	111,018	2,156,529	9,316	179,166
Behavior	-	-	-	-	36,909	70,429	3,033	5,723
Subtotal: Residential	1,345,690	25,295,199	249,588	4,430,272	586,069	10,085,931	52,173	881,192
		Co	mmercial & I	ndustrial				
Energy Conscious Blueprint	714	14,280	612	12,240	161,954	2,433,693	14,800	219,527
Energy Opportunities	2,839	28,392	2,586	25,857	321,801	2,599,189	31,523	247,630
BES	967	7,738	775	6,199	104,642	712,130	8,965	62,094
Small Business	862	15,509	1,106	19,909	107,188	953,038	11,041	95,196
Subtotal: C&I	5,382	65,919	5,079	64,206	695,584	6,698,051	66,330	624,448
			Demand Res	ponse				
Demand Response - Res	-	-	-	-	-	-	-	-
Demand Response - C&I	-	-	-	-	-	-	-	-
Subtotal: Demand Response	-	-	-	-	-	-	-	-
Subtotal: Other	-	-	-	-	-	-	-	-
TOTAL	1,351,073	25,361,118	254,667	4,494,477	1,281,653	16,783,982	118,502	1,505,640

# **E.2 STATEWIDE ELECTRIC TABLES**

# Combined Electric Table A1 (2021)

Eversource CT Electric/UI EE BUDGET	2021 Eversource CT Electric Actual Results 12/31/21	2021 UI Actual Results 12/31/21	2021 Eversource CT Electric/UI Combined Total 12/31/21
	RESIDENT	IAL	
Residential Retail Products	\$ 8,656,062	\$ 1,959,310	\$ 10,615,372
Residential New Construction	\$ 2,965,128	\$ 770,213	\$ 3,735,341
Home Energy Solutions	\$ 33,889,599	\$ 6,327,483	\$ 40,217,082
HVAC & Water Heating Equipment	\$ 12,072,073	\$ 2,249,235	\$ 14,321,308
HES-Income Eligible	\$ 19,925,766	\$ 4,956,531	\$ 24,882,297
Residential Behavior	\$ -	\$ 68,544	\$ 68,544
Subtotal: Residential EE Portfolio			· ,
Subtotal: Residential EE Portiollo		\$ 16,331,317	\$ 93,839,945
Facure Conscious Blueswint	COMMERCIAL & II		Ć 10 F0C 0CF
Energy Conscious Blueprint	\$ 10,589,867	\$ 7,916,998	\$ 18,506,865
Energy Opportunities	\$ 37,034,760	\$ 5,801,717	\$ 42,836,477
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	\$ 842,631	\$ 433,054	\$ 1,275,685
Small Business	\$ 12,300,907	\$ 6,996,241	\$ 19,297,148
Subtotal: C&I EE Portfolio	\$ 60,768,165	\$ 21,148,011	\$ 81,916,176
	OTHER - LOAD MA	NAGEMENT	
Residential Demand Response	\$ 2,510,467	\$ 610,010	\$ 3,120,477
C&I Demand Response	\$ 3,375,613	\$ 174,610	\$ 3,550,223
Subtotal: Load Management	\$ 5,886,079	\$ 784,620	\$ 6,670,699
- The state of the	OTHER - EDUCATION 8	, ,	+ 0,000,000
Energy Education	\$ 287,255	\$ 128,511	\$ 415,766
Workforce Development	\$ 323,082	\$ 100,987	\$ 424,069
Community Outreach	\$ 562,598	\$ 107,074	\$ 669,672
Customer Engagement Initiative	\$ 876,301	\$ -	\$ 876,301
Subtotal: Education & Engagement	\$ 2,049,236	\$ 336,571	\$ 2,385,807
	OTHER - PROGRAMS/F	REQUIREMENTS	
Residential Loan Program (includes ECLF and OBR)	\$ 899,986	\$ 28,752	\$ 928,738
C&I Financing Support	\$ 812,014	\$ -	\$ 812,014
Research, Development & Demonstration	\$ 51,833	\$ 7,188	\$ 59,021
Subtotal: Programs/Requirements	\$ 1,763,833	\$ 35,940	\$ 1,799,773
	OTHER - ADMINISTRATI	VE & PLANNING	
Administration	\$ 813,385	\$ 89,281	\$ 902,666
Marketing Plan	\$ 428,193	\$ 176,012	\$ 604,205
Planning	\$ 734,172	\$ 333,097	\$ 1,067,269
Evaluation Measurement and Verification	\$ 1,920,000	\$ 480,000	\$ 2,400,000
Evaluation Administrator	\$ 256,933	\$ 52,635	\$ 309,568
Information Technology	\$ 1,606,701	\$ 692,058	\$ 2,298,759
Energy Efficiency Board Consultants	\$ 394,346	\$ 104,000	\$ 498,346
Audits - Financial and Operational	\$ 60,000	\$ 24,000	\$ 84,000
Performance Management Incentive (PMI)	\$ 8,681,482	\$ 2,459,136	\$ 11,140,618
Subtotal: Admin/Planning Expenditures	\$ 14,895,212	\$ 4,410,219	\$ 19,305,431

# Combined Electric Table A1 (2022)

Eversource CT Electric/UI EE BUDGET	2022 Eversource CT Electric Proposed Budget 03/01/22		2022 UI Proposed Budget 03/01/22		2022 Eversource CT Electric/UI Combined Total 03/01/22	
		RESIDENTIA	Ĺ			
Residential Retail Products	\$	4,158,000	\$	757,358	\$	4,915,358
Residential New Construction	\$	3,986,389	\$	623,386	\$	4,609,775
Home Energy Solutions	\$	24,661,743	\$	3,744,834	\$	28,406,576
HVAC & Water Heating Equipment	\$	14,463,704	\$	2,228,156	\$	16,691,860
HES-Income Eligible	\$	18,444,360	\$	3,947,473	\$	22,391,703
Residential Behavior	\$	90,000	\$	281,839	\$	371,839
Subtotal: Residential EE Portfolio	\$	65,804,196	\$	11,582,916	\$	77,387,112
	,	COMMERCIAL & IND			•	,,
Energy Conscious Blueprint	\$	13,513,265	\$	4,235,858	\$	17,749,124
Energy Opportunities	\$	36,833,451	\$	7,856,527	\$	44,689,978
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	\$	3,175,966	\$	1,154,085	\$	4,330,050
Small Business	\$	14,526,525	\$	3,821,696	\$	18,348,221
Subtotal: C&I EE Portfolio	\$	68,049,207	\$	17,068,167	\$	85,117,373
Subtotuli CCI EL I STRIONO	Ψ	OTHER - LOAD MANA			Ψ	03,117,073
Residential Demand Response	\$	3,340,000	\$	565,015	\$	3,905,015
C&I Demand Response	\$	4,753,000	\$	359,419	\$	5,112,419
Subtotal: Load Management	\$	8,093,000	\$	924,434	\$	9,017,434
Subtotal. Load Management		7,095,000 THER - EDUCATION & E			ş	3,017,434
Energy Education	\$	736,000	\$	184,000	\$	920,000
Workforce Development	\$	893,600	\$	198,400	\$	1,092,000
Community Outreach	\$	768,000	\$	192,000	\$	960,000
Customer Engagement Initiative	\$	450,000	\$	80,000	\$	530,000
Subtotal: Education & Engagement	\$	2,847,600	\$	654,400	\$	3,352,000
	0	THER - PROGRAMS/RE	QUIREME	NTS		
Residential Loan Program (includes ECLF and OBR)	\$	2,750,000	\$	157,992	\$	2,907,992
C&I Financing Support	\$	1,750,000	\$	85,000	\$	1,835,000
Research, Development & Demonstration	\$	162,227	\$	151,250	\$	313,477
Subtotal: Programs/Requirements	\$	4,662,227	\$	394,242	\$	5,056,469
		HER - ADMINISTRATIVI			<b>A</b>	1 007 510
Administration  Marketing Plan	\$	902,597	\$	185,015	\$	1,087,612
Marketing Plan Planning	\$	430,380 753,170	\$	121,400 194,043	\$	551,780 947,213
Evaluation Measurement and Verification	\$	2,880,000	\$	720,000	\$	3,600,000
Evaluation Administrator	\$	284,232	\$	71,057	\$	355,289
Information Technology	\$	1,839,097	\$	1,194,375	\$	3,033,472
Energy Efficiency Board Consultants	\$	512,001	\$	128,000	\$	640,001
Audits - Financial and Operational	\$	60,000	\$	24,000	\$	84,000
Performance Management Incentive (PMI)	\$	7,813,074	\$	1,651,950	\$	9,465,024
Subtotal: Admin/Planning Expenditures	\$	15,474,551	\$	4,289,840	\$	19,764,391
TOTAL	\$	164,930,780	\$	34,914,000	\$	199,844,780

### Combined Electric Table A1 (2023)

Eversource CT Electric/UI EE BUDGET	2023 Eversource CT Electric Proposed Budget 03/01/22		2023 UI Proposed Budget 03/01/22			2023 Eversource CT Electric/UI Combined Total 03/01/22				
RESIDENTIAL										
Residential Retail Products	\$	4,158,000	\$	761,887	\$	4,919,887				
Residential New Construction	\$	3,505,832	\$	561,642	\$	4,067,474				
Home Energy Solutions	\$	20,600,574	\$	3,388,716	\$	23,989,290				
HVAC & Water Heating Equipment	\$	13,428,670	\$	2,168,934	\$	15,597,604				
HES-Income Eligible	\$	15,883,645	\$	3,715,418	\$	19,599,063				
Residential Behavior	\$	90,000	\$	265,728	\$	355,728				
Subtotal: Residential EE Portfolio	\$	57,666,721	\$	10,862,324	\$	68,529,045				
		COMMERCIAL & INDU	STRIAL							
Energy Conscious Blueprint	\$	11,494,349	\$	3,920,523	\$	15,414,873				
Energy Opportunities	\$	32,403,888	\$	7,466,578	\$	39,870,466				
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	\$	3,101,155	\$	1,105,723	\$	4,206,877				
Small Business	\$	12,526,525	\$	3,642,400	\$	16,168,925				
Subtotal: C&I EE Portfolio	\$	59,525,917	\$	16,135,225	\$	75,661,142				
	Ψ	OTHER - LOAD MANAG		_0,_00,0	Ψ	70,002,212				
Residential Demand Response	\$	3,082,000	\$	687,094	\$	3,769,094				
C&I Demand Response	\$	4,380,590	\$	424,129	\$	4,804,719				
Subtotal: Load Management	\$	7,462,590	\$	1,111,223	\$	8,573,813				
		HER - EDUCATION & EN			Ψ	0,070,00				
Energy Education	\$	736,000	\$	184,000	\$	920,000				
Workforce Development	\$	793,600	\$	198,400	\$	992,000				
Community Outreach	\$	768,000	\$	192,000	\$	960,000				
Customer Engagement Initiative	\$	400,000	\$	80,000	\$	480,000				
Subtotal: Education & Engagement	\$	2,697,600	\$	654,400	\$	3,352,000				
	ОТІ	HER - PROGRAMS/REQU	JIREMEN	TS						
Residential Loan Program (includes ECLF and OBR)	\$	2,500,000	\$	146,738	\$	2,646,738				
C&I Financing Support	\$	1,000,000	\$	85,000	\$	1,085,000				
Research, Development & Demonstration	\$	162,227	\$	151,250	\$	313,477				
Subtotal: Programs/Requirements	\$	3,662,227	\$ P. DI ANINII	382,988	\$	4,045,215				
Administration	\$	ER - ADMINISTRATIVE 8 902,597	\$ PLAININI	185,015	\$	1,087,612				
Marketing Plan	\$	430,380	\$	121,400	\$	551,780				
Planning	\$	703,170	\$	194,043	\$	897,213				
Evaluation Measurement and Verification	\$	2,880,000	\$	720,000	\$	3,600,000				
Evaluation Administrator	\$	284,232	\$	71,057	\$	355,289				
Information Technology	\$	1,839,097	\$	725,375	\$	2,564,472				
Energy Efficiency Board Consultants	\$	512,001	\$	128,000	\$	640,001				
Audits - Financial and Operational	\$	60,000	\$	24,000	\$	84,000				
Performance Management Incentive (PMI)	\$	6,888,515	\$	1,554,600	\$	8,443,115				
Subtotal: Admin/Planning Expenditures	\$	14,499,992	\$	3,723,490	\$	18,223,482				
TOTAL	\$	145,515,046	\$	32,869,651	\$	178,384,697				

### Combined Electric Table A1 (2024)

Eversource CT Electric/UI EE BUDGET	2024 Eversource CT Electric Proposed Budget 03/01/22			2024 UI Proposed Budget 03/01/22		2024 versource CT Electric/UI ombined Total 03/01/22
	-	RESIDENTIAL			-	
Residential Retail Products	\$	3,300,000	\$	761,887	\$	4,061,887
Residential New Construction	\$	3,398,786	\$	539,724	\$	3,938,510
Home Energy Solutions	\$	20,630,532	\$	3,262,881	\$	23,893,412
HVAC & Water Heating Equipment	\$	13,170,628	\$	2,056,814	\$	15,227,442
HES-Income Eligible	\$	15,312,025	\$	3,583,349	\$	18,895,374
Residential Behavior	\$	90,000	\$	243,841	\$	333,841
Subtotal: Residential EE Portfolio	\$	55,901,971	\$	10,448,495	\$	66,350,466
		COMMERCIAL & INDU	ISTRIAL			
Energy Conscious Blueprint	\$	10,622,972	\$	3,839,995	\$	14,462,967
Energy Opportunities	\$	31,572,625	\$	7,185,372	\$	38,757,996
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	\$	3,059,619	\$	1,072,253	\$	4,131,872
Small Business	\$	12,039,216	\$	3,578,597	\$	15,617,813
Subtotal: C&I EE Portfolio	\$	57,294,432	\$	15,676,217	\$	72,970,648
Subtotuli Cal EE i Sitionio	Ψ	OTHER - LOAD MANAG		13,070,217	Ψ	72,370,040
Residential Demand Response	\$	3,536,100	\$	833,588	\$	4,369,688
C&I Demand Response	\$	4,512,008	\$	492,859	\$	5,004,867
Subtotal: Load Management	\$	8,048,108	\$	1,326,447	\$	9,374,555
Subtotal. Load Wallagement		HER - EDUCATION & EN	· ·		7	3,374,333
Energy Education	\$	736,000	\$	184,000	\$	920,000
Workforce Development	\$	793,600	\$	198,400	\$	992,000
Community Outreach	\$	768,000	\$	192,000	\$	960,000
Customer Engagement Initiative	\$	400,000	\$	80,000	\$	480,000
Subtotal: Education & Engagement	\$	2,697,600	\$	654,400	\$	3,352,000
		HER - PROGRAMS/REQ	UIREMENT			· ·
Residential Loan Program (Includes ECLF and OBR)	\$	2,500,000	\$	146,738	\$	2,646,738
C&I Financing Support	\$	1,000,000	\$	85,000	\$	1,085,000
Research, Development & Demonstration	\$	162,227	\$	151,250	\$	313,477
Subtotal: Programs/Requirements	\$	3,662,227	\$	382,988	\$	4,045,215
	ОТН	ER - ADMINISTRATIVE	& PLANNII	NG		
Administration	\$	902,597	\$	185,015	\$	1,087,612
Marketing Plan	\$	430,380	\$	121,400	\$	551,780
Planning	\$	703,170	\$	194,043	\$	897,213
Evaluation Measurement and Verification	\$	2,880,000	\$	720,000	\$	3,600,000
Evaluation Administrator	\$	284,232	\$	71,057	\$	355,289
Information Technology	\$	1,839,097	\$	517,375	\$	2,356,472
Energy Efficiency Board Consultants	\$	512,001	\$	128,000	\$	640,001
Audits - Financial and Operational	\$	60,000	\$	24,000	\$	84,000
Performance Management Incentive (PMI)	\$	6,717,979	\$	1,511,319	\$	8,229,298
Subtotal: Admin/Planning Expenditures	\$	14,329,456	\$	3,472,210	\$	17,801,666
TOTAL	\$	141,933,793	\$	31,960,758	\$	173,894,551

#### Combined Electric Table A2 (2021-2024)

Table A2 2021 - 2024 Eversource CT Electric/UI EE Revenues

ES CT Electric/UI EE REVENUES	2021 Eversource CT Electric Revenues 12/31/2021	2021 UI Revenues 12/31/2021	2021 Eversource CT Electric/UI Total 12/31/2021	2022 Eversource CT Electric Revenues 03/01/2022	2022 UI Revenues 03/01/2022	2022 Eversource CT Electric/UI Total 03/01/2022
ISO-NE Forward Capacity Market Revenues**	\$ 28,553,207	\$ 5,529,001	\$ 34,082,208	\$ 24,637,290	\$ 4,918,613	\$ 29,555,903
Class III Renewable Energy Credits	\$ 1,208,486	\$ 304,564	\$ 1,513,050	\$ -	\$ -	\$ -
RGGI*	\$ 20,572,443	\$ 5,143,111	\$ 25,715,554	\$ 16,613,653	\$ 4,153,413	\$ 20,767,067
CAM (Net of Gross Receipts Tax)	\$ 103,812,131	\$ 20,861,884	\$ 124,674,015	\$ 104,992,059	\$ 26,878,810	\$131,870,869
Prior Period Over/(Under) Collections	\$ 6,286,474	\$ 510,211	\$ 6,796,685	\$ 20,464,414	\$ 4,747,865	\$ 25,212,279
Prior Period Under/(Over) Budget	\$ 21,272,698	\$ 8,610,483	\$ 29,883,181	\$ (1,776,636)	\$ (6,080,508)	\$ (7,857,144)
Interest Due to Company/ Other Revenues	\$ -	\$ 754,781	\$ 754,781	\$ -	\$ 295,807	\$ 295,807
Total: EE Revenues	\$ 181,705,439	\$ 41,714,035	\$ 223,419,474	\$ 164,930,780	\$ 34,914,000	\$199,844,780

ES CT Electric/UI EE REVENUES	2023 Eversource CT Electric Revenues 03/01/2021	2023 UI Revenues 03/01/2021	2023 Eversource CT Electric/UI Total 03/01/2021	2024 Eversource CT Electric Revenues 11/01/2021	2024 UI Revenues 11/01/2021	2024 Eversource CT Electric/UI Total 11/01/2021
ISO-NE Forward Capacity Market Revenues**	\$ 16,091,200	\$ 3,166,813	\$ 19,258,013	\$ 12,699,130	\$ 2,685,762	\$ 15,384,892
RGGI*	\$ 14,050,435	\$ 3,512,609	\$ 17,563,044	\$ 13,504,570	\$ 3,376,143	\$ 16,880,713
CAM (Net of Gross Receipts Tax)	\$ 115,373,411	\$ 26,190,229	\$ 141,563,640	\$ 115,730,093	\$ 25,898,853	\$ 141,628,946
Total: EE Revenues	\$ 145,515,046	\$ 32,869,651	\$ 178,384,697	\$ 141,933,793	\$ 31,960,758	\$ 173,894,551

<sup>\*</sup>RGGI Budget is based on calculation by the Companies and DEEP.

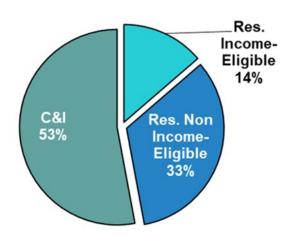
<sup>\*\*</sup>The EE FCM Payment Rates are: FCA-11-\$5.30/kW-month, FCA-12-\$4.63/kW-month, FCA-13-\$3.80/kW-month, FCA-14-\$2.00/kW-month and FCA-15-\$2.61/kW-month.

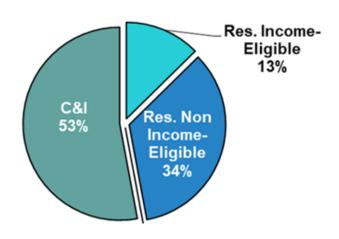
#### Combined Electric Table Pie Chart (2022)

# Statewide (ES CT Electric and UI) 2022 EE Budget and Parity Analysis Table A1 Pie Chart

# **EE Budget By Customer Class**

### **EE Revenue By Customer Class**





Customer Class	Budget (\$,000) *	% of Total Budget	% of Residential and C&I Budget	% of Residential and C&I Revenue	Difference
Res. Income-Eligible	\$24,668,693	12%	14%	13%	1%
Res. Non Income-Eligible	\$60,196,771	30%	33%	34%	-1%
Residential Subtotal	\$84,865,464	42%	47%	47%	0%
C&I	\$95,453,229	48%	53%	53%	0%
C&I Subtotal	\$95,453,229	48%	53%	53%	0%
Residential and C&I Subtotal	\$ 180,318,692	90%	100%	100%	0%
Other Expenditures					
Other Expenditures	\$19,526,088	10%			
Other Expenditures Subtotal	\$19,526,088	10%			
Energy Efficiency Total	\$199,844,780	100%			
Eversource CT Electric	\$ 164,930,780	83%			
United Illuminating	\$ 34,914,000	17%			

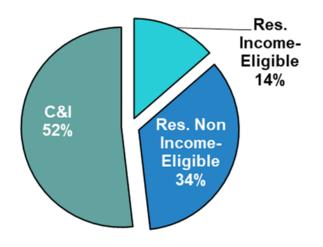
<sup>\*</sup>Please see attached Budget Allocation Table.

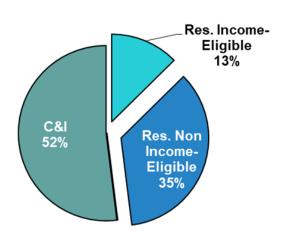
#### Combined Electric Table Pie Chart (2023)

# Statewide (ES CT Electric and UI) 2023 EE Budget and Parity Analysis Table A1 Pie Chart

# **EE Budget By Customer Class**

#### **EE Revenue By Customer Class**





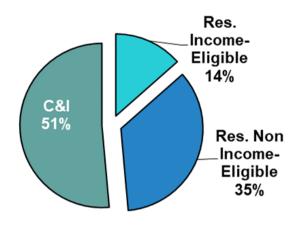
Customer Class	Budget (\$,000) *	% of Total Budget	% of Residential and C&I Budget	% of Residential and C&I Revenue	Difference
Res. Income-Eligible	\$21,747,494	12%	14%	13%	1%
Res. Non Income-Eligible	\$55,772,728	31%	34%	35%	-1%
Residential Subtotal	\$77,520,222	43%	48%	48%	0%
C&I	\$82,879,297	46%	52%	52%	0%
C&I Subtotal	\$82,879,297	46%	52%	52%	0%
Residential and C&I Subtotal	\$160,399,519	90%	100%	100%	0%
Other Expenditures					
Other Expenditures	\$17,985,179	10%			
Other Expenditures Subtotal	\$17,985,179	10%			
				I	
Energy Efficiency Total	\$178,384,697	100%			
Eversource CT Electric	\$145,515,046	82%			
United Illuminating	\$32,869,651	18%			

<sup>\*</sup>Please see attached Budget Allocation Table.

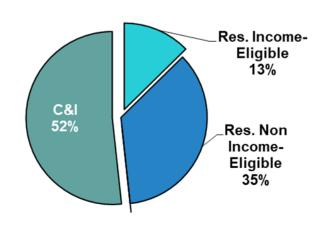
#### Combined Electric Table Pie Chart (2024)

# Statewide (ES CT Electric and UI) 2024 EE Budget and Parity Analysis Table A1 Pie Chart

# **EE Budget By Customer Class**



### **EE Revenue By Customer Class**



Customer Class	Budget (\$,000) *	% of Total Budget	% of Residential and C&I Budget	% of Residential and C&I Revenue	Difference
Res. Income-Eligible	\$21,104,714	12%	14%	13%	1%
Res. Non Income-Eligible	\$54,837,523	32%	35%	35%	-1%
Residential Subtotal	\$75,942,237	44%	49%	48%	0%
C&I	\$80,388,952	46%	51%	52%	0%
C&I Subtotal	\$80,388,952	46%	51%	52%	0%
Residential and C&I Subtotal	\$156,331,188	90%	100%	100%	0%
Other Expenditures				,	
Other Expenditures	\$17,563,362	10%			
Other Expenditures Subtotal	\$17,563,362	10%			
Energy Efficiency Total	\$173,894,551	100%			
Eversource CT Electric	\$141,933,793	82%			
United Illuminating	\$31,960,758	18%			

Totals may vary due to rounding.

<sup>\*</sup>Please see attached Budget Allocation Table.

### **E.3 EVERSOURCE ELECTRIC TABLES**

# Eversource Electric Table A1 (2021-2024)

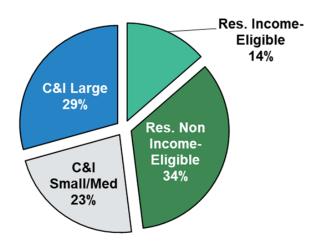
Audits - Financial and Operational Performance Management Incentive	\$ 60,000 \$ 8,681,482	\$ 60,000 \$ 7,813,074	\$ 60,000 \$ 6,888,515	\$ 60,000 \$ 6,717,979
Energy Efficiency Board Consultants	\$ 394,346	\$ 512,001	\$ 512,001	\$ 512,001
Information Technology	\$ 1,606,701	\$ 1,839,097	\$ 1,839,097	\$ 1,839,097
Evaluation Administrator	\$ 256,933	\$ 284,232	\$ 284,232	\$ 284,232
Evaluation Measurement and Verification	\$ 1,920,000	\$ 2,880,000	\$ 2,880,000	\$ 2,880,000
Planning	\$ 734,172	\$ 753,170	\$ 703,170	\$ 703,170
Marketing Plan	\$ 428,193	\$ 430,380	\$ 430,380	\$ 430,380
Administration	\$ 813,385	\$ 902,597	\$ 902,597	\$ 902,597
	R - ADMINISTRATIVI		+ 0,000,000	Ţ 0,30 <b>2,22</b> ,
Subtotal: Programs/Requirements	\$ 1,763,833	\$ 4,662,227	\$ 3,662,227	\$ 3,662,227
Research, Development & Demonstration	\$ 51,833	\$ 162,227	\$ 162,227	\$ 162,227
C&I Financing Support	\$ 812,014	\$ 1,750,000	\$ 1,000,000	\$ 1,000,000
Residential Loan Program (includes ECLF and OBR)	\$ 899,986	\$ 2,750,000	\$ 2,500,000	\$ 2,500,000
ОТНЕ	R - PROGRAMS/REG	QUIREMENTS		
Subtotal: Education & Engagement	\$ 2,049,236	\$ 2,847,600	\$ 2,697,600	\$ 2,697,600
Customer Engagement Initiative	\$ 876,301	\$ 450,000	\$ 400,000	\$ 400,000
Community Outreach	\$ 562,598	\$ 768,000	\$ 768,000	\$ 768,000
Workforce Development	\$ 323,082	\$ 893,600	\$ 793,600	\$ 793,600
Energy Education	\$ 287,255	\$ 736,000	\$ 736,000	\$ 736,000
	R - EDUCATION & E	NGAGEMENT		
Subtotal: Load Management	\$ 5,886,079	\$ 8,093,000	\$ 7,462,590	\$ 8,048,108
C&I Demand Response	\$ 3,375,613	\$ 4,753,000	\$ 4,380,590	\$ 4,512,008
Residential Demand Response	\$ 2,510,467	\$ 3,340,000	\$ 3,082,000	\$ 3,536,100
0	THER - LOAD MANA			
Subtotal: C&I EE Portfolio	\$ 60,768,165	\$ 68,049,207	\$ 59,525,917	\$ 57,294,432
Small Business	\$ 12,300,907	\$ 14,526,525	\$ 12,526,525	\$ 12,039,216
(O&M, RCx, PRIME, CSP/SEM)	\$ 842,631	\$ 3,175,966	\$ 3,101,155	\$ 3,059,619
Energy Opportunities Business & Energy Sustainability	\$ 37,034,760	\$ 36,833,451	\$ 32,403,888	\$ 31,572,625
Energy Conscious Blueprint	\$ 10,589,867	\$ 13,513,265	\$ 11,494,349	\$ 10,622,972
	COMMERCIAL & IND		\$ 11 /0/ 2/0	\$ 10 622 072
Subtotal: Residential EE Portfolio	\$ 77,508,628	\$ 65,804,196	\$ 57,666,721	\$ 55,901,971
Residential Behavior	\$ -	\$ 90,000	\$ 90,000	\$ 90,000
HES-Income Eligible	\$ 19,925,766	\$ 18,444,360	\$ 15,883,645	\$ 15,312,025
HVAC & Water Heating Equipment	\$ 12,072,073	\$ 14,463,704	\$ 13,428,670	\$ 13,170,628
Home Energy Solutions	\$ 33,889,599	\$ 24,661,743	\$ 20,600,574	\$ 20,630,532
Residential New Construction	\$ 2,965,128	\$ 3,986,389	\$ 3,505,832	\$ 3,398,786
Residential Retail Products	\$ 8,656,062	\$ 4,158,000	\$ 4,158,000	\$ 3,300,000
	RESIDENTIA	1		
EE BUDGET	12/31/21	03/01/22	03/01/22	03/01/22
EVERSOURCE CT ELECTRIC	Results	Budget	Budget	Budget
	Actual	Proposed	Proposed	Proposed
	2021 ES CT Electric	2022 ES CT Electric	2023 ES CT Electric	2024 ES CT Electric

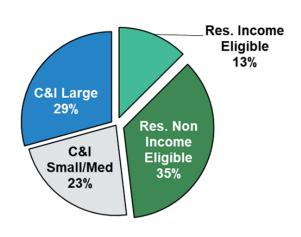
#### Eversource Electric Table A Pie Chart (2022)

# Eversource CT Electric 2022 EE Budget and Parity Analysis Table A1 Pie Chart

### **EE Budget By Customer Class**

#### **EE Revenue By Customer Class**





Customer Class	Budget	% of Total Budget	% of Residential and C&I Budget	% of Residential and C&I Revenue	Difference
Res. Income-Eligible	\$ 20,361,363	12%	14%	13%	1%
Res. Non Income-Eligible	\$ 51,656,737	31%	34%	35%	-1%
Residential Subtotal	\$ 72,018,100	44%	48%	48%	0%
C&I Small/Medium	\$ 33,870,652	21%	23%	23%	0%
C&I Large	\$ 43,835,630	27%	29%	298%	0%
C&I Subtotal	\$77,706,283	47%	52%	52%	0%
Residential and C&I Subtotal	\$149,724,382				
Other Expenditures					
Other Expenditures	\$15,206,398	9%			
Other Expenditures Subtotal	\$15,206,398	9%			
Energy Efficiency Total	\$164,930,780	100%			

Note: Municipalities and state facilities are eligible to participate in C&I Portfolio offerings as applicable.

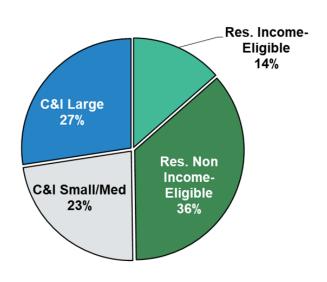
<sup>\*</sup>Please see attached Budget Allocation Table.

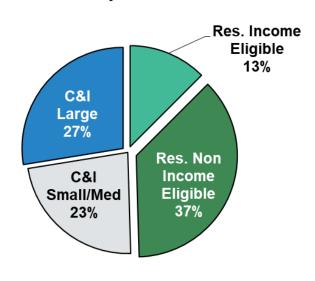
#### Eversource Electric Table A Pie Chart (2023)

# Eversource CT Electric 2023 EE Budget and Parity Analysis Table A Pie Chart

# **EE Budget By Customer Class**

### **EE Revenue By Customer Class**





Customer Class	Budget	% of Total Budget	% of Residential and C&I Budget	% of Residential and C&I Revenue	Difference
Res. Income-Eligible	\$ 17,652,507	12%	14%	13%	1%
Res. Non Income-Eligible	\$ 47,630,118	33%	36%	37%	-1%
Residential Subtotal	\$ 65,282,625	45%	50%	50%	0%
C&I Small/Medium	\$ 29,964,265	21%	23%	22%	0%
C&I Large	\$ 36,036,318	25%	27%	28%	0%
C&I Subtotal	\$66,000,583	45%	50%	50%	0%
Residential and C&I Subtotal	\$131,283,207	90%	100%	100%	0%
Other Expenditures					
Other Expenditures	\$14,231,839	10%			
Other Expenditures Subtotal	\$14,231,839	10%			
Energy Efficiency Total	\$145,515,046	100%			

Note: Municipalities and state facilities are eligible to participate in C&I Program offerings as applicable.

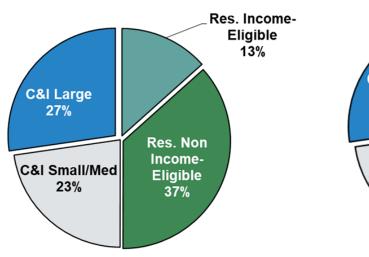
<sup>\*</sup>Please see attached Budget Allocation Table.

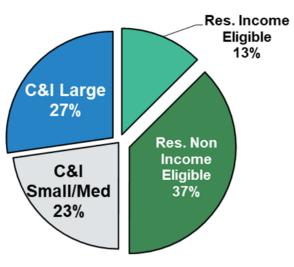
#### Eversource Electric Table A Pie Chart (2024)

# Eversource CT Electric 2024 EE Budget and Parity Analysis Table A Pie Chart

### **EE Budget By Customer Class**

# **EE Revenue By Customer Class**





Customer Class	Budget	% of Total Budget	% of Residential and C&I Budget	% of Residential and C&I Revenue	Difference
Res. Income-Eligible	\$ 17,119,062	12%	13%	13%	0%
Res. Non Income-Eligible	\$ 46,852,912	33%	37%	37%	0%
Residential Subtotal	\$ 63,971,975	45%	50%	50%	0%
C&I Small/Medium	\$ 29,010,834	20%	23%	23%	0%
C&I Large	\$ 34,889,681	25%	27%	27%	0%
C&I Subtotal	\$63,900,515	45%	50%	50%	0%
Residential and C&I Subtotal	\$127,872,490	90%	100%	100%	0%
Other Expenditures					
Other Expenditures	\$14,061,303	10%			
Other Expenditures Subtotal	\$14,061,303	10%			
Energy Efficiency Total	\$141,933,793	100%			

Note: Municipalities and state facilities are eligible to participate in C&I Program offerings as applicable.

<sup>\*</sup>Please see attached Budget Allocation Table.

#### Eversource Electric Table A Budget Allocation (2022-2024)

Table A Pie Sector Allo	ocation						
	Residential	C&I	Other				
OTHER - LOAD MANAGEMENT							
Residential Demand Response	100%	0%	0%				
C&I Demand Response	0%	100%	0%				
OTHER - EDUCATION & EN	GAGEMENT						
Energy Education	80%	20%	0%				
Workforce Development	50%	50%	0%				
Community Outreach	50%	50%	0%				
Customer Engagement Initiative	80%	20%	0%				
OTHER - PROGRAMS/REQ	<b>JIREMENTS</b>						
Residential Loan Program	100%	0%	0%				
C&I Financing Support	0%	100%	0%				
Research, Development & Demonstration	0%	0%	100%				
OTHER - ADMINISTRATIVE	& PLANNING						
Administration	0%	0%	100%				
Marketing Plan	80%	20%	0%				
Planning	0%	0%	100%				
Evaluation Measurement and Verification	0%	0%	100%				
Evaluation Administrator	0%	0%	100%				
Information Technology	0%	0%	100%				
Energy Efficiency Board Consultants	0%	0%	100%				
Audit - Financial and Operational	0%	0%	100%				
Performance Management Incentive	0%	0%	100%				

Note: Core Residential and C&I programs that produce savings are allocated 100% to the Residential and C&I sectors, respectively. Other programs budgets are allocated to both Residential and C&I sectors based on an estimated percentage of the sector that those dollars will directly benefit by the percentages above.

Table B – Eversource CT Electric Costs and Benefits (2022)

	Costs (\$000)				Benefits (\$000	D)	В	enefit Cost R	atios	Qua	intities
2022 Eversource Electric	Utility Cost	Modified Utility Cost	Total Resource Cost	Utility Benefit	Modified Utility Benefit	Total Resource Benefit	Utility Cost Test	Modified Utility Cost Test	Total Resource Cost Test	No. of Units	Units of Measure
				R	esidential						
Retail Products	\$4,158	\$4,158	\$9,210	\$6,659	\$6,571	\$12,026	1.60	1.58	1.31	442,799	Products
New Construction	\$3,937	\$3,986	\$7,532	\$7,130	\$9,015	\$11,392	1.81	2.26	1.51	1,351	Homes
Home Energy Solutions	\$11,862	\$24,662	\$26,717	\$12,315	\$60,913	\$85,658	1.04	2.47	3.21	19,138	Homes
HVAC & Water Heating Equipment	\$14,464	\$14,464	\$25,362	\$14,131	\$43,072	\$58,899	0.98	2.98	2.32	57,581	Products
HES - Income Eligible	\$11,225	\$18,444	\$19,224	\$4,014	\$23,461	\$48,756	0.36	1.27	2.54	15,592	Homes
Behavior	\$90	\$90	\$90	\$93	\$93	\$139	1.03	1.03	1.54	130,000	Customers
Subtotal: Residential EE Portfolio	\$45,736	\$65,804	\$88,135	\$44,342	\$143,125	\$216,870	0.97	2.18	2.46		
				Comme	rcial & Industri	al					
Energy Conscious Blueprint	\$13,513	\$13,513	\$14,795	\$39,795	\$39,712	\$54,168	2.94	2.94	3.66	175	Projects
Energy Opportunities	\$36,833	\$36,833	\$65,943	\$61,026	\$60,652	\$85,121	1.66	1.65	1.29	572	Projects
BES	\$3,176	\$3,176	\$5,290	\$8,763	\$8,816	\$12,592	2.76	2.78	2.38	189	Projects
Small Business	\$14,527	\$14,527	\$26,680	\$27,848	\$27,722	\$38,173	1.92	1.91	1.43	925	Projects
Subtotal: C&I EE Portfolio	\$68,049	\$68,049	\$112,708	\$137,432	\$136,901	\$190,053	2.02	2.01	1.69		-
				Loa	d Response						
Demand Response - Res	\$3,340	\$3,340	\$3,340	\$3,308	\$3,308	\$3,308	0.99	0.99	0.99	27,600	Products
Demand Response - C&I	\$4,753	\$4,753	\$4,753	\$10,276	\$10,276	\$10,276	2.16	2.16	2.16	325	Products
Subtotal: Demand Response	\$8,093	\$8,093	\$8,093	\$13,584	\$13,584	\$13,584	1.68	1.68	1.68		-
					Other						
Subtotal: Other	\$22,984	\$22,984	\$22,984	\$ -	\$ -	\$ -				-	-
TOTAL	\$144,862	\$164,931	\$231,920	\$195,359	\$293,611	\$420,508	1.35	1.78	1.81	-	-

Table B – Eversource CT Electric Costs and Benefits (2022) (continued)

	E	lectric Saving	;s	Electric Cost Rates					Oil/Propane Savings					
2022 Eversource Electric	Annual Savings (MWh)	Lifetime Savings (MWh)	Peak kW Impact (Y/E)	Electric Cost Rate \$/kWh Annualize	Electric Cost Ratio \$/LT- kWh	Electric Demand Cost \$/kW	Electric Demand Cost \$/kW-yr	Annual Oil Savings (Gal)	Lifetime Oil Savings (Gal)	Annual Propane Savings (Gal)	Lifetime Propane Savings (Gal)			
				Resid	ential									
Retail Products	11,604	57,755	1,462	\$0.358	\$0.072	\$2,845	\$571	-57,345	-47,398	-1,154	-2,308			
New Construction	3,348	64,402	545	\$1.176	\$0.061	\$7,219	\$375	-	-	22,789	569,722			
Home Energy Solutions	7,381	90,953	1,773	\$1.607	\$0.130	\$6,689	\$543	655,427	13,623,623	69,071	1,472,924			
HVAC & Water Heating Equipment	6,796	107,282	1,883	\$2.128	\$0.135	\$7,682	\$487	471,375	7,014,085	130,137	1,866,176			
HES - Income Eligible	5,038	38,116	673	\$2.228	\$0.294	\$16,669	\$2,203	259,451	5,556,781	22,231	510,899			
Behavior	715	715	82	\$0.126	\$0.126	\$1,103	\$1,103		-	-	-			
Subtotal: Residential EE Portfolio	34,882	359,224	6,418	\$1.311	\$0.127	\$7,126	\$692	1,328,907	26,147,091	243,073	4,417,414			
				Commercial	& Industri	al								
Energy Conscious Blueprint	24,203	336,721	5,101	\$0.558	\$0.040	\$2,649	\$190	510	10,200	408	8,160			
Energy Opportunities	64,846	462,627	10,882	\$0.568	\$0.080	\$3,385	\$474	2,028	20,280	1,217	12,168			
BES	9,202	69,172	1,664	\$0.345	\$0.046	\$1,908	\$254	1,347	10,775	808	6,465			
Small Business	25,677	203,698	5,249	\$0.566	\$0.071	\$2,768	\$349	720	12,960	576	10,368			
Subtotal: C&I EE Portfolio	123,928	1,072,219	22,896	\$0.549	\$0.063	\$2,972	\$344	4,605	54,215	3,009	37,161			
				Load Re	esponse									
Demand Response - Res	-	-	15,035	\$ -	\$ -	\$222	\$222	-	-	-	-			
Demand Response - C&I	-	-	78,100	\$ -	\$ -	\$61	\$61	-	-	-	-			
Subtotal: Demand Response	-	-	93,135	\$ -	\$ -	\$-	\$ -	-	-	-	-			
Subtotal: Other	-	-	-	\$ -	\$ -	\$ -	\$ -	-			-			
TOTAL	158,810	1,431,443	122,449	\$0.912	\$0.101	\$1,183	\$131	1,333,512	26,201,306	246,082	4,454,575			

		MMBtu S	avings		Emissi	ons Savings
2022 Eversource Electric	Annual MMBtu	Lifetime MMBtu	Cost per Annual MMBtu	Cost per Lifetime MMBtu	Annual Tons CO2	Lifetime Tons
		Residential				
Retail Products	31,533	190,276	\$132	\$22	3,497	22,171
New Construction	13,505	271,774	\$295	\$15	1,471	29,373
Home Energy Solutions	122,395	2,334,314	\$201	\$11	12,486	235,877
HVAC & Water Heating Equipment	100,449	1,509,268	\$144	\$10	10,210	153,705
HES - Income Eligible	55,204	947,383	\$334	\$19	5,580	95,236
Behavior	2,440	2,440	\$37	\$37	274	274
Subtotal: Residential EE Portfolio	325,525	5,255,454	\$202	\$13	33,518	536,636
	C	ommercial & Ind	ustrial			
Energy Conscious Blueprint	82,690	1,151,052	\$163	\$12	9,190	127,997
Energy Opportunities	221,646	1,582,409	\$166	\$23	24,266	173,583
BES	31,657	238,101	\$100	\$13	3,556	26,741
Small Business	87,763	697,762	\$166	\$21	9,604	76,640
Subtotal: C&I EE Portfolio	423,756	3,669,324	\$161	\$19	46,616	404,962
		Load Respons	se		-	-
Demand Response - Res	-	-	\$ -	\$ -	-	-
Demand Response - C&I	-	-	\$ -	\$ -	-	-
Subtotal: Demand Response	-	-	\$ -	\$ -	-	-
Subtotal: Other	-	-	\$-	\$ -	-	-
TOTAL	749,280	8,924,778	\$193	\$16	80.134	941.598

Table B – Eversource CT Electric Costs and Benefits (2023)

	Costs (\$000)			В	enefits (\$000	0)	В	enefit Cost R	atios	Qua	antities
2023 Eversource Electric	Utility Cost	Modified Utility Cost	Total Resource Cost	Utility Benefit	Modified Utility Benefit	Total Resource Benefit	Utility Cost Test	Modified Utility Cost Test	Total Resource Cost Test	No. of Units	Units of Measure
				Reside	ntial						
Retail Products	\$4,158	\$4,158	\$9,908	\$7,214	\$7,432	\$16,775	1.73	1.79	1.69	355,651	Products
New Construction	\$3,460	\$3,506	\$6,814	\$6,310	\$7,945	\$9,921	1.82	2.27	1.46	1,248	Homes
Home Energy Solutions	\$9,214	\$20,601	\$22,371	\$10,163	\$51,029	\$71,399	1.10	2.48	3.19	16,641	Homes
HVAC & Water Heating Equipment	\$13,429	\$13,429	\$23,537	\$12,974	\$40,888	\$55,603	0.97	3.04	2.36	53,409	Products
HES - Income Eligible	\$9,552	\$15,884	\$15,949	\$3,444	\$19,614	\$39,312	0.36	1.23	2.46	14,131	Homes
Behavior	\$90	\$90	\$90	\$98	\$98	\$148	1.08	1.08	1.64	130,000	Customers
Subtotal: Residential EE Portfolio	\$39,902	\$57,667	\$78,669	\$40,202	\$127,005	\$193,156	1.01	2.20	2.46	-	-
			C	Commercial 8	k Industrial						
Energy Conscious Blueprint	\$11,494	\$11,494	\$12,548	\$30,942	\$30,907	\$41,515	2.69	2.69	3.31	144	Projects
Energy Opportunities	\$32,404	\$32,404	\$57,190	\$51,211	\$50,937	\$71,071	1.58	1.57	1.24	487	Projects
BES	\$3,101	\$3,101	\$5,135	\$8,343	\$8,398	\$11,922	2.69	2.71	2.32	182	Projects
Small Business	\$12,527	\$12,527	\$22,787	\$23,178	\$23,099	\$31,618	1.85	1.84	1.39	807	Projects
Subtotal: C&I EE Portfolio	\$59,526	\$59,526	\$97,660	\$113,675	\$113,340	\$156,125	1.91	1.90	1.60	-	-
				Load Res	ponse						
Demand Response - Res	\$3,082	\$3,082	\$3,082	\$3,232	\$3,232	\$3,231	1.05	1.05	1.05	25,960	Products
Demand Response - C&I	\$4,381	\$4,381	\$4,381	\$10,751	\$10,751	\$10,751	2.45	2.45	2.45	330	Products
Subtotal: Demand Response	\$7,463	\$7,463	\$7,463	\$13,983	\$13,983	\$13,982	3.50	3.50	3.50	-	-
Subtotal: Other	\$20,860	\$20,860	\$20,860	\$ -	\$ -	\$ -	-	-	-	-	-
TOTAL	\$127,751	\$145,515	\$204,651	\$167,860	\$254,328	\$363,264	1.31	1.75	1.78	_	_

Table B – Eversource CT Electric Costs and Benefits (2023) (continued)

	E	lectric Saving	;s		Electric (	Cost Rates			Oil/Propane Savings					
2023 Eversource Electric	Annual Savings (MWh)	Lifetime Savings (MWh)	Peak kW Impact (Y/E)	Electric Cost Rate \$/kWh Annualize	Electric Cost Ratio \$/LT- kWh	Electric Demand Cost \$/kW	Electric Demand Cost \$/kW-yr	Annual Oil Savings (Gal)	Lifetime Oil Savings (Gal)	Annual Propane Savings (Gal)	Lifetime Propane Savings (Gal)			
				Resid	ential									
Retail Products	11,050	63,925	1,372	\$0.376	\$0.065	\$3,032	\$524	-17,157	37,179	-869	-1,738			
New Construction	2,945	56,333	496	\$1.175	\$0.061	\$6,973	\$365	-			479,678			
Home Energy Solutions	5,128	71,730	1,293	\$1.797	\$0.128	\$7,126	\$509	540,691	11,063,804	56,249	1,181,508			
HVAC & Water Heating Equipment	6,304	99,509	1,746	\$2.130	\$0.135	\$7,689	\$487	437,220	6,505,859	120,707	1,730,957			
HES - Income Eligible	4,121	31,690	658	\$2.318	\$0.301	\$14,522	\$1,888	209,513	4,474,244	17,948	405,158			
Behavior	715	715	82	\$0.126	\$0.126	\$1,103	\$1,103	-	-	-	-			
Subtotal: Residential EE Portfolio	30,262	323,901	5,646	\$1.319	\$0.123	\$7,067	\$660	1,170,267	22,081,086	213,221	3,795,562			
				Commercial	& Industri	al								
Energy Conscious Blueprint	18,518	257,843	4,212	\$0.621	\$0.045	\$2,729	\$196	612	12,240	510	10,200			
Energy Opportunities	55,218	393,947	9,265	\$0.587	\$0.082	\$3,497	\$490	2,434	24,336	1,622	16,224			
BES	8,853	66,547	1,601	\$0.350	\$0.047	\$1,937	\$258	1,322	10,578	793	6,347			
Small Business	21,678	171,973	4,431	\$0.578	\$0.073	\$2,827	\$356	792	14,256	730	13,142			
Subtotal: C&I EE Portfolio	104,267	890,311	19,510	\$0.571	\$0.067	\$3,051	\$357	5,160	61,410	3,656	45,912			
				Load Re	esponse									
Demand Response - Res	-	-	14,427	\$ -	\$ -	\$214	\$214	-	-	-	-			
Demand Response - C&I	-	-	79,200	\$ -	\$ -	\$55	\$55	-	-	-	-			
Subtotal: Demand Response	-	-	93,627	\$ -	\$ -	\$ -	\$ -	-	-	-	-			
Subtotal: Other	-	-	-	\$ -	\$ -	\$ -	\$ -	-			-			
TOTAL	134,529	1,214,212	118,783	\$0.950	\$0.105	\$1,075	\$119	1,175,427	22,142,496	216,877	3,841,474			

		MMBtu S	avings		Emissi	ons Savings
2023 Eversource Electric	Annual MMBtu	Lifetime MMBtu	Cost per Annual MMBtu	Cost per Lifetime MMBtu	Annual Tons CO2	Lifetime Tons CO2
		Residential				
Retail Products	35,245	223,109	\$118	\$19	4,021	26,229
New Construction	11,801	236,017	\$297	\$15	1,287	25,540
Home Energy Solutions	97,622	1,887,087	\$211	\$11	9,926	190,618
HVAC & Water Heating Equipment	93,170	1,399,910	\$144	\$10	9,470	142,568
HES - Income Eligible	44,756	765,662	\$355	\$21	4,471	76,732
Behavior	2,440	2,440	\$37	\$37	274	274
Subtotal: Residential EE Portfolio	285,033	4,514,224	\$202	\$13	29,449	461,962
	C	commercial & Inc	ustrial		-	
Energy Conscious Blueprint	63,316	882,391	\$182	\$13	7,038	98,127
Energy Opportunities	188,890	1,349,005	\$172	\$24	20,678	147,961
BES	30,461	229,105	\$102	\$14	3,421	25,730
Small Business	74,142	589,950	\$169	\$21	8,112	64,786
Subtotal: C&I EE Portfolio	356,808	3,050,451	\$167	\$20	39,249	336,604
		Load Respon	se			
Demand Response - Res	-	-	\$ -	\$ -	-	-
Demand Response - C&I	-	-	\$ -	\$ -	-	-
Subtotal: Demand Response	-	-	\$-	\$ -	-	-
Subtotal: Other	-	-	\$ -	\$ -	-	-
TOTAL	641,842	7,564,675	\$227	\$19	68,699	798,565

Table B – Eversource CT Electric Costs and Benefits (2024)

		Costs (\$000)		E	Benefits (\$000	0)	В	enefit Cost R	atios	Qua	intities
2024 Eversource Electric	Utility Cost	Modified Utility Cost	Total Resource Cost	Utility Benefit	Modified Utility Benefit	Total Resource Benefit	Utility Cost Test	Modified Utility Cost Test	Total Resource Cost Test	No. of Units	Units of Measure
	'	'		Reside	ntial	'					
Retail Products	\$3,300	\$3,300	\$7,554	\$4,982	\$5,202	\$12,145	1.51	1.58	1.61	190,881	Products
New Construction	\$3,353	\$3,399	\$6,614	\$6,094	\$7,711	\$9,529	1.82	2.27	1.44	1,212	Homes
Home Energy Solutions	\$9,244	\$20,631	\$22,424	\$9,840	\$52,278	\$71,695	1.06	2.53	3.20	17,082	Homes
HVAC & Water Heating Equipment	\$13,171	\$13,171	\$23,054	\$12,494	\$40,729	\$55,112	0.95	3.09	2.39	52,220	Products
HES - Income Eligible	\$8,980	\$15,312	\$16,195	\$3,020	\$18,716	\$37,807	0.34	1.22	2.33	13,173	Homes
Behavior	\$90	\$90	\$90	\$96	\$96	\$138	1.07	1.07	1.54	130,000	Customers
Subtotal: Residential EE Portfolio	\$38,138	\$55,902	\$75,931	\$36,526	\$124,733	\$186,427	0.96	2.23	2.46	-	-
				Commercial	& Industrial						
Energy Conscious Blueprint	\$10,623	\$10,623	\$11,582	\$27,657	\$27,656	\$36,453	2.60	2.60	3.15	131	Projects
Energy Opportunities	\$31,573	\$31,573	\$55,401	\$48,315	\$48,089	\$66,485	1.53	1.52	1.20	468	Projects
BES	\$3,060	\$3,060	\$5,047	\$8,002	\$8,048	\$11,311	2.62	2.63	2.24	178	Projects
Small Business	\$12,039	\$12,039	\$21,768	\$20,974	\$20,918	\$28,255	1.74	1.74	1.30	765	Projects
Subtotal: C&I EE Portfolio	\$57,294	\$57,294	\$93,798	\$104,948	\$104,712	\$142,503	1.83	1.83	1.52	-	-
				Load Res	sponse						
Demand Response - RES	\$3,536	\$3,536	\$3,536	\$3,622	\$3,622	\$3,622	1.02	1.02	1.02	28,556	Products
Demand Response - C&I	\$4,512	\$4,512	\$4,512	\$12,056	\$12,056	\$12,056	2.67	2.67	2.67	352	Products
Subtotal: Demand Response	\$8,048	\$8,048	\$8,048	\$15,678	\$15,678	\$15,678	1.95	1.95	1.95	-	-
Subtotal: Other	\$20,689	\$20,689	\$20,689	\$ -	\$ -	\$ -	-	-	-	-	-
TOTAL	\$124,169	\$141,934	\$198,467	\$157,152	\$245,123	\$344,608	1.27	1.73	1.74	-	-

Table B – Eversource CT Electric Costs and Benefits (2024) (continued)

	E	Electric Saving	gs		Electric C	Cost Rates		Oil/Propane Savings						
2024 Eversource Electric	Annual Savings (MWh)	Lifetime Savings (MWh)	Peak kW Impact (Y/E)	Electric Cost Rate \$/kWh Annualize	Electric Cost Ratio \$/LT- kWh	Electric Demand Cost \$/kW	Electric Demand Cost \$/kW-yr	Annual Oil Savings (Gal)	Lifetime Oil Savings (Gal)	Annual Propane Savings (Gal)	Lifetime Propane Savings (Gal)			
				Resid	lential									
Retail Products	6,920	46,075	845	\$0.477	\$0.072	\$3,905	\$586	-6,403	40,438	-	-			
New Construction	2,846	54,352	484	\$1.177	\$0.062	\$6,921	\$362	-	-	18,465	461,614			
Home Energy Solutions	5,229	71,888	1,405	\$1.498	\$0.109	\$5,573	\$405	544,268	11,130,424	56,249	1,181,508			
HVAC & Water Heating Equipment	6,163	97,293	1,708	\$2.137	\$0.135	\$7,713	\$489	427,486	6,361,017	118,020	1,692,420			
HES - Income Eligible	3,670	28,878	541	\$2.205	\$0.280	\$14,963	\$1,901	197,396	4,197,256	17,396	389,428			
Behavior	715	715	82	\$0.126	\$0.126	\$1,103	\$1,103	-	-	-	-			
Subtotal: Residential EE Portfolio	25,544	299,201	5,064	\$1.403	\$0.120	\$7,076	\$604	1,162,748	21,729,134	210,129	3,724,970			
				Commercial	& Industri	al								
Energy Conscious Blueprint	16,207	226,479	4,068	\$0.655	\$0.047	\$2,611	\$187	714	14,280	612	12,240			
Energy Opportunities	53,086	378,739	8,907	\$0.595	\$0.083	\$3,545	\$497	2,839	28,392	2,028	20,280			
BES	8,647	65,005	1,564	\$0.354	\$0.047	\$1,956	\$260	967	7,738	775	6,199			
Small Business	19,608	156,638	4,202	\$0.614	\$0.077	\$2,865	\$359	862	15,509	728	13,105			
Subtotal: C&I EE Portfolio	97,549	826,860	18,742	\$0.587	\$0.069	\$3,057	\$361	5,382	65,919	4,143	51,825			
				Load R	esponse									
Demand Response - Residential	-	-	15,869	\$ -	\$ -	\$223	\$223	-	-	-				
Demand Response - C&I	-	-	84,662	\$ -	\$ -	\$53	\$53	-	-	-				
Subtotal: Demand Response	-	-	100,531	\$ -	\$ -	\$ -	\$ -	-	-	-	-			
Subtotal: Other	-	-	-	\$ -	\$ -	\$ -	\$ -	-	-	-	-			
TOTAL	123,093	1,126,061	124,337	\$1.009	\$0.110	\$999	\$109	1,168,130	21,795,053	214,272	3,776,794			

		MMBtu S	avings		Emissi	ons Savings
2024 Eversource Electric	Annual MMBtu	Lifetime MMBtu	Cost per Annual MMBtu	Cost per Lifetime MMBtu	Annual Tons CO2	Lifetime Tons CO2
		Residential				
Retail Products	22,723	162,817	\$145	\$20	2,613	19,204
New Construction	11,398	227,607	\$298	\$15	1,243	24,632
Home Energy Solutions	98,464	1,896,867	\$210	\$11	10,014	191,603
HVAC & Water Heating Equipment	91,096	1,368,743	\$145	\$10	9,259	139,394
HES - Income Eligible	41,486	716,215	\$369	\$21	4,114	71,684
Behavior	2,440	2,440	\$37	\$37	274	274
Subtotal: Residential EE Portfolio	267,607	4,374,688	\$209	\$13	27,518	446,791
	Co	mmercial & Indu	strial			
Energy Conscious Blueprint	55,454	775,844	\$192	\$14	6,168	86,330
Energy Opportunities	181,710	1,298,048	\$174	\$24	19,891	142,360
BES	29,710	223,436	\$103	\$14	3,337	25,098
Small Business	67,088	537,795	\$179	\$22	7,342	59,072
Subtotal: C&I EE Portfolio	333,962	2,835,123	\$172	\$20	36,738	312,860
		Load Response	2			
Demand Response - RES	-	-	\$ -	\$ -	-	-
Demand Response - C&I	-	-	\$-	\$ -	-	-
Subtotal: Demand Response	-	-	\$-	\$-	-	-
Subtotal: Other	-	-	\$ -	\$ -	-	-
TOTAL	601,569	7,209,811	\$236	\$20	64,257	759,651

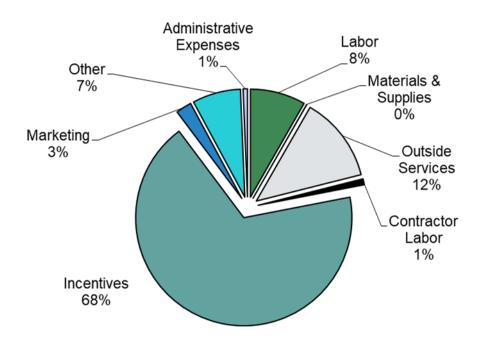
#### Table C – Eversource CT Electric Energy Efficiency Budget Details (2022)

Table C
Eversource CT Electric 2022 EE Budget Details

															_	
Eversource CT Electric EE BUDGET (\$000)	Labor		erials & plies	Outside Services		ntractor Labor	In	centives	Ma	rketing	٥	Other		lmin. enses	1	TOTAL
			<b>P.</b>	RESIDENTIA	AL		<u> </u>		<u> </u>		<u> </u>		<u> </u>		1	
Residential Retail Products	\$ 145	\$	1	\$ 900	\$	27	\$	2,500	\$	556	\$	20	\$	9	\$	4,158
Residential New Construction	\$ 192	\$	1	\$ 230	\$	2	\$	3,457	\$	78	\$	17	\$	9	\$	3,986
Home Energy Solutions	\$ 1,743	\$	4	\$ 3,532	\$	100	\$	18,472	\$	750	\$	40	\$	20	\$	24,662
HVAC & Water Heating Equipment	\$ 152	\$	1	\$ 1,284	\$	20	\$	12,679	\$	291	\$	18	\$	18	\$	14,464
HES-Income Eligible	\$ 1,842	\$	5	\$ 1,400	\$	163	\$	14,225	\$	750	\$	26	\$	34	\$	18,444
Residential Behavior	\$ -	\$	-	\$ 90	\$	-	\$	-	\$	-	\$	-	\$	-	\$	90
Subtotal: Residential EE Portfolio	\$ 4,075	\$	12	\$ 7,436	\$	312	\$	51,333	\$	2,425	\$	121	\$	90	\$	65,804
			CO	MMERCIAL & IN	DUST	RIAL										
Energy Conscious Blueprint	\$ 1,087	\$	4	\$ 601	\$	152	\$	11,532	\$	100	\$	27	\$	10	\$	13,513
Energy Opportunities	\$ 4,241	\$	5	\$ 2,400	\$	588	\$	29,109	\$	250	\$	150	\$	90	\$	36,833
Business & Energy Sustainability(O&M, RCx, PRIME, CSP/SEM)	\$ 181	\$	2	\$ 798	\$	2	\$	2,114	\$	50	\$	6	\$	22	\$	3,176
Small Business	\$ 1,527	\$	5	\$ 450	\$	144	\$	12,153	\$	200	\$	27	\$	20	\$	14,527
Subtotal: C&I EE Portfolio	\$ 7,037	\$	16	\$ 4,249	\$	887	\$	54,909	\$	600	\$	210	\$	142	\$	68,049
			ОТН	ER - LOAD MAN	IAGEI	MENT										
Residential Demand Response	\$ 164	\$	-	\$ 890	\$	-	\$	1,836	\$	200	\$	-	\$	-	\$	2,840
C&I Demand Response	\$ 164	\$	-	\$ 952	\$	5	\$	3,269	\$	112	\$	-	\$	-	\$	4,253
Subtotal: Load Management	\$ 329	\$	-	\$ 1,842	\$	5	\$	5,105	\$	312	\$	-	\$	-	\$	7,093
			OTHER -	EDUCATION &	ENGA	GEMENT										
Energy Education	\$ 53	\$	-	\$ 634	\$	-	\$	-	\$	49	\$	-	\$	-	\$	736
Workforce Development	\$ 53	\$	-	\$ 840	\$	-	\$	-	\$	-	\$	-	\$	-	\$	894
Community Outreach	\$ 35	\$	-	\$ 634	\$	-	\$	-	\$	80	\$	-	\$	19	\$	768
Customer Engagement Initiative	\$ 58	\$	-	\$ 326	\$	16	\$	-	\$	-	\$	-	\$	-	\$	450
Subtotal: Education & Engagement	\$ <b>199</b>	\$	-	\$ 2,485	\$	16	\$	-	\$	129	\$	-	\$	19	\$	2,848
			OTHER -	PROGRAMS/RE	EQUIF	REMENTS										
Residential Loan Program (includes ECLF and OBR)	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-	\$	2,750	\$	-	\$	2,750
C&I Financing Support	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-	\$	1,750	\$	-	\$	1,750
Research, Development & Demonstration	\$ 68	\$	2	\$ 87	\$	-	\$	-	\$	-	\$	-	\$	5	\$	162
Subtotal: Programs/ Requirements	\$ 68	\$	2	\$ 87	\$	-	\$	-	\$	-	\$	4,500	\$	5	\$	4,662
		C	OTHER -	ADMINISTRATIV	/E & F	PLANNING	3									
Administration	\$ 841	\$	4	\$ 18	\$	40	\$	-	\$	-	\$	-	\$	-	\$	903
Marketing Plan	\$ -	\$	-	\$ -	\$	-	\$	-		\$428	\$	1	\$	1	\$	430
Planning	\$ 669	\$	1	\$ -	\$	61	\$	-	\$	-	\$	10	\$	12	\$	753
Evaluation Measurement and Verification	\$ -	\$	-	\$ 2,878	\$	-	\$	-	\$	-	\$	1	\$	1	\$	2,880
Evaluation Administrator	\$ -	\$	-	\$ 284	\$	-	\$	-	\$	-	\$	-	\$	-	\$	284
Information Technology	\$ 421	\$	-	\$ 1,224	\$	145	\$	-	\$	-	\$	-	\$	50	\$	1,839
Energy Efficiency Board Consultants	\$ -	\$	-	\$ 512	\$	-	\$	-	\$	-	\$	-	\$	-	\$	512
Audits - Financial and Operational	\$ -	\$	-	\$ 60	\$	-	\$	-	\$	-	\$	-	\$	-	\$	60
Performance Management Incentive (PMI)	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-	\$	7,813	\$	-	\$	7,813
Subtotal: Admin/Planning Expenditures	\$ 1,930	\$	5	\$ 4,976	\$	246	\$	-	\$	428	\$	7,825	\$	64	\$	15,475
TOTAL BUDGET	\$ 13,638	\$	35	\$ 21,075	\$	1,466	\$	111,847	\$	3,895	\$ 1	12,656	\$	320	\$	164,931

#### Eversource Electric Table C Pie Chart (2022)

### EVERSOURCE CT ELECTRIC 2022 ENERGY EFFICIENCY EE Budget By Expense Class Table C Pie Chart



Expense Classes	Budget	% of Budget
Labor	\$ 13,638	8%
Materials & Supplies	\$ 35	0%
Outside Services	\$ 21,075	13%
Contractor Labor	\$ 1,466	1%
Incentives	\$ 111,847	68%
Marketing	\$ 3,895	2%
Other	\$ 12,656	8%
Administrative Expenses	\$ 320	<u>0%</u>
Total	\$ 164,931	100%

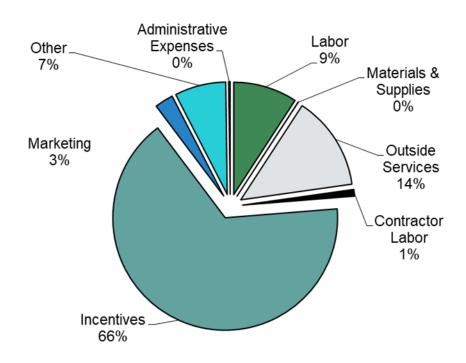
# Table C – Eversource CT Electric Energy Efficiency Budget Details (2023)

Table C
Eversource CT Electric 2023 EE Budget Details

Eversource CT Electric EE BUDGET (\$000)	Labor		terials & pplies	Outside Services		ntractor Labor	In	centives	Ma	arketing	c	Other		dmin. Denses	-	TOTAL
				RESIDEN	TIAL											
Residential Retail Products	\$ 149	\$	1	\$ 900	\$	27	\$	2,496	\$	556	\$	20	\$	9	\$	4,158
Residential New Construction	\$ 198	\$	1	\$ 200	\$	2	\$	3,000	\$	78	\$	17	\$	9	\$	3,506
Home Energy Solutions	\$ 1,600	Ś	4	\$ 3,146	\$	100	\$	14,941	\$	750	\$	40	\$	20	\$	20,601
HVAC & Water Heating Equipment	\$ 126	\$	1	\$ 1,194	\$	20		11,760	\$	291	\$	18	\$	18	Ś	13,429
HES-Income Eligible	\$ 1,742	\$	5	\$ 1,250	\$	163	\$	11,914	\$	750	\$	26	\$	34	-	15,884
Residential Behavior	\$ 1,742	\$	-	\$ 1,230	\$	105	\$	11,914	\$	730	\$	- 20	\$	34	\$	90
Subtotal: Residential EE Portfolio	\$ 3,816	\$	12	\$6,780	\$	312	\$	44,111	\$	2,425	\$	121	\$	90	-	57,667
Subtotal. Residential EL Portiono	7 3,610	7		MERCIAL &		-	7	77,111	,	2,723	7	121	Ų	- 30	7	37,007
Energy Conscious Blueprint	\$ 1,069	\$	4	\$ 601	\$	152	\$	9,532	\$	100	\$	27	\$	10	\$	11,494
Energy Opportunities	\$ 4,213	\$	5	\$ 2,300	\$	588	\$	24,807	\$	250	\$	150	\$	90	\$	32,404
Business & Energy Sustainability	7 4,213	<u> </u>	J	7 2,300	i i	300	۲	24,007	i i	230	i i	130	Ė	90	۲	32,404
(O&M, RCx, PRIME, CSP/SEM)	\$ 187	\$	2	\$ 798	\$	2	\$	2,034	\$	50	\$	6	\$	22	\$	3,101
Small Business	\$ 1,470	\$	5	\$ 400	\$	144	\$	10,260	\$	200	\$	27	\$	20	\$	12,527
Subtotal: C&I EE Portfolio	\$ 6,939	\$	16	\$ 4,099	\$	887	\$	46,634	\$	600	\$	210	\$	142	\$	59,526
			OTHER	LOAD MA	ANAC	SEMENT		,								,
Residential Demand Response	\$ 169	\$	-	\$ 677	\$	_	\$	2,036	\$	200	\$	_	\$		\$	3,082
C&I Demand Response	\$ 169	\$	-	\$ 825	\$	5	\$	3,269	\$	112	\$	-	\$		\$	4,381
Subtotal: Load Management	\$ 339	\$	-	\$ 1.502	\$	5	\$	5,305	\$	312	\$	-	\$	-	\$	7,463
	,		THER - E	DUCATION		GAGEMEI		-,								,
Energy Education	\$ 55	\$	-	\$ 632	\$	-	\$	-	\$	49	\$	-	\$	-	\$	736
Workforce Development	\$ 55	\$	-	\$ 739	\$	-	\$	-	\$	-	\$	-	\$	-	\$	794
Community Outreach	\$ 36	\$	-	\$ 633	\$	-	\$	-	\$	80	\$	-	\$	19	\$	768
Customer Engagement Initiative	\$ 59	\$	-	\$ 325	\$	16	\$	-	\$	-	\$	-	\$	-	\$	400
Subtotal: Education & Engagement	\$ 205	\$	-	\$ 2,329	\$	16	\$	-	\$	129	\$	-	\$	19	\$	2,698
		0	THER - P	ROGRAMS/	REQ	JIREMEN'	TS		•							
Residential Loan Program (includes ECLF and OBR)	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-	\$	2,500	\$	-	\$	2,500
C&I Financing Support	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-	\$	1,000	\$	-	\$	1,000
Research, Development & Demonstration	\$ 70	\$	2	\$ 85	\$	-	\$	-	\$	-	\$	-	\$	5	\$	162
Subtotal: Programs/ Requirements	\$ 70	\$	2	\$ 85	\$	-	\$	-	\$	-	\$	3,500	\$	5	\$	3,662
		ОТ	HER - AC	MINISTRAT	TIVE 8	& PLANNI	NG									
Administration	\$ 866	\$	-	\$ -	\$	37	\$	-	\$		\$	-	\$	-	\$	903
Marketing Plan	\$ -	\$	-	\$ -	\$	-	\$	-	\$	428	\$	1	\$	1	\$	430
Planning	\$ 689	\$	1	\$ -	\$	-	\$	-	\$	-	\$	1	\$	12	\$	703
Evaluation Measurement and Verification	\$ -	\$	-	\$ 2,878	\$	-	\$	-	\$	-	\$	1	\$	1	\$	2,880
Evaluation Administrator	\$ -	\$	-	\$ 284	\$	-	\$	-	\$	-	\$	-	\$	-	\$	284
Information Technology	\$ 433	\$	-	\$ 1,211	\$	145	\$	-	\$	-	\$	-	\$	50	\$	1,839
Energy Efficiency Board Consultants	\$ -	\$	-	\$ 512	\$	-	\$	-	\$	-	\$	-	\$	-	\$	512
Audits - Financial and Operational	\$ -	\$	-	\$ 60	\$	-	\$	-	\$	-	\$	-	\$	-	\$	60
Performance Management Incentive (PMI)	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-	\$	6,889	\$	-	\$	6,889
Subtotal: Admin/Planning Expenditures	\$ 1,988	\$	1	\$ 4,946	\$	181	\$	-	\$	428	_	6,891	\$	64	\$	14,500
TOTAL BUDGET	\$ 13,357	\$	31	\$ 19,740	\$	1,401	\$	96,049	\$	3,895		10,722	\$	320		145,515

#### Eversource Electric Table C Pie Chart (2023)

### EVERSOURCE CT ELECTRIC 2023 ENERGY EFFICIENCY EE Budget By Expense Class Table C Pie Chart



Expense Classes	Budget	% of Budget
Labor	\$ 13,357	9%
Materials & Supplies	\$ 31	0%
Outside Services	\$ 19,740	14%
Contractor Labor	\$ 1,401	1%
Incentives	\$ 96,049	66%
Marketing	\$ 3,895	3%
Other	\$ 10,722	7%
Administrative Expenses	\$ 320	<u>0%</u>
Total	\$ 145,515	100%

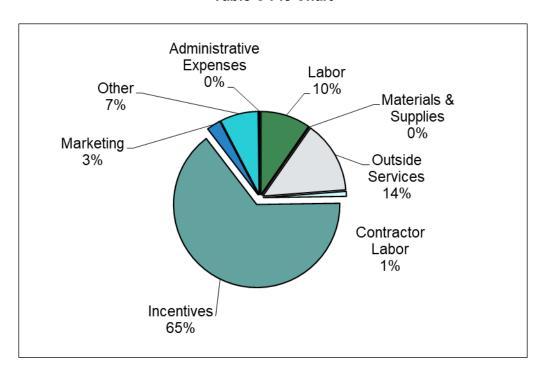
# Table C – Eversource CT Electric Energy Efficiency Budget Details (2024)

Table C
Eversource CT Electric 2024 EE Budget Details

Eversource CT Electric EE BUDGET (\$000)	Labor		erials & plies		tside vices		ntractor abor	In	centives	Ma	rketing	c	Other	1	lmin. enses	1	TOTAL
				RE	SIDENT	ΓIAL											
Residential Retail Products	\$ 154	\$	1	\$	900	\$	27	\$	1,633	\$	556	\$	20	\$	9	\$	3,300
Residential New Construction	\$ 204	\$	1	\$	200	\$	2	\$	2,887	\$	78	\$	17	\$	9	\$	3,399
Home Energy Solutions	\$ 1,648	\$	4	\$ :	3,146	\$	100	\$	14,923	\$	750	\$	40	\$	20	\$	20,631
HVAC & Water Heating Equipment	\$ 130	\$	1	\$ :	1,194	\$	20	\$	11,499	\$	291	\$	18	\$	18	\$	13,171
HES-Income Eligible	\$ 1,795	\$	5	\$ :	1,250	\$	163	\$	11,290	\$	750	\$	26	\$	34	\$	15,312
Residential Behavior	\$ -	\$	-	\$	90	\$	-	\$	-	\$	-	\$	-	\$	-	\$	90
Subtotal: Residential EE Portfolio	\$ 3,930	\$	12	\$ (	6,780	\$	312	\$	42,232	\$	2,425	\$	121	\$	90	\$	55,902
			COM	IMER	CIAL & I	INDU	STRIAL										
Energy Conscious Blueprint	\$ 1,101	\$	4	\$	601	\$	152	\$	8,628	\$	100	\$	27	\$	10	\$	10,623
Energy Opportunities	\$ 4,340	\$	5	\$ :	2,300	\$	588	\$	23,850	\$	250	\$	150	\$	90	\$	31,573
Business & Energy Sustainability	ć 102	۲.	2	,	700	۲,	2	۲	1.007	_	50	,		,	22	,	2.000
(O&M, RCx, PRIME, CSP/SEM)	\$ 192	\$	2	\$	798	\$	2	\$	1,987	\$	50	\$	6	\$	22	\$	3,060
Small Business	\$ 1,514	\$	5	\$	400	\$	144	\$	9,729	\$	200	\$	27	\$	20	\$	12,039
Subtotal: C&I EE Portfolio	\$ 7,147	\$	16	\$ 4	4,099	\$	887	\$	44,194	\$	600	\$	210	\$	142	\$	57,294
			OTHE	R - LC	)AD MA	ANAG	SEMENT										
Residential Demand Response	\$ 74	\$	-	\$	826	\$	-	\$	2,336	\$	200	\$	-	\$	-	\$	3,536
C&I Demand Response	\$ 174	\$	-	\$	951	\$	5	\$	3,269	\$	112	\$	-	\$	-	\$	4,512
Subtotal: Load Management	\$ 349	\$	-	\$ 1	1,777	\$	5	\$	5,605	\$	312	\$	-	\$	-	\$	8,048
		0	THER - I	EDUC	ATION 8	& EN	GAGEME	NT									
Energy Education	\$ 56	\$	-	\$	631	\$	-	\$	-	\$	49	\$	-	\$	-	\$	736
Workforce Development	\$ 57	\$	-	\$	737	\$	-	\$	-	\$	-	\$	-	\$	-	\$	794
Community Outreach	\$ 37	\$	-	\$	632	\$	-	\$	-	\$	80	\$	-	\$	19	\$	768
Customer Engagement Initiative	\$ 61	\$	-	\$	323	\$	16	\$	-	\$	-	\$	-	\$	-	\$	400
Subtotal: Education & Engagement	\$ 211	\$	-	\$ 2	2,322	\$	16	\$	-	\$	129	\$	-	\$	19	\$	2,698
		0	THER - I	PROG	RAMS/	REQU	JIREMEN	TS									
Residential Loan Program	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	2,500	\$	-	\$	2,500
(includes ECLF and OBR)	<u> </u>	۲				۲.		<u></u>		<u>,</u>		۲.	1 000	۲.		4	1 000
C&I Financing Support	\$ -	\$	-	\$	- 02	\$	-	\$	-	\$	-	\$	1,000	\$	-	\$	1,000
Research, Development & Demonstration	\$ 72 <b>\$ 72</b>	\$ <b>\$</b>	2 <b>2</b>	\$ <b>\$</b>	83	\$ <b>\$</b>	-	\$ <b>\$</b>		\$	-	\$	2 500	\$ <b>\$</b>	5	\$	162
Subtotal: Programs/Requirements	\$ 72				83		- & PLANN		-	\$	-	\$	3,500	Þ	5	\$	3,662
Administration	¢ 902	-	MEK - A	\$	IISTKAT			_		۲.		۲.		۲.		ć	002
Administration  Marketing Plan	\$ 892	\$	-	\$	-	\$	11	\$	-	\$	420	\$	-	\$	-	\$	903
Marketing Plan			-		-		-	_	-	_	428	\$	1	\$	1	\$	430
Planning  Figure 1: Planning Management and Varification	\$ 703	\$	-	\$	2 070	\$		\$		\$		\$	1	\$	1	\$	703
Evaluation Measurement and Verification	\$ -	\$	-		2,878			\$		\$		\$	1	\$	1	\$	2,880
Evaluation Administrator Information Technology	\$ 446	\$	-	\$	284 1,198	\$	145	\$		\$		\$		\$	50	\$	1,839
Energy Efficiency Board Consultants	\$ 440	\$	-	\$	512	\$	143	\$		\$		\$		\$	-	\$	512
Audits - Financial and Operational	-	\$	_	\$	60	\$		\$		\$		\$		\$		\$	60
·	\$ -	\$	-	-		\$	-	\$		\$	-	_	6 710	\$	-	-	
Performance Management Incentive (PMI)	· ·			\$	0		155		-		420	\$	6,718			\$	6,718
Subtotal: Admin/Planning Expenditures	\$ 2,041	\$	-		4,933	\$	155	\$	-	\$	428	_	6,720	\$	52		14,329
TOTAL BUDGET	\$ 13,751	\$	30	\$ 19	9,994	\$	1,375	\$	92,030	\$	3,895	\$ :	10,551	\$	308	\$ 1	141,934

#### Eversource Electric Table C Pie Chart (2024)

#### EVERSOURCE CT ELECTRIC 2024 ENERGY EFFICIENCY EE Budget By Expense Class Table C Pie Chart



Expense Classes	Budget	% of Budget
Labor	\$ 13,751	10%
Materials & Supplies	\$ 30	0%
Outside Services	\$ 19,994	14%
Contractor Labor	\$ 1,375	1%
Incentives	\$ 92,030	65%
Marketing	\$ 3,895	3%
Other	\$ 10,551	7%
Administrative Expenses	\$ 308	<u>0%</u>
Total	\$ 141,934	100%

# Table D – Eversource CT Electric Historical and Projected (\$) (2013-2024)

#### Table D: Eversource CT Electric Historical and Projected \$

	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual
		RESIDENTIAL				
Residential Retail Products	\$6,509,496	\$11,561,025	\$13,693,622	\$14,872,860	\$10,154,122	\$6,529,899
Residential New Construction	\$1,433,966	\$1,573,724	\$2,516,703	\$2,232,996	\$2,887,373	\$2,204,292
Home Energy Solutions (Core Services, HVAC, Duct Sealing through 2015)	\$16,041,653	\$22,290,930	\$19,186,404	\$15,989,863	\$15,512,933	\$10,336,611
HVAC & Water Heating Equipment	\$ -	\$ -	\$ -	\$3,597,327	\$4,050,111	\$4,048,082
HES-Income Eligible	\$9,593,140	\$17,488,762	\$17,345,096	\$21,471,052	\$16,379,801	\$11,599,849
Residential Behavior	\$ -	\$2,703,694	\$2,392,079	\$2,909,233	\$2,954,049	\$526,083
Subtotal: Residential EE Portfolio	\$33,578,255	\$55,618,135	\$55,133,904	\$61,073,331	\$51,938,389	\$35,244,816
Subtotuli Residential EL Fortiono		IMERCIAL & INDUS		<b>401,070,001</b>	<b>431,330,303</b>	<b>400)244,010</b>
Energy Conscious Blueprint	\$9,947,173	\$13,875,080	\$12,124,674	\$12,287,599	\$6,718,340	\$6,632,890
Energy Opportunities	\$20,924,237	\$29,217,060	\$33,338,936	\$40,154,158	\$24,882,343	\$29,689,128
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	\$2,128,057	\$2,899,133	\$3,340,536	\$2,501,793	\$1,484,576	\$2,977,133
Small Business	\$13,329,552	\$16,021,475	\$15,508,750	\$17,615,309	\$16,212,430	\$11,613,734
Subtotal: C&I EE Portfolio	\$46,329,019	\$62,012,749	\$64,312,896	\$72,558,859	\$49,297,689	\$50,912,884
Subtotal. Car LE i Ortiono		R - LOAD MANAGE		772,330,033	343,237,003	730,312,004
ISO Load Response Program	\$4,128,416	\$3,632,291	\$2,574,236	\$2,414,427	\$2,387,351	\$1,230,295
Residential Demand Response	\$ -	\$ -	\$ -	\$859,080	\$891,827	\$528,780
C&I Demand Response	\$ -	\$ -	\$ -	\$45,345	\$785,216	\$237,674
Subtotal: Load Management	\$4,128,416	\$3,632,291	\$2,574,236	\$3,318,852	\$4,064,394	\$1,996,750
		DUCATION & ENGA		70,020,002	<b>+</b> 1,00 1,00 1	72,000,000
Energy Education (Educate Students 2016- 2021)	\$ -	\$ -	\$ -	\$392,352	\$706,601	(\$1,626)
Workforce Dev. (Educate Workforce 2016-2021)	\$ -	\$ -	\$ -	\$268,446	\$168,211	\$84,770
Comm. Outreach (Educate Public 2016-2021)	\$ -	\$ -	\$ -	\$1,926,470	\$1,934,418	\$562,325
Customer Engagement Initiative		y -	, , ·	\$1,920,470	71,334,410	\$302,323
(Customer Engagement 2014 to 2021)	\$ -	\$1,817,979	\$1,968,000	\$1,603,922	\$1,507,721	\$1,350,290
SmartLiving Center® - Museum Partnerships	\$274,908	\$1,157,138	\$463,617	\$ -	\$ -	\$ -
Science Center	\$150,392	\$ -	\$ -	\$ -	\$ -	\$ -
EE Smarts/K-12 Education	\$459,334	\$367,115	\$500,780	\$ -	\$ -	\$ -
Clean Energy Communities / Behavior Pilot	\$729,253	\$1,045,235	\$1,348,330	\$ -	\$ -	\$ -
Subtotal: Education & Engagement	\$1,613,887	\$4,387,467	\$4,280,727	\$4,191,190	\$4,316,951	\$1,995,759
D		PROGRAMS/REQUI		44 020 024	6477.006	44 000 077
Res. Loan Program (includes ECLF and OBR)	\$416,865	\$1,509,746	\$2,006,330	\$1,929,824	\$477,326	\$1,032,277
C&I Financing Support	\$0	\$0	\$0	\$6,994,639	\$4,060,806	\$2,677,386
Research, Development & Demonstration Institute for Sustainable Energy (ECSU)	\$198,218 \$448,000	\$267,317 \$358,400	\$177,335	\$208,762	\$84,246	\$281,632
(moved to Educate the Workforce)						
ESPC Project Manager - Lead By Example	\$38,734	\$82,586	\$25,857	\$ -	\$ -	\$ -
C&I Loan Program	\$147,078	\$188,838	\$331,106	\$ -	\$ -	\$ -
EE Loan Defaults	\$170,077	\$75,809	\$179,197	\$ -	\$ -	\$ -
C&I Self-Funding	\$0	\$4,019,676	\$4,593,962	\$ -	\$ -	\$ -
Subtotal: Other Programs/Requirements	\$1,418,972	\$6,502,372	\$7,710,587	\$9,133,225	\$4,622,378	\$3,991,295
Administration		DMINISTRATIVE &		ĆEEE COZ	¢724 200	¢012.CE0
Administration  Marketing Plan	\$1,985,104 \$41,274	\$957,493	\$1,059,874	\$555,697	\$721,290	\$813,659
Marketing Plan	\$41,274	\$599,189 \$659,032	\$789,065 \$670,254	\$771,953 \$632,015	\$373,937 \$594,212	\$139,080 \$601,069
Planning Evaluation Measurement and Verification	\$2,044,455		\$1,764,572		\$1,920,000	
Evaluation Measurement and Verification  Evaluation Administrator	\$2,044,455	\$1,642,153 \$269,541	\$1,764,572	\$1,520,745 \$199,281	\$1,920,000	\$1,829,414 \$176,199
	-					
Information Technology Energy Efficiency Board Consultants	\$1,934,732 \$475,046	\$807,911	\$1,037,433	\$1,579,383	\$541,146	\$1,147,062
Audits - Financial and Operational	\$475,046	\$401,216 \$ -	\$410,204	\$366,781 \$ -	\$314,264	\$306,176
Performance Management Incentive (PMI)	\$6,728,101	\$7,560,041	\$8,197,955	\$9,010,198	\$42,483 \$8,111,330	\$60,000 \$6,953,613
Subtotal: Admin/Planning Expenditures	\$13,888,720	\$12,896,576	\$8,197,955 \$14,109,756	\$14,636,053	\$12,796,357	\$12,026,273
Jubiotal. Aumini rianning Expenditures	313,000,720	312,030,370	314,103,730	314,030,033		
TOTAL (includes ISO Load Response)	\$100,957,271	\$145,049,590	\$148,122,106	\$164,911,511	\$127,036,159	\$106,167,776

### Table D – Eversource CT Electric Historical and Projected (\$) (2013-2024)(continued)

Table D

<u>Eversource CT Electric Historical and Projected \$</u>

	Eversource C	CT Electric Historic	al and Projected \$			
	2019 Actual	2020 Actual	2021 Actual	2022 Budget	2023 Budget	2024 Budget
		RESIDENTIAL	<u> </u>	<u> </u>		
Residential Retail Products	\$9,516,880	\$11,189,455	\$8,656,062	\$4,158,000	\$4,158,000	\$3,300,000
Residential New Construction	\$2,032,944	\$2,717,016	\$2,965,128	\$3,786,389	\$3,505,832	\$3,398,786
Home Energy Solutions (Core Services, HVAC, Duct Sealing through 2015)	\$13,824,217	\$20,042,758	\$33,889,599	\$21,961,743	\$20,600,574	\$20,630,532
HVAC & Water Heating Equipment	\$5,285,076	\$9,702,175	\$12,072,073	\$13,864,673	\$13,428,670	\$13,170,628
HES-Income Eligible	\$15,993,834	\$14,316,611	\$19,925,766	\$16,944,360	\$15,883,645	\$15,312,025
Residential Behavior	\$1,001,199	\$ -	\$ -	\$90,000	\$90,000	\$90,000
Subtotal: Residential EE Portfolio	\$47,654,149	\$57,968,014	\$77,508,628	\$60,805,165	\$57,666,721	\$55,901,971
		OMMERCIAL & INDI		<del>+ + + + + + + + + + + + + + + + + + + </del>	<i><b>407</b></i> <b>1000 11</b>	<del>+00,001,01</del>
Energy Conscious Blueprint	\$9,466,049	\$12,436,628	\$10,589,867	\$13,013,265	\$11,494,349	\$10,622,972
Energy Opportunities	\$38,558,761	\$45,020,584	\$37,034,760	\$35,333,451	\$32,403,888	\$31,572,625
Business & Energy Sustainability						
(O&M, RCx, PRIME, CSP/SEM)	\$1,555,926	\$969,960	\$842,631	\$3,125,966	\$3,101,155	\$3,059,619
Small Business	\$8,951,760	\$5,382,744	\$12,300,907	\$13,526,525	\$12,526,525	\$12,039,216
Subtotal: C&I EE Portfolio	\$58,532,496	\$63,809,916	\$60,768,165	\$64,999,207	\$59,525,917	\$57,294,432
		HER - LOAD MANA				
ISO Load Response Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Demand Response	\$760,192	\$1,867,994	\$2,510,467	\$2,840,000	\$3,082,000	\$3,536,100
C&I Demand Response	\$719,003	\$2,470,465	\$3,375,613	\$4,253,000	\$4,380,590	\$4,512,008
Subtotal: Load Management	\$1,479,196	\$4,338,460	\$5,886,079	\$7,093,000	\$7,462,590	\$8,048,108
		R -EDUCATION & EN				
Energy Education (Educate Students 2016-2021)	\$316,990	\$385,116	\$287,255	\$736,000	\$736,000	\$736,000
Workforce Dev. (Educate Workforce 2016-2021)	\$53,937	\$1,330,909	\$323,082	\$893,600	\$793,600	\$793,600
Comm. Outreach (Educate Public 2016-2021)	\$656,954	\$250,732	\$562,598	\$768,000	\$768,000	\$768,000
Customer Engagement Initiative (Customer Engagement 2014 to 2021)	\$1,376,151	\$363,120	\$876,301	\$450,000	\$400,000	\$400,000
SmartLiving Center® - Museum Partnerships	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Science Center	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
EE Smarts/K-12 Education	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Clean Energy Communities / Behavior Pilot	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal: Education & Engagement	\$2,404,033	\$2,329,876	\$2,049,236	\$2,847,600	\$2,697,600	\$2,697,600
	OTHE	R -PROGRAMS/REQ	UIREMENTS			
Res Loan Program (includes ECLF and OBR)	\$1,500,000	\$2,746,178	\$899,986	\$2,750,000	\$2,500,000	\$2,500,000
C&I Financing Support	\$17,569,775	\$3,103,714	\$812,014	\$1,750,000	\$1,000,000	\$1,000,000
Research, Development & Demonstration	\$89,136	\$136,027	\$51,833	\$162,227	\$162,227	\$162,227
Institute for Sustainable Energy (ECSU) (moved to Educate the Workforce)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
ESPC Project Manager - Lead By Example	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
C&I Loan Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
EE Loan Defaults	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
C&I Self-Funding	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal: Other Programs/Requirements	\$19,158,911	\$5,985,919	\$1,763,833	\$4,662,227	\$3,662,227	\$3,662,227
,q		- ADMINISTRATIVE		7 7,552,221	, , , , , , , , , , , , , , , , , , ,	70,000,000
Administration	\$859,689	\$981,537	\$813,385	\$902,597	\$902,597	\$902,597
Marketing Plan	\$128,805	\$321,900	\$428,193	\$430,380	\$430,380	\$430,380
Planning	\$529,884	\$549,296	\$734,172	\$753,170	\$703,170	\$703,170
Evaluation Measurement and Verification	\$1,083,724	\$1,920,000	\$1,920,000	\$2,880,000	\$2,880,000	\$2,880,000
Evaluation Administrator	\$213,391	\$227,298	\$256,933	\$284,232	\$284,232	\$284,232
Information Technology	\$1,070,604	\$1,019,170	\$1,606,701	\$1,839,097	\$1,839,097	\$1,839,097
Energy Efficiency Board Consultants	\$318,423	\$380,641	\$394,346	\$512,001	\$512,001	\$512,001
Audits - Financial and Operational	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000
Performance Management Incentive	\$8,751,797	\$7,770,609	\$8,681,482	\$7,813,074	\$6,888,515	\$6,717,979
r errormance ivianagement intentive		\$13,230,452	\$14,895,212	\$15,474,551	\$14,499,992	\$14,329,456
Subtotal: Admin/Planning Evponditures					314.433.334	314.343.450
Subtotal: Admin/Planning Expenditures TOTAL (includes ISO Load Response)	\$13,016,318 \$142,245,101	\$147,662,638	\$162,871,152	\$164,930,780	\$145,515,046	\$141,933,793

Table D1 – Eversource CT Electric Historical and Projected (kW)(2013-2024)

Table D1

<u>Eversource CT Electric Historical and Projected kW</u>

	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Goals	2023 Goals	2024 Goals
					RESID	ENTIAL			<u> </u>	<u> </u>		
Residential Retail Products	5,600	5,710	7,947	10,155	9,557	3,433	4,580	4,966	5,404	1,462	1,372	845
Residential New Construction	562	977	928	903	1,252	903	1,346	1,103	784	545	496	484
Home Energy Solutions (Core Services, HVAC, Duct Sealing through 2015)	2,852	4,061	3,519	2,404	2,940	2,305	3,017	2,025	2,897	1,773	1,293	1,405
HVAC & Water Heating Equipment	-	-	-	673	805	750	1,020	1,160	988	1,883	1,746	1,708
HES-Income Eligible	610	1,002	1,328	1,875	1,598	1,380	1,676	668	933	673	658	541
Residential Behavior	-	7,473	12,520	4,066	4,066	2,508	1,383	-	-	82	82	82
Subtotal: Residential EE Portfolio	9,623	19,222	26,242	20,078	20,219	11,279	13,023	9,921	11,007	6,418	5,646	5,064
				CC	OMMERCIAL	& INDUSTR	IAL					
Energy Conscious Blueprint	6,523	7,793	7,103	6,564	3,962	2,779	3,857	3,193	4,263	5,101	4,212	4,068
Energy Opportunities	7,843	10,798	14,840	14,567	13,246	18,377	18,389	15,230	15,133	10,882	9,265	8,907
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	789	1,269	1,340	835	652	1,498	1,498	451	656	1,664	1,601	1,564
Small Business	2,943	3,169	4,140	5,519	5,247	4,530	4,535	2,156	3,583	5,249	4,431	4,202
Subtotal: C&I EE Portfolio	18,099	23,029	27,423	27,486	23,106	27,184	28,278	21,030	23,635	22,896	19,510	18,742
				ОТ	HER - LOAD	MANAGEM	ENT					
ISO Load Response Program	95,642	88,627	112,487	36,097	40,746	39,679	-	-	-	-	-	-
Res Demand Response	-	-	-	-	-	-	2,721	12,688	14,954	15,035	14,427	15,869
C&I Demand Response	-	-	-	-	-	-	12,931	50,301	61,379	78,100	79,200	84,662
Subtotal: Load Management	95,642	88,627	112,487	36,097	40,746	39,679	15,652	62,989	76,333	93,135	93,627	100,531
TOTAL (includes ISO Load Response)	123,363	130,878	166,152	83,660	84,071	78,142	56,952	93,940	110,975	122,449	118,783	124,337
TOTAL (excludes ISO Load Response)	27,721	42,251	53,665	47,563	43,325	38,463	56,952	93,940	110,975	122,449	118,783	124,337

#### Table D2 – Eversource CT Electric Historical and Projected Annual kWh (000s)(2013-2024)

# Table D2 <u>Eversource CT Electric Historical and Projected Annual kWh (000s)</u>

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Goals	Goals	Goals
				RESID	ENTIAL							
Residential Retail Products	62,949	64,213	64,799	82,138	77,198	24,499	36,244	40,185	41,241	11,604	11,050	6,920
Residential New Construction	1,896	2,828	3,540	2,363	3,250	2,244	3,524	5,424	4,043	3,348	2,945	2,846
Home Energy Solutions (Core												
Services, HVAC, Duct Sealing	16,559	24,010	21,501	15,322	18,176	13,571	18,113	10,048	11,628	7,381	5,128	5,229
through 2015)												
HVAC & Water Heating				8,123	13,725	7,158	3,613	4,824	6,149	6,796	6 204	6 162
Equipment	-	-	-	8,123	13,725	7,158	3,013	4,024	0,149	0,790	6,304	6,163
HES-Income Eligible	8,187	11,137	14,098	15,891	16,666	13,055	10,897	6,254	6,497	5,038	4,121	3,670
Residential Behavior	-	28,928	48,466	17,811	17,811	21,968	12,117	-	-	715	715	715
Subtotal: Residential EE Portfolio	89,592	131,116	152,405	141,650	146,825	82,495	84,507	66,734	69,558	34,882	30,262	25,544
			CC	MMERCIA	L & INDUST	RIAL						
Energy Conscious Blueprint	38,741	43,422	37,774	34,278	23,527	17,971	25,651	19,421	25,804	24,203	18,518	16,207
Energy Opportunities	56,899	82,319	101,070	118,741	86,995	96,015	126,917	101,242	100,172	64,846	55,218	53,086
Business & Energy Sustainability	6 272	12.012	10.151	0.262	F 404	0.660	F 267	2.700	2 402	0.202	0.052	0.647
(O&M, RCx, PRIME, CSP/SEM)	6,273	12,812	10,461	8,263	5,491	8,668	5,367	2,700	3,492	9,202	8,853	8,647
Small Business	26,801	32,546	32,587	34,603	31,576	27,587	24,820	9,789	14,580	25,677	21,678	19,608
Subtotal: C&I EE Portfolio	128,713	171,100	181,893	195,885	147,590	150,240	182,754	133,151	144,049	123,928	104,267	97,549
TOTAL	218,305	302,216	334,298	337,535	294,414	232,735	267,261	199,885	213,608	158,810	134,529	123,093

Table D3— Eversource CT Electric Historical and Projected Lifetime kWh (000s)(2013-2024)

Table D3

<u>Eversource CT Electric Historical and Projected Lifetime kWh (000s)</u>

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Goals	Goals	Goals
					RESIDEN	ITIAL						
Residential Retail	398,800	565,647	654,001	934,999	611,162	148,050	189,377	177,884	148,667	57,755	63,925	46,075
Products			,,,,,	,,,,,								,
Residential New	31,175	43,056	57,175	39,977	50,862	35,839	59,612	95,363	64,967	64,402	56,333	54,352
Construction					,			,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	. ,	,	,,,,,,,,
Home Energy Solutions												
(Core Services, HVAC,	171,660	284,193	267,677	188,785	198,163	130,728	172,670	111,314	142,724	90,953	71,730	71,888
Duct Sealing through	1, 1,000	20 .,230	207,077	100,700	150,100	100), 20	272,070	111,011	1.2,72.	30,333	72,700	7 2,000
2015)												
HVAC & Water Heating	_	_	_	108,423	204,516	118,555	60,026	77,264	98,518	107,282	99,509	97,293
Equipment				-55,1-5			33,323	,	00,000			,
HES-Income Eligible	113,222	150,565	166,351	193,412	205,101	149,350	117,678	79,855	81,582	38,116	31,690	28,878
Residential Behavior	-	57,856	96,933	45,116	45,116	56,743	31,298	-	-	715	715	715
Subtotal: Residential EE Portfolio	714,857	1,101,316	1,242,137	1,510,712	1,314,918	639,265	630,661	541,680	536,459	359,224	323,901	299,201
				CO	MMERCIAL &	INDUSTRIAL						
Energy Conscious	506.036	667.250	F72 7F7	F20 F76	240.222	272 200	200 520	206 000	270.000	226 724	257.042	226 470
Blueprint	596,826	667,358	572,757	520,576	348,323	273,280	389,538	286,880	378,000	336,721	257,843	226,479
Energy Opportunities	672,470	953,547	1,142,216	1,354,017	986,891	1,127,699	1,442,039	1,121,625	1,109,970	462,627	393,947	378,739
Business & Energy												
Sustainability (O&M, RCx,	46,250	91,919	63,189	51,663	30,085	44,465	31,087	17,139	21,033	69,172	66,547	65,005
PRIME, CSP/SEM)												
Small Business	325,004	396,812	404,003	433,416	393,553	341,246	311,798	114,577	165,833	203,698	171,973	156,638
Subtotal: C&I EE												
Portfolio	1,640,549	2,109,636	2,182,165	2,359,672	1,758,852	1,786,689	2,174,463	1,540,220	1,674,835	1,072,219	890,311	826,860
TOTAL	2,355,406	3,210,953	3,424,302	3,870,384	3,073,769	2,425,954	2,805,124	2,081,900	2,211,294	1,431,443	1,214,212	1,126,061

#### Table D4– Eversource CT Electric Historical and Projected Units (2013-2024)

Table D4

<u>Eversource CT Electric Historical and Projected Units</u>

	2013	2014	2015	2016	2017	2018
	Actual	Actual RESIDENTIAL	Actual	Actual	Actual	Actual
Desidential Datail Duaduate	2.176.504			2 270 554	2.502.460	2 626 005
Residential Retail Products	2,176,584	2,910,409	2,853,482	3,278,554	3,592,169	2,636,995
Residential New Construction	770	1,486	439	586	1,892	1,657
HEC Erman		ENERGY SOLUTI	ONS (HES)	I	I	
HES Furnace	104	54	- 4 045	-	-	-
HES Heat Pump Water Heater	378	541	1,015	-	-	-
HES Insulation Rebate	1,840	3,592	2,848	-	-	-
HES Window Rebate	2,231	4,166	3,605	-	-	-
HES Appliance Retirement	165	278	187	-	-	-
HES HVAC	303	169	135	-	-	-
Home Energy Solutions (Core Services, HVAC, Duct Sealing through 2015)	14,080	16,906	12,428	11,051	18,267	14,444
HVAC & Domestic Water Heating	-	-	-	16,058	21,872	17,099
Residential HVAC	3,357	8,027	14,377	-	-	-
Energy Conservation Loan Program (ECLP)	-	-	-	-	-	-
Total: Home Energy Solution (HES)	22,458	33,733	34,595	27,109	40,139	31,543
HES-Income Eligible	7,824	14,711	12,203	9,599	21,582	15,039
Residential Behavior	-	339,218	296,871	405,959	506,000	119,622
Subtotal: Residential EE Portfolio	2,207,636	3,299,557	3,197,590	3,721,807	4,161,782	2,804,856
	сом	MERCIAL & IND	USTRIAL	-		
Energy Conscious Blueprint	436	561	560	528	484	326
Energy Opportunities	762	789	796	1,111	1,144	1,147
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	99	120	165	194	144	132
Small Business	1,277	1,571	1,349	1,318	1,275	920
Subtotal: C&I EE Portfolio	2,574	3,041	2,870	3,151	3,047	2,525
'	OTHE	R - LOAD MANA	GEMENT			
ISO Load Response Program	225	220	215	113	78	78
Residential Demand Response	-	-	-	-	-	-
C&I Demand Response	-	-	-	-	-	-
Subtotal: Load Management	225	220	215	113	78	78
TOTAL (includes ISO Load Response)	2,210,435	3,302,818	3,200,675	3,725,071	4,164,907	2,807,459
TOTAL (excludes ISO Load Response)	2,210,210	3,302,598	3,200,460	3,724,958	4,164,829	2,807,381

#### Table D4- Eversource CT Electric Historical and Projected Units (2013-2024) (continued)

Table D4

<u>Eversource CT Electric Historical and Projected Units</u>

	2019	2020	2021	2022	2023	2024
	Actual	Actual	Actual	Goals	Goals	Goals
	RES	SIDENTIAL				
Residential Retail Products	4,274,928	4,246,668	2,914,520	442,799	355,651	190,881
Residential New Construction	1,723	1,244	1,357	1,351	1,248	1,212
	HOME ENERG	SY SOLUTIONS (H	IES)			
HES Furnace	-	-	-	-	-	-
HES Heat Pump Water Heater	-	-	-	-	-	-
HES Insulation Rebate	-	-	-	-	-	-
HES Window Rebate	-	-	-	-	-	-
HES Appliance Retirement	-	-	-	-	-	-
HES HVAC	-	-	-	-	-	-
Home Energy Solutions						
(Core Services, HVAC, Duct Sealing through	17,664	22,226	21,829	19,138	16,641	17,082
2015)						
HVAC & Domestic Water Heating	20,347	49,474	54,479	57,581	53,409	52,220
Residential HVAC	-	-	-		-	-
Energy Conservation Loan Program (ECLP)	-	-	-	130,000	-	-
Total: Home Energy Solutions (HES)	38,011	71,700	76,308	76,719	70,049	69,302
HES-Income Eligible	12,402	16,468	14,363	15,592	14,131	13,173
Residential Behavior	135,902	-	-	130,000	130,000	130,000
Subtotal: Residential EE Portfolio	4,462,966	4,336,080	3,006,548	666,460	571,079	404,568
	COMMERC	IAL & INDUSTRIA	L.			
Energy Conscious Blueprint	417	1,070	109	175	144	131
Energy Opportunities	1,315	946	1,068	572	487	468
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	117	61	71	189	182	178
Small Business	924	361	601	925	807	765
Subtotal: C&I EE Portfolio	2,773	2,438	1,849	1,860	1,620	1,542
	OTHER - LO	AD MANAGEMEN	NT			
ISO Load Response Program		-	-	-	-	-
Residential Demand Response	4,379	14,820	17,167	27,600	25,960	28,556
C&I Demand Response	105	206	284	325	330	352
Subtotal: Load Management	4,484	15,026	17,451	27,925	26,290	28,908
TOTAL (includes ISO Load Response)	4,470,223	4,353,544	3,025,848	696,245	598,989	435,018
TOTAL (excludes ISO Load Response)	4,470,223	4,353,544	3,025,848	696,245	598,989	435,018

#### Table D5 - Eversource CT Electric Historical and Cost per Projected kW

Table D5

<u>Eversource CT Electric Historical and Cost per Projected kW</u>

		2013 Actual		2014 Actual		2015 Actual	2016 Actual	2017 Actual	2018 Actual
		RE	SIDI	ENTIAL					
Residential Retail Products	\$	1,162	\$	2,025	\$	1,723	\$ 1,465	\$ 1,062	\$ 1,902
Residential New Construction	\$	2,553	\$	1,611	\$	2,712	\$ 2,472	\$ 2,306	\$ 2,441
Home Energy Solutions (Core Services, HVAC, Duct Sealing through 2015)	\$	5,626	\$	5,489	\$	5,452	\$ 6,650	\$ 5,277	\$ 4,484
HVAC & Water Heating Equipment	\$	-	\$	-	\$	-	\$ 5,344	\$ 5,030	\$ 5,397
HES-Income Eligible	\$	15,739	\$	17,458	\$	13,061	\$ 11,451	\$ 10,251	\$ 8,406
Residential Behavior	\$	-	\$	362	\$	191	\$ 715	\$ 726	\$ 210
Subtotal: Residential EE Portfolio	\$	3,489	\$	2,894	\$	2,101	\$ 3,042	\$ 2,569	\$ 3,125
	С	OMMERC	IAL	& INDUS	ΓRI <i>A</i>	<b>AL</b>			
Energy Conscious Blueprint	\$	1,525	\$	1,780	\$	1,707	\$ 1,872	\$ 1,696	\$ 2,387
Energy Opportunities	\$	2,668	\$	2,706	\$	2,247	\$ 2,756	\$ 1,878	\$ 1,616
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	\$	2,696	\$	2,285	\$	2,493	\$ 2,997	\$ 2,278	\$ 1,987
Small Business	\$	4,529	\$	5,056	\$	3,746	\$ 3,192	\$ 3,090	\$ 2,564
Subtotal: C&I EE Portfolio	\$	2,560	\$	2,693	\$	2,345	\$ 2,640	\$ 2,134	\$ 1,873
	0	THER - LO	AD	MANAGE	MEI	NT			
ISO Load Response Program	\$	43	\$	41	\$	23	\$ 67	\$ 59	\$ 31
Residential Demand Response	\$	-	\$	-	\$	-	\$ -	\$ -	\$ -
C&I Demand Response	\$	-	\$	-	\$	-	\$ -	\$ -	\$ -
Subtotal: Load Management	\$	43	\$	41	\$	23	\$ 92	\$ 100	\$ 50
TOTAL (includes ISO Load Response)	\$	818	\$	1,108	\$	891	\$ 1,971	\$ 1,511	\$ 1,359
TOTAL (excludes ISO Load Response)	\$	3,493	\$	3,347	\$	2,712	\$ 3,416	\$ 2,877	\$ 2,728

Table D5 - Eversource CT Electric Historical and Cost per Projected kW (continued)

Table D5

<u>Eversource CT Electric Historical and Cost per Projected kW</u>

		2019 Actual	,	2020 Actual	,	2021 Actual		2022 Goals		2023 Goals		2024 Goals	
		R	ESI	DENTIAL									
Residential Retail Products	\$	2,078	\$	2,253	\$	1,602	\$	2,845	\$	3,032	\$	3,905	
Residential New Construction	\$	1,510	\$	2,463	\$	3,780	\$	7,310	\$	7,065	\$	7,023	
Home Energy Solutions (Core Services, HVAC, Duct Sealing through 2015)	\$	4,581	\$	9,898	\$	11,699	\$	13,907	\$	15,933	\$	14,680	
HVAC & Water Heating Equipment	\$	5,181	\$	8,367	\$	12,214	\$	7,682	\$	7,689	\$	7,713	
HES-Income Eligible	\$	9,543	\$	21,427	\$	21,352	\$	27,390	\$	24,148	\$	28,312	
Residential Behavior	\$	724	\$	-	\$	-	\$	1,103	\$	1,103	\$	1,103	
Subtotal: Residential EE Portfolio	\$	3,659	\$	5,843	\$	7,042	\$	10,253	\$	10,213	\$	11,038	
COMMERCIAL & INDUSTRIAL													
Energy Conscious Blueprint	\$	2,454	\$	3,895	\$	2,484	\$	2,649	\$	2,729	\$	2,611	
Energy Opportunities	\$	2,097	\$	2,956	\$	2,447	\$	3,385	\$	3,497	\$	3,545	
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	\$	1,039	\$	2,150	\$	1,285	\$	1,908	\$	1,937	\$	1,956	
Small Business	\$	1,974	\$	2,497	\$	3,433	\$	2,768	\$	2,827	\$	2,865	
Subtotal: C&I EE Portfolio	\$	2,070	\$	3,034	\$	2,571	\$	2,972	\$	3,051	\$	3,057	
	(	OTHER - L	OAE	MANAG	EME	NT							
ISO Load Response Program	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	
Residential Demand Response	\$	279	\$	147	\$	168	\$	222	\$	214	\$	223	
C&I Demand Response	\$	56	\$	49	\$	55	\$	61	\$	54	\$	53	
Subtotal: Load Management	\$	95	\$	69	\$	77	\$	87	\$	79	\$	80	
TOTAL (includes ISO Load Response)	\$	2,498	\$	1,572	\$	1,468	\$	1,347	\$	1,210	\$	1,142	
TOTAL (excludes ISO Load Response)	\$	2,498	\$	1,572	\$	1,468	\$	1,347	\$	1,210	\$	1,142	

#### Table D6 – Eversource CT Electric Historical and Cost per Projected Annual kWh (2013-2024)

Table D6
Eversource CT Electric Historical and Cost per Projected Annual kWh

		2013 Actual		2014 Actual		2015 Actual		2016 Actual		2017 Actual		2018 Actual	
			RES	IDENTIAI									
Residential Retail Products	\$	0.103	\$	0.180	\$	0.211	\$	0.181	\$	0.132	\$	0.267	
Residential New Construction	\$	0.756	\$	0.557	\$	0.711	\$	0.945	\$	0.888	\$	0.982	
Home Energy Solutions (Core Services, HVAC, Duct Sealing through 2015)	\$	0.969	\$	0.928	\$	0.892	\$	1.044	\$	0.853	\$	0.762	
HVAC & Water Heating Equipment	\$	-	\$	-	\$	-	\$	0.443	\$	0.295	\$	0.566	
HES-Income Eligible	\$	1.172	\$	1.570	\$	1.230	\$	1.351	\$	0.983	\$	0.889	
Residential Behavior	\$	-	\$	0.093	\$	0.049	\$	0.163	\$	0.166	\$	0.024	
Subtotal: Residential EE Portfolio	\$	0.375	\$	0.424	\$	0.362	\$	0.431	\$	0.354	\$	0.427	
Energy Conscious Blueprint	\$	0.257	\$	0.320	\$	0.321	\$	0.358	\$	0.286	\$	0.369	
Energy Opportunities	\$	0.368	\$	0.355	\$	0.330	\$	0.338	\$	0.286	\$	0.309	
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	\$	0.339	\$	0.226	\$	0.319	\$	0.303	\$	0.270	\$	0.343	
Small Business	\$	0.497	\$	0.492	\$	0.476	\$	0.509	\$	0.513	\$	0.421	
Subtotal: C&I EE Portfolio	\$	0.360	\$	0.362	\$	0.354	\$	0.370	\$	0.334	\$	0.339	
TOTAL (includes ISO Load Response)	\$	0.462	\$	0.480	\$	0.443	\$	0.489	\$	0.431	\$	0.456	
TOTAL (excludes ISO Load Response)	\$	0.444	\$	0.468	\$	0.435	\$	0.481	\$	0.423	\$	0.451	

#### Table D6 – Eversource CT Electric Historical and Cost per Projected Annual kWh (2013-2024) (continued)

Table D6

<u>Eversource CT Electric Historical and Cost per Projected Annual kWh</u>

		2019 Actual		2020 Actual		2021 Actual		2022 Goals		2023 Goals		2024 Goals	
			RES	IDENTIAI									
Residential Retail Products	\$	0.263	\$	0.278	\$	0.210	\$	0.358	\$	0.376	\$	0.477	
Residential New Construction	\$	0.577	\$	0.501	\$	0.733	\$	1.191	\$	1.190	\$	1.194	
Home Energy Solutions (Core Services, HVAC, Duct Sealing through 2015)	\$	0.763	\$	1.995	\$	2.914	\$	3.341	\$	4.017	\$	3.945	
HVAC & Domestic Water Heating	\$	1.463	\$	2.011	\$	1.963	\$	2.128	\$	2.130	\$	2.137	
HES Income Eligible	\$	1.468	\$	2.289	\$	3.067	\$	3.661	\$	3.855	\$	4.173	
Residential Behavior	\$	0.083	\$	-	\$	-	\$	0.126	\$	0.126	\$	0.126	
Subtotal: Residential EE Portfolio	\$	0.564	\$	0.869	\$	1.114	\$	1.886	\$	1.906	\$	2.188	
Energy Conscious Blueprint	\$	0.369	\$	0.640	\$	0.410	\$	0.558	\$	0.621	\$	0.655	
Energy Opportunities	\$	0.304	\$	0.445	\$	0.370	\$	0.568	\$	0.587	\$	0.595	
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	\$	0.290	\$	0.359	\$	0.241	\$	0.345	\$	0.350	\$	0.354	
Small Business	\$	0.361	\$	0.550	\$	0.844	\$	0.566	\$	0.578	\$	0.614	
Subtotal: C&I EE Portfolio	\$	0.320	\$	0.479	\$	0.422	\$	0.549	\$	0.571	\$	0.587	
TOTAL (includes ISO Load Response)	\$	0.532	\$	0.739	\$	0.762	\$	1.039	\$	1.082	\$	1.153	
TOTAL (excludes ISO Load Response)	\$	0.532	\$	0.739	\$	0.762	\$	1.039	\$	1.082	\$	1.153	

Table D7 – Eversource CT Electric Historical and Cost per Projected Lifetime kWh (2013-2024)

Table D7

<u>Eversource CT Electric Historical and Cost per Projected Lifetime kWh</u>

	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Goals	2023 Goals	2024 Goals	
	RESIDENTIAL												
Residential Retail Products	\$0.016	\$ 0.020	\$ 0.021	\$ 0.016	\$0.017	\$0.044	\$0.050	\$0.063	\$ 0.058	\$ 0.072	\$0.065	\$ 0.072	
Residential New Construction	\$0.046	\$ 0.037	\$ 0.044	\$ 0.056	\$0.057	\$ 0.062	\$0.034	\$ 0.028	\$ 0.046	\$ 0.062	\$ 0.062	\$ 0.063	
Home Energy Solutions (Core Services, HVAC, Duct Sealing through 2015)	\$0.093	\$ 0.078	\$ 0.072	\$ 0.085	\$ 0.078	\$ 0.079	\$ 0.080	\$ 0.180	\$ 0.237	\$ 0.271	\$0.287	\$ 0.287	
HVAC & Water Heating Equipment	\$ -	\$ -	\$ -	\$ 0.033	\$0.020	\$ 0.034	\$ 0.088	\$0.126	\$ 0.123	\$ 0.135	\$0.135	\$ 0.135	
HES Income Eligible	\$0.085	\$ 0.116	\$ 0.104	\$ 0.111	\$ 0.080	\$ 0.078	\$ 0.136	\$ 0.179	\$0.244	\$0.484	\$ 0.501	\$ 0.530	
Residential Behavior	\$ -	\$ 0.047	\$ 0.025	\$ 0.064	\$ 0.065	\$ 0.009	\$0.032	\$ -	\$ -	\$ 0.126	\$ 0.126	\$ 0.126	
Subtotal: Residential EE Portfolio	\$0.047	\$0.051	\$0.044	\$0.040	\$0.039	\$0.055	\$0.076	\$0.107	\$0.144	\$0.183	\$0.178	\$0.187	
	-			cc	OMMERCIAL	. & INDUSTE	RIAL						
Energy Conscious Blueprint	\$0.017	\$0.021	\$0.021	\$0.024	\$0.019	\$0.024	\$0.024	\$0.043	\$0.028	\$0.040	\$0.045	\$0.047	
Energy Opportunities	\$0.031	\$0.031	\$ 0.029	\$0.030	\$0.025	\$0.026	\$0.027	\$ 0.040	\$0.033	\$0.080	\$0.082	\$0.083	
Business & Energy Sustainability (O&M, RCx, BSC, PRIME, CSP/SEM)	\$0.046	\$ 0.032	\$0.053	\$0.048	\$0.049	\$0.067	\$0.050	\$0.057	\$0.040	\$ 0.046	\$ 0.047	\$0.047	
Small Business	\$0.041	\$0.040	\$0.038	\$0.041	\$ 0.041	\$0.034	\$0.029	\$0.047	\$0.074	\$ 0.071	\$0.073	\$0.077	
Subtotal: C&I EE Portfolio	\$0.028	\$0.029	\$0.029	\$ 0.031	\$0.028	\$0.028	\$0.027	\$0.041	\$0.036	\$0.063	\$0.067	\$0.069	
TOTAL (includes ISO Load Response)	\$0.043	\$0.045	\$0.043	\$0.043	\$0.041	\$0.044	\$0.051	\$0.071	\$0.074	\$0.115	\$ 0.120	\$0.126	
TOTAL (excludes ISO Load Response)	\$ 0.041	\$0.044	\$0.043	\$0.042	\$ 0.041	\$0.043	\$0.051	\$0.071	\$0.074	\$0.115	\$ 0.120	\$0.126	

# Table D8 – Eversource CT Electric Historical and Projected Annual MMBtu

Table D8

Eversource CT Electric Historical and Projected Annual MMBtu

	2019 Actual	2020 Actual	2021 Actual	2022 Goals	2023 Goals	2024 Goals
		RESIDE	NTIAL			
Residential Retail Products	126,205	137,926	142,239	31,533	35,245	22,723
Residential New Construction	17,010	18,507	17,058	13,505	11,801	11,398
Home Energy Solutions (Core Services, HVAC, Duct Sealing through 2015)	157,016	111,579	222,059	122,395	97,622	98,464
HVAC & Water Heating Equipment	27,166	121,425	119,893	100,449	93,170	91,096
HES-Income Eligible	77,185	52,659	57,551	55,204	44,756	41,486
Residential Behavior	41,343	-	-	2,440	2,440	2,440
Subtotal: Residential EE Portfolio	445,924	442,096	558,799	325,525	285,033	267,607
		COMMERCIAL	& INDUSTRIAL			
Energy Conscious Blueprint	87,521	66,263	88,045	82,690	63,316	55,454
Energy Opportunities	433,040	345,437	341,787	221,646	188,890	181,710
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	18,312	9,212	11,916	31,657	30,461	29,710
Small Business	84,685	33,400	49,748	87,763	74,142	67,088
Subtotal: C&I EE Portfolio	623,558	454,312	491,497	423,756	356,808	333,962
TOTAL	1,069,481	896,408	1,050,296	749,280	641,842	601,569

### Table D9 – Eversource CT Electric Historical and Projected Lifetime MMBtu

Table D9

<u>Eversource CT Electric Historical and Projected Lifetime MMBtu</u>

	2019 Actual	2020 Actual	2021 Actual	2022 Goals	2023 Goals	2024 Goals
		RESIDEN	ITIAL		<u> </u>	<u> </u>
Residential Retail Products	674,120	615,861	524,023	190,276	223,109	162,817
Residential New Construction	328,016	325,378	303,225	271,774	236,017	227,607
Home Energy Solutions (Core Services, HVAC, Duct Sealing through 2015)	2,544,409	1,904,384	4,609,096	2,334,314	1,887,087	1,896,867
HVAC & Water Heating Equipment	454,801	2,340,806	1,803,654	1,509,268	1,399,910	1,368,743
HES-Income Eligible	1,262,624	794,590	1,033,081	947,383	765,662	716,215
Residential Behavior	106,790	-	-	2,440	2,440	2,440
Subtotal: Residential EE Portfolio	5,370,759	5,981,018	8,273,078	5,255,454	4,514,224	4,374,688
		COMMERCIAL &	INDUSTRIAL			
Energy Conscious Blueprint	1,329,104	978,834	1,289,736	1,151,052	882,391	775,844
Energy Opportunities	4,920,239	3,826,983	3,787,217	1,582,409	1,349,005	1,298,048
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	106,070	58,477	71,764	238,101	229,105	223,436
Small Business	1,063,855	390,938	565,822	697,762	589,950	537,795
Subtotal: C&I EE Portfolio	7,419,268	5,255,231	5,714,538	3,669,324	3,050,451	2,835,123
TOTAL	12,790,027	11,236,249	13,987,616	8,924,778	7,564,675	7,209,811

Eversource Electric PMI (2022)

#### **EVERSOURCE CT ELECTRIC**

#### 2022 Management Incentive Performance Indicators and Incentive Matrix

Eversource CT Electric and the EEB recognize that having clear indicators and metrics of performance are helpful in delivering quality programs to Connecticut consumers. The following is a table of performance and incentive metrics developed by the Companies with input from the EEB, the EEB consultants and DEEP. These performance and incentive metrics apply to the programs delineated in the 2022-2024 Plan. The projected Eversource CT Performance Incentive is \$7,813,074 and is based on achieving 100% of all performance targets and earning an incentive of 5.0% of the total EE program budget of \$156,261,473 as shown on Table A (exclusive of EEB costs, Evaluation Consultant costs, Management incentives and Audit costs). The actual earned amount will be calculated on a sliding scale based on the percent of goal achieved and the actual total expenditures, based on the following performance range:

#### -Performance Incentive Illustration-"Performance %

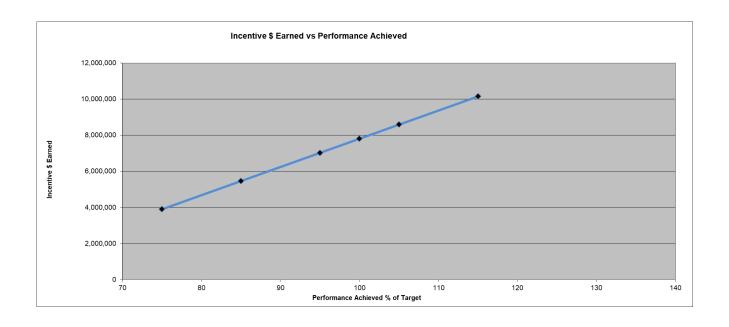
Minimum"	Pretax Incentive	Pre-tax Incentive
IVIIIIIIIIIIIII	FICLAX IIICCIILIVE	FICTON HILCHILIVE

75	5	2.5%	\$3,906,537
85	5	3.5%	\$5,469,152
95	5	4.5%	\$7,031,766
10	00	5.0%	\$7,813,074
10	)5	5.5%	\$8,594,381
11	5 (	5.5%	\$10.156.996

Maximum

Incentive Basis Budget \$156,261,473

"Goals will be prorated based on actual over/under spend of budget."



Secto	or	Performance Indicators						Incentive Metrics				
Resider	ntial	Program Name	LT-kW	/h	kW	LT Oil Gal	LT Prop Gal	Incentive Metric	Target Goal	Weight	Incentive	
Residential : Programs (Sector Level) Sector Budget	\$65,804	04							Modified Utility Benefit from Res programs	0.2099	\$1,639,964	
		Retail Products	57,755,2	243	1,462	-47,398	-2,308					
		New Construction	64,402,4	487	545	-	569,722					
		Home Energy Solutions	90,952,8	857	1,773	13,623,623	1,472,924		\$143,182,686	36		
		HVAC	107,282,	158	1,883	7,014,085	1,866,176					
		HES-Income Eligible	38,116,2		673	5,556,781	510,899					
		Behavior	715,00	00	82	-	-					
		Total	359,223,	889	6,418	26,147,091	4,417,414					
		Savings Rate	\$0.07879	/kWh	\$2,498.99 / kW	\$3.21	\$3.37					
		Savings	\$28,303,587	7	\$16,038,499	\$83,965,917	\$14,874,683					
Net Modified Utility Benefit - Res.			Itility Benefit gram Costs	less	\$77,37	8,490			\$77,378,490	0.2099	\$1,639,964	
Resi Active	\$3,340	Resi ADR				15,035	kW					
Demand Response		Resi ADR Savings	\$3,307,9	965	Resi ADR Savings Rate	\$220.02	\$/kW	Resi DR Benefit	\$3,307,965	0.0045	\$35,159	
Net Modified Utility Benefit Resi Active Demand Response		Syste	em Benefit les	ss Progra	am Costs	-\$32,035		Net Benefit Resi DR	(\$32,035)	0.0045	\$35,159	

Sector			Performance	Indicators			Incentive Metrics				
Residential	\$	L	T-kWh	kW	LT Oil Gal	LT Prop Gal	Incentive Metric	Target Goal	Weight	Incentive	
Home Energy Solutions	\$24,662	Electric Savings LTkWh:	90,952,857				Energy Savings included in				
		Demand Savings kW:	1,773				appropriate sector-level metric				
		Core Se complete	per HES single-fam rvices where duct d (i.e., non-barrier usted to the curre	work is present ed homes). Bas	that has ai ed on prev	r sealing ious year's	Increase in HES savings per ducted home	Achieve 18.25 MMBtu in HES per single- family ducted home savings across	0.0100	\$78,131	
		Core Serv	per HES single-fam rices where ductwo d (i.e., non-barrier djusted to the cur 102	ork is not presered homes).Base	nt that has ed on previ	air sealing ous year's	Increase in HES savings per non- ducted home	Achieve 12.85 MMBtu in HES per single-family non-ducted home savings across all fuels	0.0100	\$78,131	
		the numbe 2019 actu thereafter be 2019, f	of HES homes that re er of homes that re lals for 2022, then plus 2.0% (19.74% for 2023 will be 20 Baselines will be ca Illumina	ceive the HES A based on the p +2% = 21.74%). 22 actuals, and	assessment revious yea (Baseline f for 2024 w ersource a	es. Based on ar's actuals for 2022 will vill be 2023	Increase Homes being Weatherized	21.74% of homes that receive insulation rebates	0.0100	\$78,131	
Residential New Construction	\$3,986	Electric S	avings LTkWh :	6	4,402,487		Energy Savings included in appropriate				
		Demand	d Savings kW:		545			sector-level metric			
		units in the based or 4.0% (5 (SF/SFA T activity +	hted average perce e RNC program than the number of ur 6.9%+4% = 60.9%, ier 2 -4 quantity * HMF Tier 2 -4 quar () / (SF/SFA Tier 2-4)	at achieve a HEI nits in the previo ). *Weighted av SF/SFA Tier 2-4 ntity * MF Tier 2	RS rating of ous year re erage perc percent of -4 percent	f 50 or less, sults plus entage = fall SF/SFA of all MF	efficient new		0.0100	\$78,131	

Sector		Performance Indic	Incentive Met	Incentive Metrics			
Residential	\$			Incentive Metric	Target Goal	Weight	Incentive
Home Energy Solutions- Income Eligible	\$18,444	Electric Savings LTkWh :  Demand Savings kW :	38,116,143 673		Energy Savings included in appropriate sector-level metric		
		Core Services where ductwork completed (i.e., non-barriered hactuals adjusted to the current ye	omes). Based on previous year's	Increase in HES-IE savings per ducted home	Achieve 14.57 MMBtu in HES-IE per single-family ducted home savings across all fuels	0.0100	\$78,131
		Core Services where ductwork is completed (i.e., non-barriered hactuals adjusted to the current year	home (not including lighting) for s not present that has air sealing omes). Based on previous year's ear CT PSD plus 2.0% (10.83*102% .05).	Increase in HES-IE savings per non-ducted home	Achieve 11.05 MMBtu in HES-IE per single-family non-ducted home savings across all fuels	0.0100	\$78,131
		number of homes that receive the 2019 actuals for 2022, then base thereafter plus 2.0% (47%+2% = 2019, for 2023 will be 2022 act	eceive insulation divided by the ne HES-IE Assessments. Based on ed on the previous year's actuals 49%). (Baseline for 2022 will be tuals, and for 2024 will be 2023 alated with all the Companies ther).	Increase in homes being weatherized	49% of homes that receive insulation rebates	0.0100	\$78,131
Equitable Distribution		The Companies will track the part from January 1, 2022 through D customers that are coded "hards Start and UI Forgiveness progra achieve 5% participation (serv	ship" (i.e., MPP, Eversource New ams) on November 1, 2021 and		Achieve 5% participation serving at least 2,207 customers	0.0200	\$156,261
Retail Products	\$4,158	Electric Savings LTkWh:  Demand Savings kW:	57,55,243 1,462		Energy Savings included in appropriate sector-level metric		

Secto	or	Performance Indicators					Incentive Metrics			
Commer Indust		Program Name	LT-kWh	kW	LT Oil Gal	LT Prop Gal	Incentive Metric	Target Goal	Weight	Incentive
C&I \$68,0 Programs (Sector Level) Sector Budget	\$68,049				Sum of Modified Utility Benefit from C&I programs	\$1,363,381				
		Energy Conscious Blueprint	336,720,953	5,101	10,200	8,160				
		Energy Opportunities	462,627,457	10,882	20,280	12,168				
		Business and Energy Sustainability	69,172,428	1,664	10,775	6,465		\$137,715,163		
		Small Business	203,698,100	5,249	12,960	10,368				
		Total	1,072,218,938	22,896	54,215	37,161	_			
		Savings Rate	\$0.08606 /kWh	\$1,972.20 / kW	\$2.92	\$3.36				
		Savings	\$ 92,276,681	\$ 45,155,454	\$158,101	\$124,927				
		(1) percent of	target goal							
Net Modified Utility Benefit – C&I			ty Benefit less m Costs			\$69,665,957		\$69,665,957	0.1745	\$1,363,381
C&I Active Demand	\$4,753	C&I ADR			78,100	kW				
Response		C&I ADR Savings	\$10,276,470	C&I ADR Savings Rate	\$131.58	\$/kW	C&I DR Benefit	\$10,276,470	0.0111	\$86,725
Net Modified Utility Benefit C&I Active Demand Response		System	Benefit less Progr	am Costs		\$5,523,470	Net Benefit C&I DR	\$5,523,470	0.0111	\$86,725

Sector		Performance Indicators Incentive Metrics					
Commercial & Industrial	\$			Incentive Metric	Target Goal	Weight	Incentive
Energy Opportunities	\$36,833	Develop and implement compi will consist of a tailored combir bundles, and technical assista Calculated as signed projects t offerings at time of offering/a rebates). Comprehensive sh multiple end-use measures wit Based on Prior Year Actual re	nation of measure and service nce for SEM, benchmarking. that included comprehensive all signed projects (excluding nall be defined as including the BES counting as an end use.	Continue to promote comprehensive projects	58% of all signed projects	0.0250	\$195,327
Energy Conscious Blueprint	\$13,513	Number of new construction/n are more efficient than the Sta > ASHRAE 90.1-2013 or IECC 20 Performance, or	te Energy Code and are: 30% 015, or utilize Whole Building	Continue to advance projects that are more efficient than the State Energy Code	50% of signed projects	0.0200	\$156,261
Small Business		Electric Saving LTkWh:  Demand Saving kW:	203,698,100	Energy Savings included in appropriate sector-level			
			,	metric			
	\$14,527	Develop and implement comp will consist of a tailored combir bundles, and energy manage projects that included compre offering/all signed projects (e Prior Year Actual results	nation of measure and service ement. Calculated as signed ehensive offerings at time of excluding rebates). Based on	Continue to promote comprehensive projects	32% of signed projects	0.0250	\$195,327
Equitable Distribution	Quartile 1 Healthcare	The Companies will increase sa Quartile 1 Healthcare sector avera	by 4% (relative to baseline	The Companies will track this data by using		0.00375	\$29,299
	Quartile 2 Financial, Real Estate & Insurance	The Companies will increase so Quartile 2 Financial, Real Esta (relative to base	te & Insurance sector by 3%	2017-2021 data as a baseline to evaluate customer		0.00375	\$29,299
	Quartile 3 Healthcare	The Companies will increase sa Quartile 3 Healthcare sector avera	by 2% (relative to baseline	savings. The customers addressed by this KPI are		0.00375	\$29,299
	Quartile 4 Retail	The Companies will increase sa Quartile 4 Retail sector by 0 avera	0.44% (relative to baseline	customers who have not participated over the past 5 years.		0.00375	\$29,299

Sector		Performance Indicators	Incentive Metrics						
Commercial & Industrial	\$		Incentive Metric	Target Goal	Weight	Incentive			
Strategic Energy Management	\$3,176	The Companies will engage 10 companies that are part of a cohort (one or more) with each company saving a minimum of 10 annual MWH and the Companies also will engage with 10 individual companies with each company's savings a minimum of 25 annual MWh. SEM savings will be measured and claimed as per CEE SEM Minimum Elements. Based on the above the participation goal is 20 total companies with savings (10 as part of a cohort and 10 individuals).	Promote Strategic Energy Management (SEM) Initiatives	20 CEE SEM Minimum Elements	0.0150	\$117,196			
Evaluation		Timely turnaround on purchase orders and Evaluation Data requests based on agreed upon timelines for each study. Sliding scale as noted in the PMI exhibit - with 100% of goal achievement based on 90% of the data requests and purchase orders being completed on time.	Timely turnaround	Based on 90% of data request and purchase orders	0.0100	\$78,131			
Total of Incentive	es	1	I	I.	1.0000	\$7,813,074			

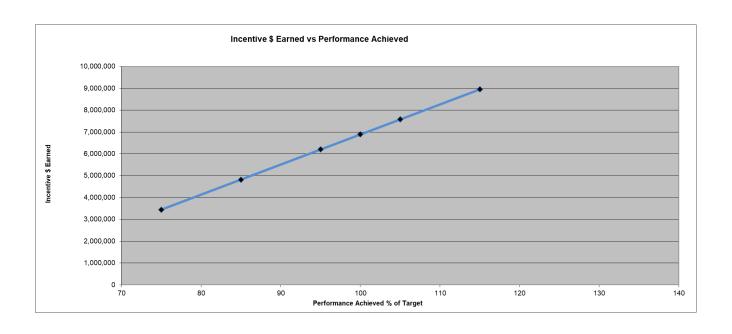
#### Eversource Electric PMI (2023)

#### **EVERSOURCE CT ELECTRIC**

Eversource CT Electric and the EEB recognize that having clear indicators and metrics of performance are helpful in delivering quality programs to Connecticut consumers. The following is a table of performance and incentive metrics developed by the Companies with input from the EEB, the EEB consultants and DEEP. These performance and incentive metrics apply to the programs delineated in the 2022-2024 Plan. The projected Eversource CT Performance Incentive is \$6,888,515 and is based on achieving 100% of all performance targets and earning an incentive of 5.0% of the total EE program budget of \$137,770,298 as shown on Table A (exclusive of EEB costs, Evaluation Consultant costs, Management incentives and Audit costs). The actual earned amount will be calculated on a sliding scale based on the percent of goal achieved and the actual total expenditures, based on the following performance range:

	"	ncentive I Performa	nce %	
Minimum"	Р	retax Inc	entive	Pre-tax Incentive
	75	2.5%	\$3,44	14,257
	85	3.5%	\$4,82	21,960
	95	4.5%	\$6,19	99,663
	100	5.0%	\$6,88	38,515
	105	5.5%	\$7,57	77,366
	115	6.5%	\$8,95	55,069
Incenti	Maxim ve Basis	um Budget	\$13	7,770,298

"Goals will be prorated based on



Secto	or		Perf	ormance Indica	tors			Incentive Metrics			
Reside	ntial	Program Name	LT-kWh	kW		LT Oil Gal	LT Prop Gal	Incentive Metric	Target Goal	Weight	Incentive
Residential Programs (Sector Level) Sector Budget	\$57,667							Sum of Modified Utility Benefit from Res programs	Modified Utility Benefit from Residential programs	0.2099	\$1,445,899
		Retail Products	63,924,794	1,372		37,179	-1,738				
		New Construction	56,332,844	496		-	479,678				
		Home Energy Solutions	71,729,506	1,293		11,063,804	1,181,508		\$127,021,300		
		HVAC	99,508,715	1,746		6,505,859	1,730,957				
		HES-Income Eligible	31,689,953	658		4,474,244	405,158				
		Behavior	715,000	82		-	-				
		Total	323,900,811	5,646		22,081,086	3,795,562				
		Savings Rate	\$0.07885 /kW	n \$2,596.72	/kW	\$3.33	\$3.48				
		Savings	\$25,540,619	\$14,661,0	096	\$73,617,578	\$13,202,007				
Net Modified Utility Benefit - Res.			Utility Benefit less gram Costs	\$6	59,354	,579			\$69,354,579	0.2099	\$1,445,899
Resi Active Demand	\$3,082	Resi ADR				14,427	kW				
Response		Resi ADR Savings	\$3,231,791	Resi AD Savings R		\$224.02	\$/kW	Resi DR Benefit	\$3,231,791	0.0045	\$30,998
Net Modified Utility Benefit Resi Active Demand Response		Syst	 .em Benefit less Pro	gram Costs		\$149,791		Net Benefit Resi DR	\$149,791	0.0045	\$30,998

Sector		Performance I	ndicators					
Residential	\$				Incentive Metric	Target Goal	Weight	Incentive
Home Energy Solutions	\$20,601	Electric Savings LTkWh:	7:	1,729,506	Energy Savings included in appropriate			
		Demand Savings kW:		1,293	sector-level metric			
		MMBtu per HES single-fam for Core Services where d sealing completed (i.e., no previous year's actuals adju plus 2.0	uctwork is preson-barriered he	sent that has air omes).Based on	savings per ducted home	Achieve X MMBtu in HES per single- family ducted home savings across	0.0100	\$68,885
		MMBtu per HES single-fam for Core Services where duc sealing completed (i.e., no previous year's actuals adju plus 2.0	ctwork is not pront on-barriered he	resent that has a omes).Based on	savings per non- ducted home	Achieve X MMBtu in HES per single- family non- ducted home savings across all fuels	0.0100	\$68,885
	Number of HES homes that receive divided by the number of homes. Assessments. Based on 2019 actual on the previous year's actuals therea (Baseline for 2022 will be 2019, for actuals, and for 2024 will be 2023 actuals for Eversource and Unindividually).			eceive the HES 2022, then based lus 2.0% (X%+29 23 will be 2022 . Baselines will b	).	X% of homes that receive insulation rebates	0.0100	\$68,885
Residential New	\$3,506	Electric Savings LTkWh:	56,332,844					
Construction		Demand Savings kw:	496					
		The weighted average participating units in the RI rating of 50 or less, based previous year results plu average percentage = (SF/Tier 2-4 percent of all SF/SF * MF Tier 2-4 percent of all quantity + MF	NC program that don the number us 4.0% (X%+4° SFA Tier 2 -4 q A activity + MF	at achieve a HER er of units in the %). *Weighted uantity * SF/SFA Tier 2 -4 quanti (SF/SFA Tier 2-4	homes	X% of homes	0.0100	\$68,885

Sector		Performance Indicators					Incentive Metrics				
Residential	\$	LT-kWh		kW LT Oil LT Prop Gal Gal		Incentive Metric	Target Goal	Weight	Incentive		
Home Energy Solutions- Income Eligible	\$15,884	Electric Savings LTkWh:	31,689,953				Energy Savings included in appropriate sector-level metric				
		Demand Savings kW:	658								
		for Core Se completed	er HES-IE single- ervices where du (i.e., non-barrie usted to the curi	ictwork is pr red homes).	esent that h Based on pr	as air sealing revious year's	Increase in HES- IE savings per ducted home	Achieve X MMBtu in HES-IE per single- family ducted home savings across all fuels	0.0100	\$68,885	
		for Core sealing	er HES-IE single- Services where o completed (i.e., ear's actuals adju 2.0	ductwork is r non-barrier	not present ed homes). current yea	that has air Based on	Increase in HES- IE savings per non-ducted home	Achieve X MMBtu in HES-IE per single- family non- ducted home savings across all fuels	0.0100	\$68,885	
		Number of HES-IE homes that receive insulation divided by the number of homes that receive the HES-IE Assessments. Based on 2019 actuals for 2022, then based on the previous year's actuals thereafter plus 2.0% (X%+2%). (Baseline for 2022 will be 2019, for 2023 will be 2022 actuals, and for 2024 will be 2023 actuals. Baseline will be calculated with all the Companies together).					Increase in homes being weatherized	X% of homes that receive insulation rebates	0.0100	\$68,885	
Equitable Distribution		The Companies will track the participation in 1-4 unit HES or HES-IE from January 1, 2023 through December 31, 2023 of all electric customers that are coded "hardship" (i.e., MPP, Eversource New Start and UI Forgiveness programs) on November 1, 2022 and achieve X% participation.			Achieve X% Participation		0.0200	\$137,770			
Retail Products	\$4,158		Savings LTkWh:		63,924, 1,37		Energy Savings included in appropriate sector-level				

Sect	or		Perfor	mance Indicators				Incentive I	Metrics	
Commer Indust		Program Name	LT-kWh	kW	LT Oil Gal	LT Prop Gal	Incentive Metric	Target Goal	Weight	Incentive
C&I Programs (Sector Level) Sector Budget	\$59,526						Sum of Modified Utility Benefit from C&I programs	Modified Utility Benefit from C&I programs	0.1745	\$1,202,046
		Energy Conscious Blueprint	257,843,456	4,212	12,240	10,200	-			
		Energy Opportunities	393,947,344	9,265	24,336	16,224				
		Business and Energy Sustainability	66,546,959	1,601	10,578	6,347		\$114,019,785		
		Small Business	171,973,120	4,431	14,256	13,142				
		Total	890,310,879	19,510	61,410	45,912	-			
		Savings Rate	\$0.08615 /kWh	\$1,895.22 / kW	\$3.02	\$3.48				
		Savings	\$ 76,698,949	\$ 36,975,830	\$185,187	\$159,820				
		(1) percent o	f target goal			I	I			I
Net Modified Utility Benefit – C&I			lity Benefit less am Costs			\$54,493,868		\$54,493,868	0.1745	\$1,202,406
C&I Active Demand	\$4,381	C&I ADR			79,200	kW				
Response		C&I ADR Savings	\$10,751,288	C&I ADR Savings Rate	\$135.75	\$/kW	C&I DR Benefit	\$10,751,288	0.0111	\$76,463
Net Modified Utility Benefit C&I Active Demand Response		Systen	। n Benefit less Progra	am Costs		\$6,370,698	Net Benefit C&I DR	\$6,370,698	0.0111	\$76,463

Sector		Performance Indicators		Incentive N	/letrics	
Commercial & Industrial	\$		Incentive Metric	Target Goal	Weight	Incentive
Energy Opportunities	\$32,404	Develop and implement comprehensive offerings. Offerings will consist of a tailored combination of measure and service bundles, and technical assistance for SEM, benchmarking. Calculated as signed projects that included comprehensive offerings at time of offering/all signed projects (excluding rebates). Comprehensive shall be defined as including multiple end-use measures with BES counting as an end use. Based on Prior Year Actual results + 5% (X% +5%).	Continue to promote comprehensive projects	X% of all signed projects	0.0250	\$172,213
Energy Conscious Blueprint	\$11,494	Number of new construction/major renovation projects that are more efficient than the State Energy Code and are: 30% > ASHRAE 90.1-2013 or IECC 2015, or utilize Whole Building Performance, or Near Net Zero.	Continue to advance projects that are more efficient than the State Energy Code	50% of signed projects	0.0200	\$137,770
Small Business	\$12,527	Develop and implement comprehensive projects. Offerings will consist of a tailored combination of measure and service bundles, and energy management. Calculated as signed projects that included comprehensive offerings at time of offering/all signed projects (excluding rebates). Based on Prior Year Actual results + 5% (X%+5%).	Continue to promote comprehensive projects	X% of signed projects	0.0250	\$172,213
Equitable Distribution	Quartile 1 Healthcare	The Companies will increase savings from customers in the Quartile 1 Healthcare sector by 4% (relative to baseline average).	The Companies will track this data		0.00375	\$25,832
	Quartile 2 Financial, Real Estate & Insurance	The Companies will increase savings from customers in the Quartile 2 Financial, Real Estate & Insurance sector by 3% (relative to baseline average).	by using 2018- 2022 data as a baseline to evaluate customer		0.00375	\$25,832
	Quartile 3 Healthcare	The Companies will increase savings from customers in the Quartile 3 Healthcare sector by 2% (relative to baseline average).	savings. The customers addressed by this KPI are customers		0.00375	\$25,832
	Quartile 4 Retail	The Companies will increase savings from customers in the Quartile 4 Retail sector by 0.44% (relative to baseline average).	who have not participated over the past 5 years.		0.00375	\$25,832

Sector		Perfo	rmance Indicators				Incentive Metrics					
Commercial & Industrial	\$ LT-kWh kW LT Oil Gal LT Prop Incentive Gal Metric							Weight	Incentive			
Strategic Energy Management	\$3,101	cohort (one or mo 10 annual MWH individual compar of 25 annual MWI as per CEE SEM I participation goal	will engage 10 com ore) with each com and the Companies iles with each com n. SEM savings will Minimum Elements is 20 total compani a cohort and 10 in	pany saving a r s also will enga pany's savings be measured a s. Based on the ies with saving:	minimum of ge with 10 a minimum and claimed above the	Promote Strategic Energy Management (SEM) Initiatives	20 CEE SEM Minimum Elements	0.0150	\$103,328			
Evaluation							0.0100	\$68,885				
Total of Incentive	es						<u> </u>	1.0000	\$6,888,515			

#### Eversource Electric PMI (2024)

#### **EVERSOURCE CT ELECTRIC**

Eversource CT Electric and the EEB recognize that having clear indicators and metrics of performance are helpful in delivering quality programs to Connecticut consumers. The following is a table of performance and incentive metrics developed by the Companies with input from the EEB, the EEB consultants and DEEP. These performance and incentive metrics apply to the programs delineated in the 2022-2024 Plan. The projected Eversource CT Performance Incentive is \$6,717,979 and is based on achieving 100% of all performance targets and earning an incentive of 5.0% of the total EE program budget of \$134,359,581 as shown on Table A (exclusive of EEB costs, Evaluation Consultant costs, Management incentives and Audit costs). The actual earned amount will be calculated on a sliding scale based on the percent of goal achieved and the actual total expenditures, based on the following performance range:

Performance % Minimum	Pretax Incentive	Pre-tax Incentive
75	2.5%	\$3,358,990

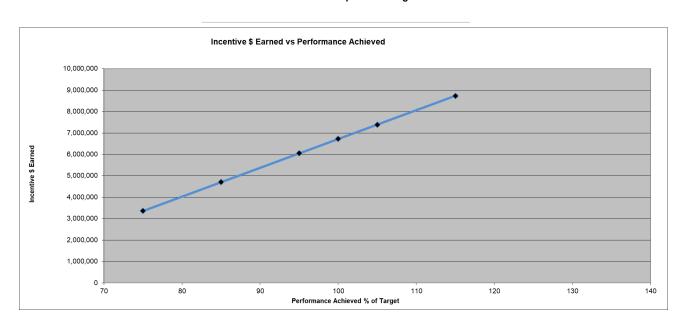
-Performance Incentive Illustration-

75	2.5%	\$3,358,990
85	3.5%	\$4,702,585
95	4.5%	\$6,046,181
100	5.0%	\$6,717,979
105	5.5%	\$7,389,777
115	6.5%	\$8 733 373

# Maximum

**Incentive Basis** 

Budget \$134,359,581
Goals will be prorated based on actual over/under spend of budget.



Secto	or	Performance Indicators					Incentive	Metrics		
Resider	ntial	Program Name	LT-kWh	kW	LT Oil Gal	LT Prop Gal	Incentive Metric	Target Goal	Weight	Incentive
Residential Programs (Sector Level) Sector Budget	\$55,902							Modified Utility Benefit from Residential programs	0.2099	\$1,410,104
		Retail Products	46,075,123	845	40,438	0				
		New Construction	54,351,700	484	0	461,614				
		Home Energy Solutions	71,887,956	1,405	11,130,424	4 1,181,508	\$124,760,126			
		HVAC	97,293,324	1,708	6,361,017	1,692,420				
		HES-Income 28,877,759		541	4,197,256	389,428				
		Behavior	715,000	82	0	0				
		Total	299,200,862	5,064	21,729,134	3,724,970	-			
		Savings Rate	\$0.07746 /kWh	\$2,636.28 / kW	\$3.45	\$3.58				
		Savings	\$23,175,615	\$13,350,133	\$74,902,009	13,332,370				
Net Modified Utility Benefit - Res.			Utility Benefit less gram Costs	\$68,858	3,156			\$68,858,156	0.2099	\$1,410,104
Resi Active Demand	\$3,536	Resi ADR			15,869	kW				
Response		Resi ADR Savings	\$3,622,394	Resi ADR Savings Rate	\$228.27	\$/kW	Resi DR Benefit	\$3,622,394	0.0045	\$30,231
Net Modified Utility Benefit Resi Active Demand Response		Syst	 :em Benefit less Progr	am Costs	\$86,294		Net Benefit Resi DR	\$86,294	0.0045	\$30,231

Sector		Performance In	Performance Indicators				ics	
Residential	\$				Incentive Metric	Target Goal	Weight	Incentive
Home Energy Solutions	\$20,631	Electric Savings LTkWh:	7:	1,887,956	Energy Savings included in			
		Demand Savings kW:		1,405	appropriate sector-level metric			
		MMBtu per HES single-fami for Core Services where du sealing completed (i.e., no previous year's actuals adju plus 2.09	uctwork is pres on-barriered ho	sent that has air omes).Based on	savings per ducted home	Achieve X MMBtu in HES per single- family ducted home savings across	0.0100	\$67,180
		MMBtu per HES single-fami for Core Services where duc sealing completed (i.e., no previous year's actuals adju plus 2.09	twork is not pr on-barriered ho	resent that has a omes).Based on	r savings per non- ducted home	Achieve X MMBtu in HES per single- family non- ducted home savings across all fuels	0.0100	\$67,180
		Number of HES homes the divided by the number of Assessments. Based on 201 on the previous year's actual (Baseline for 2022 will be actuals, and for 2024 will be calculated for Eversour indiv		X% of homes that receive insulation rebates	0.0100	\$67,180		
Residential New	\$3,506	Electric Savings LTkWh:	54,551,700					
Construction		Demand Savings kw :	484					
		The weighted average participating units in the RN rating of 50 or less, based previous year results pluaverage percentage = (SF/ST ier 2-4 percent of all SF/SF/A MF Tier 2-4 percent of all quantity + MF	IC program that on the numbers 4.0% (X%+49) SFA Tier 2 -4 qual activity + MF	at achieve a HERS er of units in the %). *Weighted uantity * SF/SFA Tier 2 -4 quantit (SF/SFA Tier 2-4	homes	X% of homes	0.0100	\$67,180

Sector		Performance Ind	icators	Incentive Metrics					
Residential	\$			Incentive Metric	Target Goal	Weight	Incentive		
Home Energy Solutions- Income Eligible				Energy Savings included in appropriate sector-level metric					
		MMBtu per HES-IE single-famil for Core Services where duc sealing completed (i.e., non- previous year's actuals adjust plus 2.0%	twork is present that has air -barriered homes). Based on	Increase in HES-IE savings per ducted home	Achieve X MMBtu in HES- IE per single- family ducted home savings across all fuels	0.0100	\$67,180		
			vork is not present that has air	Increase in HES-IE savings per non- ducted home	Achieve X MMBtu in HES-IE per single-family non-ducted home savings across all fuels	0.0100	\$67,180		
		on 2019 actuals for 2022, ther actuals thereafter plus 2.0% (X be 2019, for 2023 will be 202	the HES-IE Assessments. Based in based on the previous year's (%+2%). (Baseline for 2022 will 2 actuals, and for 2024 will be I be calculated with all the	Increase in homes being weatherized	X% of homes that receive insulation rebates	0.0100	\$67,180		
Equitable Distribution			JI Forgiveness programs) on	Achieve X% Participation		0.0200	\$134,360		
Retail Products	\$3,300	Electric Savings LTkWh:	46,075,123	Energy Savings included in					
		Demand Savings kW:	appropriate sector-level metric						

Sect	or		Perfo	rmance Indicators				Incentive N	letrics	
Comme Indus		Program Name	LT-kWh	kW	LT Oil Gal	LT Prop Gal	Incentive Metric	Target Goal	Weight	Incentive
C&I \$57,294 Programs (Sector Level) Sector Budget	\$57,294						Sum of Modified Utility Benefit from C&I programs	Modified Utility Benefit from C&I programs	0.1745	\$1,172,287
		Energy Conscious Blueprint	226,478,725	4,068	14,280	12,240				
		Energy Opportunities	378,739,228	8,907	28,392	20,280				
		Business and Energy Sustainability	65,004,731	1,564	7,738	6,199		\$105,338,868		
		Small Business	156,637,531	4,202	15,509	13,105				
		<b>-</b>	l			l				
		Total	826,860,214	18,742	65,919	51,825				
		Savings Rate	\$0.08591 /kWh	\$1,895.22 / kW	\$3.02	\$3.48				
		Savings	\$ 71,038,631	\$33,909,340	\$204,837	\$186,059				
		(1) percent of	f target goal							
Net Modified Utility Benefit – C&I			ty Benefit less m Costs			\$48,044,436		\$48,044,436	0.1745	\$1,172,287
C&I Active Demand	\$4,512	C&I ADR			84,662	kW				
Response		C&I ADR Savings	\$12,056,104	C&I ADR Savings Rate	\$142.40	\$/kW	C&I DR Benefit	\$12,056,104	0.0111	\$74,570
Net Modified Utility Benefit C&I Active Demand Response		System	 Benefit less Progr	am Costs		\$7,544,097	Net Benefit C&I DR	\$7,544,097	0.0111	\$74,570

Sector		Performance Indicators	Incentive Metrics					
Commercial & Industrial	\$		Incentive Metric	Target Goal	Weight	Incentive		
Energy Opportunities	\$31,573	Develop and implement comprehensive offerings. Offerings will consist of a tailored combination of measure and service bundles, and technical assistance for SEM, benchmarking. Calculated as signed projects that included comprehensive offerings at time of offering/all signed projects (excluding rebates). Comprehensive shall be defined as including multiple end-use measures with BES counting as an end use. Based on Prior Year Actual results + 5% (X%+5%).	Continue to promote comprehensive projects	X% of all signed projects	0.0250	\$167,949		
Energy Conscious Blueprint	\$10,623	Number of new construction/major renovation projects that are more efficient than the State Energy Code and are: 30% > ASHRAE 90.1-2013 or IECC 2015, or utilize Whole Building Performance, or Near Net Zero.	Continue to advance projects that are more efficient than the State Energy Code	50% of signed projects	0.0200	\$134,360		
Small Business	\$12,039	Develop and implement comprehensive projects.  Offerings will consist of a tailored combination of measure and service bundles, and energy management. Calculated as signed projects that included comprehensive offerings at time of offering/all signed projects (excluding rebates). Based on Prior Year Actual results + 5% (X%+5%).	Continue to promote comprehensive projects	X% of signed projects	0.0250	\$167,949		
Equitable Distribution	Quartile 1 Healthcare	The Companies will increase savings from customers in the Quartile 1 Healthcare sector by 4% (relative to baseline average).	The Companies will track this data by using 2019-2023 data		0.00375	\$25,192		
	Quartile 2 Financial, Real Estate & Insurance	The Companies will increase savings from customers in the Quartile 2 Financial, Real Estate & Insurance sector by 3% (relative to baseline average).	as a baseline to evaluate customer savings. The customers		0.00375	\$25,192		
	Quartile 3 Healthcare	The Companies will increase savings from customers in the Quartile 3 Healthcare sector by 2% (relative to baseline average).	addressed by this KPI are customers who have not		0.00375	\$25,192		
	Quartile 4 Retail	The Companies will increase savings from customers in the Quartile 4 Retail sector by 0.44% (relative to baseline average).	participated over the past 5 years.		0.00375	\$25,192		

Sector		Performance Indicators		Incentive I	Metrics	
Commercial & Industrial	\$		Incentive Metric	Target Goal	Weight	Incentive
Strategic Energy Management	\$3,060	The Companies will engage 10 companies that are part of a cohort (one or more) with each company saving a minimum of 10 annual MWH and the Companies also will engage with 10 individual companies with each company's savings a minimum of 25 annual MWh. SEM savings will be measured and claimed as per CEE SEM Minimum Elements. Based on the above the participation goal is 20 total companies with savings (10 as part of a cohort and 10 individuals).	Promote Strategic Energy Management (SEM) Initiatives	20 CEE SEM Minimum Elements	0.0150	\$100,770
Evaluation		Timely turnaround on purchase orders and Evaluation Data requests based on agreed upon timelines for each study.  Sliding scale as noted in the PMI exhibit - with 100% of goal achievement based on 90% of the data requests and purchase orders being completed on time.	Timely turnaround	Based on 90% of data request and purchase orders	0.0100	\$67,180
Total of Incentiv	es	1		I	1.0000	\$6,717,979

### **E.4 UNITED ILLUMINATING ELECTRIC TABLES**

United Illuminating Electric Table A1 (2021-2024)

Table A
<u>UI Proposed EE Budgets</u>

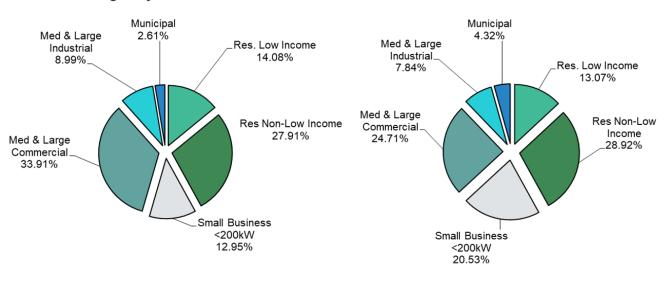
	OT FTOPOSEU EL DU	ugets		
UNITED ILLUMINATING ELECTRIC EE BUDGET	2021 UI CT Electric Actual Results 03/01/22	2022 UI CT Electric Proposed Budget 03/01/22	2023 UI CT Electric Proposed Budget 03/01/22	2024 UI CT Electric Proposed Budget 03/01/22
	RESIDENTIAL	'		
Residential Retail Products	\$1,959,310	\$757,358	\$761,887	\$761,887
Residential New Construction	\$770,213	\$623,386	\$561,642	\$539,724
Home Energy Solutions	\$6,327,483	\$3,744,834	\$3,388,716	\$3,262,881
HVAC & Water Heating Equipment	\$2,249,235	\$2,228,156	\$2,168,934	\$2,056,814
HES-Income Eligible	\$4,956,531	\$3,947,343	\$3,715,418	\$3,583,349
Residential Behavior	\$68,544	\$281,839	\$265,728	\$243,841
Subtotal: Residential EE Portfolio	\$16,331,317	\$11,582,916	\$10,862,324	\$10,448,495
	COMMERCIAL & INDU	ISTRIAL		
Energy Conscious Blueprint	\$7,916,998	\$4,235,858	\$3,920,523	\$3,839,995
Energy Opportunities	\$5,801,717	\$7,856,527	\$7,466,578	\$7,185,372
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	\$433,054	\$1,154,085	\$1,105,723	\$1,072,253
Small Business	\$6,996,241	\$3,821,696	\$3,642,400	\$3,578,597
Subtotal: C&I EE Portfolio	\$21,148,011	\$17,068,167	\$16,135,225	\$15,676,217
	OTHER - LOAD MANAG	SEMENT		
Residential Demand Response	\$610,010	\$565,015	\$687,094	\$833,588
C&I Demand Response	\$174,610	\$359,419	\$424,129	\$492,859
Subtotal: Load Management	\$784,620	\$924,434	\$1,111,223	\$1,326,447
ОТ	HER - EDUCATION & EN	GAGEMENT		
Energy Education	\$128,511	\$184,000	\$184,000	\$184,000
Workforce Development	\$100,987	\$198,400	\$198,400	\$198,400
Community Outreach	\$107,074	\$192,000	\$192,000	\$192,000
Customer Engagement Initiative	\$ -	\$80,000	\$80,000	\$80,000
Subtotal: Education & Engagement	\$336,571	\$654,401	\$654,401	\$654,401
ОТ	HER - PROGRAMS/REQ	UIREMENTS		
Residential Loan Program (Includes ECLF and OBR)	\$28,752	\$157,992	\$146,738	\$146,738
C&I Financing Support	\$ -	\$85,000	\$85,000	\$85,000
Research, Development & Demonstration	\$7,188	\$151,250	\$151,250	\$151,250
Subtotal: Programs/Requirements	\$35,940	\$394,242	\$382,988	\$382,988
ОТЬ	IER - ADMINISTRATIVE			. ,
Administration	\$89,281	\$185,015	\$185,015	\$185,015
Marketing Plan	\$176,012	\$121,400	\$121,400	\$121,400
Planning	\$333,097	\$194,043	\$194,043	\$194,043
Evaluation Measurement and Verification	\$480,000	\$720,000	\$720,000	\$720,000
Evaluation Administrator	\$52,635	\$71,057	\$71,057	\$71,057
Information Technology	\$692,058	\$1,194,375	\$725,375	\$517,375
Energy Efficiency Board Consultants	\$104,000	\$128,000	\$128,000	\$128,000
Audits - Financial and Operational	\$24,000	\$24,000	\$24,000	\$24,000
Performance Management Incentive (PMI)	\$2,459,136	\$1,651,950	\$1,554,600	\$1,511,319
Subtotal: Admin/Planning Expenditures	\$4,410,219	\$4,289,840	\$3,723,490	\$3,472,210
TOTAL	\$43,046,678	\$34,914,000	\$32,869,651	\$31,960,758

#### United Illuminating Electric Table A Pie Chart (2022)

#### THE UNITED ILLUMINATING COMPANY 2022 ENERGY EFFICIENCY BUDGET PIES TABLE A

### **EE Budget By Customer Class**

#### **EE Revenue By Customer Class**



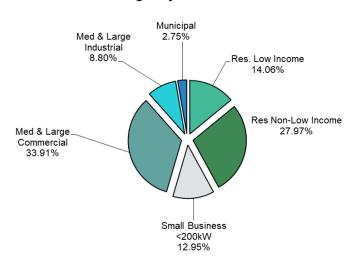
Customer Class	Budget (\$,000) *	% of Total Budget	% of Residential and C&I Budget	% of Residential and C&I Revenue	Difference
Res. Income-Eligible	\$ 4,307,330	12.34%	14.08%	13.07%	1.01%
Res. Non Income-Eligible	\$ 8,540,034	24.46%	27.91%	28.92%	-1.01%
Residential Subtotal	\$ 12,847,364	36.80%	41.99%	41.99%	0.00%
Small Business <200kW	\$ 3,821,696	10.95%	12.49%	21.14%	-8.65%
Med & Large Commercial	\$ 10,376,041	29.72%	33.91%	24.71%	9.20%
Med & Large Industrial	\$ 2,749,209	7.87%	8.99%	7.84%	1.15%
Municipal	\$ 800,000	2.29%	2.61%	4.32%	-1.71%
C&I Subtotal	\$ 17,746,946	50.83%	58.01%	58.01%	0.00%
Residential and C&I Subtotal	\$ 30,594,310	87.63%	100.00%	100.00%	0.00%
Other Expenditures					
Other Expenditures	\$ 4,319,690	12.37%			
Other Expenditures Subtotal	\$ 4,319,690	12.37%			
Energy Efficiency Total	\$ 34,914,000	100%			

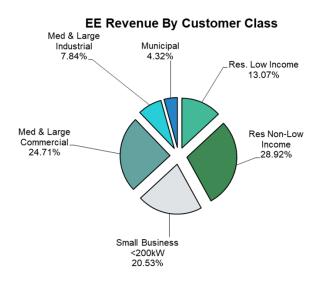
Totals may vary due to rounding.
Please see attached Budget Allocation Table.

#### United Illuminating Electric Table A Pie Chart (2023)

#### THE UNITED ILLUMINATING COMPANY 2023 ENERGY EFFICIENCY BUDGET PIES TABLE A

#### **EE Budget By Customer Class**





Customer Class	Budget (\$,000) *	% of Total Budget	% of Residential and C&I Budget	% of Residential and C&I Revenue	Difference
Res. Income-Eligible	\$ 4,094,987	12.46%	14.06%	13.07%	0.99%
Res. Non Income-Eligible	\$ 8,142,609	24.77%	27.97%	28.92%	-0.95%
Residential Subtotal	\$ 12,237,597	37.23%	42.03%	41.99%	0.04%
Small Business <200kW	\$ 3,642,400	11.08%	12.51%	21.14%	-8.63%
Med & Large Commercial	\$ 9,873,852	30.04%	33.91%	24.71%	9.20%
Med & Large Industrial	\$ 2,562,462	7.80%	8.80%	7.84%	0.96%
Municipal	\$ 800,000	2.43%	2.75%	4.32%	-1.57%
C&I Subtotal	\$ 16,878,714	51.35%	57.97%	58.01%	-0.04%
Residential and C&I Subtotal	\$ 29,116,311	88.58%	100.00%	100.00%	0.00%
Other Expenditures		<u> </u>			
Other Expenditures	\$ 3,753,340	11.42%			
Other Expenditures Subtotal	\$ 3,753,340	11.42%			
Energy Efficiency Total	\$ 32,869,651	100%			

Totals may vary due to rounding.

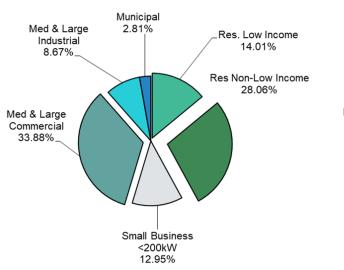
Please see attached Budget Allocation Table.

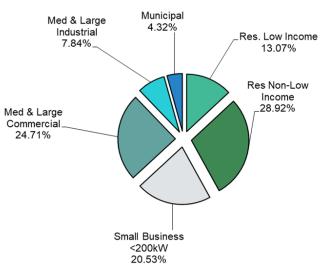
#### United Illuminating Electric Table A Pie Chart (2024)

#### THE UNITED ILLUMINATING COMPANY 2024 ENERGY EFFICIENCY BUDGET PIES TABLE A

### **EE Budget By Customer Class**

#### **EE Revenue By Customer Class**





Customer Class	Budget (\$,000) *	% of Total Budget	% of Residential and C&I Budget	% of Residential and C&I Revenue	Difference
Res. Income-Eligible	\$ 3,985,651	12.47%	14.01%	13.07%	0.94%
Res. Non Income-Eligible	\$ 7,984,611	24.98%	28.06%	28.92%	-0.86%
Residential Subtotal	\$ 11,970,262	37.45%	42.06%	41.99%	0.07%
Small Business <200kW	\$ 3,578,597	11.20%	12.57%	21.14%	-8.57%
Med & Large Commercial	\$ 9,641,825	30.17%	33.88%	24.71%	9.17%
Med & Large Industrial	\$ 2,468,014	7.72%	8.67%	7.84%	0.83%
Municipal	\$ 800,000	2.50%	2.81%	4.32%	-1.51%
C&I Subtotal	\$ 16,488,436	51.59%	57.94%	58.01%	-0.07%
Residential and C&I Subtotal	\$ 28,458,698	89.04%	100.00%	100.00%	0.00%
Other Expenditures					
Other Expenditures	\$ 3,502,060	10.96%			
Other Expenditures Subtotal	\$ 3,502,060	10.96%			
Energy Efficiency Total	\$ 31,960,758	100%			

Totals may vary due to rounding.

Please see attached Budget Allocation Table.

#### United Illuminating Electric Table A Budget Allocation (2022-2024)

Table A Pie Sector Alloc	ation		
	Residential	C&I	Other
OTHER - LOAD MANAGE	MENT		
Residential Demand Response	100%	0%	0%
C&I Demand Response	0%	100%	0%
OTHER - EDUCATION & ENG	AGEMENT		
Energy Education	80%	20%	0%
Workforce Development	50%	50%	0%
Community Outreach	50%	50%	0%
Customer Engagement Initiative	80%	20%	0%
OTHER - PROGRAMS/REQUI	REMENTS		
Residential Loan Program	100%	0%	0%
C&I Financing Support	0%	100%	0%
Time-of-Use Program	100%	0%	0%
Research, Development & Demonstration	0%	0%	100%
OTHER - ADMINISTRATIVE &	PLANNING		
Administration	0%	0%	100%
Marketing Plan	80%	20%	0%
Planning	0%	0%	100%
Evaluation Measurement and Verification	0%	0%	100%
Evaluation Administrator	0%	0%	100%
Information Technology	0%	0%	100%
Energy Efficiency Board Consultants	0%	0%	100%
Audit - Financial and Operational	0%	0%	100%
Performance Management Incentive	0%	0%	100%

Note: Core Residential and C&I programs that produce savings are allocated 100% to the Residential and C&I sectors, respectively. Other programs budgets are allocated to both Residential and C&I sectors based on an estimated percentage of the sector that those dollars will directly benefit by the percentages above.

Table B – United Illuminating Electric Costs and Benefits (2022)

		Costs (\$000)			Benefits (\$000)	1	Benefit Cost Ratios			
2022 United Illuminating	Utility Cost	Modified Utility Cost	Total Resource Cost	Utility Benefit	Modified Utility Benefit	Total Resource Benefit	Utility Cost Test	Modified Utility Cost Test	Total Resource Cost Test	
Retail Products	\$757	\$757	\$2,729	2,643	2,799	3,767	3.49	3.70	1.38	
New Construction	\$623	\$623	\$2,385	1,977	2,990	3,554	3.17	4.80	1.49	
Home Energy Solutions	\$1,749	\$3,745	\$4,446	1,708	9,070	12,572	0.98	2.42	2.83	
HVAC & Water Heating Equipment	\$2,228	\$2,228	\$6,159	2,504	7,092	9,579	1.12	3.18	1.56	
HES-Income Eligible	\$1,927	\$3,947	\$3,947	491	3,830	7,191	0.26	0.97	1.82	
Behavior	\$282	\$282	\$282	437	437	734	1.55	1.55	2.60	
Subtotal: Residential EE Portfolio	\$7,566	\$11,583	\$19,949	9,761	26,217	37,396	1.29	2.26	1.87	
Energy Conscious Blueprint	\$4,236	\$4,236	\$7,875	12,342	12,342	17,565	2.91	2.91	2.23	
Energy Opportunities	\$7,857	\$7,857	\$14,779	10,811	10,830	16,158	1.38	1.38	1.09	
BES	\$1,154	\$1,154	\$1,848	2,251	2,251	3,194	1.95	1.95	1.73	
Small Business	\$3,822	\$3,822	\$7,825	5,620	5,643	8,282	1.47	1.48	1.06	
Subtotal: C&I EE Portfolio	\$17,068	\$17,068	\$32,329	31,024	31,066	45,198	1.82	1.82	1.40	
Demand Response - Res	\$565	\$565	\$565	945	945	945	1.67	1.67	1.67	
Demand Response - C&I	\$359	\$359	\$359	422	422	422	1.17	1.17	1.17	
Subtotal: Demand Response	\$924	\$924	\$924	1,366	1,366	1,366	-	-	-	
Subtotal: Other	\$5,338	\$5,338	\$5,338	-	-	-	-	-	-	
TOTAL	\$30,897	\$34,914	\$58,540	42,151	58,649	83,961	1.36	1.68	1.43	

Table B – United Illuminating Electric Costs and Benefits (2022) (continued)

	Qı	antities	EI	ectric Savings			Electric Co	st Rates	
2022 United Illuminating	No. of Units	Units of Measure	Annual Savings (MWh)	Lifetime Savings (MWh)	Peak kW Impact (Y/E)	Electric Cost Rate \$/kWh Annualize	Electric Cost Ratio \$/LT-kWh	Electric Demand Cost \$/kW	Electric Demand Cost \$/kW- yr
			Resid	lential					
Retail Products	98,685	Bulbs, Fixtures	2,877	17,946	814	\$0.263	\$0.042	\$931	\$149
New Construction	771	No. of Units	443	11,072	256	\$1.408	\$0.056	\$2,432	\$97
Home Energy Solutions	6,165	No. of Ptcps.	968	10,961	301	\$1.807	\$0.160	\$5,804	\$513
HVAC & Water Heating Equipment	16,263	No. of Ptcps.	1,036	16,457	373	\$2.150	\$0.135	\$5,969	\$376
HES-Income Eligible	3,259	Customers	603	4,669	99	\$3.193	\$0.413	\$19,459	\$2,515
Behavior	35,000	Customers	2,240	4,480	-	\$0.126	\$0.063	\$ -	\$ -
Subtotal: Residential EE Portfolio	-	-	8,167	65,585	1,844	\$0.926	\$0.115	\$4,104	\$511
			Commercia	l & Industrial					
Energy Conscious Blueprint	128	Projects	8,373	120,222	1,037	\$0.506	\$0.035	\$4,086	\$285
Energy Opportunities	591	Projects	13,398	98,977	1,051	\$0.586	\$0.079	\$7,478	\$1,012
BES	87	Projects	2,265	17,526	425	\$0.510	\$0.066	\$2,712	\$351
Small Business	225	Projects	6,435	49,663	701	\$0.594	\$0.077	\$5,450	\$706
Subtotal: C&I EE Portfolio	-	-	30,471	286,388	3,214	\$0.560	\$0.060	\$5,311	\$565
			Load R	esponse					
Demand Response - Residential	5,904	No. of Ptcps.	-	-	4,724	\$ -	\$ -	\$120	\$120
Demand Response - C&I	29	No. of Ptcps.	-	-	2,574	\$ -	\$ -	\$140	\$140
Subtotal: Demand Response	-	-	-	-	7,298	\$ -	\$ -	\$ -	\$ -
Subtotal: Other	-	-	-	-	-	\$ -	\$ -	\$ -	\$ -
TOTAL	-	-	38,639	351,973	12,355	\$0.800	\$0.088	\$2,501	\$275

		Oil/Propan	e Savings			MMBtu S	Savings		Emissions Savings	
2022 United Illuminating	Annual Oil Savings (Gal)	Lifetime Oil Savings (Gal)	Annual Propane Savings (Gal)	Lifetime Propane Savings (Gal)	Annual MMBtu	Lifetime MMBtu	Cost per Annual MMBtu	Cost per Lifetime MMBtu	Annual Tons CO2	Lifetime Tons CO2
				Residentia	ı					
Retail Products	-11,491	-9,465	3,879	46,804	8,579	64,211	\$88	\$12	949	7,313
New Construction	-	-	12,241	306,033	2,629	65,737	\$237	\$9	270	6,753
Home Energy Solutions	107,403	2,168,584	6,241	130,530	18,769	350,091	\$200	\$11	1,867	35,156
HVAC & Water Heating Equipment	75,243	1,120,427	20,052	288,286	15,804	237,890	\$141	\$9	1,605	24,212
HES-Income Eligible	44,004	937,793	4,934	103,232	8,613	155,426	\$458	\$25	845	15,548
Behavior	-	-	-	-	7,645	15,290	\$37	\$18	859	1,719
Subtotal: Residential EE Portfolio	215,159	4,217,338	47,347	874,884	62,040	888,646	\$187	\$13	6,397	90,701
			Comi	mercial & In	dustrial					
Energy Conscious Blueprint	-	-	-	-	28,577	410,316	\$148	\$10	3,212	46,124
Energy Opportunities	-	-	558	5,577	45,778	338,319	\$172	\$23	5,145	38,019
BES	-	-	-	-	7,730	59,817	\$149	\$19	869	6,724
Small Business	-	-	378	6,804	21,998	170,121	\$174	\$22	2,472	19,109
Subtotal: C&I EE Portfolio	-	-	936	12,381	104,083	978,574	\$164	\$17	11,698	109,977
				Load Respor	ıse					
Demand Response - RES	-	-	-	-	-	-	-	-	-	-
Demand Response - C&I	-	-	-	-	-	-	-	-	-	-
Subtotal: Demand Response	-	-	-	-	-	-	-	-	-	-
Subtotal: Other	-	-	-	-	-	-	-	-	-	-
TOTAL	215,159	4,217,338	48,282	887,265	166,123	1,867,220	\$186	\$16.547	18,095	200,678

Table B – United Illuminating Electric Costs and Benefits (2023)

		Costs (\$000)			Benefits (\$000)		В	enefit Cost R	atios
2023 United Illuminating	Utility Cost	Modified Utility Cost	Total Resource Cost	Utility Benefit	Modified Utility Benefit	Total Resource Benefit	Utility Cost Test	Modified Utility Cost Test	Total Resource Cost Test
Retail Products	\$762	\$762	\$2,880	2,694	2,874	3,864	3.54	3.77	1.34
New Construction	\$562	\$562	\$2,076	1,675	2,608	3,086	2.98	4.64	1.49
Home Energy Solutions	\$1,856	\$3,389	\$4,042	1,828	7,631	10,542	0.98	2.25	2.61
HVAC & Water Heating Equipment	\$2,169	\$2,169	\$5,984	2,402	7,033	9,454	1.11	3.24	1.58
HES-Income Eligible	\$1,835	\$3,715	\$3,715	458	3,678	6,823	0.25	0.99	1.84
Behavior	\$266	\$266	\$266	425	425	695	1.60	1.60	2.62
Subtotal: Residential EE Portfolio	\$7,449	\$10,862	\$18,963	9,481	24,249	34,464	1.27	2.23	1.82
Energy Conscious Blueprint	\$3,921	\$3,921	\$7,245	10,812	10,812	15,246	2.76	2.76	2.10
Energy Opportunities	\$7,467	\$7,467	\$14,000	9,629	9,649	14,269	1.29	1.29	1.02
BES	\$1,106	\$1,106	\$1,752	2,056	2,056	2,905	1.86	1.86	1.66
Small Business	\$3,642	\$3,642	\$7,377	5,218	5,241	7,629	1.43	1.44	1.03
Subtotal: C&I EE Portfolio	\$16,135	\$16,135	\$30,373	27,714	27,757	40,050	1.72	1.72	1.32
Demand Response - Res	\$687	\$687	\$687	1,145	1,145	1,145	1.67	1.67	1.67
Demand Response - C&I	\$424	\$424	\$424	632	632	632	1.49	1.49	1.49
Subtotal: Demand Response	\$1,111	\$1,111	\$1,111	1,776	1,776	1,776	-	-	-
Subtotal: Other	\$4,761	\$4,761	\$4,761	-	-	-	-	-	-
TOTAL	\$29,456	\$32,870	\$55,208	38,972	53,782	76,291	1.32	1.64	1.38

Table B – United Illuminating Electric Costs and Benefits (2023) (continued)

	Qı	ıantities	El	ectric Savings			Electric Cos	t Rates	
2023 United Illuminating	No. of Units	Units of Measure	Annual Savings (MWh)	Lifetime Savings (MWh)	Peak kW Impact (Y/E)	Electric Cost Rate \$/kWh Annualize	Electric Cost Ratio \$/LT-kWh	Electric Demand Cost \$/kW	Electric Demand Cost \$/kW-yr
			Resider	ntial					
Retail Products	97,243	Bulbs, Fixtures	2,941	19,021	826	\$0.259	\$0.040	\$922	\$143
New Construction	674	No. of Units	374	9,355	217	\$1.501	\$0.060	\$2,582	\$103
Home Energy Solutions	7,186	No. of Ptcps.	1,165	12,678	298	\$1.593	\$0.146	\$6,237	\$573
HVAC & Water Heating Equipment	15,785	No. of Ptcps.	1,006	15,973	362	\$2.156	\$0.136	\$5,993	\$377
HES-Income Eligible	3,033	Customers	561	4,345	92	\$3.268	\$0.422	\$19,918	\$2,574
Behavior	33,250	Customers	2,128	4,256	-	\$0.125	\$0.062	\$ -	\$-
Subtotal: Residential EE Portfolio	-	-	8,175	65,627	1,795	\$0.911	\$0.114	\$4,149	\$517
			Commercial &	Industrial					
Energy Conscious Blueprint	117	Projects	7,425	106,607	919	\$0.528	\$0.037	\$4,265	\$297
Energy Opportunities	559	Projects	11,961	89,294	947	\$0.624	\$0.084	\$7,886	\$1,056
BES	67	Projects	2,101	16,321	379	\$0.526	\$0.068	\$2,914	\$375
Small Business	214	Projects	6,047	46,361	660	\$0.602	\$0.079	\$5,518	\$720
Subtotal: C&I EE Portfolio	-	-	27,534	258,583	2,906	\$0.586	\$0.062	\$5,553	\$591
			Load Res	ponse	-				
Demand Response - Residential	7,103	No. of Ptcps.	-	-	5,683	\$ -	\$ -	\$121	\$121
Demand Response - C&I	43	New Ptcps.	-	-	3,812	\$ -	\$ -	\$111	\$111
Subtotal: Demand Response	-	-	-	-	9,494	\$ -	\$ -	\$ -	\$ -
Subtotal: Other	-	-	-	-	-	\$ -	\$-	\$ -	\$ -
TOTAL	-	-	35,709	324,210	14,195	\$0.825	\$0.091	\$2,075	\$229

		Oil/Propane	Savings			MMBtu S	Savings		Emissions Savings	
2023 United Illuminating	Annual Oil Savings (Gal)	Lifetime Oil Savings (Gal)	Annual Propane Savings (Gal)	Lifetime Propane Savings (Gal)	Annual MMBtu	Lifetime MMBtu	Cost per Annual MMBtu	Cost per Lifetime MMBtu	Annual Tons CO2	Lifetime Tons CO2
				Residentia	ıl					
Retail Products	-10,984	-7,371	4,239	50,645	8,900	68,520	\$86	\$11	987	7,811
New Construction	-	-	10,953	273,819	2,277	56,936	\$247	\$10	233	5,831
Home Energy Solutions	85,487	1,726,083	1,430	29,913	15,963	285,391	\$212	\$12	1,580	28,729
HVAC	73,031	1,087,477	19,462	279,808	15,339	230,894	\$141	\$9	1,558	23,500
HES - Income Eligible	40,947	872,641	4,591	96,060	8,014	144,628	\$464	\$26	787	14,468
Behavior	-	-	-	-	7,263	14,526	\$37	\$18	816	1,633
Subtotal: Residential EE Portfolio	188,481	3,678,830	40,675	730,245	57,757	800,895	\$188	\$14	5,962	81,972
			Comi	mercial & In	dustrial					
Energy Conscious Blueprint	-	-	-	-	25,341	363,851	\$155	\$11	2,849	40,901
Energy Opportunities	-	-	558	5,577	40,874	305,269	\$183	\$24	4,594	34,304
BES	-	-	-	-	7,172	55,703	\$154	\$20	806	6,262
Small Business	-	-	378	6,804	20,672	158,851	\$176	\$23	2,323	17,842
Subtotal: C&I EE Portfolio	-	-	936	12,381	94,059	883,674	\$172	\$18	10,571	99,309
				Load Respor	nse					
Demand Response - RES	-	-	-	-	-	-	-	-	-	-
Demand Response - C&I	-	-	-	-	-	-	-	-	-	-
Subtotal: Demand Response	-	-	-	-	-	-	-	-	-	-
Subtotal: Other	-	-	-	-	-	-	-	-	-	-
TOTAL	188,481	3,678,830	41,611	742,626	151,816	1,684,569	\$217	\$19.512	16,533	181,281

Table B – United Illuminating Electric Costs and Benefits (2024)

		Costs (\$000)			Benefits (\$000	)	В	enefit Cost Ra	atios
2024 United Illuminating	Utility Cost	Modified Utility Cost	Total Resource Cost	Utility Benefit	Modified Utility Benefit	Total Resource Benefit	Utility Cost Test	Modified Utility Cost Test	Total Resource Cost Test
Retail Products	\$762	\$762	\$2,748	\$2,478	\$2,641	\$4,398	3.25	3.47	1.60
New Construction	\$540	\$540	\$2,664	\$1,559	\$2,462	\$2,892	2.89	4.56	1.09
Home Energy Solutions	\$1,796	\$3,263	\$3,888	\$1,729	\$7,470	\$10,422	0.96	2.29	2.68
HVAC & Water Heating Equipment	\$2,057	\$2,057	\$5,872	\$2,320	\$7,110	\$9,531	1.13	3.46	1.62
HES-Income Eligible	\$1,783	\$3,583	\$3,583	\$408	\$3,597	\$6,595	0.23	1.00	1.84
Behavior	\$244	\$244	\$244	\$395	\$395	\$633	1.62	1.62	2.59
Subtotal: Residential EE Portfolio	\$7,181	\$10,448	\$18,999	\$8,889	\$23,676	\$34,470	1.24	2.27	1.81
Energy Conscious Blueprint	\$3,840	\$3,840	\$7,084	\$10,079	\$10,079	\$14,039	2.62	2.62	1.98
Energy Opportunities	\$7,185	\$7,185	\$13,437	\$8,988	\$9,008	\$13,162	1.25	1.25	0.98
BES	\$1,072	\$1,072	\$1,685	\$1,632	\$1,632	\$2,291	1.52	1.52	1.36
Small Business	\$3,579	\$3,579	\$7,218	\$5,022	\$5,046	\$7,257	1.40	1.41	1.01
Subtotal: C&I EE Portfolio	\$15,676	\$15,676	\$29,423	\$25,721	\$25,765	\$36,749	1.64	1.64	1.25
Demand Response - Res	\$834	\$834	\$834	\$1,375	\$1,375	\$1,375	1.65	1.65	1.65
Demand Response - C&I	\$493	\$493	\$493	\$905	\$905	\$905	1.84	1.84	1.84
Subtotal: Demand Response	\$1,326	\$1,326	\$1,326	\$2,281	\$2,281	\$2,281	-	-	-
Subtotal: Other	\$4,510	\$4,510	\$4,510	-	-	-	-	-	-
TOTAL	\$28,694	\$31,961	\$54,258	\$36,691	\$51,721	\$73,499	1.29	1.62	1.35

Table B – United Illuminating Electric Costs and Benefits (2024) (continued)

	Quantities		E	lectric Savings		Electric Cost Rates					
2024 United Illuminating	No. of Units	Units of Measure	Annual Savings (MWh)	Lifetime Savings (MWh)	Peak kW Impact (Y/E)	Electric Cost Rate \$/kWh Annualize	Electric Cost Ratio \$/LT- kWh	Electric Demand Cost \$/kW	Electric Demand Cost \$/kW-yr		
Residential											
Retail Products	95,836	Bulbs, Fixtures	2,845	17,972	815	\$0.268	\$0.042	\$935	\$148		
New Construction	644	No. of Units	338	8,448	208	\$1.597	\$0.064	\$2,595	\$104		
Home Energy Solutions	6,876	No. of Ptcps.	1,115	12,131	285	\$1.611	\$0.148	\$6,309	\$580		
HVAC & Water Heating Equipment	15,785	No. of Ptcps.	1,006	15,973	344	\$2.045	\$0.129	\$5,980	\$377		
HES-Income Eligible	2,762	Customers	498	3,953	83	\$3.578	\$0.451	\$21,471	\$2,707		
Behavior	31,587	Customers	2,022	4,043	-	\$0.121	\$0.060	\$-	\$ -		
Subtotal: Residential EE Portfolio	-	Bulbs, Fixtures	7,823	62,520	1,734	\$0.918	\$0.115	\$4,141	\$518		
			Commercial & I	ndustrial							
Energy Conscious Blueprint	114	Projects	7,034	100,995	871	\$0.546	\$0.038	\$4,409	\$307		
Energy Opportunities	536	Projects	11,254	84,491	897	\$0.638	\$0.085	\$8,010	\$1,067		
BES	69	Projects	1,725	13,375	283	\$0.622	\$0.080	\$3,786	\$488		
Small Business	211	Projects	5,895	45,194	644	\$0.607	\$0.079	\$5,560	\$725		
Subtotal: C&I EE Portfolio	-	Projects	25,907	244,055	2,695	\$0.605	\$0.064	\$5,817	\$618		
Load Response											
Demand Response - Residential	8,374	No. of Ptcps.	-	-	6,699	\$ -	\$ -	\$6,699	\$6,699		
Demand Response - C&I	61	New Ptcps.	-	-	5,358	\$ -	\$ -	\$5,358	\$5,358		
Subtotal: Demand Response	-	-	-	-	12,058	\$ -	\$ -	\$ -	\$ -		
Subtotal: Other	-	-	-	-	-	\$ -	\$ -	\$ -	\$ -		
TOTAL	-	-	33,731	306,575	16,487	\$0.851	\$0.094	\$1,740	\$191		

	Oil/Propane Savings				MMBtu Savings				Emissions Savings		
2024 United Illuminating	Annual Oil Savings (Gal)	Lifetime Oil Savings (Gal)	Annual Propane Savings (Gal)	Lifetime Propane Savings (Gal)	Annual MMBtu	Lifetime MMBtu	Cost per Annual MMBtu	Cost per Lifetime MMBtu	Annual Tons CO2	Lifetime Tons CO2	
Residential											
Retail Products	-11,093	-8,569	3,924	47,184	8,529	64,459	\$89	\$12	945	7,344	
New Construction	-	-	10,308	257,712	2,095	52,371	\$258	\$10	214	5,351	
Home Energy Solutions	81,799	1,651,616	1,369	28,622	15,275	273,079	\$214	\$12	1,512	27,490	
HVAC	73,031	1,087,477	19,462	279,808	15,339	230,894	\$134	\$9	1,558	23,500	
HES - Income Eligible	39,206	835,540	4,396	91,976	7,540	137,772	\$475	\$26	744	13,802	
Behavior	-	-	-	-	6,900	13,799	\$35	\$18	776	1,551	
Subtotal: Residential EE Portfolio	182,943	3,566,064	39,459	705,302	55,677	772,374	\$188	\$14	5,748	79,037	
			Comi	mercial & In	dustrial						
Energy Conscious Blueprint	-	-	-	-	24,007	344,695	\$160	\$11	2,699	38,748	
Energy Opportunities	-	-	558	5,577	38,459	288,878	\$187	\$25	4,322	32,462	
BES	-	-	-	-	5,888	45,647	\$182	\$23	662	5,131	
Small Business	-	-	378	6,804	20,154	154,870	\$178	\$23	2,265	17,395	
Subtotal: C&I EE Portfolio	-	-	936	12,381	88,508	834,091	\$177	\$19	9,947	93,735	
Load Response											
Demand Response - Res	-	-	-	-	-	-	\$ -	\$ -	-	-	
Demand Response - C&I	-	-	-	-	-	-	\$-	\$ -	-	-	
Subtotal: Demand Response	-	-	-	-	-	-	\$-	\$ -	-	-	
Subtotal: Other	-	-	-	-	-	-	\$ -	\$ -	-	-	
TOTAL	182,943	3,566,064	40,395	717,683	144,185	1,606,465	\$222	\$19.895	15,695	172,772	

#### Table C – United Illuminating Electric Energy Efficiency Budget Details (2022)

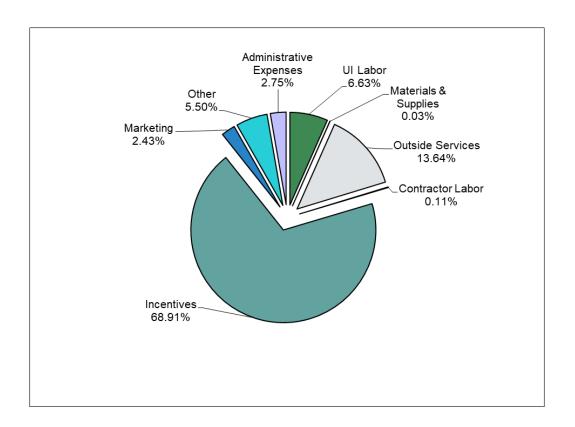
Table C
<u>United Illuminating Electric 2022 EE Budget Details</u>

United Illuminating Electric EE BUDGET (\$000)	Labor	Materials & Supplies	Outside Services	Contractor Labor	Incentives	Marketing	Other	Admin. Expenses	TOTAL			
RESIDENTIAL  Public Wid Dublic												
Residential Retail Products	\$23,081	\$ -	\$87,989	\$-	\$612,471	\$25,817	\$5,000	\$3,000	\$757,358			
Residential New Construction	\$18,882	\$ -	\$6,457	\$ -	\$575,539	\$15,349	\$4,000	\$3,158	\$623,386			
Home Energy Solutions	\$101,897	\$ -	\$200,000	\$ -	\$3,272,880	\$149,056	\$5,000	\$16,000	\$3,744,834			
HVAC & Water Heating Equipment	\$61,994	\$ -	\$126,000	\$ -	\$2,013,788	\$22,608	\$767	\$3,000	\$2,228,156			
HES-Income Eligible	\$136,653	\$ -	\$259,881	\$ -	\$3,338,309	\$200,000	\$4,000	\$8,500	\$3,947,343			
Residential Behavior	\$8,851	\$ -	\$266,915	\$ -	\$ -	\$3,895	\$1,101	\$1,077	\$281,839			
Subtotal: Residential EE Portfolio	\$351,359	\$ -	\$947,243	\$ -	\$9,812,987	\$416,724	\$19,868	\$34,735	\$11,582,916			
COMMERCIAL & INDUSTRIAL												
Energy Conscious Blueprint	\$284,580	\$500	\$163,319	\$ -	\$3,639,536	\$77,922	\$10,000	\$60,000	\$4,235,858			
Energy Opportunities	\$511,486	\$3,500	\$102,662	\$ -	\$6,922,900	\$114,223	\$5,000	\$196,757	\$7,856,527			
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	\$75,730	\$200	\$339,338	\$ -	\$694,346	\$27,970	\$4,000	\$12,500	\$1,154,085			
Small Business	\$249,760	\$1,000	\$313,992	\$25,000	\$2,669,044	\$70,400	\$2,500	\$490,000	\$3,821,696			
Subtotal: C&I EE Portfolio	\$1,121,556	\$5,200	\$919,311	\$25,000	\$13,925,827	\$290,515	\$21,500	\$759,257	\$17,068,167			
		C	THER - LOAD	MANAGEMEN	IT							
Residential Demand Response	\$111,097	\$ -	\$266,725	\$ -	\$187,193	\$ -	\$ -	\$-	\$565,015			
C&I Demand Response	\$60,439	\$ -	\$170,280	\$ -	\$128,700	\$ -	\$ -	\$-	\$359,419			
Subtotal: Load Management	\$171,536	\$ -	\$437,005	\$ -	\$315,893	\$ -	\$ -	\$-	\$924,434			
		ОТН	ER - EDUCATIO	N & ENGAGE	MENT							
Energy Education	\$3,572	\$88,671	\$13,064	\$4,074	\$4,971	\$20,419	\$7,581	\$184,000	\$3,572			
Workforce Development	\$ -	\$153,493	\$ -	\$ -	\$ -	\$ -	\$ -	\$198,400	\$ -			
Community Outreach	\$1,190	\$124,323	\$ -	\$ -	\$15,151	\$7,525	\$353	\$192,000	\$1,190			
Customer Engagement Initiative	\$133	\$59,014	\$ -	\$ -	\$763	\$1,774	\$210	\$80,000	\$133			
Subtotal: Education & Engagement	\$4,895	\$425,501	\$13,064	\$4,074	\$20,885	\$29,717	\$8,144	\$654,401	\$4,895			
		ОТН	ER - PROGRAM	1S/REQUIREM	ENTS							
Residential Loan Program (includes ECLF and OBR)	\$44,629	\$ -	\$ -	\$ -	\$ -	\$-	\$113,363	\$ -	\$157,992			
C&I Financing Support	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$85,000	\$-	\$85,000			
Research, Development & Demonstration	\$ -	\$ -	\$151,250	\$ -	\$ -	\$ -	\$ -	\$ -	\$151,250			
Subtotal: Programs/ Requirements	\$44,629	\$ -	\$151,250	\$ -	\$ -	\$ -	\$198,363	\$ -	\$394,242			
		OTHE	R - ADMINISTE	RATIVE & PLAN	NNING							
Administration	\$162,295	\$ -	\$1,000	\$ -	\$ -	\$ -	\$ -	\$21,720	\$185,015			
Marketing Plan	\$-	\$ -	\$ -	\$ -	\$ -	\$121,400	\$-	\$-	\$121,400			
Planning	\$157,522	\$ -	\$32,271	\$ -	\$ -	\$ -	\$-	\$4,250	\$194,043			
Evaluation Measurement and Verification	\$-	\$ -	\$720,000	\$ -	\$ -	\$ -	\$-	\$-	\$720,000			
Evaluation Administrator	\$ -	\$ -	\$71,057	\$ -	\$ -	\$ -	\$-	\$ -	\$71,057			
Information Technology	\$157,522	\$ -	\$904,593	\$ -	\$ -	\$ -	\$-	\$132,260	\$1,194,375			
Energy Efficiency Board Consultants	\$ -	\$ -	\$128,000	\$ -	\$ -	\$ -	\$-	\$ -	\$128,000			
Audits - Financial and Operational	\$ -	\$ -	\$24,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$24,000			
Performance Management Incentive	\$-	\$ -	\$-	\$ -	\$ -	\$ -	\$1,651,950	\$ -	\$1,651,950			
Subtotal: Admin/Planning Expenditures	\$477,339	\$ -	\$1,880,921	\$ -	\$ -	\$121,400	\$1,651,950	\$158,230	\$4,289,840			
TOTAL BUDGET	\$2,314,540	\$10,095	\$4,761,231	\$38,064	\$24,058,781	\$849,524	\$1,921,398	\$960,366	\$34,914,000			

#### United Illuminating Electric Table C Pie Chart (2022)

#### THE UNITED ILLUMINATING COMPANY

# 2022 ENERGY EFFICIENCY EE BUDGET BY EXPENSE CLASS



Expense Classes	Budget	% of Budget			
Labor	\$2,314,540	6.63%			
Materials & Supplies	\$10,095	0.03%			
Outside Services	\$4,761,231	13.64%			
Contractor Labor	\$38,064	0.11%			
Incentives	\$24,058,781	68.91%			
Marketing	\$849,524	2.43%			
Other	\$1,921,398	5.50%			
Administrative Expenses	\$960,366	<u>2.75%</u>			
Total	\$ 34,914,000	100.00%			

Totals may vary due to rounding.

#### Table C – United Illuminating Electric Energy Efficiency Budget Details (2023)

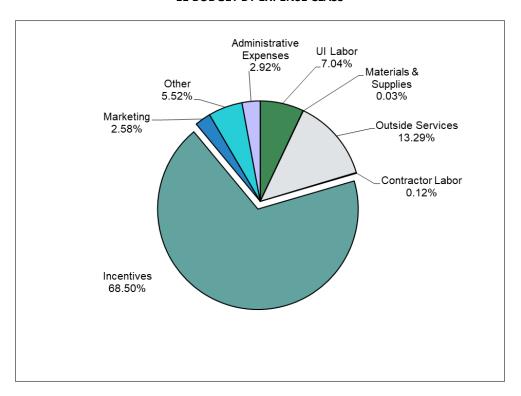
Table C
United Illuminating Electric 2023 EE Budget Details

United Illuminating Electric	Labor	Materials	Outside	Contractor	Incentives		Other	Admin.	TOTAL
EE BUDGET (\$000)	Lusoi	& Supplies	Services	Labor	meentives	Marketing	Ginei	Expenses	TOTAL
			RESID	ENTIAL					
Residential Retail Products	\$23,081	\$ -	\$87,989	\$ -	\$617,000	\$25,817	\$5,000	\$3,000	\$761,887
Residential New Construction	\$18,882	\$ -	\$6,457	\$ -	\$513,795	\$15,349	\$4,000	\$3,158	\$561,642
Home Energy Solutions - Core Services	\$101,897	\$ -	\$200,000	\$ -	\$2,916,762	\$149,056	\$5,000	\$16,000	\$3,388,716
Home Energy Solutions - HVAC,		\$ -		\$ -					
Water Heaters	\$61,994		\$126,000		\$1,954,565	\$22,608	\$767	\$3,000	\$2,168,934
HES-Income Eligible	\$136,653	\$ -	\$259,881	\$ -	\$3,106,384	\$200,000	\$4,000	\$8,500	\$3,715,418
Residential Behavior	\$8,851	\$ -	\$250,803	\$ -	\$ -	\$3,895	\$1,101	\$1,077	\$265,728
Subtotal: Residential EE Portfolio	\$351,359	\$ -	\$931,131	\$ -	\$9,108,507	\$416,724	\$19,868	\$34,735	\$10,862,324
			COMMERCIAL	. & INDUSTRIA	L				
Energy Conscious Blueprint	\$284,580	\$500	\$163,319	\$-	\$3,324,201	\$77,922	\$10,000	\$60,000	\$3,920,523
Energy Opportunities	\$511,486	\$3,500	\$102,662	\$-	\$6,532,951	\$114,223	\$5,000	\$196,757	\$7,466,578
Business & Energy Sustainability									
(O&M, RCx, PRIME, CSP/SEM)	\$75,730	\$200	\$339,338	\$-	\$645,984	\$27,970	\$4,000	\$12,500	\$1,105,723
Small Business	\$249,760	\$1,000	\$313,992	\$25,000	\$2,489,748	\$70,400	\$2,500	\$490,000	\$3,642,400
Subtotal: C&I EE Portfolio	\$1,121,556	\$5,200	\$919,311	\$25,000	\$12,992,885	\$290,515	\$21,500	\$759,257	\$16,135,225
			OTHER - LOAD	MANAGEMEI	NT				
Residential Demand Response	\$111,097	\$ -	\$356,481	\$ -	\$219,516	\$ -	\$ -	\$ -	\$687,094
C&I Demand Response	\$60,439	\$ -	\$173,115	\$ -	\$190,575	\$ -	\$ -	\$ -	\$424,129
Subtotal: Load Management	\$171,536	\$ -	\$529,596	\$ -	\$410,091	\$-	\$-	\$ -	\$1,111,223
		ОТН	IER - EDUCATIO	ON & ENGAGE	MENT				
Energy Education	\$41,648	\$3,572	\$88,671	\$13,064	\$4,074	\$4,971	\$20,419	\$7,581	\$184,000
Workforce Development	\$44,907	\$ -	\$153,493	\$ -	\$ -	\$ -	\$-	\$ -	\$198,400
Community Outreach	\$43,458	\$1,190	\$124,323	\$ -	\$ -	\$15,151	\$7,525	\$353	\$192,000
Customer Engagement Initiative	\$18,108	\$133	\$59,014	\$ -	\$ -	\$763	\$1,774	\$210	\$80,000
Subtotal: Education & Engagement	\$148,121	\$4,895	\$425,501	\$13,064	\$4,074	\$20,885	\$29,717	\$8,144	\$654,401
5.0		OTH	IER - PROGRAM	/IS/REQUIREN	IENTS				
Residential Loan Program (includes ECLF and OBR)	\$44,629	\$ -	\$ -	\$ -	\$ -	\$ -	\$102,109	\$ -	\$146,738
C&I Financing Support	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$85,000	\$ -	\$85,000
Research, Development & Demonstration	\$-	\$-	\$151,250	\$ -	\$ -	\$-	\$-	\$-	\$151,250
Subtotal: Programs/ Requirements	\$44,629	\$ -	\$151,250	\$ -	\$ -	\$ -	\$187,109	\$ -	\$382,988
		ОТНІ	ER - ADMINIST	RATIVE & PLA	NNING				
Administration	\$162,295	\$ -	\$1,000	\$ -	\$ -	\$ -	\$ -	\$21,720	\$185,015
Marketing Plan	\$ -	\$ -	\$0	\$ -	\$-	\$121,400	\$ -	\$ -	\$121,400
Planning	\$157,522	\$ -	\$32,271	\$ -	\$-	\$ -	\$ -	\$4,250	\$194,043
Evaluation Measurement and Verification	\$ -	\$ -	\$720,000	\$ -	\$-	\$ -	\$ -	\$ -	\$720,000
Evaluation Administrator	\$ -	\$ -	\$71,057	\$ -	\$-	\$ -	\$ -	\$ -	\$71,057
Information Technology	\$157,522	\$ -	\$435,593	\$ -	\$-	\$ -	\$ -	\$132,260	\$725,375
Energy Efficiency Board Consultants	\$ -	\$ -	\$128,000	\$ -	\$-	\$ -	\$ -	\$ -	\$128,000
Audits - Financial and Operational	\$ -	\$ -	\$24,000	\$-	\$-	\$ -	\$ -	\$ -	\$24,000
Performance Management Incentive	\$-	\$ -	\$0	\$-	\$-	\$ -	\$1,554,600	\$ -	\$1,554,600
Subtotal: Admin/Planning Expenditures	\$477,339	\$ -	\$1,411,921	\$ -	\$-	\$121,400	\$1,554,600	\$158,230	\$3,723,490
TOTAL BUDGET	\$2,314,540	\$10,095	\$4,368,710	\$38,064	\$22,515,557	\$849,524	\$1,812,794	\$960,366	\$32,869,651

### United Illuminating Electric Table C Pie Chart (2023)

### THE UNITED ILLUMINATING COMPANY

# 2023 ENERGY EFFICIENCY EE BUDGET BY EXPENSE CLASS



Expense Classes	Budget	% of Budget
Labor	\$ 2,314,540	7.04%
Materials & Supplies	\$ 10,095	0.03%
Outside Services	\$ 4,368,710	13.29%
Contractor Labor	\$ 38,064	0.12%
Incentives	\$ 22,515,557	68.50%
Marketing	\$ 849,524	2.58%
Other	\$ 1,812,794	5.52%
Administrative Expenses	\$ 960,366	<u>2.92%</u>
		I
Total	\$ 32,869,651	100.00%

Totals may vary due to rounding.

### Table C – United Illuminating Electric Energy Efficiency Budget Details (2024)

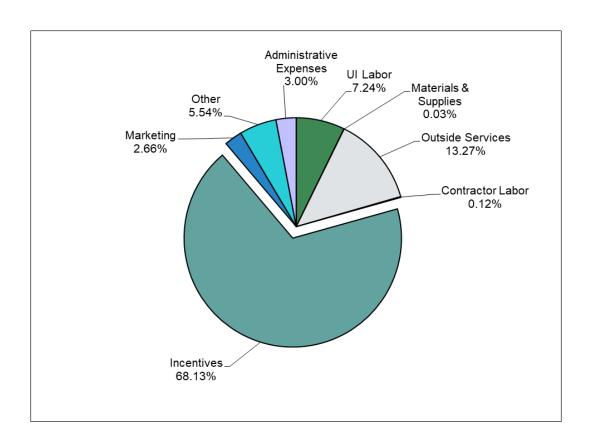
Table C
United Illuminating Electric 2024 EE Budget Details

United Illuminating Electric EE BUDGET (\$000)	Labor	Materials & Supplies	Outside Services	Contractor Labor	Incentives	Marketing	Other	Admin. Expenses	TOTAL
			RESID	ENTIAL					
Residential Retail Products	\$23,081	\$ -	\$87,989	\$ -	\$617,000	\$25,817	\$5,000	\$3,000	\$761,887
Residential New Construction	\$18,882	\$ -	\$6,457	\$ -	\$491,877	\$15,349	\$4,000	\$3,158	\$539,724
Home Energy Solutions - Core Services	\$101,897	\$ -	\$200,000	\$ -	\$2,790,927	\$149,056	\$5,000	\$16,000	\$3,262,881
Home Energy Solutions - HVAC,		\$ -		\$ -					
Water Heaters	\$61,994		\$126,000		\$1,842,445	\$22,608	\$767	\$3,000	\$2,056,814
HES-Income Eligible	\$136,653	\$ -	\$259,881	\$ -	\$2,974,315	\$200,000	\$4,000	\$8,500	\$3,583,349
Residential Behavior	\$8,851	\$ -	\$228,916	\$ -	\$ -	\$3,895	\$1,101	\$1,077	\$243,841
Subtotal: Residential EE Portfolio	\$351,359	\$ -	\$909,244	\$ -	\$8,716,565	\$416,724	\$19,868	\$34,735	\$10,448,495
			COMMERCIAL	& INDUSTRIA	L				
Energy Conscious Blueprint	\$284,580	\$500	\$163,319	\$-	\$3,243,673	\$77,922	\$10,000	\$60,000	\$3,839,995
Energy Opportunities	\$511,486	\$3,500	\$102,662	\$ -	\$6,251,744	\$114,223	\$5,000	\$196,757	\$7,185,372
Business & Energy Sustainability				\$ -					
(O&M, RCx, PRIME, CSP/SEM)	\$75,730	\$200	\$339,338		\$612,515	\$27,970	\$4,000	\$12,500	\$1,072,253
Small Business	\$249,760	\$1,000	\$313,992	\$25,000	\$2,425,945	\$70,400	\$2,500	\$490,000	\$3,578,597
Subtotal: C&I EE Portfolio	\$1,121,556	\$5,200	\$919,311	\$25,000	\$12,533,877	\$290,515	\$21,500	\$759,257	\$15,676,217
			OTHER - LOAD	MANAGEMEN	NT				
Residential Demand Response	\$111,097	\$-	\$468,668	\$ -	\$253,823	\$-	\$-	\$-	\$833,588
C&I Demand Response	\$60,439	\$-	\$164,501	\$-	\$267,919	\$ -	\$-	\$-	\$492,859
Subtotal: Load Management	\$171,536	\$-	\$633,169	\$-	\$521,742	\$-	\$-	\$-	\$1,326,447
	7-2-7-2-2		HER - EDUCATION			т	<u> </u>	7	<b>+-//</b>
Energy Education	\$41,648	\$3,572	\$88,671	\$13,064	\$4,074	\$4,971	\$20,419	\$7,581	\$184,000
Workforce Development	\$44,907	\$ -	\$153,493	\$-	\$-	\$-	\$-	\$-	\$198,400
Community Outreach	\$43,458	\$1,190	\$124,323	\$-	\$ -	\$15,151	\$7,525	\$353	\$192,000
Customer Engagement Initiative	\$18,108	\$133	\$59,014	\$-	\$ -	\$763	\$1,774	\$210	\$80,000
Subtotal: Education & Engagement	\$148,121	\$4,895	\$425,501	\$13,064	\$4,074	\$20,885	\$29,717	\$8,144	\$654,401
Subtotal. Education & Engagement	<b>7140,121</b>		HER - PROGRAM			720,003	Ş23,717	70,177	7034,401
Residential Loan Program	1	011	HEN - PROGRAM	VIS/ NEQUINEIV	IEIVIS			1	
(includes ECLF and OBR)	\$44,629	\$ -	\$ -	\$ -	\$ -	\$ -	\$102,109	\$-	\$146,738
C&I Financing Support	\$-	\$ -	\$ -	\$ -	\$ -	\$ -	\$85,000	\$ -	\$85,000
Research, Development & Demonstration	\$ -	\$ -	\$151,250	\$-	\$ -	\$-	\$ -	\$-	\$151,250
Subtotal: Programs/ Requirements	\$44,629	\$ -	\$151,250	\$-	\$ -	\$-	\$187,109	\$-	\$382,988
		ОТН	IER - ADMINIST	RATIVE & PLAI	NNING				
Administration	\$162,295	\$ -	\$1,000	\$ -	\$ -	\$ -	\$ -	\$21,720	\$185,015
Marketing Plan	\$-	\$ -	\$ -	\$ -	\$ -	\$121,400	\$ -	\$-	\$121,400
Planning	\$157,522	\$ -	\$32,271	\$ -	\$ -	\$ -	\$-	\$4,250	\$194,043
Evaluation Measurement and Verification	\$-	\$ -	\$720,000	\$ -	\$ -	\$ -	\$ -	\$-	\$720,000
Evaluation Administrator	\$-	\$-	\$71,057	\$ -	\$ -	\$ -	\$-	\$-	\$71,057
Information Technology	\$157,522	\$-	\$227,593	\$ -	\$ -	\$ -	\$-	\$132,260	\$517,375
Energy Efficiency Board Consultants	\$-	\$-	\$128,000	\$ -	\$ -	\$-	\$-	\$-	\$128,000
Audits - Financial and Operational	\$-	\$ -	\$24,000	\$ -	\$ -	\$ -	\$-	\$-	\$24,000
Performance Management Incentive	\$-	\$-	\$-	\$ -	\$-	\$-	\$1,511,319	\$-	\$1,511,319
Subtotal: Admin/Planning Expenditures	\$477,339	\$-	\$1,203,921	\$-	\$ -	\$121,400	\$1,511,319	\$158,230	\$3,472,210
	, ,		\$4,242,396		·	, ,,	, , ,	, .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, -, -,

### United Illuminating Electric Table C Pie Chart (2024)

### THE UNITED ILLUMINATING COMPANY

# 2024 ENERGY EFFICIENCY EE BUDGET BY EXPENSE CLASS



Expense Classes	Budget	% of Budget
Labor	\$2,314,540	7.24%
Materials & Supplies	\$10,095	0.03%
Outside Services	\$4,242,396	13.27%
Contractor Labor	\$38,064	0.12%
Incentives	\$21,776,258	68.13%
Marketing	\$849,524	2.66%
Other	\$1,769,513	5.54%
Administrative Expenses	<u>\$960,366</u>	<u>3.00%</u>
Total	\$ 31,960,758	100.00%

Totals may vary due to rounding.

### Table D – United Illuminating Electric Historical and Projected (\$) (2013-2024)

Table D
United Illuminating Electric Historical and Projected \$

	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual
		RESIDENTIAL				
Residential Retail Products	\$2,084	\$3,908	\$3,368	\$4,422	\$4,091	\$1,070
Residential New Construction	\$171	\$257	\$285	\$497	\$481	-\$36
	· ·	· ·		· ·		· ·
Home Energy Solutions	\$2,958	\$4,591	\$3,710	\$3,256	\$3,154	\$2,117
HVAC & Water Heating Equipment	\$ -	\$ -	\$ -	\$1,016	\$1,120	\$1,229
HES-Income Eligible	\$4,776	\$3,897	\$3,319	\$3,808	\$3,770	\$2,732
Residential Behavior	\$ -	\$137	\$710	\$489	\$72	\$0
Subtotal: Residential EE Portfolio	\$9,989	\$12,790	\$11,392	\$13,488	\$12,688	\$7,112
		MERCIAL & INDUS		40.004	42.22	4
Energy Conscious Blueprint	\$2,103	\$3,960	\$2,687	\$3,091	\$2,280	\$1,721
Energy Opportunities	\$4,124	\$7,261	\$9,501	\$11,003	\$9,622	\$4,208
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	\$358	\$653	\$731	\$503	\$541	\$358
Small Business	\$2,404	\$2,553	\$3,548	\$3,349	\$4,430	\$2,285
Subtotal: C&I EE Portfolio	\$8,989	\$14,427	\$16,467	\$17,946	\$16,873	\$8,572
	OTHE	R - LOAD MANAGI	MENT			
Demand Response Pilot - Residential	\$ -	\$ -	\$ -	\$339	\$644	\$558
Demand Response Pilot – C&I	\$ -	\$ -	\$ -	\$ -	\$18	\$158
Subtotal: Load Management	\$ -	\$ -	\$ -	\$339	\$662	\$716
	OTHER -E	DUCATION & ENG	AGEMENT			
Educate the Public	\$ -	\$ -	\$ -	\$564	\$542	\$294
Customer Engagement	\$ -	\$ -	\$ -	\$137	\$20	\$8
Educate the Students	\$ -	\$ -	\$ -	\$127	\$203	\$83
Educate the workforce	\$ -	\$ -	\$ -	\$76	\$54	\$36
SmartLiving Center® / Science Center	\$602	\$1,095	\$513	\$ -	\$ -	\$ -
EE Smarts/K-12 Education	\$343	\$304	\$322	\$ -	\$ -	\$ -
Clean Energy Communities	\$241	\$360	\$492	\$ -	\$ -	\$ -
Subtotal: Education & Engagement	\$1,186	\$1,759	\$1,327	\$904	\$819	\$421
	OTHER -P	ROGRAMS/REQU	REMENTS			
Financing Support – Residential	\$158	\$920	\$596	\$249	\$208	\$74
Financing Support – C&I	\$ -	\$ -	\$ -	\$87	\$98	\$ -
Time-of-Use Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Research, Development & Demonstration	\$290	\$59	\$9	\$74	\$185	\$80
Institute for Sustainable Energy	\$112	\$90	\$99	\$ -	\$ -	\$ -
ESPC Project Manager - Lead By Example	\$3	\$17	\$7	\$ -	\$ -	\$ -
C&I Loan Program	\$9	\$16	\$34	\$ -	\$ -	\$ -
EE Loan Defaults	\$32	\$ -	\$1	\$ -	\$ -	\$ -
C&I Self-Funding	\$ -	\$1,000	\$ -	\$ -	\$ -	\$ -
Other Funding Requests	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal: Other Programs/Requirements	\$604	\$2,101	\$746	\$410	\$491	\$155
	OTHER - A	DMINISTRATIVE &	PLANNING			
Administration	\$901	\$648	\$532	\$475	\$551	\$378
Marketing Plan	\$35	\$247	\$249	\$227	\$175	\$73
Planning	\$344	\$314	\$214	\$315	\$283	\$205
Evaluation Measurement and Verification	\$736	\$486	\$642	\$480	\$494	\$256
Evaluation Administrator	\$ -	\$46	\$52	\$48	\$34	\$45
Information Technology	\$249	\$192	\$308	\$402	\$273	\$335
Energy Efficiency Board Consultants	\$232	\$287	\$54	\$208	\$208	\$76
Audits - Financial and Operational	\$ -	\$ -	\$ -	\$ -	\$24	\$12
Performance Management Incentive	\$1,518	\$1,743	\$1,821	\$2,353	\$2,370	\$1,321
Subtotal: Admin/Planning Expenditures	\$4,016	\$3,963	\$3,872	\$4,508	\$4,412	\$2,700
TOTAL	\$24,784	\$35,041	\$33,804	\$37,595	\$35,945	\$19,676

### Table D – United Illuminating Electric Historical and Projected (\$) (2013-2024)(continued)

### Table D: United Illuminating Electric Historical and Projected \$

	2019 Actual	2020 Actual	2021 Actual	2022 Budget	2023 Budget	2024 Budget
		RESIDENTIAL				
Residential Retail Products	\$2,060	\$2,795	\$1,959	\$757	\$762	\$762
Residential New Construction	\$795	\$423	\$770	\$623	\$562	\$540
Home Energy Solutions (Core Services, HVAC,				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Duct Sealing through 2015)	\$2,815	\$3,522	\$6,327	\$3,745	\$3,389	\$3,263
HVAC & Water Heating Equipment	\$1,651	\$1,323	\$2,249	\$2,228	\$2,169	\$2,057
HES-Income Eligible	\$4,181	\$2,076	\$4,957	\$3,947	\$3,715	\$3,583
Residential Behavior	\$32	\$193	\$69	\$282	\$266	\$244
Subtotal: Residential EE Portfolio	\$11,533	\$10,333	\$16,331	\$11,583	\$10,862	\$10,448
	_	MERCIAL & INDUS	1			
Energy Conscious Blueprint	\$4,622	\$2,904	\$7,917	\$4,236	\$3,921	\$3,840
Energy Opportunities	\$6,213	\$12,358	\$5,802	\$7,857	\$7,467	\$7,185
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	\$720	\$826	\$433	\$1,154	\$1,106	\$1,072
Small Business	\$2,298	\$3,914	\$6,996	\$3,822	\$3,642	\$3,579
Subtotal: C&I EE Portfolio	\$13,854	\$20,001	\$21,148	\$17,068	\$16,135	\$15,676
	OTHE	R - LOAD MANAGI	MENT			
Demand Response Pilot – Residential	\$853	\$417	\$610	\$565	\$687	\$834
Demand Response Pilot – C&I	\$80	\$104	\$175	\$359	\$424	\$493
Subtotal: Load Management	\$933	\$521	\$785	\$924	\$1,111	\$1,326
	(	THER -EDUCATIO	N			
Educate the Public	\$290	\$112	\$129	\$184	\$184	\$184
Customer Engagement	\$ -	\$78	\$101	\$198	\$198	\$198
Educate the Students	\$109	\$174	\$107	\$192	\$192	\$192
Educate the Workforce	\$58	\$ -	\$ -	\$80	\$80	\$80
Smart Living Center / Science Center	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
EE Smarts/K-12 Education	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Clean Energy Communities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal: Education & Engagement	\$458	\$364	\$337	\$654	\$654	\$654
	_	ROGRAMS/REQU		1		
Financing Support – Residential	\$72	\$157	\$29	\$158	\$147	\$147
C&I Financing Support	\$ -	\$ -	\$ -	\$85	\$85	\$85
Time-of-Use Program	\$0	(\$2)	-\$1	\$ -	\$ -	\$ -
Research, Development & Demonstration	\$49	\$26	\$7	\$151	\$151	\$151
Institute for Sustainable Energy	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ -
ESPC Project Manager C&I Loan Program	\$ -	\$ - \$ -	\$ - \$ -	\$ -	\$ - \$ -	\$ - \$ -
EE Loan Defaults	\$ -	\$ -	\$ -	\$ -	\$ -	\$-
C&I Self-Funding	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Funding Requests	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal: Other Programs/Requirements	\$121	\$181	\$35	\$394	\$383	\$383
		DMINISTRATIVE &	· ·	700	7000	7000
Administration	\$255	\$250	\$90	\$185	\$185	\$185
Marketing Plan	\$43	\$17	\$176	\$121	\$121	\$121
Planning	\$125	\$227	\$333	\$194	\$194	\$194
Evaluation Measurement and Verification	\$256	\$478	\$480	\$720	\$720	\$720
Evaluation Administrator	\$45	\$52	\$53	\$71	\$71	\$71
Information Technology	\$231	\$156	\$692	\$1,194	\$725	\$517
Energy Efficiency Board Consultants	\$74	\$104	\$104	\$128	\$128	\$128
Audits - Financial and Operational	\$24	\$4	\$24	\$24	\$24	\$24
Performance Management Incentive	\$1,904	\$993	\$2,459	\$1,652	\$1,555	\$1,511
Subtotal: Admin/Planning Expenditures	\$2,957	\$2,282	\$4,411	\$4,290	\$3,723	\$3,472
TOTAL	\$29,857	\$33,682	\$43,047	\$34,914	\$32,870	\$31,961

### Table D1 – United Illuminating Electric Historical and Projected (kW)(2013-2024)

Table D1
United Illuminating Electric Historical and Projected kW

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Goals	Goals	Goals
				RESI	DENTIAL	'	'	'		'		
Residential Retail Products	1,860	1,907	2,757	3,180	3,365	610	1,569	1,834	804	814	826	815
Residential New Construction	47	130	75	140	58	42	122	47	207	256	217	208
Home Energy Solutions												
(Core Services, HVAC, Duct Sealing	553	783	537	551	561	273	691	595	705	301	298	285
through 2015)												
HVAC & Water Heating Equipment	-	-	-	86	97	78	271	343	418	373	362	344
HES-Income Eligible	473	268	192	427	542	108	366	77	230	99	92	83
Residential Behavior	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Residential EE Portfolio	2,933	3,088	3,561	4,384	4,623	1,110	3,019	2,896	2,363	1,844	1,795	1,734
			CC	OMMERCIA	AL & INDU	STRIAL						
Energy Conscious Blueprint	1,267	1,344	1,414	1,567	992	386	1,948	757	1,086	1,037	919	871
Energy Opportunities	1,164	2,171	4,331	3,830	4,348	1,347	2,942	3,422	4,104	1,051	947	897
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	20	93	153	113	7	27	-	-	6	425	379	283
Small Business	579	587	1,176	1,238	1,316	515	498	553	1,223	701	660	644
Subtotal: C&I EE Portfolio	3,030	4,195	7,074	6,748	6,663	2,276	5,388	4,732	6,418	3,214	2,906	2,695
	.,	,		HER - LOA	Ĺ	<u> </u>	.,	, -	., .	-,	,,,,,,	,
Demand Response Pilot - Res	-	-	-	-	-	-	-	2,218	3,090	4,724	5,683	6,699
Demand Response Pilot – C&I	-	-	-	-	-	-	-	266	546	2,008	2,008	4,180
Subtotal: Load Management	-	-	-	-	-	-	-	2,484	3,636	6,731	7,690	10,879
TOTAL	5,963	7,283	10,635	11,132	11,286	3,386	8,407	10,112	12,417	11,789	12,391	15,308

### Table D2 – United Illuminating Electric Historical and Projected Annual kWh (000s)(2013-2024)

Table D2

<u>United Illuminating Electric Historical and Projected Annual kWh (000s)</u>

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Goals	Goals	Goals
		'		RESIDE	NTIAL							
Residential Retail Products	21,333	21,900	22,493	25,732	27,168	3,510	11,254	9,882	5,833	2,877	2,941	2,845
Residential New Construction	180	203	145	405	231	210	496	304	1,309	443	374	338
Home Energy Solutions (Core Services, HVAC, Duct Sealing through 2015)	2,344	4,492	3,207	2,635	2,789	2,721	2,983	1,580	2,272	968	1,165	1,115
HVAC & Water Heating Equipment	-	-	-	1,948	2,032	1,367	1,335	649	940	1,036	1,006	1,006
HES-Income Eligible	3,787	3,754	1,994	4,450	3,765	3,648	4,226	1,270	5,326	603	561	498
Residential Behavior	-	-	4,204	4,265	3,396	-	-	-	593	2,240	2,128	2,022
Subtotal: Residential EE Portfolio	27,644	30,349	32,043	39,435	39,381	11,456	20,294	13,685	16,273	8,167	8,175	7,823
			СОМ	MERCIAL 8	& INDUSTR	RIAL						
Energy Conscious Blueprint	8,277	12,505	7,942	10,688	5,660	5,821	16,558	4,550	6,049	8,373	7,425	7,034
Energy Opportunities	10,833	19,506	35,303	34,249	40,174	20,639	19,164	26,627	30,596	13,398	11,961	11,254
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	1,939	3,112	2,072	1,636	567	164	1,258	1,852	517	2,265	2,101	1,725
Small Business	5,131	7,114	8,297	8,053	8,847	6,238	3,532	3,135	6,276	6,435	6,047	5,895
Subtotal: C&I EE Portfolio	26,180	42,237	53,614	54,626	55,248	32,862	40,512	36,164	43,438	30,471	27,534	25,907
TOTAL	53,824	72,586	85,657	94,061	94,629	44,318	60,806	49,849	59,711	38,639	35,709	33,731

Table D3— United Illuminating Electric Historical and Projected Lifetime kWh (000s)(2013-2024)

Table D3

<u>United Illuminating Electric Historical and Projected Lifetime kWh</u>

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Goals	Goals	Goals
		<u>'</u>	<u> </u>	'	RESIDENT	IAL		'				
Residential Retail	124 602	101 027	24.4.04.4	202.040	240.050	24.744	50.002	42.006	26.224	17.046	10.024	47.072
Products	124,693	181,837	214,911	302,910	218,858	21,744	58,083	43,986	26,224	17,946	19,021	17,972
Residential New	1,702	2,498	1,817	5,995	1,836	3,169	8,319	3,441	32,729	11,072	9,355	8,448
Construction	1,702	2,490	1,017	5,995	1,050	3,109	0,319	3,441	32,729	11,072	9,555	0,440
Home Energy Solutions												
(Core Services, HVAC,	23,439	57,406	43,369	31,635	28,492	24,573	23,696	15,343	21,053	10,961	12,678	12,131
Duct Sealing through	23,433	37,400	43,303	31,033	20,432	24,373	23,030	13,343	21,033	10,501	12,076	12,131
2015)												
HVAC & Water Heating	_	_	_	26,930	26,354	24,042	22,619	10,468	16,100	16,457	15,973	15,973
Equipment				20,550	20,334	24,042	22,013	10,400	10,100	10,437	13,373	13,373
HES-Income Eligible	46,117	50,273	24,573	58,090	42,317	40,013	45,338	18,007	38,556	4,669	4,345	3,953
Residential Behavior	-	-	10,931	11,088	8,830	-	-	-	1,186	4,480	4,256	4,043
Subtotal: Residential EE	105.054	202.014	205 604	426 640	226 607	112 541	150.055	04.245	125.040	CE 505	CE C27	62.520
Portfolio	195,951	292,014	295,601	436,648	326,687	113,541	158,055	91,245	135,848	65,585	65,627	62,520
				CON	1MERCIAL & I	NDUSTRIAL						
Energy Conscious	128,278	195,048	121,435	160,561	89,308	98,486	264,135	66,080	87,976	120,222	106,607	100,995
Blueprint	120,270	133,048	121,433	100,301	65,506	36,460	204,133	00,080	87,570	120,222	100,007	100,555
Energy Opportunities	137,393	230,606	393,904	415,779	480,512	254,831	216,084	313,454	378,368	98,977	89,294	84,491
Business & Energy												
Sustainability (O&M, RCx,	14,596	24,020	12,710	9,922	2,837	821	6,292	10,560	2,539	17,526	16,321	13,375
PRIME, CSP/SEM)												
Small Business	65,167	88,661	103,281	100,003	110,908	78,121	42,728	37,734	76,825	49,663	46,361	45,194
Subtotal: C&I EE	245 424	538,335	621 220	696 365	693 565	422.250	E20 220	427 929	545,707	286,388	350 503	244 055
Portfolio	345,434	230,333	631,330	686,265	683,565	432,259	529,239	427,828	545,/0/	200,388	258,583	244,055
TOTAL	541,385	830,349	926,931	1,122,913	1,010,252	545,800	687,294	519,073	681,555	351,973	324,210	306,575

### Table D4– United Illuminating Electric Historical and Projected Units (2013-2024)

Table D4
United Illuminating Electric Historical and Projected Units

	2013	2014	2015	2016	2017	2018
	Actual	Actual	Actual	Actual	Actual	Actual
RESIDENTIAL						
Residential Retail Products	747,037	1,018,092	624,729	1,016,284	1,207,300	183,614
Residential New Construction	115	341	66	319	43	99
Home Energy Solutions	3,933	7,370	5,585	3,178	3,367	2,656
HVAC & Water Heating Equipment	-	-	-	5,100	4,140	5,995
HES-Income Eligible	4,932	4,948	2,783	2,475	3,827	2,607
Residential Behavior	-	-	54,304	44,439	60,868	-
Subtotal: Residential EE Portfolio	756,017	1,030,751	687,467	1,071,795	1,279,545	194,971
COMMERCIAL & INDUSTRIAL						
Energy Conscious Blueprint	306	264	208	342	316	221
Energy Opportunities	224	888	1,290	1,154	1,391	1,228
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	41	381	707	586	42	62
Small Business	323	404	357	355	369	223
Subtotal: C&I EE Portfolio	894	1,937	2,562	2,437	2,118	1,734
OTHER - LOAD MANAGEMENT					-	
Demand Response Pilot - Residential	-	-	-	-	-	-
Demand Response Pilot – C&I	-	-	-	-	-	-
Subtotal: Load Management	-	-	-	-	-	-
TOTAL	756,911	1,032,688	690,029	1,074,232	1,281,663	196,705

### Table D4- United Illuminating Electric Historical and Projected Units (2013-2024) (continued)

Table D4
United Illuminating Electric Historical and Projected Units

			•			
	2019	2020	2021	2022	2023	2024
	Actual	Actual	Actual	Goals	Goals	Goals
	RE	SIDENTIAL	<u> </u>	·	<u> </u>	<u> </u>
Residential Retail Products	1,122,906	625,469	423,214	98,685	97,243	95,836
Residential New Construction	357	208	570	771	674	644
Home Energy Solutions	3,101	3,326	3,890	6,165	7,186	6,876
HVAC & Domestic Water Heating	8,326	14,091	5,791	16,263	15,785	15,785
HES-Income Eligible	1,539	1,263	2,846	3,259	3,033	2,762
Residential Behavior	-	-	36,900	35,000	33,250	31,587
Subtotal: Residential EE Portfolio	1,136,229	644,357	473,211	160,144	157,170	153,490
	COMMERC	CIAL & INDUS	TRIAL			-
Energy Conscious Blueprint	486	298	230	128	117	114
Energy Opportunities	1,578	2,107	1,340	591	559	536
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	62	8	33	87	67	69
Small Business	158	135	270	225	214	211
Subtotal: C&I EE Portfolio	2,284	2,548	1,873	1,030	957	929
	OTHER - LC	DAD MANAGE	MENT			
Demand Response Pilot - Residential	-	2,579	5,833	5,904	7,103	8,374
Demand Response Pilot – C&I	-	3	17	29	43	61
Subtotal: Load Management	-	2,582	5,850	5,934	7,147	8,435
TOTAL	1,138,513	649,487	480,934	167,108	165,274	162,854

### Table D5 – United Illuminating Electric Historical and Cost per Projected kW

Table D5
<u>United Illuminating Electric Historical and Cost per Projected kW</u>

	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual
	RE	SIDENTIAL				<u> </u>
Residential Retail Products	\$1,120	\$2,049	\$1,222	\$1,391	\$1,216	\$1,755
Residential New Construction	\$3,638	\$1,977	\$3,800	\$3,550	\$8,293	-\$843
Home Energy Solutions	\$5,349	\$5,863	\$6,909	\$5,909	\$5,622	\$7,750
HVAC & Water Heating Equipment	\$ -	\$ -	\$ -	\$11,814	\$11,546	\$15,822
HES-Income Eligible	\$10,097	\$14,541	\$17,286	\$8,918	\$6,956	\$25,362
Residential Behavior	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal: Residential EE Portfolio	\$3,406	\$4,142	\$3,199	\$3,077	\$2,745	\$6,405
	COMMERC	CIAL & INDUST	RIAL			
Energy Conscious Blueprint	\$1,660	\$2,946	\$1,900	\$1,973	\$2,298	\$4,456
Energy Opportunities	\$3,543	\$3,345	\$2,194	\$2,873	\$2,213	\$3,123
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	\$17,900	\$7,022	\$4,778	\$4,451	\$77,286	\$13,126
Small Business	\$4,152	\$4,349	\$3,017	\$2,705	\$3,366	\$4,438
Subtotal: C&I EE Portfolio	\$2,967	\$3,439	\$2,328	\$2,659	\$2,532	\$3,767
	OTHER - LO	AD MANAGEN	IENT			
Demand Response Pilot - Residential	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Demand Response Pilot – C&I	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal: Load Management	\$-	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL	\$3,183	\$3,737	\$2,620	\$2,854	\$2,678	\$4,843

### Table D5 - United Illuminating Electric Historical and Cost per Projected kW (continued)

Table D5
<u>United Illuminating Electric Historical and Cost per Projected kW</u>

	2019 Actual	2020 Actual	2021 Actual	2022 Goals	2023 Goals	2024 Goals
	RE	SIDENTIAL				
Residential Retail Products	\$1,313	\$1,524	\$2,437	\$931	\$922	\$935
Residential New Construction	\$6,514	\$9,009	\$3,721	\$2,432	\$2,582	\$2,595
Home Energy Solutions	\$4,074	\$5,919	\$8,975	\$5,804	\$6,237	\$6,309
HVAC & Water Heating Equipment	\$6,093	\$3,856	\$5,387	\$5,969	\$5,993	\$5,980
HES-Income Eligible	\$11,423	\$26,964	\$21,597	\$19,459	\$19,918	\$21,471
Residential Behavior	\$ -	\$ -	\$ -	\$ -	\$ -	\$-
Subtotal: Residential EE Portfolio	\$3,820	\$3,568	\$6,911	\$4,104	\$4,149	\$4,141
	COMMERC	CIAL & INDUST	RIAL			
Energy Conscious Blueprint	\$2,373	\$3,836	\$7,290	\$4,086	\$4,265	\$4,409
Energy Opportunities	\$2,112	\$3,611	\$1,414	\$7,478	\$7,886	\$8,010
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	\$ -	\$ -	\$78,737	\$2,712	\$2,914	\$3,786
Small Business	\$4,615	\$7,077	\$5,721	\$5,450	\$5,518	\$5,560
Subtotal: C&I EE Portfolio	\$2,571	\$4,227	\$3,295	\$5,311	\$5,553	\$5,817
	OTHER - LO	AD MANAGEN	/IENT			
Demand Response Pilot - Residential	\$ -	\$188	\$197	\$120	\$121	\$124
Demand Response Pilot – C&I	\$ -	\$390	\$320	\$179	\$211	\$118
Subtotal: Load Management	\$ -	\$210	\$216	\$137	\$144	\$122
TOTAL	\$3,131	\$3,051	\$3,082	\$2,509	\$2,268	\$1,793

### Table D6 – United Illuminating Electric Historical and Cost per Projected Annual kWh (2013-2024)

Table D6
United Illuminating Electric Historical and Cost per Projected Annual kWh

	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual
		RESIDENTIAL				
Residential Retail Products	\$0.098	\$0.178	\$0.150	\$0.172	\$0.151	\$0.305
Residential New Construction	\$0.950	\$1.266	\$1.966	\$1.227	\$2.082	-\$0.169
Home Energy Solutions (Core Services, HVAC, Duct Sealing through 2015)	\$1.262	\$1.022	\$1.157	\$1.236	\$1.131	\$0.778
HVAC & Water Heating Equipment	\$ -	\$ -	\$ -	\$0.522	\$0.551	\$0.899
HES Income Eligible	\$1.261	\$1.038	\$1.664	\$0.856	\$1.001	\$0.749
Residential Behavior	\$ -	\$ -	\$0.169	\$0.115	\$0.021	\$ -
Subtotal: Residential EE Portfolio	\$0.361	\$0.421	\$0.356	\$0.342	\$0.322	\$0.621
	сомм	ERCIAL & INDU	STRIAL			
Energy Conscious Blueprint	\$0.254	\$0.317	\$0.338	\$0.289	\$0.403	\$0.296
Energy Opportunities	\$0.381	\$0.372	\$0.269	\$0.321	\$0.240	\$0.204
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	\$0.185	\$0.210	\$0.353	\$0.307	\$0.954	\$2.180
Small Business	\$0.469	\$0.359	\$0.428	\$0.416	\$0.501	\$0.366
Subtotal: C&I EE Portfolio	\$0.343	\$0.342	\$0.307	\$0.329	\$0.305	\$0.261
TOTAL	\$0.353	\$0.375	\$0.325	\$0.334	\$0.312	\$0.354

<u>Table D6 – United Illuminating Electric Historical and Cost per Projected Annual kWh (2013-2024) (continued)</u>

Table D6

<u>United Illuminating Electric Historical and Cost per Projected Annual kWh</u>

	2019	2020	2021	2022	2023	2024
	Actual	Actual	Actual	Goals	Goals	Goals
		RESIDENTIAL				
Residential Retail Products	\$0.183	\$0.283	\$0.336	\$0.263	\$0.259	\$0.268
Residential New Construction	\$1.602	\$1.393	\$0.588	\$1.408	\$1.501	\$1.597
Home Energy Solutions (Core Services, HVAC, Duct Sealing through 2015)	\$0.944	\$2.229	\$2.785	\$1.807	\$1.593	\$1.611
HVAC & Water Heating Equipment	\$1.237	\$2.038	\$2.392	\$2.150	\$2.156	\$2.045
HES-Income Eligible	\$0.989	\$1.635	\$0.931	\$3.193	\$3.268	\$3.578
Residential Behavior	NA	NA	\$0.116	\$0.126	\$0.125	\$0.121
Subtotal: Residential EE Portfolio	\$0.183	\$0.283	\$1.004	\$0.926	\$0.911	\$0.918
	СОММЕ	RCIAL & INDU	STRIAL		'	
Energy Conscious Blueprint	\$0.279	\$0.638	\$1.309	\$0.506	\$0.528	\$0.546
Energy Opportunities	\$0.324	\$0.464	\$0.190	\$0.586	\$0.624	\$0.638
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	\$0.573	\$0.446	\$0.838	\$0.510	\$0.526	\$0.622
Small Business	\$0.651	\$1.248	\$1.115	\$0.594	\$0.602	\$0.607
Subtotal: C&I EE Portfolio	\$0.342	\$0.553	\$0.487	\$0.560	\$0.586	\$0.605
TOTAL	\$0.418	\$0.609	\$0.628	\$0.742	\$0.756	\$0.775

Table D7 – United Illuminating Electric Historical and Cost per Projected Lifetime kWh (2013-2024)

Table D7

<u>United Illuminating Electric Historical and Cost per Projected Lifetime kWh</u>

	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Goals	2023 Goals	2024 Goals
					RESID	ENTIAL						·
Residential Retail Products	\$1.224	\$1.564	\$1.854	\$0.738	\$2.228	\$0.338	\$0.248	\$0.812	\$0.075	\$0.042	\$0.040	\$0.042
Residential New Construction	\$0.001	\$0.001	\$0.001	\$0.002	\$0.002	-\$0.002	\$0.014	\$0.010	\$0.024	\$0.056	\$0.060	\$0.064
Home Energy Solutions (Core Services, HVAC, Duct Sealing through 2015)	\$0.126	\$0.080	\$0.086	\$0.103	\$0.111	\$0.086	\$0.119	\$0.230	\$0.301	\$0.160	\$0.146	\$0.148
HVAC & Domestic Water Heating	NA	NA	NA	\$0.038	\$0.042	\$0.051	\$0.073	\$0.126	\$0.140	\$0.135	\$0.136	\$0.129
HES Income Eligible	\$0.104	\$0.078	\$0.135	\$0.066	\$0.089	\$0.068	\$0.092	\$0.115	\$0.129	\$0.413	\$0.422	\$0.451
Residential Behavior	NA	NA	\$0.065	\$0.044	\$0.008	NA	NA	NA	\$0.058	\$0.063	\$0.062	\$0.060
Subtotal: Residential EE Portfolio	\$0.051	\$0.044	\$0.039	\$0.031	\$0.039	\$0.063	\$0.073	\$0.113	\$0.120	\$0.115	\$0.114	\$0.115
				C	OMMERCIAL	. & INDUSTR	IAL					
Energy Conscious Blueprint	\$0.016	\$0.020	\$0.022	\$0.019	\$0.026	\$0.017	\$0.018	\$0.044	\$0.090	\$0.035	\$0.037	\$0.038
Energy Opportunities	\$0.030	\$0.031	\$0.024	\$0.026	\$0.020	\$0.017	\$0.029	\$0.039	\$0.015	\$0.079	\$0.084	\$0.085
Business & Energy Sustainability (O&M, RCx, BSC, PRIME, CSP/SEM)	\$0.025	\$0.027	\$0.058	\$0.051	\$0.191	\$0.436	\$0.114	\$0.078	\$0.171	\$0.066	\$0.068	\$0.080
Small Business	\$0.037	\$0.029	\$0.034	\$0.033	\$0.040	\$0.029	\$0.054	\$0.104	\$0.091	\$0.077	\$0.079	\$0.079
Subtotal: C&I EE Portfolio	\$0.026	\$0.027	\$0.026	\$0.026	\$0.025	\$0.020	\$0.026	\$0.047	\$0.039	\$0.060	\$0.062	\$0.064
TOTAL	\$0.035	\$0.033	\$0.030	\$0.028	\$0.029	\$0.029	\$0.037	\$0.058	\$0.055	\$0.081	\$0.083	\$0.085

### Table D8 – United Illuminating Electric Historical and Projected Annual MMBtu

Table D8
United Illuminating Electric Historical and Projected Annual MMBtu

	2019 Actual	2020 Actual	<b>2021</b> Actual	2022 Goals	2023 Goals	2024 Goals
		RE	SIDENTIAL			
Residential Retail Products	38,399	33,716	14,467	8,579	8,900	8,529
Residential New Construction	12,493	10,832	31,579	19,765	24,398	24,217
Home Energy Solutions (Core Services, HVAC, Duct Sealing through 2015)	70,861	58,209	71,855	48,522	52,733	51,812
HVAC & Water Heating Equipment	76,648	65,013	57,974	39,390	45,911	45,511
HES-Income Eligible	96,561	35,216	73,467	45,202	51,691	50,955
Residential Behavior	19,686	0	24,603	35,381	35,136	33,523
Subtotal: Residential EE Portfolio	314,647	202,986	273,945	196,841	218,770	214,546
		COMMERC	CIAL & INDUSTRIAL			
Energy Conscious Blueprint	100,217	113,318	72,511	57,996	62,578	61,306
Energy Opportunities	149,139	168,822	78,831	76,155	79,304	77,080
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	53,944	42,734	71,015	39,526	49,760	48,830
Small Business	20,453	13,692	28,543	31,381	30,663	30,162
Subtotal: C&I EE Portfolio	323,754	338,566	250,901	205,058	222,305	217,378
TOTAL	638,401	541,552	524,846	401,899	441,074	431,924

### Table D9 – United Illuminating Electric Historical and Projected Lifetime MMBtu

Table D9

<u>United Illuminating Electric Historical and Projected Lifetime MMBtu</u>

	2019 Actual	2020 Actual	<b>2021</b> Actual	2022 Goals	2023 Goals	2024 Goals
	1	RESIDENTI				
Residential Retail Products	198,181	150,079	61,651	64,211	68,520	64,459
Residential New Construction	357,351	256,618	786,687	494,136	609,961	605,416
Home Energy Solutions	1,304,698	1,156,727	1,495,827	947,006	1,024,271	1,007,270
HVAC & Water Heating Equipment	1,480,320	1,221,008	1,126,569	708,191	840,487	832,511
HES-Income Eligible	1,912,108	724,956	1,431,670	931,816	1,078,193	1,072,265
Residential Behavior	41,340	-	49,207	70,762	70,272	67,045
Subtotal: Residential EE Portfolio	5,293,997	3,509,388	4,951,612	3,216,122	3,691,705	3,648,967
		Commercial & Ir	ndustrial			
Energy Conscious Blueprint	1,519,783	1,669,768	1,151,508	934,236	1,025,112	1,007,472
Energy Opportunities	1,535,463	1,948,068	1,014,036	631,066	676,236	661,578
Business & Energy Sustainability (O&M, RCx, PRIME, CSP/SEM)	277,679	237,137	398,367	240,594	296,058	288,122
Small Business	247,109	165,222	330,467	305,202	300,089	296,190
Subtotal: C&I EE Portfolio	3,580,033	4,020,195	2,894,378	2,111,098	2,297,495	2,253,363
TOTAL	8,874,030	7,529,583	7,845,990	5,327,220	5,989,200	5,902,329

United Illuminating Electric PMI (2022)

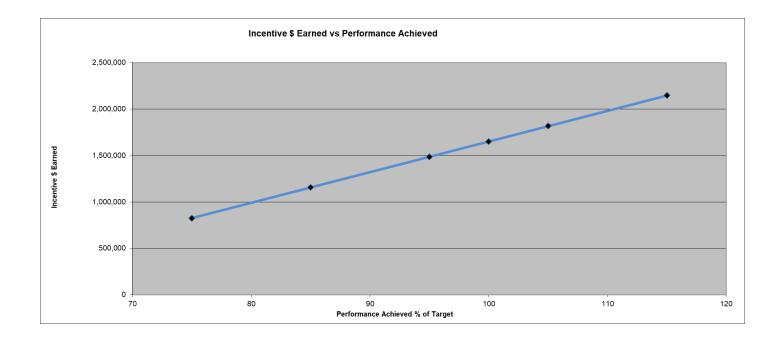
### UNITED ILLUMINATING ELECTRIC

### 2022 Management Incentive Performance Indicators and Incentive Matrix

United Illuminating Electric and the EEB recognize that having clear indicators and metrics of performance are helpful in delivering quality programs to Connecticut consumers. The following is a table of performance and incentive metrics developed by the Companies with input from the EEB, the EEB consultants and DEEP. These performance and incentive metrics apply to the programs delineated in the 2022-2024 Plan. The projected UI Performance Incentive is \$1,651,950 and is based on achieving 100% of all performance targets and earning an incentive of 5.0% of the total EE program budget of \$33,038,993 as shown on Table A (exclusive of EEB costs, Evaluation Consultant costs, Management incentives and Audit costs). The actual earned amount will be calculated on a sliding scale based on the percent of goal achieved and the actual total expenditures, based on the following performance range:

-Performan	ce Incentive Illustration
Pretax Incentive	Pre-tax Incentive
2.5%	\$825,975
3.5%	\$1,156,365
4.5%	\$1,486,755
5.0%	\$1,651,950
5.5%	\$1,817,145
6.5%	\$2,147,535
\$3	33,038,993

Goals will be prorated based on actual over/under spend of budget.



Secto	or		Perfc	ormance Indicators			Incentive Metrics			
Reside	ntial	Program Name	LT-kWh	kW	LT Oil	LT Prop	Incentive Metric	Target Goal	Weight	Incentive
Residential Programs (Sector Level) Sector Budget	\$11,583						Sum of Modified Utility Benefit from Residential programs	Modified Utility Benefit from Res programs	0.2099	\$346,744
		Retail Products	17,945,976	814	-9,465	46,804				
		New Construction	11,071,610	256	-	306,033				
		Home Energy Solutions	10,960,541	301	2,168,584	130,530		\$26,217,188		
		HVAC	16,457,308	373	1,120,427	288,286				
		HES-Income Eligible	4,669,121	99	937,793	103,232				
		Behavior	4,480,000	-	-	-				
		Total	65,584,556	1,844	4,217,338	874,884				
		Savings Rate	\$0.08101 /kWh	\$2,412.29 /kW	\$3.21	\$3.33				
		Savings	\$5,312,763	\$4,448,271	\$13,540,287	\$2,915,867				
Net Modified Utility Benefit - Res.			Itility Benefit less gram Costs	\$14,634	,271			\$14,634,271	0.2099	\$346,744
Res Active Demand	\$565	Rei ADR			4,724	kW				
Response		Res ADR Savings	\$944,744	Resi ADR Savings Rate	\$200.01	\$/kW	Resi DR Benefit	\$944,744	0.0045	\$7,434
Net Modified Utility Benefit Resi Active Demand Response		Systo	em Benefit less Prog	ram Costs	\$379,729		Net Benefit Resi DR	\$379,729	0.0045	\$7,434

Sector		Performance Indi	cators		Incentive Metrics	;	
Residential	\$			Incentive Metric	Target Goal	Weight	Incentive
Home Energy Solutions	\$3,745	Electric Savings LTkWh:	10,960,541		Energy Savings included in		
		Demand Savings kw :	301		appropriate sector-level metric		
		MMBtu per HES single-fa lighting) for Core Services wh		Increase in HES savings per ducted	Achieve 17.95 MMBtu in HES	0.0100	\$16,519
		has air sealing complet homes).Based on previous y current year CT PSD	ted (i.e., non-barriered ear's actuals adjusted to the	home	per single- family ducted home savings across		
		MMBtu per HES single-fa lighting) for Core Services wh that has air sealing comp homes).Based on previous y current year CT PSD	here ductwork is not present eleted (i.e., non-barriered ear's actuals adjusted to the	Increase in HES savings per non- ducted home	Achieve 13.56 MMBtu in HES per single- family non- ducted home savings across all fuels	0.0100	\$16,519
		divided by the number of h Assessments. Based on 2019 on the previous year's act (X%+2%). (Baseline for 2022 2022 actuals, and for 2024 w will be calculated for Everso	actuals for 2022, then based tuals thereafter plus 2.0% will be 2019, for 2023 will be vill be 2023 actuals. Baselines urce and United Illuminating	Increase Homes being Weatherized	10.87% of homes that receive insulation rebates	0.0100	\$16,519
Residential	\$623	individ	11,071,610		Energy Savings included in	0.0100	\$16,519
New Construction	·	Demand Savings kw :	256		appropriate sector-level metric	-	. ,
		HERS rating of 50 or less, bas the previous year results plu average percentage = (SF/SF Tier 2-4 percent of all SF/S	NC program that achieve a sed on the number of units in s 4.0% (X%+4%). *Weighted A Tier 2 -4 quantity * SF/SFA SFA activity + MF Tier 2 -4 ercent of all MF activity) /	Increase 45% of efficient new homes	45% of homes		

Sector		Performance Ind	icators		Incentive Met	rics	
Residential	\$			Incentive Metric	Target Goal	Weight	Incentive
Home Energy Solutions- Income	\$3,947	Electric Savings LTkWh :	4,669,121		Energy Savings included in		
Eligible		Demand Savings kw :	99		appropriate sector-level metric		
		completed (i.e., non-barriered h	ly home (not including lighting) ork is present that has air sealing nomes). Based on previous year's year CT PSD plus 2.0% (X*102%).	Increase in HES- IE savings per ducted home	Achieve 19.92 MMBtu in HES-IE per single-family ducted home savings across all fuels	0.0100	\$16,519
		previous year's actuals adjusted		Increase in HES- IE savings per non-ducted home	Achieve 14.27 MMBtu in HES-IE per single-family non-ducted home savings across all fuels	0.0100	\$16,519
		number of homes that receive on 2019 actuals for 2022, then actuals thereafter plus 2.0% (47 will be 2019, for 2023 will be 20	receive insulation divided by the the HES-IE Assessments. Based in based on the previous year's %+2%= 49%). (Baseline for 2022 22 actuals, and for 2024 will be alculated with all the Companies ther).	Increase in homes being weatherized	49% of homes that receive insulation rebates	0.0100	\$16,519
Equitable Distribution		HES-IE from January 1, 2022 the electric customers that are of Eversource New Start and U November 1, 2021 and achieve for (serving at least 2,207 customer	participation in 1-4 unit HES or rough December 31, 2022 of all coded "hardship" (i.e., MPP, JI Forgiveness programs) on for Eversource 5.)% participation rs) and for UI 2.3% participation 232 customers).	Achieve 2.3% Participation		0.0200	\$33,039
		Electric Savings LTkWH:	17,945,976		Energy Savings		
Retail Products	\$757	Demand Savings kW:	814		included in appropriate sector-level metric		

Sect	or		Pe	rformar	nce Indicators				Incentive	Metrics	
Comme Indus		Program Name	LT-kWh	1	kW	LT Oil	LT Prop	Incentive Metric	Target Goal	Weight	Incentive
C&I Programs (Sector	\$17,068	Energy Conscious Blueprint	120,221,6	550	1,037	-	-	Sum of Modified Utility	Modified Utility Benefit	0.1745	\$288,265
Level) Sector Budget		Energy Opportunities	98,977,4	35	1,051	-	5,577	Benefit from C&I programs	from C&I programs		
		Business and Energy Sustainability	17,526,3	35	425	-	-				
		Small Business	49,662,8	84	701	-	6,804				
		Total	286,388,3	304	3,214	-	12,381		\$31,065,858		
		Savings Rate	\$0.08461	/kWh	\$2,114	/ kW	\$3.37				
		Savings	\$ 24,230,	844	\$ 6,793,347	-	\$41,667				
		(1) percent of	target goal								
Net Modified Utility Benefit – C&I		Modified Utility	Benefit less Pro Costs	ogram			\$13,997,692		\$13,997,692	0.1745	\$288,265
C&I Active Demand	\$359	C&I ADR				2,574	kW				
Response		C&I ADR Savings	\$421,52	:5	C&I ADR Savings Rate	\$163.76	\$/kW	C&I DR Benefit	\$421,525	0.0111	\$18,337
Net Modified Utility Benefit C&I Active Demand Response		System	ı Benefit less P	rogram	Costs		\$62,106.07	Net Benefit C&I DR	\$62,106	0.0111	\$18,337

Sector		Performance Indicat	tors		Incentive M	etrics	
Commercial & Industrial	\$			Incentive Metric	Target Goal	Weight	Incentive
Energy Opportunities	\$7,857	will consist of a tailored combi bundles, and technical assista Calculated as signed projects offerings at time of offering/ rebates). Comprehensive si	that included comprehensive all signed projects (excluding hall be defined as including th BES counting as an end use.	Continue to promote comprehensive projects	49% of all signed projects	0.0250	\$41,299
Energy Conscious Blueprint	\$4,236	Number of new construction/i are more efficient than the St > ASHRAE 90.1-2013 or IECC 2 Performance, or	2015, or utilize Whole Building	Continue to advance projects that are more efficient than the State Energy Code	50% of signed projects	0.0200	\$33,039
Small Business	\$3,822	Electric Savings LTkWH:  Demand Savings kW:	49,662,884 701	Energy Savings included in appropriate sector-level metric			
		will consist of a tailored combi bundles, and energy manag	ehensive offerings at time of excluding rebates). Based on	Continue to promote comprehensive projects	30.5% of signed projects	0.0250	\$41,299
Equitable Distribution	Quartile 1 Healthcare	The Companies will increase s Quartile 1 Healthcare sector avers	r by 4% (relative to baseline	The Companies will track this data by using		0.00375	\$6,195
	Quartile 2 Financial, Real Estate & Insurance	The Companies will increase s Quartile 2 Financial, Real Esta (relative to bas	ate & Insurance sector by 3%	2017-2021 data as a baseline to evaluate customer savings. The		0.00375	\$6,195
	Quartile 3 Healthcare	The Companies will increase s Quartile 3 Healthcare sector avera	r by 2% (relative to baseline	customers addressed by this KPI are customers who have not		0.00375	\$6,195
	Quartile 4 Retail	The Companies will increase s Quartile 4 Retail sector by avera	0.44% (relative to baseline	participated over the past 5 years.		0.00375	\$6,195

Sector		Performance Indicators		Incentive	ive Metrics				
Commercial & Industrial	\$		Incentive Metric	Target Goal	Weight	Incentive			
Strategic Energy Management	\$1,154	The Companies will engage 10 companies that are part of a cohort (one or more) with each company saving a minimum of 10 annual MWH and the Companies also will engage with 10 individual companies with each company's savings a minimum of 25 annual MWh. SEM savings will be measured and claimed as per CEE SEM Minimum Elements. Based on the above the participation goal is 20 total companies with savings (10 as part of a cohort and 10 individuals).	Promote Strategic Energy Management (SEM) Initiatives	4 CEE SEM  Minimum  Elements	0.0150	\$24,779			
Evaluation		Timely turnaround on purchase orders and Evaluation Data requests based on agreed upon timelines for each study.  Sliding scale as noted in the PMI exhibit - with 100% of goal achievement based on 90% of the data requests and purchase orders being completed on time.	Timely turnaround	Based on 90% of data request and purchase orders	0.0100	\$16,519			
Total of Incentive	es	I	1	I	1.0000	\$1,651,950			

### United Illuminating Electric PMI (2023)

#### UNITED ILLUMINATING ELECTRIC

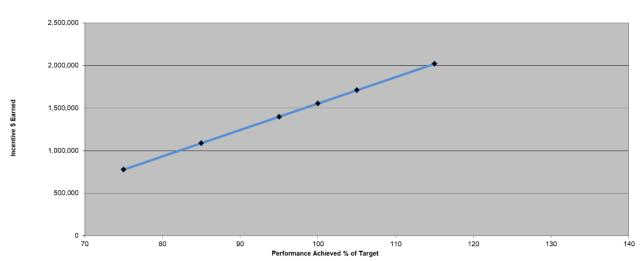
United Illuminating and the EEB recognize that having clear indicators and metrics of performance are helpful in delivering quality programs to Connecticut consumers. The following is a table of performance and incentive metrics developed by the Companies with input from the EEB, the EEB consultants and DEEP. These performance and incentive metrics apply to the programs delineated in the 2022-2024 Plan. The projected United Illuminating Performance Incentive is \$1,554,600 and is based on achieving 100% of all performance targets and earning an incentive of 5.0% of the total EE program budget of \$31,091,995 as shown on Table A (exclusive of EEB costs, Evaluation Consultant costs, Management incentives and Audit costs). The actual earned amount will be calculated on a sliding scale based on the percent of goal achieved and the actual total expenditures, based on the following performance range:

Performance %	-Performance Incentive Illustration- Pretax Incentive	Pre-tax Incentive
<u>Minimum</u>		
75	2.5%	\$777,300
85	3.5%	\$1,088,220
95	4.5%	\$1,399,140
100	5.0%	\$1,554,600
105	5.5%	\$1,710,060
115	6.5%	\$2,020,980
Maximum		

Incentive Basis Budget \$31,091,995

Goals will be prorated based on actual over/under spend of budget.

#### Incentive \$ Earned vs Performance Achieved



Sector		Performance Indicators						Incentive N	Metrics	
Reside	ntial	Program Name	LT-kWh	kW	LT Oil	LT Prop	Incentive Metric	Target Goal	Weight	Incentive
Residential Programs (Sector Level) Sector Budget	\$10,862						Sum of Modified Utility Benefit from Res programs	Modified Utility Benefit from Residential programs	0.2099	\$326,310
		Retail Products	19,020,585	826	-7,371	50,645				
		New Construction	9,354,730	217	-	273,819				
		Home Energy Solutions	12,677,622	298	1,726,083	29,913		\$24,248,503		
		HVAC	15,973,323	362	1,087,477	279,808				
		HES-Income Eligible	4,344,740	92	872,641	96,060				
		Behavior	4,256,000	-	-	-				
		Total	65,627,000	1,795	3,678,829	730,244				
		Savings Rate	\$0.08120 /kWh	\$2,313.35 / kW	\$ 3.33	\$3.42				
		Savings	\$5,328,820	\$4,152,466	\$12,267,593	\$2,499,624				
Net Modified Utility Benefit - Res.			Jtility Benefit less gram Costs	\$13,386	5,178			\$13,386,178	0.2099	\$326,310
Resi Active	\$687	Resi ADR			5,683	kW				
Demand Response		Resi ADR Savings	\$1,144,665	Resi ADR Savings Rate	\$201.43	\$/kW	Resi DR Benefit	\$1,144,665	0.0045	\$6,996
Net Modified Utility Benefit Resi Active Demand Response		Syst	 tem Benefit less Progr	am Costs	\$457,571		Net Benefit Resi DR	\$457,571	0.0045	\$6,996

Sector	Performance I		erformance Indicators		Achieve X MMBtu in HES per single- family ducted home savings across  Achieve X MMBtu in HES per single- family non- ducted home savings across all fuels  X% of homes that receive		
Residential	\$			Incentive Metric	Target Goal	Weight	Incentive
Home Energy Solutions	\$3,389	Electric Savings LTkWh:	12,677,622	Energy Savings included in			
		Demand Savings kW:	298	appropriate sector-level metric			
		for Core Services where due sealing completed (i.e., nor previous year's actuals adjust	y home (not including lighting) ctwork is present that has air a-barriered homes).Based on ted to the current year CT PSD (X*102%).	Increase in HES savings per ducted home	MMBtu in HES per single- family ducted home savings	0.0100	\$15,546
		for Core Services where ducty sealing completed (i.e., nor previous year's actuals adjust	whome (not including lighting) work is not present that has air al-barriered homes). Based on ted to the current year CT PSD (X*102%).	Increase in HES savings per non- ducted home	MMBtu in HES per single- family non- ducted home savings across	0.0100	\$15,546
		Number of HES homes that receive insulation rebates divided by the number of homes that receive the HES Assessments. Based on 2019 actuals for 2022, then based on the previous year's actuals thereafter plus 2.0% (X%+2%). (Baseline for 2022 will be 2019, for 2023 will be 2022 actuals, and for 2024 will be 2023 actuals. Baselines will be calculated for Eversource and United Illuminating individually).		Increase Homes being Weatherized		0.0100	\$15,546
Residential New Construction	\$562	Electric Savings LTkWh :	9,354,730	Energy Savings included in appropriate			
Construction		Demand Savings kw :	217	sector-level metric			
		The weighted average p participating units in the RNC rating of 50 or less, based of previous year results plus 4.0% percentage = (SF/SFA Tier 2 percent of all SF/SFA activity + 2-4 percent of all MF activity), Tier 2-4	Increase % of efficient new homes	X% of homes	0.0100	\$15,546	

Sector		Performance Indic	ators	Incentive Metrics				
Residential	\$			Incentive Metric	Target Goal	Weight	Incentive	
Home Energy Solutions- Income Eligible	\$3,715	Electric Savings LTkWh :  Demand Savings kw :	4,344,740 92	Energy Savings included in appropriate sector- level metric				
		MMBtu per HES-IE single-f lighting) for Core Services of that has air sealing comp homes). Based on previou to the current year CT P	where ductwork is present leted (i.e., non-barriered us year's actuals adjusted	Increase in HES-IE savings per ducted home	Achieve X MMBtu in HES-IE per single-family ducted home savings across all fuels	0.0100	\$15,546	
		MMBtu per HES-IE single-f lighting) for Core Service present that has air seali barriered homes). Based of adjusted to the current (X*10	s where ductwork is not ing completed (i.e., non- on previous year's actuals year CT PSD plus 2.0%	Increase in HES-IE savings per non- ducted home	Achieve X MMBtu in HES-IE per single-family non- ducted home savings across all fuels	0.0100	\$15,546	
		Number of HES-IE home divided by the number o HES-IE Assessments. Based then based on the previou plus 2.0% (X%+2%). (Basel for 2023 will be 2022 act 2023 actuals. Baseline will Companies	f homes that receive the l on 2019 actuals for 2022, s year's actuals thereafter line for 2022 will be 2019, uals, and for 2024 will be be calculated with all the	Increase in homes being weatherized	X% of homes that receive insulation rebates	0.0100	\$15,546	
Equitable Distribution		The Companies will track the participation in 1-4 unit HES or HES-IE from January 1, 2022 through December 31, 2022 of all electric customers that are coded "hardship" (i.e., MPP, Eversource New Start and UI Forgiveness programs) on November 1, 2021 and achieve X% participation.		Achieve X% Participation		0.0200	\$31,092	
Retail Products	\$762	Electric Savings LTkWh:	19,020,585					
		Demand Savings kw :	826					

Sect	or		Perfor	mance Indicators	Incentive Metrics					
Comme Indus		Program Name	LT-kWh	kW	LT Oil	LT Prop	Incentive Metric	Target Goal	Weight	Incentive
C&I Programs (Sector Level) Sector Budget	\$16,135						Sum of Modified Utility Benefit from C&I programs	Modified Utility Benefit from C&I programs	0.1745	\$271,278
		Energy Conscious Blueprint	106,607,243	919	-	-				
		Energy Opportunities	89,293,878	947	-	5,577				
		Business and Energy Sustainability	16,320,898	379	-	-	-	\$27,757,024		
		Small Business	46,360,886	660	-	6,804	-			
		Total	258,582,905	2,906	-	12,381				
		Savings Rate	\$0.08426 /kWh	\$2,039.41 /kW	\$ -	\$ -				
		Savings	\$ 21,787,388	\$ 5,926,515	\$ -	\$ -				
		(1) percent of	target goal							
Net Modified Utility Benefit – C&I			ity Benefit less m Costs			\$11,621,799		\$11,621,799	0.1745	\$271,278
C&I Active Demand Response	\$359	C&I ADR			3,812	kW				
Кезропас		C&I ADR Savings	\$631,760	C&I ADR Savings Rate	\$165.75	\$/kW	C&I DR Benefit	\$492,773	0.0111	\$17,256
Net Modified Utility Benefit C&I Active Demand Response		System	Benefit less Progra	am Costs		\$272,341.08	Net Benefit C&I DR	\$133,354	0.0111	\$17,256

Sector		Performance Indicat	tors	Incentive Metrics					
Commercial & Industrial	\$			Incentive Metric	Target Goal	Weight	Incentive		
Energy Opportunities	\$7,467	will consist of a tailored combi bundles, and technical assists Calculated as signed projects offerings at time of offering/ rebates). Comprehensive si multiple end-use measures wi	that included comprehensive all signed projects (excluding hall be defined as including	Continue to promote comprehensive projects	X% of all signed projects	0.0250	\$38,865		
Energy Conscious Blueprint	\$3,921	Number of new construction/i are more efficient than the Sta ASHRAE 90.1-2013 or IECC 20 Performance, or	Continue to advance projects that are more efficient than the State Energy	50% of signed projects	0.0200	\$31,092			
Small Business	\$3,642	Electric Savings LTkWh:	46,360.886	-					
		Demand Savings kw:	660						
		bundles, and energy manag	nation of measure and service ement. Calculated as signed ehensive offerings at time of excluding rebates). Based on	Continue to promote comprehensive projects	X% of signed projects	0.0250	\$38,865		
Equitable Distribution	Quartile 1 Healthcare	The Companies will increase s Quartile 1 Healthcare sector avera	avings from customers in the r by 4% (relative to baseline	The Companies will track this data		0.00375	\$5,830		
	Quartile 2 Financial, Real Estate & Insurance	The Companies will increase s Quartile 2 Financial, Real Esta (relative to bas	ate & Insurance sector by 3%	by using 2018- 2022 data as a baseline to evaluate		0.00375	\$5,830		
	Quartile 3 Healthcare	The Companies will increase s Quartile 3 Healthcare sector avera	r by 2% (relative to baseline	customer savings. The customers addressed by		0.00375	\$5,830		
	Quartile 4 Retail	The Companies will increase s Quartile 4 Retail sector by avera	this KPI are customers who have not participated over the past 5 years.		0.00375	\$5,830			
				years.					

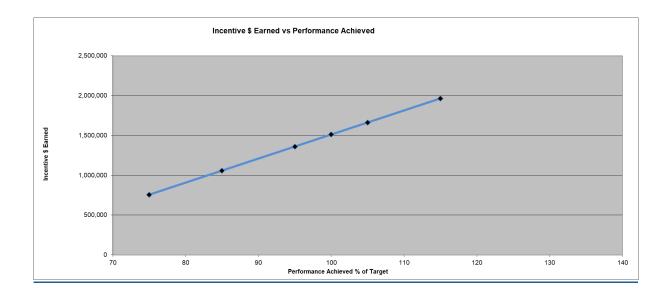
Sector		Performance Indicators	Performance Indicators Incentive			
Commercial & Industrial	\$		Incentive Metric	Target Goal	Weight	Incentive
Strategic Energy Management	\$1,154	The Companies will engage 10 companies that are part of a cohort (one or more) with each company saving a minimum of 10 annual MWH and the Companies also will engage with 10 individual companies with each company's savings a minimum of 25 annual MWh. SEM savings will be measured and claimed as per CEE SEM Minimum Elements. Based on the above the participation goal is 20 total companies with savings (10 as part of a cohort and 10 individuals).	Promote Strategic Energy Management (SEM) Initiatives	20 CEE SEM Minimum Elements	0.0150	\$23,319
Evaluation		Timely turnaround on purchase orders and Evaluation Data requests based on agreed upon timelines for each study.  Sliding scale as noted in the PMI exhibit - with 100% of goal achievement based on 90% of the data requests and purchase orders being completed on time.	Timely turnaround	Based on 90% of data request and purchase orders	0.0100	\$15,546
Total of Incentive	es				1.0000	\$1,554,600

### United Illuminating Electric PMI (2024)

#### **UNITED ILLUMINATING ELECTRIC**

United Illuminating and the EEB recognize that having clear indicators and metrics of performance are helpful in delivering quality programs to Connecticut consumers. The following is a table of performance and incentive metrics developed by the Companies with input from the EEB, the EEB consultants and DEEP. These performance and incentive metrics apply to the programs delineated in the 2022-2024 Plan. The projected United Illuminating Performance Incentive is \$1,511,319 and is based on achieving 100% of all performance targets and earning an incentive of 5.0% of the total EE program budget of \$30,226,381 as shown on Table A (exclusive of EEB costs, Evaluation Consultant costs, Management incentives and Audit costs). The actual earned amount will be calculated on a sliding scale based on the percent of goal achieved and the actual total expenditures, based on the following performance range:

Performance % Minimum	-Performance Incentive Illustration- <u>Pretax Incentive</u>	Pre-tax Incentive
75	2.5%	\$755,660
85	3.5%	\$1,057,923
95	4.5%	\$1,360,187
100	5.0%	\$1,511,319
105	5.5%	\$1,662,451
115	6.5%	\$1,964,715
Maximum Incentive Basis Budget	\$30,226,381 Goals will be prorated based on actual over/under spend of budget.	



Sector		Performance Indicators						Incentive	Metrics	Incentive Metrics				
Reside	ntial	Program Name	LT-kWh	kW	LT Oil	LT Prop	Incentive Metric	Target Goal	Weight	Incentive				
Residential Programs (Sector Level) Sector Budget	\$10,448				Sum of Modified Utility Benefit from Res programs	Modified Utility Benefit from Residential programs	0.2099	\$317,226						
		Retail Products	17,971,857	815	-8,569	47,184								
		New Construction	8,448,381	208	-	257,712								
		Home Energy Solutions	12,130,682	285	1,651,616	28,622		\$23,675,509						
		HVAC	15,973,323	344	1,087,477	279,808								
		HES-Income Eligible	3,952,836	83	835,540	91,976	-							
		Behavior	4,043,136	-	-	-	-							
		Total	62,520,215	1,734	3,566,064	705,301								
		Savings Rate	\$0.08006 /kWh	\$2,239.74 /kW	\$ 3.45	\$ 3.53								
		Savings	\$5,005,671	\$3,883,703	\$ 12,295,818	\$2,490,317								
Net Modified Utility Benefit - Res.			Utility Benefit less gram Costs	\$ 13,277	7,014			\$13,227,014	0.2099	\$317,226				
Resi Active	\$834	Resi ADR			6,699	kW								
Demand Response		Resi ADR Savings	\$1,375,250	Resi ADR Savings Rate	\$205.29	\$/kW	Resi DR Benefit	\$1,375,250	0.0045	\$6,801				
Net Modified Utility Benefit Resi Active Demand Response		Syst	 .em Benefit less Progr	am Costs	\$541,662		Net Benefit Resi DR	\$541,662	0.0045	\$6,801				

Sector		Performance Indica	ators		Incentive Metric	:S	
Residential	\$			Incentive Metric	Target Goal	Weight	Incentive
Home Energy Solutions	\$3,263	Electric Savings LTkWh :  Demand Savings kW :	12,130,682 285	Energy Savings included in appropriate sector- level metric			
		MMBtu per HES single-fam lighting) for Core Services when has air sealing complete homes).Based on previous yea current year CT PSD pl	re ductwork is present that d (i.e., non-barriered ar's actuals adjusted to the	Increase in HES savings per ducted home	Achieve X MMBtu in HES per single- family ducted home savings across	0.0100	\$15,113
		MMBtu per HES single-fam lighting) for Core Services whe that has air sealing comple homes).Based on previous yea current year CT PSD pl	re ductwork is not present ted (i.e., non-barriered ar's actuals adjusted to the	Increase in HES savings per non- ducted home	Achieve X MMBtu in HES per single- family non- ducted home savings across all fuels	0.0100	\$15,113
		Number of HES homes that r divided by the number of ho Assessments. Based on 2019 at on the previous year's actur (X%+2%). (Baseline for 2022 w 2022 actuals, and for 2024 will will be calculated for Eversour individua	mes that receive the HES ctuals for 2022, then based als thereafter plus 2.0% ill be 2019, for 2023 will be be 2023 actuals. Baselines ce and United Illuminating	Increase Homes being Weatherized	X% of homes that receive insulation rebates	0.0100	\$15,113
Residential New	\$540	Electric Savings LTkWh:	8,448,381				
Construction		Demand Savings kw :	208				
		The weighted average perc participating units in the RNG HERS rating of 50 or less, based the previous year results plus a average percentage = (SF/SFA Tier 2-4 percent of all SF/SF quantity * MF Tier 2-4 perc (SF/SFA Tier 2-4 quantity +	C program that achieve a d on the number of units in 4.0% (X%+4%). *Weighted Tier 2 -4 quantity * SF/SFA A activity + MF Tier 2 -4 tent of all MF activity) /	Increase % of efficient new homes	X% of homes	0.0100	\$15,113
Equitable Distribution		The Companies will track the p or HES-IE from January 1, 202 2022 of all electric customers (i.e., MPP, Eversource New programs) on November 1 participa	22 through December 31, that are coded "hardship" Start and UI Forgiveness , 2021 and achieve X%		Achieve X% Participation		\$30,226
Retail Products	\$762	Electric Savings LTkWh:	17,971,857	-	Energy Savings included in appropriate		
		Demand Savings kw:	815		sector-level metric		

Sector		Performance Ind	licators	Incentive Metrics				
Residential	\$			Incentive Metric	Target Goal	Weight	Incentive	
Home Energy Solutions- Income Eligible	\$3,583	Electric Savings LTkWh :  Demand Savings kW :	3,952,836 83	Energy Savings included in appropriate sector-level metric				
		Core Services where ductworl completed (i.e., non-barriered h	home (not including lighting) for k is present that has air sealing lomes). Based on previous year's year CT PSD plus 2.0% (X*102%).	Increase in HES-IE savings per ducted home	Achieve X MMBtu in HES-IE per single-family ducted home savings across all fuels	0.0100	\$15,113	
		Core Services where ductwork is completed (i.e., non-barriered h	home (not including lighting) for s not present that has air sealing tomes). Based on previous year's year CT PSD plus 2.0% (X*102%).	Increase in HES-IE savings per non-ducted home	Achieve X MMBtu in HES-IE per single-family non-ducted home savings across all fuels	0.0100	\$15,113	
		number of homes that receive the 2019 actuals for 2022, then base thereafter plus 2.0% (X%+2%). (E 2023 will be 2022 actuals, and	receive insulation divided by the he HES-IE Assessments. Based on ed on the previous year's actuals Baseline for 2022 will be 2019, for I for 2024 will be 2023 actuals. h all the Companies together).	Increase in homes being weatherized	X% of homes that receive insulation rebates	0.0100	\$15,113	
Equitable Distribution		from January 1, 2022 through C customers that are coded "hard Start and UI Forgiveness progra	ticipation in 1-4 unit HES or HES-IE December 31, 2022 of all electric ship" (i.e., MPP, Eversource New ams) on November 1, 2021 and participation.	Achieve X% Participation		0.0200	\$30,226	
Retail Products	\$762	Electric Savings LTkWh:  Demand Savings kW:	17,971,857 815	-	Energy Savings included in appropriate sector-level metric			

Secto	or		Perfo	rmance Indicators			Incentive Metrics			
Commer Indust		Program Name	LT-kWh	kW	LT Oil	LT Prop	Incentive Metric	Target Goal	Weight	Incentive
C&I Programs (Sector Level) Sector Budget	\$15,676						Sum of Modified Utility Benefit from C&I programs	Modified Utility Benefit from C&I programs	0.1745	\$263,725
		Energy Conscious Blueprint	100,994,841	871	-	-				
		Energy Opportunities	84,491,313	897	-	5,577				
		Business and Energy Sustainability	13,374,536	283	-	-		\$25,765,064		
		Small Business	45,194,474	644	-	6,804	-			
		Total	244,055,164	2,695	-	12,381				
		Savings Rate	\$0.08369 / kWh	\$1,965.23 / kW	\$ -	\$ 3.59				
		Savings	\$ 20,424,333	\$5,296,283	\$ -	\$44,448				
		(1) percent o	f target goal		l	I.	I.			
Net Modified Utility Benefit – C&I			ity Benefit less m Costs			\$10,088,847		\$10,088,847	0.1745	\$263,725
C&I Active Demand	\$359	C&I ADR			4,180	kW				
Response		C&I ADR Savings	\$706,250	C&I ADR Savings Rate	\$168.98	\$/kW	C&I DR Benefit	\$706,250	0.0111	\$16,776
Net Modified Utility Benefit C&I Active Demand Response		System	Benefit less Prog	ram Costs		\$346,830	Net Benefit C&I DR	\$346,830	0.0111	\$16,776

#### **United Illuminating Electric PMI (2024)(continued)**

Sector		Perform	ance Indicators				Incentive Me	trics	
Commercial & Industrial	\$	LT-kWh	kW	LT Oil	LT Prop	Incentive Metric	Target Goal	Weight	Incentive
Energy Opportunities	\$7,185	will consist of a tai bundles, and tecl Calculated as sign offerings at time rebates). Comp multiple end-use r	nnical assistance for led projects that in of offering/all sign orehensive shall be	of measure or SEM, bence cluded comp ed projects ( defined as ir counting as a	and service nmarking. prehensive excluding ncluding an end use.	Continue to promote comprehensive projects	X% of all signed projects	0.0250	\$37,783
Energy Conscious Blueprint	\$3,840			rgy Code and utilize Whol	l are: 30% >	Continue to advance projects that are more efficient than the State Energy Code, etc.	50% of signed projects	0.0200	\$30,226
Small Business	\$3,579	Electric Savings LTkWh: Demand Savings kw:	45,194,474 644						
		will consist of a tai bundles, and en projects that incl offering/all signe	ement comprehen lored combination ergy management uded comprehensi d projects (excludi ar Actual results +	of measure . Calculated a ve offerings ing rebates).	and service as signed at time of Based on	Continue to promote comprehensive projects	X% of signed projects	0.0250	\$37,783
Equitable Distribution	Quartile 1 Healthcare		ill increase savings hcare sector by 4% average).			The Companies will track this data by using		0.00375	\$5,667
	Quartile 2 Financial, Real Estate & Insurance	Quartile 2 Financ	ill increase savings ial, Real Estate & II lative to baseline a	nsurance sec		2019-2023 data as a baseline to evaluate customer		0.00375	\$5,667
	Quartile 3 Healthcare		ill increase savings hcare sector by 2% average).			savings. The customers addressed by this KPI are		0.00375	\$5,667
	Quartile 4 Retail		ill increase savings iil sector by 0.44% average).		customers who have not participated over the past 5 years.		0.00375	\$5,667	

#### **United Illuminating Electric PMI (2024)(continued)**

Sector		Performance Indicators		Incentive	Metrics		
Commercial & Industrial	\$		Incentive Metric	Target Goal	Weight	Incentive	
Strategic Energy Management	\$1,154	The Companies will engage 10 companies that are part of a cohort (one or more) with each company saving a minimum of 10 annual MWH and the Companies also will engage with 10 individual companies with each company's savings a minimum of 25 annual MWh. SEM savings will be measured and claimed as per CEE SEM Minimum Elements. Based on the above the participation goal is 20 total companies with savings (10 as part of a cohort and 10 individuals).	Promote Strategic Energy Management (SEM) Initiatives	20 CEE SEM Minimum Elements	0.0150	\$22,670	
Evaluation		Timely turnaround on purchase orders and Evaluation Data requests based on agreed upon timelines for each study.  Sliding scale as noted in the PMI exhibit - with 100% of goal achievement based on 90% of the data requests and purchase orders being completed on time.	Timely turnaround	Based on 90% of data request and purchase orders	0.0100	\$15,113	
Total of Incentiv	es	1		1	1.0000	\$1,511,319	

#### **E.5 COMBINED NATURAL GAS BUDGET AND SAVINGS TABLES**

#### Combined Natural Gas Table A1 (2021)

2022 Natural Gas EE Budget	2021 Eversource CT Gas Actual Results 12/31/21	2021 CNG Actual Results 12/31/21	2021 SCG Actual Results 12/31/21	2021 Eversource CT Gas/ CNG/SCG Actual Results 12/31/21
	RESID	ENTIAL	'	
Residential New Construction	\$822,508	\$21,028	\$6,016	\$849,552
Home Energy Solutions	\$4,608,942	\$4,516,900	\$3,888,662	\$13,014,504
HVAC & Water Heating Equipment	\$4,394,965	\$3,010,011	\$3,675,770	\$11,080,746
HES-Income Eligible	\$6,126,982	\$3,696,772	\$3,088,035	\$12,911,789
Residential Behavior	\$ -	\$62,321	\$145,113	\$207,434
Subtotal: Residential EE Portfolio	\$15,953,396	\$11,307,032	\$10,803,596	\$38,064,024
ı	COMMERCIAL	& INDUSTRIAL		
Energy Conscious Blueprint	\$3,754,255	\$3,713,683	\$2,906,608	\$10,374,546
Energy Opportunities	\$732,274	\$925,543	\$750,905	\$2,408,722
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	\$408,183	\$308,472	\$249,022	\$965,677
Small Business	\$270,988	\$94,822	\$428,445	\$794,255
Subtotal: C&I EE Portfolio	\$5,165,700	\$5,042,520	\$4,334,980	\$14,543,200
		MANAGEMENT	7 1,000 1,000	7 - 1,0 10,000
Residential Demand Response	\$ -	\$-	\$ -	\$ -
C&I Demand Response	\$ -	\$ -	\$ -	\$ -
Subtotal: Load Management	\$ -	\$ -	\$ -	\$ -
	<u>'</u>	N & ENGAGEMENT	,	· · · · ·
Energy Education	\$31,386	\$25,240	\$22,829	\$79,455
Workforce Development	\$22,485	\$15,434	\$15,434	\$53,353
Community Outreach	\$36,300	\$17,227	\$17,227	\$70,754
Customer Engagement Initiative	\$137,851	\$-	\$-	\$137,851
Subtotal: Education & Engagement	\$228,023	\$57,901	\$55,490	\$341,414
Subtotal. Education & Engagement	, ,	/IS/REQUIREMENTS	<b>733,430</b>	7571,717
Residential Loan Program (includes ECLF/OBR)	\$77,705	\$ -	\$ -	\$77,705
C&I Financing Support	\$2,427	\$ -	\$ -	\$2,427
Research, Development and Demonstration	\$4,795	\$11,573	\$84,073	\$100,441
Subtotal: Programs/Requirements	\$84,927	\$11,573	\$84,073	\$180,573
	OTHER - ADMINISTI	RATIVE & PLANNING		
Administration	\$81,568	\$207,327	\$159,274	\$448,169
Marketing Plan	\$58,999	\$72,130	\$70,801	\$201,930
Planning	\$88,185	\$99,898	\$90,033	\$278,117
Evaluation Measurement and Verification	\$200,000	\$200,000	\$200,000	\$600,000
Evaluation Administrator	\$28,548	\$21,931	\$21,931	\$72,410
Information Technology	\$178,639	\$339,848	\$328,131	\$846,618
Energy Efficiency Board Consultants	\$41,913	\$43,333	\$43,333	\$128,579
Audits - Financial and Operational	\$10,000	\$10,000	\$10,000	\$30,000
Performance Management Incentive	\$1,347,734	\$459,606	\$696,820	\$2,504,160
Subtotal: Other - Administrative & Planning	\$2,035,586	\$1,454,074	\$1,620,324	\$5,109,984
TOTAL	\$23,467,632	\$17,873,100	\$16,898,463	\$58,239,195

#### Combined Natural Gas Table A1 (2022)

2022 Natural Gas EE Budget	2022 Eversource CT Gas Proposed Budget 03/01/22	2022 CNG Proposed Budget 03/01/22	2022 SCG Proposed Budget 03/01/22	2022 Eversource CT Gas/ CNG/SCG Combined Total 03/01/22
	RESID	ENTIAL		
Residential New Construction	\$519,889	\$480,480	\$533,018	\$1,533,386
Home Energy Solutions	\$1,811,975	\$2,689,119	\$1,994,681	\$6,495,775
HVAC & Water Heating Equipment	\$3,752,230	\$1,356,035	\$1,412,138	\$6,520,403
HES-Income Eligible	\$3,395,274	\$3,735,755	\$2,663,429	\$9,794,459
Residential Behavior	\$10,000	\$133,391	\$118,187	\$261,578
Subtotal: Residential EE Portfolio	\$9,489,368	\$8,394,780	\$6,721,453	\$24,605,601
Subtotal. Residential EL Portiono		. & INDUSTRIAL	30,721,433	324,003,001
Francisco Disercial			Ć4 200 004	¢c c52 000
Energy Conscious Blueprint	\$3,743,509	\$1,708,701	\$1,200,881	\$6,653,090
Energy Opportunities	\$1,497,489	\$1,011,722	\$822,946	\$3,332,156
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	\$473,952	\$536,581	\$369,558	\$1,380,092
Small Business	\$487,947	\$433,485	\$314,296	\$1,235,728
Subtotal: C&I EE Portfolio	\$6,202,896	\$3,690,489	\$2,707,681	\$12,601,066
	OTHER - LOAD	MANAGEMENT		
Residential Demand Response	\$ -	\$72,927	\$198,352	\$271,279
C&I Demand Response	\$ -	\$183,176	\$183,176	\$366,352
Subtotal: Load Management	\$ -	\$256,103	\$381,528	\$637,631
	OTHER - EDUCATION	ON & ENGAGEMENT		
Energy Education	\$76,667	\$76,667	\$76,667	\$230,001
Workforce Development	\$82,667	\$82,667	\$82,667	\$248,000
Community Outreach	\$80,000	\$80,000	\$80,000	\$240,000
Customer Engagement Initiative	\$70,000	\$50,000	\$50,000	\$170,000
Subtotal: Education & Engagement	\$309,333	\$289,334	\$289,334	\$888,001
		MS/REQUIREMENTS	7=00,00	7555,652
Residential Loan Program (includes ECLF/OBR)	\$84,523	\$86,292	\$86,292	\$257,107
C&I Financing Support	\$93,905	\$20,000	\$75,000	\$188,905
Research, Development and Demonstration	\$50,000	\$50,000	\$50,000	\$150,000
Subtotal: Programs/Requirements	\$228,428	\$156,292	\$211,292	\$596,012
	OTHER - ADMINIST	RATIVE & PLANNING		
Administration	\$150,933	\$188,011	\$188,007	\$526,951
Marketing Plan	\$40,100	\$40,100	\$40,100	\$120,300
Planning	\$79,158	\$122,148	\$63,502	\$264,808
Evaluation Measurement and Verification	\$300,000	\$300,000	\$300,000	\$900,000
Evaluation Administrator	\$29,607	\$29,607	\$29,607	\$88,821
Information Technology	\$140,726	\$584,822	\$609,473	\$1,335,021
Energy Efficiency Board Consultants	\$53,333	\$53,333	\$53,333	\$159,999
Audits - Financial and Operational	\$10,000	\$10,000	\$10,000	\$30,000
Performance Management Incentive	\$847,047	\$701,104	\$575,618	\$2,123,769
Subtotal: Other - Administrative & Planning	\$1,650,904	\$2,029,124	\$1,869,640	\$5,549,669
TOTAL	\$17,880,931	\$14,816,121	\$12,180,928	\$44,877,980

#### Combined Natural Gas Table A1 (2023)

2023 Natural Gas EE Budget	2023 Eversource CT Gas Proposed Budget 03/01/22	2023 CNG Proposed Budget 03/01/22	2023 SCG Proposed Budget 03/01/22	2023 Eversource CT Gas/ CNG/SCG Combined Total 03/01/22
·	RESIDI	ENTIAL		
Residential New Construction	\$635,403	\$587,523	\$650,953	\$1,873,879
Home Energy Solutions	\$2,437,902	\$2,966,300	\$2,562,059	\$7,966,261
HVAC & Water Heating Equipment	\$4,641,653	\$1,627,346	\$1,807,236	\$8,076,234
HES-Income Eligible	\$4,217,953	\$4,248,283	\$3,426,508	\$11,892,743
Residential Behavior	\$10,000	\$152,234	\$147,656	\$309,890
Subtotal: Residential EE Portfolio	\$11,942,911	\$9,581,687	\$8,594,411	\$30,119,009
Subtotal. Residential EL Fortiollo		& INDUSTRIAL	70,334,411	<b>430,113,003</b>
Francis Conscious Physicist			¢1 c27 0c0	Ć7 007 711
Energy Conscious Blueprint	\$4,285,543	\$1,975,108	\$1,627,060	\$7,887,711
Energy Opportunities	\$3,912,565	\$1,152,718	\$1,072,738	\$6,138,021
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	\$727,122	\$608,763	\$481,971	\$1,817,856
Small Business	\$751,883	\$475,582	\$296,671	\$1,524,135
Subtotal: C&I EE Portfolio	\$9,677,112	\$4,212,170	\$3,478,441	\$17,367,723
	OTHER - LOAD	MANAGEMENT		
Residential Demand Response	\$ -	\$151,003	\$206,534	\$357,537
C&I Demand Response	\$ -	\$187,385	\$200,260	\$387,645
Subtotal: Load Management	\$-	\$338,387	\$406,794	\$745,181
	OTHER - EDUCATIO	N & ENGAGEMENT		
Energy Education	\$76,667	\$76,667	\$76,667	\$230,000
Workforce Development	\$82,667	\$82,667	\$82,667	\$248,000
Community Outreach	\$80,000	\$80,000	\$80,000	\$240,000
Customer Engagement Initiative	\$70,000	\$50,000	\$50,000	\$170,000
Subtotal: Education & Engagement	\$309,333	\$289,334	\$289,333	\$888,000
<u> </u>	OTHER - PROGRAM	1S/REQUIREMENTS		
Residential Loan Program (includes ECLF/OBR)	\$84,523	\$86,292	\$86,292	\$257,107
C&I Financing Support	\$93,905	\$20,000	\$75,000	\$188,905
Research, Development and Demonstration	\$50,000	\$50,000	\$50,000	\$150,000
Subtotal: Programs/Requirements	\$228,428	\$156,292	\$211,292	\$596,012
, , ,		RATIVE & PLANNING		, , .
Administration	\$150,933	\$188,011	\$188,007	\$526,951
Marketing Plan	\$40,100	\$40,100	\$40,100	\$120,300
Planning	\$79,158	\$122,148	\$63,502	\$264,808
Evaluation Measurement and Verification	\$300,000	\$300,000	\$300,000	\$900,000
Evaluation Administrator	\$29,607	\$29,607	\$29,607	\$88,821
Information Technology	\$140,726	\$284,822	\$332,473	\$758,021
Energy Efficiency Board Consultants	\$53,333	\$53,333	\$53,333	\$159,999
Audits - Financial and Operational Performance Management Incentive	\$10,000	\$10,000	\$10,000	\$30,000
Subtotal: Other - Administrative & Planning	\$1,143,435	\$775,647	\$695,218	\$2,614,300
Subtotal: Other - Administrative & Planning	\$1,947,292	\$1,803,668	\$1,712,240 \$14,692,511	\$5,463,200

#### Combined Natural Gas Table A1 (2024)

2024 Natural Gas EE Budget	2024 Eversource CT Gas Proposed Budget 03/01/22	2024 CNG Proposed Budget 03/01/22	2024 SCG Proposed Budget 03/01/22	2024 Eversource CT Gas/ CNG/SCG Combined Total 03/01/22
'	RESID	ENTIAL		
Residential New Construction	\$635,403	\$562,810	\$673,793	\$1,872,005
Home Energy Solutions	\$2,853,980	\$2,954,523	\$2,545,775	\$8,354,279
HVAC & Water Heating Equipment	\$4,641,653	\$1,574,394	\$1,823,107	\$8,039,154
HES-Income Eligible	\$4,217,953	\$4,305,853	\$3,506,727	\$12,030,533
Residential Behavior	\$10,000	\$151,745	\$153,821	\$315,565
Subtotal: Residential EE Portfolio	\$12,358,989	\$9,549,324	\$8,703,223	\$30,611,536
	COMMERCIAL	& INDUSTRIAL		
Energy Conscious Blueprint	\$4,285,543	\$2,032,228	\$1,647,316	\$7,965,087
Energy Opportunities	\$3,914,766	\$1,182,949	\$1,086,025	\$6,183,740
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	\$727,122	\$624,239	\$487,917	\$1,839,278
Small Business	\$751,883	\$484,608	\$299,602	\$1,536,092
Subtotal: C&I EE Portfolio	\$9,679,313	\$4,324,023	\$3,520,860	\$17,524,196
		MANAGEMENT		
Residential Demand Response	\$ -	\$156,408	\$214,717	\$371,125
C&I Demand Response	\$ -	\$191,720	\$204,981	\$396,701
Subtotal: Load Management	\$ -	\$348,128	\$419,698	\$767,826
	OTHER - EDUCATIO	N & ENGAGEMENT		
Energy Education	\$76,667	\$76,667	\$76,667	\$230,000
Workforce Development	\$82,667	\$82,667	\$82,667	\$248,000
Community Outreach	\$80,000	\$80,000	\$80,000	\$240,000
Customer Engagement Initiative	\$70,000	\$50,000	\$50,000	\$170,000
Subtotal: Education & Engagement	\$309,333	\$289,334	\$289,333	\$888,000
	OTHER - PROGRAM	IS/REQUIREMENTS		
Residential Loan Program (includes ECLF/OBR)	\$84,523	\$86,292	\$86,292	\$257,107
C&I Financing Support	\$93,905	\$20,000	\$75,000	\$188,905
Research, Development and Demonstration	\$50,000	\$50,000	\$50,000	\$150,000
Subtotal: Programs/Requirements	\$228,428	\$156,292	\$211,292	\$596,012
		RATIVE & PLANNING		T
Administration	\$150,933	\$188,011	\$188,007	\$526,951
Marketing Plan	\$40,100	\$40,100	\$40,100	\$120,300
Planning	\$79,158	\$122,148	\$63,502	\$264,808
Evaluation Measurement and Verification	\$300,000	\$300,000	\$300,000	\$900,000
Evaluation Administrator	\$29,607	\$29,607	\$29,607	\$88,821
Information Technology	\$140,726	\$260,822	\$310,473	\$712,021
Energy Efficiency Board Consultants  Audits - Financial and Operational	\$53,333 \$10,000	\$53,333 \$10,000	\$53,333 \$10,000	\$159,999 \$30,000
Performance Management Incentive	\$10,000	\$778,909	\$702,324	\$2,645,582
Subtotal: Other - Administrative & Planning	\$1,968,206	\$1,782,929	\$1,697,346	\$5,448,482
TOTAL	\$24,544,270	\$16,450,030	\$14,841,752	\$55,836,052

Combined Natural Gas Table A2 (2021-2024)

Table A2
Eversource CT Gas, CNG, and SCG
2021-2024 Natural Gas Revenues

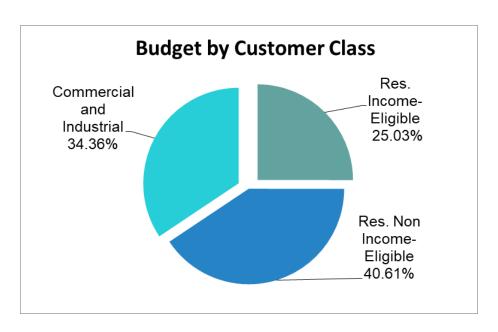
Natural Gas EE Revenues	2021 Eversource CT Gas Revenues 12/31/2021	2021 CNG Revenues 12/31/2021	2021 SCG Revenues 12/31/2021	2021 Combined Eversource CT Gas/CNG/SCG Total	2022 Eversource CT Gas Revenues 03/01/2022	2022 CNG Revenues 03/01/2022	2022 SCG Revenues 03/01/2022	2022 Combined Eversource CT Gas/CNG/SCG Total
Conservation Adjustment Mechanism (CAM)	\$20,313,057	\$12,802,369	\$12,794,098	\$45,909,524	\$23,884,574	\$16,359,809	\$14,460,200	\$54,704,583
Prior Period Over/(Under) Collections	-\$3,258,358	-\$2,210,145	-\$1,755,578	-\$7,224,081	-\$3,204,705	-\$681,921	-\$555,038	-\$4,441,663
Prior Period Under/(Over) Budget	\$448,806	\$5,102,519	\$3,188,750	\$8,740,075	-\$2,798,938	-\$1,121,804	-\$1,805,045	-\$5,725,787
Interest Due to Company/Other Revenues	\$ -	\$374,633	\$311,093	\$685,726	\$ -	\$260,037	\$80,810	\$340,847
Total Revenues	\$17,503,505	\$16,069,376	\$14,538,363	\$48,111,245	\$17,880,931	\$14,816,121	\$12,180,928	\$44,877,980

Natural Gas EE Revenues	2023 Eversource CT Gas Revenues 03/01/2022	2023 CNG Revenues 03/01/2022	2023 SCG Revenues 03/01/2022	2023 Combined Eversource CT Gas/CNG/SCG Total	2024 Eversource CT Gas Revenues 03/01/2022	2024 CNG Revenues 03/01/2022	2024 SCG Revenues 03/01/2022	2024 Combined Eversource CT Gas/CNG/SCG Total
Conservation Adjustment Mechanism (CAM)	\$24,105,077	\$16,381,537	\$14,692,511	\$55,179,125	\$24,544,270	\$16,450,030	\$14,841,752	\$55,836,052
Total Revenues	\$24,105,077	\$16,381,537	\$14,692,511	\$55,179,125	\$24,544,270	\$16,450,030	\$14,841,752	\$55,836,052

All Figures are net of GET. All Companies are decoupled.

#### Combined Natural Gas Table A1 Pie Chart (2022)

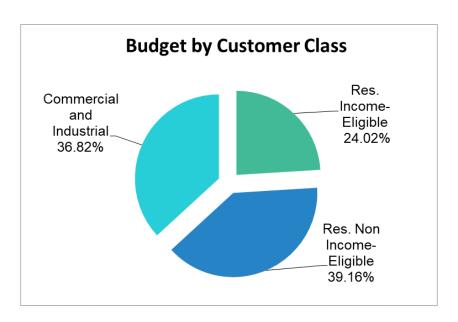
## Statewide 2022 Update Budget Analysis Table A1 Pie Chart



Customer Class	Budget*	% of Total Budget	% of Residential and C&I Budget
Res. Income-Eligible	\$9,836,720	21.92%	25.03%
Res. Non Income-Eligible	\$15,957,507	35.56%	40.61%
Residential Subtotal	\$25,794,227	57.48%	65.64%
Commercial and Industrial	\$13,504,384	30.09%	34.36%
C&I Subtotal	\$13,504,384	30.09%	34.36%
Residential and C&I Subtotal	\$39,298,611	87.57%	100.00%
Other Expenditures			
Other Expenditures	\$5,579,369	12.43%	
Other Expenditures Subtotal	\$5,579,369	12.43%	
TOTAL	\$44,877,980	100.00%	
Eversource CT Gas	\$17,880,931	39.84%	
CNG	\$14,816,121	33.01%	
scg	\$12,180,928	27.14%	

#### Combined Natural Gas Table A1 Pie Chart (2023)

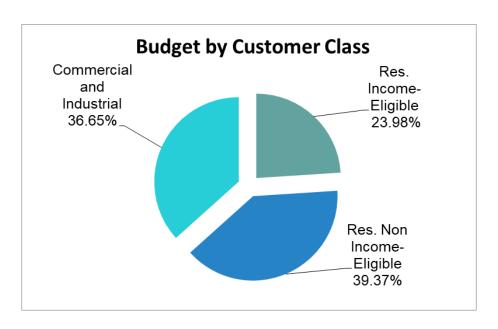
## Statewide 2023 Update Budget Analysis Table A1 Pie Chart



Customer Class	Budget*	% of Total Budget	% of Residential and C&I Budget
Res. Income-Eligible	\$11,935,005	21.63%	24.02%
Res. Non Income-Eligible	\$19,458,888	35.26%	39.16%
Residential Subtotal	\$31,393,893	56.89%	63.18%
Commercial and Industrial	\$18,292,333	33.15%	36.82%
C&I Subtotal	\$18,292,333	33.15%	36.82%
Residential and C&I Subtotal	\$49,686,225	90.05%	100.00%
Other Expenditures			
Other Expenditures	\$5,492,899	9.95%	
Other Expenditures Subtotal	\$5,492,899	9.95%	
TOTAL	\$55,179,125	100.00%	
Eversource CT Gas	\$24,105,077	43.69%	
CNG	\$16,381,537	29.69%	
scg	\$14,692,511	26.63%	

#### Combined Natural Gas Table A1 Pie Chart (2024)

## Statewide 2024 Update Budget Analysis Table A1 Pie Chart



Customer Class	Budget*	% of Total Budget	% of Residential and C&I Budget
Res. Income-Eligible	\$12,072,794	21.62%	23.98%
Res. Non Income-Eligible	\$19,827,214	35.51%	39.37%
Residential Subtotal	\$31,900,008	57.13%	63.35%
Commercial and Industrial	\$18,457,863	33.06%	36.65%
C&I Subtotal	\$18,457,863	33.06%	36.65%
Residential and C&I Subtotal	\$50,357,871	90.19%	100.00%
Other Expenditures			
Other Expenditures	\$5,478,182	9.81%	
Other Expenditures Subtotal	\$5,478,182	9.81%	
TOTAL	\$55,836,052	100.00%	
ES CT Gas	\$24,544,270	43.96%	
CNG	\$16,450,030	29.46%	
SCG	\$14,841,752	26.58%	

Totals may vary due to rounding.

<sup>\*</sup>Please see attached Budget Allocation Table.

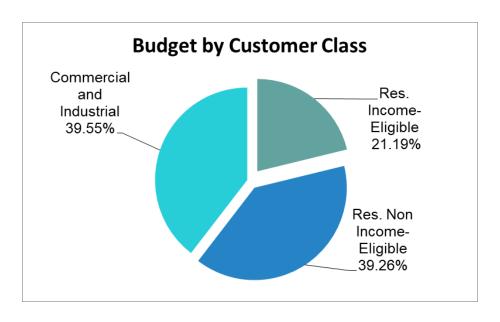
#### E.6 EVERSOURCE (NATURAL GAS) BUDGET AND SAVINGS TABLES

Table A – Eversource Natural Gas (2021-2024)

Eversource CT Gas EE Budget		2021 rsource CT Gas Actual Results 12/31/2021		2022 rsource CT Gas Proposed Budget 03/01/2022		2023 ersource CT Gas Proposed Budget 03/01/2022		2024 Source CT Gas Proposed Budget 03/01/2022
		RESIDENTIA	AL					
Residential New Construction	\$	822,508	\$	519,889	\$	635,403	\$	635,403
Home Energy Solutions	\$	4,608,942	\$	1,811,975	\$	2,437,902	\$	2,853,980
HVAC & Domestic Water Heating	\$	4,394,965	\$	3,752,230	\$	4,641,653	\$	4,641,653
HES-Income Eligible	\$	6,126,982	\$	3,395,274	\$	4,217,953	\$	4,217,953
Residential Behavior	\$		\$		\$		\$	10,000
Subtotal: Residential EE Portfolio	\$	15,953,396	\$	9,489,368	\$	11,942,911	\$	12,358,989
Subtotal. Residential EL Portiono		MMERCIAL & IN			۲	11,542,511	۲	12,330,363
Energy Conscious Blueprint	\$	3,754,255	\$	3,743,509	\$	4,285,543	\$	4,285,543
· · · · · · · · · · · · · · · · · · ·	_		-		-		_	
Energy Opportunities	\$	732,274	\$	1,497,489	\$	3,912,565	\$	3,914,766
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	\$	408,183	\$	473,952	\$	727,122	\$	727,122
Small Business	\$	270,988	\$	487,947	\$	751,883	\$	751,883
Subtotal: C&I EE Portfolio	\$	5,165,700	\$	6,202,896	\$	9,677,112	\$	9,679,313
	OTHER	- EDUCATION &	ENGAG	EMENT				
Energy Education	\$	31,386	\$	76,667	\$	76,667	\$	76,667
Workforce Development	\$	22,485	\$	82,667	\$	82,667	\$	82,667
Community Outreach	\$	36,300	\$	80,000	\$	80,000	\$	80,000
Customer Engagement Initiative	\$	137,851	\$	70,000	\$	70,000	\$	70,000
Subtotal: Education & Engagement	\$	228,023	\$	309,333	\$	309,333	\$	309,333
	OTHER	- PROGRAMS/R	EQUIREI	MENTS				
Residential Loan Program (includes ECLF and OBR)	\$	77,705	\$	84,523	\$	84,523	\$	84,523
C&I Financing Support	\$	2,427	\$	93,905	\$	93,905	\$	93,905
Research, Development and Demonstration	\$	4,795	\$	50,000	\$	50,000	\$	50,000
Subtotal: Programs/Requirements	\$	84,927	\$	228,428	\$	228,428	\$	228,428
		ADMINISTRATIV						
Administration	\$	81,568	\$	150,933	\$	150,933	\$	150,933
Marketing Plan	\$	58,999	\$	40,100	\$	40,100	\$	40,100
Planning	\$	88,185	\$	79,158	\$	79,158	\$	79,158
Evaluation Measurement and Verification	\$	200,000	\$	300,000	\$	300,000	\$	300,000
Evaluation Administrator Information Technology	\$	28,548 178,639	\$ \$	29,607 140,726	\$ \$	29,607 140,726	\$ \$	29,607 140,726
Energy Efficiency Board Consultants	\$	41,913	, \$	53,333	\$	53,333	\$	53,333
Audits - Financial and Operational	\$	10,000	\$	10,000	\$	10,000	\$	10,000
Performance Management Incentive	\$	1,347,734	\$	847,047	\$	1,143,435	\$	1,164,349
Subtotal: Other - Administrative & Planning	\$	2,035,586	\$	1,650,904	\$	1,947,292	\$	1,968,206
TOTAL	\$	23,467,632	\$	17,880,931	\$	24,105,077	\$	24,544,270

#### Table A Pie Chart - Eversource Natural Gas (2022)

## Eversource CT Gas 2022 Budget Analysis



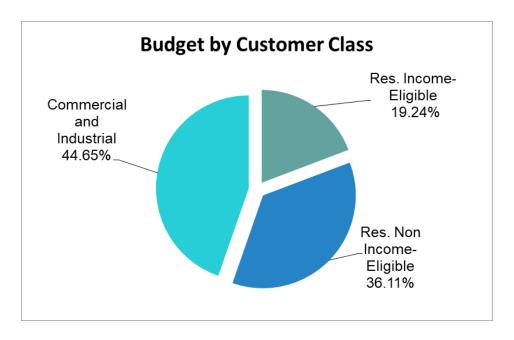
Customer Class	Budget*	% of Total Budget	% of Residential and C&I Budget
Res. Income-Eligible	\$3,437,536	19.22%	21.19%
Res. Non Income-Eligible	\$6,367,103	35.61%	39.26%
Residential Subtotal	\$9,804,638	54.83%	60.45%
Commercial and Industrial	\$6,415,489	35.88%	39.55%
C&I Subtotal	\$6,415,489	35.88%	39.55%
Residential and C&I Subtotal	\$16,220,127	90.71%	100.00%
	Other Expenditures		
Other Expenditures	\$1,660,804	9.29%	
Other Expenditures Subtotal	\$1,660,804	9.29%	
TOTAL	\$17,880,931	100.00%	

Totals may vary due to rounding.

<sup>\*</sup>Please see attached Budget Allocation Table.

#### Table A Pie Chart - Eversource Natural Gas (2023)

## Eversource CT Gas 2023 Budget Analysis



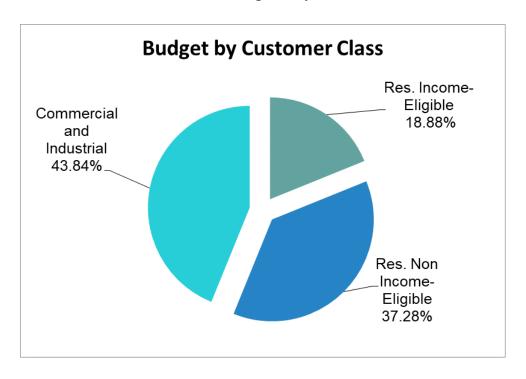
Customer Class	Budget*	% of Total Budget	% of Residential and C&I Budget
Res. Income-Eligible	\$4,260,214	17.67%	19.24%
Res. Non Income-Eligible	\$7,997,967	33.18%	36.11%
Residential Subtotal	\$12,258,181	50.85%	55.35%
Commercial and Industrial	\$9,889,704	41.03%	44.65%
C&I Subtotal	\$9,889,704	41.03%	44.65%
Residential and C&I Subtotal	\$22,147,885	91.88%	100.00%
Other Expenditures			
Other Expenditures	\$1,957,192	8.12%	
Other Expenditures Subtotal	\$1,957,192	8.12%	
		ı	ı
TOTAL	\$24,105,077	100.00%	

Totals may vary due to rounding.

<sup>\*</sup>Please see attached Budget Allocation Table.

#### Table A Pie Chart - Eversource Natural Gas (2024)

## Eversource CT Gas 2024 Budget Analysis



Customer Class	Budget*	% of Total Budget	% of Residential and C&I Budget
Res. Income-Eligible	\$4,260,214	17.36%	18.88%
Res. Non Income-Eligible	\$8,414,045	34.28%	37.28%
Residential Subtotal	\$12,674,259	51.64%	56.16%
Commercial and Industrial	\$9,891,905	40.30%	43.84%
C&I Subtotal	\$9,891,905	40.30%	43.84%
Residential and C&I Subtotal	\$22,566,164	91.94%	100.00%
Other Expenditures			
Other Expenditures	\$1,978,106	8.06%	
Other Expenditures Subtotal	\$1,978,106	8.06%	
TOTAL	\$24,544,270	100.00%	

Totals may vary due to rounding.

<sup>\*</sup>Please see attached Budget Allocation Table.

#### Eversource Natural Gas Table A Budget Allocation (2022-2024)

Table A Pie Sector Allocation									
	Residential	C&I	Other						
OTHER - EDUCATION 8	ENGAGEMENT								
Energy Education	80%	20%	0%						
Workforce Development	50%	50%	0%						
Community Outreach	50%	50%	0%						
Customer Engagement Initiative	80%	20%	0%						
OTHER - PROGRAMS/	REQUIREMENTS								
Residential Loan Program	100%	0%	0%						
C&I Financing Support	0%	100%	0%						
Research, Development & Demonstration	0%	0%	100%						
OTHER - ADMINISTRAT	IVE & PLANNING								
Administration	0%	0%	100%						
Marketing Plan	80%	20%	0%						
Planning	0%	0%	100%						
Evaluation Measurement and Verification	0%	0%	100%						
Evaluation Administrator	0%	0%	100%						
Information Technology	0%	0%	100%						
Energy Efficiency Board Consultants	0%	0%	100%						
Audit - Financial and Operational	0%	0%	100%						
Performance Management Incentive	0%	0%	100%						

Note: Core Residential and C&I programs that produce savings are allocated 100% to the Residential and C&I sectors, respectively. Other programs budgets are allocated to both Residential and C&I sectors based on an estimated percentage of the sector that those dollars will directly benefit by the percentages above.

#### Table B – Eversource Natural Gas (2022)

		Costs (\$000)		ı	Benefits (\$000	))	Benefit	Cost Ratios	Quantities		
2022 ES Gas	Utility Cost	Modified Utility Cost	Total Resource Cost	Utility Benefit	Modified Utility Benefit	Total Resource Benefit	Utility Cost Test	Total Resource Cost Test	No. of Units	Units of Measure	
				Resid	ential						
Retail Products	\$ -	\$ -	\$ -	\$-	\$-	\$-	-	-	-	-	
New Construction	\$520	\$520	\$927	\$1,697	\$1,697	\$3,307	3.26	3.57	254	Homes	
Home Energy Solutions	\$1,812	\$1,812	\$1,912	\$1,703	\$1,703	\$3,253	0.94	1.70	1,674	Homes	
HVAC & Water Heating Equipment	\$3,752	\$3,752	\$5,918	\$6,495	\$6,495	\$12,517	1.73	2.12	13,567	Products	
HES-Income Eligible	\$3,395	\$3,395	\$4,081	\$2,273	\$2,273	\$6,016	0.67	1.47	3,535	Homes	
Behavior	\$10	\$10	\$10	\$10	\$10	\$17	1.00	1.75	22,000	Customers	
Subtotal: Residential	\$9,489	\$9,489	\$12,848	\$12,179	\$12,179	\$25,110	1.28	1.95	-	-	
				Commercial	& Industrial						
Energy Conscious Blueprint	\$3,744	\$3,744	\$4,067	\$3,993	\$3,993	\$8,342	1.07	2.05	21	Projects	
Energy Opportunities	\$1,497	\$1,497	\$2,392	\$1,315	\$1,315	\$2,759	0.88	1.15	59	Projects	
BES	\$474	\$474	\$732	\$772	\$772	\$1,549	1.63	2.12	11	Projects	
Small Business	\$488	\$488	\$862	\$497	\$497	\$1,019	1.02	1.18	303	Projects	
Subtotal: C&I	\$6,203	\$6,203	\$8,053	\$6,578	\$6,578	\$13,669	1.06	1.70		-	
				ОТ	HER	1					
Subtotal: Other	\$2,189	\$2,189	\$2,189	\$-	\$ -	\$-	-	-	-	-	
TOTAL	\$17,881	\$17,881	\$23,089	\$18,757	\$18,757	\$38,780	1.05	1.68		-	

Table B – Eversource Natural Gas (2022) (continued)

		Gas Savings			Gas Co	ost Rates			MMBtu Sa	vings		Emissio	ns Savings
2022 ES Gas	Annual Savings (ccf)	Lifetime Savings (ccf)	Peak Savings (ccf)	Gas Cost Rate \$/ccf Annual	Gas Cost Ratio \$/LT-ccf	Gas Demand Cost \$/ccf	Gas Demand Cost \$/LT-ccf	Annual MMBtu	Lifetime MMBtu	Cost per Annua I MMBt u	Cost per Lifetime MMBtu	Annual Tons CO2	Lifetime Tons CO2
						Residenti	al						
Retail Products	-	-	-	-	-	-	-	-	-	-	-	-	-
New Construction	89,499	2,237,484	787	\$5.809	\$0.232	\$660	\$26	9,209	230,237	\$56	\$2	662	16,559
Home Energy Solutions	103,230	2,112,234	976	\$17.553	\$0.86	\$1,856	\$91	10,622	217,349	\$171	\$8	764	15,632
HVAC & Water Heating Equipment	433,103	8,134,612	3,872	\$8.664	\$0.461	\$969	\$52	44,566	837,052	\$84	\$4	3,205	60,201
HES-Income Eligible	141,243	2,797,801	1,314	\$24.038	\$1.214	\$2,583	\$130	14,534	287,894	\$234	\$12	1,045	20,705
Behavior	9,218	9,218	90	\$1.085	\$1.085	\$111	\$111	949	949	\$11	\$11	68	68
Subtotal: Residential	776,294	15,291,349	7,040	\$12.224	\$0.621	\$1,348	\$68	79,881	1,573,480	\$119	\$6	5,745	113,165
					Cor	nmercial & Ir	dustrial						
Energy Conscious Blueprint	382,217	5,791,866	3,293	\$9.794	\$0.646	\$1,137	\$75	39,330	595,983	\$95	\$6	2,829	42,863
Energy Opportunities	184,451	1,872,118	1,010	\$8.119	\$0.800	\$1,483	\$146	18,980	192,641	\$79	\$8	1,365	13,855
BES	129,383	994,219	652	\$3.663	\$0.477	\$727	\$95	13,314	102,305	\$36	\$5	958	7,358
Small Business	56,974	682,360	490	\$8.564	\$0.715	\$996	\$83	5,863	70,215	\$83	\$7	422	5,050
Subtotal: C&I	753,025	9,340,563	5,444	\$8.237	\$0.664	\$1,139	\$92	77,486	961,144	\$80	\$6	5,573	69,126
						OTHER							
Subtotal: Other	-	-	-	-	\$ -	\$ -	\$ -	-	-	\$ -	\$ -	-	-
TOTAL	1,529,320	24,631,912	12,484	\$11.692	\$0.726	\$1,432	\$89	157,367	2,534,624	\$114	\$7	11,318	182,291

#### Table B – Eversource Natural Gas (2023)

		Costs (\$000)			Benefits (\$000	0)	Benefit	Cost Ratios	Qu	antities
2023 ES Gas	Utility Cost	Modified Utility Cost	Total Resource Cost	Utility Benefit	Modified Utility Benefit	Total Resource Benefit	Utility Cost Test	Total Resource Cost Test	No. of Units	Units of Measure
			'	Resid	ential	'				
Retail Products	\$ -	\$-	\$ -	-	-	-	-	-	-	-
New Construction	\$635	\$635	\$1,157	\$2,481	\$2,481	\$4,850	3.91	4.19	324	Homes
Home Energy Solutions	\$2,438	\$2,438	\$2,438	\$2,416	\$2,416	\$4,674	0.99	1.92	2,450	Homes
HVAC & Water Heating Equipment	\$4,642	\$4,642	\$7,353	\$7,160	\$7,160	\$14,486	1.54	1.97	16,987	Products
HES-Income Eligible	\$4,218	\$4,218	\$4,263	\$2,911	\$2,911	\$7,770	0.69	1.82	4,530	Homes
Behavior	\$10	\$10	\$10	\$11	\$11	\$18	1.08	1.83	22,000	Customers
Subtotal: Residential	\$11,943	\$11,943	\$15,221	\$14,979	\$14,979	\$31,799	1.25	2.09	-	-
				Commercial	& Industrial					
Energy Conscious Blueprint	\$4,286	\$4,286	\$4,667	\$4,487	\$4,487	\$9,432	1.05	2.02	24	Projects
Energy Opportunities	\$3,913	\$3,913	\$6,901	\$4,413	\$4,413	\$9,336	1.13	1.35	196	Projects
BES	\$727	\$727	\$1,236	\$1,525	\$1,525	\$3,087	2.10	2.50	23	Projects
Small Business	\$752	\$752	\$1,388	\$852	\$852	\$1,758	1.13	1.27	515	Projects
Subtotal: C&I	\$9,677	\$9,677	\$14,192	\$11,278	\$11,278	\$23,612	1.17	1.66	-	-
				ОТ	HER					
Subtotal: Other	\$2,485	\$2,485	\$2,485	\$ -	\$ -	\$ -	-	-	-	-
TOTAL	\$24,105	\$24,105	\$31,898	\$26,256	\$26,256	\$55,411	1.09	1.74	-	-

Table B – Eversource Natural Gas (2023) (continued)

		Gas Savings			Gas C	ost Rates		MMBtu Savings				Emissio	ns Savings
2023 ES Gas	Annual Savings (ccf)	Lifetime Savings (ccf)	Peak Savings (ccf)	Gas Cost Rate \$/ccf Annual	Gas Cost Ratio \$/LT-ccf	Gas Demand Cost \$/ccf	Gas Demand Cost \$/LT-ccf	Annual MMBtu	Lifetime MMBtu	Cost per Annual MMBtu	Cost per Lifetime MMBtu	Annual Tons CO2	Lifetime Tons CO2
						Residenti	al						
Retail Products	-	-	-	-	-	-	-	-	-	-	-	-	-
New Construction	129,070	3,226,745	1,150	\$4.923	\$0.197	\$553	\$22	13,281	332,032	\$48	\$2	955	23,880
Home Energy Solutions	147,435	3,018,284	1,393	\$16.535	\$0.808	\$1,750	\$85	15,171	310,581	\$161	\$8	1,091	22,337
HVAC & Water Heating Equipment	517,922	9,700,981	4,848	\$8.962	\$0.478	\$958	\$51	53,294	998,231	\$87	\$5	3,833	71,793
HES-Income Eligible	181,308	3,591,979	1,687	\$23.264	\$1.174	\$2,500	\$126	18,657	369,615	\$226	\$11	1,342	26,583
Behavior	9,218	9,218	90	\$1.085	\$1.085	\$111	\$111	949	949	\$11	\$11	68	68
Subtotal: Residential	984,953	19,547,207	9,167	\$12.125	\$0.611	\$1,303	\$66	101,352	2,011,408	\$118	\$6	7,289	144,661
					Cor	nmercial & Ir	ndustrial						
Energy Conscious Blueprint	446,483	6,429,084	3,882	\$9.598	\$0.667	\$1,104	\$77	45,943	661,553	\$93	\$6	3,304	47,579
Energy Opportunities	616,436	6,256,615	3,376	\$6.347	\$0.625	\$1,159	\$114	63,431	643,806	\$62	\$6	4,562	46,303
BES	255,025	1,959,686	1,285	\$2.851	\$0.371	\$566	\$74	26,242	201,652	\$28	\$4	1,887	14,503
Small Business	96,930	1,160,901	833	\$7.757	\$0.648	\$902	\$75	9,974	119,457	\$75	\$6	717	8,591
Subtotal: C&I	1,414,874	15,806,286	9,376	\$6.840	\$0.612	\$1,032	\$92	145,591	1,626,467	\$66	\$6	10,471	116,976
						OTHER							
Subtotal: Other	-	-	-	\$ -	\$ -	\$ -	\$ -	-	-	-	-	-	-
TOTAL	2,399,827	35,353,493	18,543	\$10.045	\$0.682	\$1,300	\$88	246,942	3,637,874	\$98	\$7	17,760	261,637

#### Table B – Eversource Natural Gas (2024)

		Costs (\$000)			Benefits (\$000	D)	Benefit	Cost Ratios	Qu	antities
2024 ES Gas	Utility Cost	Modified Utility Cost	Total Resource Cost	Utility Benefit	Modified Utility Benefit	Total Resource Benefit	Utility Cost Test	Total Resource Cost Test	No. of Units	Units of Measure
				Resid	lential					'
Retail Products	\$ -	\$ -	\$ -	-	\$ -	\$ -	-	-		-
New Construction	\$635	\$635	\$1,153	2,487	\$2,487	\$4,892	3.91	4.24	323	Homes
Home Energy Solutions	\$2,854	\$2,854	\$2,854	2,845	\$2,845	\$5,554	1.00	1.95	3,064	Homes
HVAC & Water Heating Equipment	\$4,642	\$4,642	\$7,351	7,181	\$7,181	\$14,650	1.55	1.99	16,977	Products
HES-Income Eligible	\$4,218	\$4,218	\$5,092	2,904	\$2,904	\$7,797	0.69	1.53	4,511	Homes
Behavior	\$10	\$10	\$10	10	\$10	\$18	1.03	1.81	22,000	Customers
Subtotal: Residential	\$12,359	\$12,359	\$16,461	\$15,428	\$15,428	\$32,911	1.25	2.00		-
				Commercia	& Industrial					
Energy Conscious Blueprint	\$4,286	\$4,286	\$4,667	\$4,451	\$4,451	\$9,410	1.04	2.02	24	Projects
Energy Opportunities	\$3,915	\$3,915	\$6,884	\$4,402	\$4,402	\$9,391	1.12	1.36	195	Projects
BES	\$727	\$727	\$1,233	\$1,516	\$1,516	\$3,100	2.09	2.51	22	Projects
Small Business	\$752	\$752	\$1,386	\$856	\$856	\$1,776	1.14	1.28	514	Projects
Subtotal: C&I	\$9,679	\$9,679	\$14,169	\$11,225	\$11,225	\$23,678	1.16	1.67	-	-
				ОТ	HER					
Subtotal: Other	\$2,506	\$2,506	\$2,506	\$ -	\$ -	\$ -	-	-	-	-
TOTAL	\$24,544	\$24,544	\$33,136	\$26,652	\$26,652	\$56,588	1.09	1.71	-	-

Table B – Eversource Natural Gas (2024) (continued)

		Gas Savings			Gas C	ost Rates			MMBtu	Savings		Emissio	ns Savings
2024 ES Gas	Annual Savings (ccf)	Lifetime Savings (ccf)	Peak Savings (ccf)	Gas Cost Rate \$/ccf Annual	Gas Cost Ratio \$/LT-ccf	Gas Demand Cost \$/ccf	Gas Demand Cost \$/LT-ccf	Annual MMBtu	Lifetime MMBtu	Cost per Annual MMBtu	Cost per Lifetime MMBtu	Annual Tons CO2	Lifetime Tons CO2
						Residenti	al						
Retail Products	-	-	-	-	-	-	-	-	-	-	-	-	-
New Construction	128,517	3,212,921	1,145	\$4.944	\$0.198	\$555	\$22	13,224	330,610	\$48	\$2	951	23,778
Home Energy Solutions	174,052	3,547,954	1,641	\$16.397	\$0.804	\$1,739	\$85	17,910	365,084	\$159	\$8	1,288	26,257
HVAC & Water Heating Equipment	517,616.7	9,695,260	4,845	\$8.967	\$0.479	\$958	\$51	53,263	997,642	\$87	\$5	3,831	71,751
HES-Income Eligible	180,542	3,576,809	1,680	\$23.363	\$1.179	\$2,511	\$127	18,578	368,054	\$227	\$11	1,336	26,471
Behavior	9,218	9,218	90	\$1.085	\$1.085	\$111	\$111	949	949	\$11	\$11	68	68
Subtotal: Residential	1,009,946	20,042,162	9,400	\$12.237	\$0.617	\$1,315	\$66	103,923	2,062,338	\$119	\$6	7,474	148,324
					Cor	nmercial & Ir	ndustrial						
Energy Conscious Blueprint	439,271	6,321,465	3,874	\$9.756	\$0.678	\$1,106	\$77	45,201	650,479	\$95	\$7	3,251	46,783
Energy Opportunities	612,455	6,216,201	3,354	\$6.392	\$0.630	\$1,167	\$115	63,022	639,647	\$62	\$6	4,533	46,004
BES	253,677	1,949,328	1,278	\$2.866	\$0.373	\$569	\$74	26,103	200,586	\$28	\$4	1,877	14,426
Small Business	96,639	1,157,418	831	\$7.780	\$0.650	\$905	\$76	9,944	119,098	\$76	\$6	715	8,566
Subtotal: C&I	1,402,042	15,644,412	9,336	\$6.904	\$0.619	\$1,037	\$93	144,270	1,609,810	\$67	\$6	10,376	115,778
						OTHER							
Subtotal: Other	-	-	-	\$ -	\$ -	\$ -	\$ -	-	-	\$ -	\$ -	-	-
TOTAL	2,411,987	35,686,574	18,737	\$10.176	\$0.688	\$1,310	\$89	248,193	3,672,148	\$99	\$7	17,850	264,102

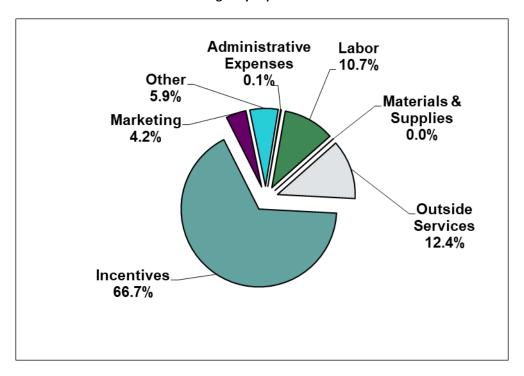
#### Table C – Eversource Natural Gas (2022)

Table C
Eversource CT Gas 2022 EE Budget Details

			Eversource	e CT Gas 2022 E	E Budget Details				
Eversource CT Gas EE BUDGET	Labor	Materials & Supplies	Outside Services	Contractor Labor	Incentives	Marketing	Other	Admin. Expenses	TOTAL
				RESIDENTIA	AL.				'
Residential New Construction	\$72,100	\$100	\$10,000	\$ -	\$406,689	\$26,000	\$2,000	\$3,000	\$519,889
Home Energy Solutions	\$207,350	\$500	\$303,000	\$24,963	\$1,094,162	\$170,000	\$7,000	\$5,000	\$1,811,975
HVAC & Water Heating Equipment	\$78,986	\$484	\$246,000	\$ -	\$3,305,660	\$120,000	\$100	\$1,000	\$3,752,230
HES-Income Eligible	\$376,073	\$500	\$113,000	\$33,964	\$2,607,738	\$250,000	\$6,000	\$8,000	\$3,395,274
Residential Behavior	\$ -	\$ -	\$10,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$10,000
Subtotal: Residential EE Portfolio	\$734,509	\$1,584	\$682,000	\$58,927	\$7,414,248	\$566,000	\$15,100	\$17,000	\$9,489,368
			CON	/MERCIAL & IN	DUSTRIAL				
Energy Conscious Blueprint	\$238,646	\$500	\$450,000	\$22,956	\$2,989,407	\$40,000	\$1,000	\$1,000	\$3,743,509
Energy Opportunities	\$395,939	\$500	\$134,538	\$22,320	\$894,192	\$42,000	\$6,000	\$2,000	\$1,497,489
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	\$86,993	\$100	\$110,000	\$837	\$258,022	\$16,000	\$1,000	\$1,000	\$473,952
Small Business	\$61,737	\$500	\$11,000	\$-	\$373,710	\$38,000	\$1,000	\$2,000	\$487,947
Subtotal: C&I EE Portfolio	\$783,315	\$1,600	\$705,538	\$46,113	\$4,515,331	\$136,000	\$9,000	\$6,000	\$6,202,896
			OTHER -	EDUCATION &	ENGAGEMENT				
Energy Education	\$6,924	\$ -	\$65,584	\$ -	\$ -	\$4,159	\$ -	\$ -	\$76,667
Workforce Development	\$6,924	\$ -	\$75,743	\$ -	\$ -	\$0	\$ -	\$ -	\$82,667
Community Outreach	\$4,333	\$ -	\$67,167	\$ -	\$ -	\$7,000	\$ -	\$1,500	\$80,000
Customer Engagement Initiative	\$11,000	\$ -	\$59,000	\$ -	\$-	\$0	\$ -	\$ -	\$70,000
Subtotal: Education & Engagement	\$29,181	\$ -	\$267,493	\$ -	\$-	\$11,159	\$ -	\$1,500	\$309,333
			OTHER -	PROGRAMS/RI	QUIREMENTS				
Residential Loan Program (ECLF/OBR)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$84,523	\$ -	\$84,523
C&I Financing Support	\$ -	\$ -	\$ -	\$-	\$ -	\$ -	\$93,905	\$ -	\$93,905
RD&D	\$14,853	\$ -	\$35,148	\$ -	\$ -	\$ -	\$ -	\$ -	\$50,000
Subtotal: Programs & Requirements	\$14,853	\$ -	\$35,148	\$ -	\$-	\$ -	\$178,428	\$ -	\$228,428
			OTHER - A	ADMINISTRATI\ 	E & PLANNING				1
Administration	\$118,023	\$ -	\$14,910	\$15,000	\$-	\$ -	\$2,000	\$1,000	\$150,933
Marketing Plan	\$ -	\$ -	\$ -	\$ -	\$ -	\$40,100	\$ -	\$ -	\$40,100
Planning	\$56,211	\$ -	\$20,000	\$2,947	\$ -	\$ -	\$ -	\$ -	\$79,158
EM&V	\$ -	\$ -	\$300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$300,000
Evaluation Administrator	\$ -	\$ -	\$29,607	\$ -	\$ -	\$ -	\$ -	\$ -	\$29,607
Information Technology	\$26,617	\$ -	\$88,776	\$25,333	\$ -	\$ -	\$ -	\$ -	\$140,726
EEB Consultants	\$ -	\$ -	\$53,333	\$ -	\$ -	\$ -	\$ -	\$ -	\$53,333
Audits - Financial and Operational	\$ -	\$ -	\$10,000	\$ -	\$-	\$ -	\$ -	\$ -	\$10,000
Performance Management Incentive	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$847,047	\$ -	\$847,047
Subtotal: Other	\$200,851	\$ -	\$516,626	\$43,280	\$ -	\$40,100	\$849,047	\$1,000	\$1,650,904
TOTAL BUDGET	\$1,762,708	\$3,184	\$2,206,805	\$148,320	\$11,929,579	\$753,259	\$1,051,575	\$25,500	\$17,880,931

#### Table C Pie Chart – Eversource Natural Gas (2022)

EVERSOURCE CT GAS 2022 Gas Conservation Budget By Expense Class



Expense Classes	Budget	% of Budget
Labor	\$ 1,911,028	10.7%
Materials & Supplies	\$ 3,184	0.0%
Outside Services	\$ 2,206,805	12.4%
Incentives	\$ 11,929,579	66.7%
Marketing	\$ 753,259	4.2%
Other	\$ 1,051,575	5.9%
Administrative Expenses	\$ 25,500	0.1%
Total	\$ 17,880,931	100.0%

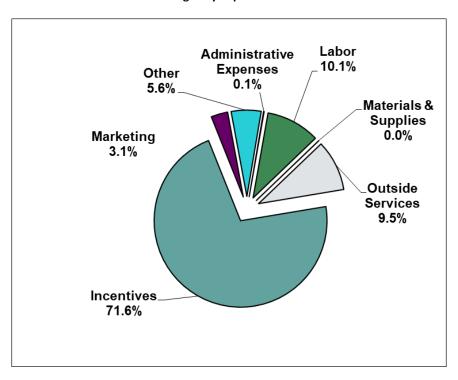
#### Table C – Eversource Natural Gas (2023)

Table C
Eversource CT Gas 2023 EE Budget Details

			Eversource	e CT Gas 2023 E	E Budget Details				
Eversource CT Gas EE BUDGET	Labor	Materials & Supplies	Outside Services	Contractor Labor	Incentives	Marketing	Other	Administrat ive Expenses	TOTAL
		Заррпез		RESIDENTIA	\L		<u> </u>	Expenses	
Residential New Construction	\$74,263	\$100	\$10,000	\$ -	\$520,040	\$26,000	\$2,000	\$3,000	\$635,403
Home Energy Solutions	\$264,891	\$500	\$363,000	\$24,963	\$1,602,549	\$170,000	\$7,000	\$5,000	\$2,437,902
HVAC & Water Heating Equipment	\$81,356	\$484	\$300,000	\$ -	\$4,138,713	\$120,000	\$100	\$1,000	\$4,641,653
HES-Income Eligible	\$469,755	\$500	\$113,000	\$33,964	\$3,336,734	\$250,000	\$6,000	\$8,000	\$4,217,953
Residential Behavior	\$ -	\$ -	\$10,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$10,000
Subtotal: Residential EE Portfolio	\$890,264	\$1,584	\$796,000	\$58,927	\$9,598,035	\$566,000	\$15,100	\$17,000	\$11,942,911
			CON	имеrcial & IN	DUSTRIAL				
Energy Conscious Blueprint	\$245,806	\$500	\$450,000	\$22,956	\$3,524,281	\$40,000	\$1,000	\$1,000	\$4,285,543
Energy Opportunities	\$716,817	\$500	\$134,538	\$22,320	\$2,988,390	\$42,000	\$6,000	\$2,000	\$3,912,565
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	\$89,603	\$100	\$110,000	\$837	\$508,582	\$16,000	\$1,000	\$1,000	\$727,122
Small Business	\$63,589	\$500	\$11,000	\$ -	\$635,794	\$38,000	\$1,000	\$2,000	\$751,883
Subtotal: C&I EE Portfolio	\$1,115,814	\$1,600	\$705,538	\$46,113	\$7,657,047	\$136,000	\$9,000	\$6,000	\$9,677,112
			OTHER -	EDUCATION &	ENGAGEMENT				
Energy Education	\$7,132	\$ -	\$65,376	\$ -	\$ -	\$4,159	\$ -	\$ -	\$76,667
Workforce Development	\$7,132	\$ -	\$75,535	\$ -	\$ -	\$ -	\$ -	\$ -	\$82,667
Community Outreach	\$4,463	\$ -	\$67,037	\$ -	\$ -	\$7,000	\$ -	\$1,500	\$80,000
Customer Engagement Initiative	\$11,330	\$ -	\$58,670	\$ -	\$ -	\$ -	\$ -	\$ -	\$70,000
Subtotal: Education & Engagement	\$30,056	\$ -	\$266,618	\$ -	\$-	\$11,159	\$ -	\$1,500	\$309,333
			OTHER -	PROGRAMS/RE	QUIREMENTS				
Residential Loan Program (ECLF/OBR)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$84,523	\$ -	\$84,523
C&I Financing Support	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$93,905	\$ -	\$93,905
RD&D	\$15,298	\$ -	\$34,702	\$ -	\$ -	\$ -	\$ -	\$ -	\$50,000
Subtotal: Programs & Requirements	\$15,298	\$ -	\$34,702	\$ -	\$ -	\$ -	\$178,428	\$ -	\$228,428
Administration	\$121,563	\$ -	\$11,370	\$15,000	\$ -	\$-	\$2,000	\$1,000	\$150,933
Administration  Marketing Plan	\$121,503	\$ -	\$11,370	\$15,000	\$ - \$ -	\$40,100	\$2,000	\$1,000	\$40,100
Planning	\$78,497	\$ -	· ·	\$661	\$ -	\$ -	\$ -	\$ -	\$79,158
EM&V	\$ -	\$ -	\$300,000	\$ -	\$-	\$ -	\$ -	\$ -	\$300,000
Evaluation Administrator	\$ -	\$ -	\$29,607	\$ -	\$ -	\$ -	\$ -	\$ -	\$29,607
Information Technology	\$27,415	\$ -	\$87,977	\$25,333	\$ -	\$ -	\$ -	\$ -	\$140,726
EEB Consultants	\$-	\$ -	\$53,333	\$-	\$ -	\$ -	\$ -	\$ -	\$53,333
Audits - Financial and Operational	\$ -	\$ -	\$10,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$10,000
Performance Management Incentive	\$-	\$ -	\$ -	\$ -	\$ -	\$-	\$1,143,435	\$ -	\$1,143,435
	6227.476	<u> </u>	¢402 207	¢40.004		¢40.100	¢4 445 435	ć1 000	¢1 047 202
Subtotal: Other	\$227,476	\$ -	\$492,287	\$40,994	\$ -	\$40,100	\$1,145,435	\$1,000	\$1,947,292

#### Table C Pie Chart – Eversource Natural Gas (2023)

EVERSOURCE CT GAS 2023 Gas Conservation Budget By Expense Class



Expense Classes	Budget	% of Budget
Labor	\$ 2,424,943	10.1%
Materials & Supplies	\$ 3,184	0.0%
Outside Services	\$ 2,295,145	9.5%
Incentives	\$ 17,255,082	71.6%
Marketing	\$ 753,259	3.1%
Other	\$ 1,347,963	5.6%
Administrative Expenses	\$ 25,500	0.1%
Total	\$ 24,105,077	100.0%

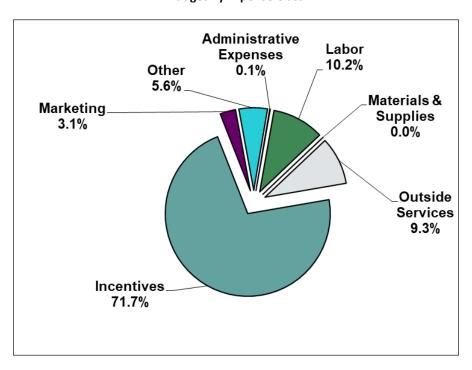
#### Table C – Eversource Natural Gas (2024)

Table C
Eversource CT Gas 2024 EE Budget Details

			Eversource	e CT Gas 2024 E	E Budget Details				
Eversource CT Gas EE BUDGET	Labor	Materials & Supplies	Outside Services	Contractor Labor	Incentives	Marketing	Other	Admin. Expenses	TOTAL
	·	- пррисо	<u>'</u>	RESIDENTIA	AL				<u>'</u>
Residential New Construction	\$76,491	\$100	\$10,000	\$ -	\$517,812	\$26,000	\$2,000	\$3,000	\$635,403
Home Energy Solutions	\$278,838	\$500	\$363,000	\$24,963	\$2,004,680	\$170,000	\$7,000	\$5,000	\$2,853,980
HVAC & Water Heating Equipment	\$83,796	\$484	\$300,000	\$ -	\$4,136,272	\$120,000	\$100	\$1,000	\$4,641,653
HES-Income Eligible	\$483,847	\$500	\$113,000	\$33,964	\$3,322,641	\$250,000	\$6,000	\$8,000	\$4,217,953
Residential Behavior	\$ -	\$ -	\$10,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$10,000
Subtotal: Residential EE Portfolio	\$922,972	\$1,584	\$796,000	\$58,927	\$9,981,405	\$566,000	\$15,100	\$17,000	\$12,358,989
			CON	/MERCIAL & IN	DUSTRIAL				
Energy Conscious Blueprint	\$253,180	\$500	\$450,000	\$22,956	\$3,516,907	\$40,000	\$1,000	\$1,000	\$4,285,543
Energy Opportunities	\$738,321	\$500	\$134,538	\$22,320	\$2,969,086	\$42,000	\$6,000	\$2,000	\$3,914,766
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	\$92,291	\$100	\$110,000	\$837	\$505,894	\$16,000	\$1,000	\$1,000	\$727,122
Small Business	\$65,497	\$500	\$11,000	\$ -	\$633,886	\$38,000	\$1,000	\$2,000	\$751,883
Subtotal: C&I EE Portfolio	\$1,149,289	\$1,600	\$705,538	\$46,113	\$7,625,773	\$136,000	\$9,000	\$6,000	\$9,679,313
			OTHER -	EDUCATION &	ENGAGEMENT				
Energy Education	\$7,346	\$ -	\$65,162	\$ -	\$ -	\$4,159	\$ -	\$ -	\$76,667
Workforce Development	\$7,346	\$ -	\$75,321	\$ -	\$ -	\$ -	\$ -	\$ -	\$82,667
Community Outreach	\$4,597	\$ -	\$66,903	\$ -	\$ -	\$7,000	\$ -	\$1,500	\$80,000
Customer Engagement Initiative	\$11,670	\$ -	\$58,330	\$ -	\$ -	\$ -	\$ -	\$ -	\$70,000
Subtotal: Education & Engagement	\$30,958	\$ -	\$265,716	\$ -	\$ -	\$11,159	\$ -	\$1,500	\$309,333
			OTHER -	PROGRAMS/RE	QUIREMENTS				
Residential Loan Program (ECLF/OBR)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$84,523	\$ -	\$84,523
C&I Financing Support	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$93,905	\$ -	\$93,905
RD&D	\$15,757	\$ -	\$34,243	\$ -	\$ -	\$ -	\$ -	\$ -	\$50,000
Subtotal: Programs & Requirements	\$15,757	\$ -	\$34,243	\$ -	\$ -	\$ -	\$178,428	\$ -	\$228,428
A d	6125 210	<u> </u>		ADMINISTRATIV		ć	¢2.000	¢1.000	¢150.022
Administration  Marketing Plan	\$125,210 \$-	\$ - \$ -	\$7,723 \$ -	\$15,000 \$ -	\$ - \$ -	\$ - \$40,100	\$2,000 \$ -	\$1,000 \$ -	\$150,933 \$40,100
Planning	\$79,158	\$ -	\$-	\$ -	\$ -	\$ -	\$ -	\$ -	\$79,158
EM&V	\$ -	\$ -	\$300,000	\$-	\$-	\$ -	\$ -	\$ -	\$300,000
Evaluation Administrator	\$ -	\$ -	\$29,607	\$ -	\$ -	\$ -	\$ -	\$ -	\$29,607
Information Technology	\$28,238	\$ -	\$87,155	\$25,333	\$ -	\$ -	\$ -	\$ -	\$140,726
EEB Consultants	\$-	\$ -	\$53,333	\$-	\$ -	\$ -	\$ -	\$ -	\$53,333
Audits - Financial and Operational	\$ -	\$ -	\$10,000	\$ -	\$ -	\$-	\$ -	\$ -	\$10,000
Performance Management Incentive	\$ -	\$ -	\$ -	\$ -	\$ -	\$-	\$1,164,349	\$ -	\$1,164,349
Subtotal: Other	\$232,606	\$ -	\$487,818	\$40,333	\$ -	\$40,100	\$1,166,349	\$1,000	\$1,968,206

Table C Pie Chart – Eversource Natural Gas (2024)

EVERSOURCE CT GAS 2024 Gas Conservation Budget By Expense Class



Expense Classes	Budget	% of Budget
Labor	\$ 2,496,956	10.2%
Materials & Supplies	\$ 3,184	0.0%
Outside Services	\$ 2,289,315	9.3%
Incentives	\$ 17,607,179	71.7%
Marketing	\$ 753,259	3.1%
Other	\$ 1,368,877	5.6%
Administrative Expenses	\$ 25,500	0.1%
Total	\$ 24,544,270	100.0%

#### Table D – Eversource Gas CT Historical and Projected Expenditures (2013-2024)

Table D: Eversource CT Historical and Projected \$ (2013-2024) Expenditures \$ (000)

	2013	2014	2015	2016	2017	2018
	Actual	Actual	Actual	Actual	Actual	Actual
·		RESIDEI	NTIAL			•
Residential New Construction	\$193,667	\$677,845	\$764,790	\$692,482	\$881,482	\$918,565
Home Energy Solutions	\$1,724,523	\$4,493,416	\$3,432,631	\$2,952,063	\$3,379,814	\$1,843,187
HVAC & Domestic Water Heating	\$ -	\$ -	\$ -	\$1,668,456	\$1,483,857	\$2,938,795
HES-Income Eligible	\$3,138,425	\$5,614,632	\$4,650,418	\$4,926,003	\$4,617,168	\$4,400,007
Water Heating	\$41,069	\$329,133	\$523,846	\$ -	\$ -	\$ -
Residential Behavior	\$ -	\$ -	\$ -	\$183,310	\$614,173	\$167,458
Subtotal: Residential	\$5,097,684	\$11,115,026	\$9,371,685	\$10,422,314	\$10,976,494	\$10,268,012
		COMMERCIAL 8	k INDUSTRIAL			
Energy Conscious Blueprint	\$1,152,025	\$3,034,664	\$2,634,533	\$2,080,768	\$1,603,199	\$1,831,447
Energy Opportunities	\$870,585	\$2,053,847	\$1,668,217	\$4,135,899	\$3,555,604	\$4,097,336
Business & Energy Sustainability (O&M, RCx, BSC, CSP/SEM)	\$94,554	\$299,105	\$219,014	\$678,102	\$553,690	\$569,494
Small Business	\$422,844	\$218,468	\$329,075	\$381,268	\$848,654	\$247,416
Subtotal: C&I	\$2,540,008	\$5,606,084	\$4,850,839	\$7,276,037	\$6,561,148	\$6,745,693
	<b>Ψ</b> 2,3 ₹0,000	OTHER - EDUCATION		ψ., <u>Σ.</u> , 0,03,	Ç0,501,140	Ç0,743,033
Energy Education					1	
(Educate the Students 2016-2021) Workforce Development	\$ -	\$ -	\$ -	\$50,119	\$26,077	\$41,953
(Educate Workforce 2016-2021)	\$ -	\$-	\$ -	\$26,313	\$18,686	\$9,314
Community Outreach (Educate the Public 2016-2021)	\$ -	\$-	\$ -	\$214,403	\$145,069	\$62,878
Customer Engagement (2014-2021)	\$ -	\$284,008	\$282,000	\$229,036	\$231,942	\$193,660
SmartLiving Center®-Museums Partnership	\$ -	\$165,067	\$83,670	\$ -	\$ -	\$ -
Clean Energy Communities/Behavior Pilot	\$ -	\$49,106	\$184,917	\$ -	\$ -	\$ -
eesmarts/K-12	\$ -	\$8,790	\$96,470	\$ -	\$ -	\$ -
Subtotal: Education	\$ -	\$506,971	\$647,057	\$519,871	\$421,774	\$307,805
		OTHER - PROGRAMS	S/REQUIREMENTS			-
Residential Loan Program (includes ECLF and OBR)	\$70,112	\$69,591	\$69,012	\$174,448	\$84,550	\$84,550
C&I Financing Support	\$ -	\$ -	\$ -	\$12,879	\$ -	\$ -
RD&D	\$ -	\$ -	\$19,154	\$20,487	\$18,501	\$34,459
Institute for Sustainable Energy	\$ -	\$27.222	¢41 222	\$ -	\$ -	\$ -
(moved to Educate Workforce)	·	\$37,333	\$41,333	· ·	,	
ESPC Project Manager - Lead By Example	\$ -	\$34,825	\$25,857	\$ -	\$ -	\$ -
C&I Loan Program	\$294	\$ -	\$13,542	\$ -	\$ -	\$ -
EE Loan Defaults	\$ -	\$ -	\$27,042	\$ -	\$ -	\$ -
Subtotal: Programs/Requirements	\$70,406	\$141,749	\$195,940	\$207,814	\$103,051	\$119,009
		OTHER - ADMINISTRA	ATIVE & PLANNING			
Administration	\$51,486	\$94,752	\$119,374	\$37,023	\$52,134	\$133,366
Marketing Plan	\$8	\$65,930	\$100,283	\$95,028	\$37,911	\$22,597
Planning	\$103,533	\$147,774	\$111,082	\$94,234	\$61,481	\$123,125
EM&V	-\$17,049	\$169,462	\$181,443	\$120,010	\$200,000	\$145,595
Evaluation Administrator	\$ -	\$34,068	\$31,472	\$39,278	\$27,348	\$19,902
Information Technology	\$51,196	\$72,683	\$126,557	\$191,801	\$68,304	\$148,381
EEB Consultants	\$38,924	\$77,207	\$75,225	\$70,328	\$47,599	\$33,163
Audits - Financial and Operational	\$ -	\$ -	\$ -	\$ -	\$5,458	\$10,000
PMI	\$605,725	\$920,771	\$942,177	\$587,469	\$1,123,213	\$1,088,866
Subtotal: Admin. & Planning	\$833,824	\$1,582,648	\$1,687,612	\$1,235,170	\$1,623,448	\$1,724,995
TOTAL	\$8,541,922	\$18,952,478	\$16,753,133	\$19,661,206	\$19,685,915	\$19,165,514

#### Table D – Eversource Gas CT Historical and Projected Expenditures (2013-2024)(continued)

Table D: Eversource CT Historical and Projected \$ (2013-2024) Expenditures \$ (000)

	2019	2020	2021	2022	2023	2024
	Actual	Actual	Actual	Budget	Budget	Budget
		RESIDEI			ı	
Residential New Construction	\$887,551	\$489,620	\$822,508	\$519,889	\$635,403	\$635,403
Home Energy Solutions	\$2,572,719	\$2,893,620	\$4,608,942	\$1,811,975	\$2,437,902	\$2,853,980
HVAC & Domestic Water Heating	\$3,441,578	\$4,573,515	\$4,394,965	\$3,752,230	\$4,641,653	\$4,641,653
HES-Income Eligible	\$3,404,495	\$4,303,596	\$6,126,982	\$3,395,274	\$4,217,953	\$4,217,953
Water Heating	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Behavior	\$414,553	\$-	\$ -	\$10,000	\$10,000	\$10,000
Subtotal: Residential	\$10,720,896	\$12,260,351	\$15,953,396	\$9,489,368	\$11,942,911	\$12,358,989
Subtotal. Residential	310,720,830	COMMERCIAL 8		35,465,306	311,542,511	312,330,303
Enormy Conscious Phyonrint	\$3,177,795			\$2.742.500	¢4 205 542	\$4,285,543
Energy Conscious Blueprint		\$3,510,955	\$3,754,255	\$3,743,509	\$4,285,543	
Energy Opportunities Business & Energy Sustainability	\$3,236,775	\$3,377,127	\$732,274	\$1,497,489	\$3,912,565	\$3,914,766
(O&M, RCx, BSC, CSP/SEM)	\$972,152	\$645,936	\$408,183	\$473,952	\$727,122	\$727,122
Small Business	\$220,886	\$125,273	\$270,988	\$487,947	\$751,883	\$751,883
Subtotal: C&I	\$7,607,608	\$7,659,291	\$5,165,700	\$6,202,896	\$9,677,112	\$9,679,313
l l		OTHER - EDUCATION				
Energy Education	\$27,256			\$76.667	\$76,667	\$76,667
(Educate the Students 2016-2021) Workforce Development		\$34,537	\$31,386	\$76,667		
(Educate Workforce 2016-2021)	\$5,699	\$197,010	\$22,485	\$82,667	\$82,667	\$82,667
Community Outreach (Educate the Public 2016-2021)	\$63,267	\$33,239	\$36,300	\$80,000	\$80,000	\$80,000
Customer Engagement Initiative (Customer Engagement (2014-2021)	\$201,756	\$42,041	\$137,851	\$70,000	\$70,000	\$70,000
SmartLiving Center®-Museums Partnership	\$-	\$ -	\$ -	\$ -	\$ -	\$ -
Clean Energy Communities/Behavior Pilot	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
eesmarts/K-12	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal: Education	\$297,978	\$306,829	\$228,023	\$309,333	\$309,333	\$309,333
'		OTHER - PROGRAMS	S/REQUIREMENTS			
Residential Loan Program	\$80,075	\$99,172	\$77,705	\$84,523	\$84,523	\$84,523
(includes ECLF and OBR)  C&I Financing Support	\$10,944	\$ -	\$2,427	\$93,905	\$93,905	\$93,905
RD&D		· ·		-		
	\$15,367	\$15,680	\$4,795	\$50,000	\$50,000	\$50,000
Institute for Sustainable Energy (moved to Educate Workforce)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
ESPC Project Manager - Lead By Example	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
C&I Loan Program	\$ -	\$-	\$-	\$ -	\$ -	\$ -
EE Loan Defaults	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal: Programs/Requirements	\$106,386	\$114,852	\$84,927	\$228,428	\$228,428	\$228,428
30 3, 14	,,	OTHER - ADMINISTRA		, ,	, ,	, ,,
Administration	\$92,906	\$121,815	\$81,568	\$150,933	\$150,933	\$150,933
Marketing Plan	\$14,890	\$35,467	\$58,999	\$40,100	\$40,100	\$40,100
Planning	\$137,312	\$136,377	\$88,185	\$79,158	\$79,158	\$79,158
EM&V						
Evaluation Administrator	\$218,102	\$200,000 \$25,798	\$200,000	\$300,000	\$300,000	\$300,000 \$29,607
	\$21,008		\$28,548	\$29,607	\$29,607	
Information Technology	\$143,627	\$122,356	\$178,639	\$140,726	\$140,726	\$140,726
EEB Consultants	\$34,965	\$44,501	\$41,913	\$53,333	\$53,333	\$53,333
Audits - Financial and Operational	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
PMI	\$1,057,175	\$1,277,162	\$1,347,734	\$847,047	\$1,143,435	\$1,164,349
Subtotal: Admin. & Planning	\$1,729,985	\$1,973,476	\$2,035,586	\$1,650,904	\$1,947,292	\$1,968,206

Table D1 – Eversource CT Natural Gas Annual Savings CCF (2013-2024)

## Table D1 Eversource CT Gas – Annual Savings (CCF) Natural Gas Conservation Plan Actual/Budget

	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Goals	2023 Goals	2024 Goals
					RESII	DENTIAL						
Residential New Construction	53,957	89,997	136,229	107,504	124,495	141,403	179,078	103,785	138,016	89,499	129,070	128,517
HES (Core Services, HVAC, Duct Sealing through 2015)	238,395	303,919	158,468	232,197	325,962	187,700	275,034	239,628	343,528	103,230	147,435	174,052
HVAC & Water Heating Equipment	-	-	-	242,925	267,816	413,231	345,175	509,323	511,471	433,103	517,922	517,617
Insulation Rebate	17,015	45,588	29,764	-	-	-	-	-	-	-	-	-
HES Early Retirement Furnace Rebate	7,132	48,552	-	-	-	-	-	-	-	-	-	-
Res High-Eff Natural Gas Furnace Replace Rebate	41,477	133,167	202,140	-	-	-	-	-	-	-	-	-
Window Rebate	2,516	5,078	3,226	-	-	-	-	-	-	-	-	-
HES - Total	306,535	536,304	393,598	-	-	-	-	-	-	-	-	-
HES-Income Eligible	415,930	593,667	420,481	412,516	416,211	369,070	273,617	220,597	289,412	141,243	181,308	180,542
Water Heating	2,812	49,272	70,702	-	-	-	-	-	-	-	-	-
Residential Behavior	-	-	-	-	321,474	47,498	93,782	-	9,218	9,218	9,218	-
Subtotal: Residential EE Portfolio	779,234	1,269,239	1,021,010	995,142	1,455,958	1,158,902	1,166,686	1,073,333	1,282,426	776,294	984,953	1,009,946
					COMMERCIA	L & INDUSTRI	AL					
Energy Conscious Blueprint	259,919	505,346	774,336	458,721	324,249	344,946	502,704	617,984	406,196	382,217	446,483	439,271
Energy Opportunities	481,474	614,294	459,661	826,143	859,518	862,082	747,875	449,859	355,809	184,451	616,436	612,455
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	53,261	164,777	192,358	562,290	563,752	405,861	472,544	329,092	296,307	129,383	255,025	253,677
Small Business	72,422	57,987	53,878	66,201	95,808	104,112	53,932	3,973	18,899	56,974	96,930	96,639
Subtotal: C&I EE Portfolio	867,076	1,342,405	1,480,233	1,913,355	1,843,327	1,717,001	1,777,055	1,400,909	1,077,211	753,025	1,414,874	1,402,042
TOTAL	1,646,309	2,611,644	2,501,243	2,908,497	3,299,285	2,875,903	2,943,741	2,474,242	2,359,638	1,529,320	2,399,827	2,411,987

#### Table D2 – Eversource CT Natural Gas Lifetime Savings CCF (2013-2024)

## Table D2 Eversource CT Gas – Lifetime Savings (CCF) Natural Gas Conservation Plan Actual/Budget

	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual
		RESIDENTI	AL			
Residential New Construction	1,171,781	2,045,134	3,271,203	2,657,738	2,904,240	3,247,525
HES (Core Services, HVAC, Duct Sealing through 2015)	4,136,193	5,536,786	2,997,099	4,397,581	6,073,461	3,560,522
HVAC & Water Heating Equipment	-	-	-	4,845,878	5,355,264	8,262,599
Insulation Rebate	425,386	1,139,707	744,112	-	-	-
HES Early Retirement Furnace Rebate	35,662	940,461	-	-	-	-
Res High-Eff Natural Gas Furnace Replace Rebate	829,533	2,615,788	4,042,806	-	-	-
Window Rebate	52,674	101,568	64,512	-	-	-
HES - Total	5,479,448	10,334,310	7,848,529	-	-	-
HES-Income Eligible	6,590,419	11,276,075	8,697,544	7,535,882	8,142,754	7,536,237
Water Heating	56,244	944,742	1,329,986	-	-	-
Residential Behavior	-	-	-	-	861,903	122,689
Subtotal: Residential EE Portfolio	13,297,892	24,600,260	21,147,262	19,437,079	23,337,622	22,729,572
	С	OMMERCIAL & IN	IDUSTRIAL			
Energy Conscious Blueprint	4,012,514	7,665,291	14,168,474	6,862,601	4,932,458	5,016,971
Energy Opportunities	5,870,925	7,136,800	5,687,189	8,948,254	9,274,301	8,677,066
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	398,693	958,524	1,120,186	3,456,389	3,428,408	2,301,322
Small Business	835,602	693,581	738,098	771,880	1,335,130	1,273,289
Subtotal: C&I EE Portfolio	11,117,734	16,454,196	21,713,947	20,039,124	18,970,297	17,268,648
TOTAL	24,415,626	41,054,456	42,861,209	39,476,203	42,307,919	39,998,220

#### <u>Table D2 – Eversource CT Natural Gas Lifetime Savings CCF (2013-2024)(continued)</u>

## Table D2 Eversource CT Gas – Lifetime Savings (CCF) Natural Gas Conservation Plan Actual/Budget

	2019 Actual	2020 Actual	2021 Actual	2022 Goals	2023 Goals	2024 Goals
		RESIDENTI	AL			
Residential New Construction	4,289,703	2,436,384	3,450,404	2,237,484	3,226,745	3,212,921
HES (Core Services, HVAC, Duct Sealing through 2015)	5,187,631	4,385,006	7,447,831	2,112,234	3,018,284	3,547,954
HVAC & Water Heating Equipment	6,903,273	9,123,944	9,565,167	8,134,612	9,700,981	9,695,260
Insulation Rebate	-	-	-	-	-	-
HES Early Retirement Furnace Rebate	-	-	-	-	-	-
Res High-Eff Natural Gas Furnace Replace Rebate	-	-	-	-	-	-
Window Rebate	-	-	-	-	-	-
(HES) - Total	-	-	-	-	-	-
HES-Income Eligible	5,184,877	4,375,975	5,835,533	2,797,801	3,591,979	3,576,809
Water Heating	-	-	-	-	-	-
Residential Behavior	242,243	-	-	9,218	9,218	9,218
Subtotal: Residential EE Portfolio	21,807,727	20,321,310	26,298,936	15,291,349	19,547,207	20,042,162
	С	OMMERCIAL & IN	IDUSTRIAL			
Energy Conscious Blueprint	7,603,047	8,692,263	6,153,176	5,791,866	6,429,084	6,321,465
Energy Opportunities	7,417,585	4,192,805	3,518,080	1,872,118	6,256,615	6,216,201
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	3,500,467	2,471,981	1,774,536	994,219	1,959,686	1,949,328
Small Business	733,850	46,418	218,513	682,360	1,160,901	1,157,418
Subtotal: C&I EE Portfolio	19,254,949	15,403,467	11,664,305	9,340,563	15,806,286	15,644,412
TOTAL	41,062,676	35,724,776	37,963,241	24,631,912	35,353,493	35,686,574

#### Table D3 – Eversource Natural Gas Cost per Annual Savings CCF (2013-2024)

Table D3 Eversource CT Gas - Cost per Annual Savings (CCF) (2013-2024) Natural Gas Conservation Plan Actual/Budget

	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Goals	2023 Goals	2024 Goals
	<u> </u>			<u> </u>	RESID	ENTIAL	<u> </u>	<u> </u>	<u> </u>	I		
Residential New Construction	\$3.589	\$7.532	\$5.614	\$6.441	\$7.080	\$6.496	\$4.956	\$4.718	\$5.960	\$5.809	\$4.923	\$4.944
HES (Core Services, HVAC, Duct Sealing through 2015)	\$5.626	\$8.378	\$8.721	\$12.714	\$10.369	\$9.820	\$9.354	\$12.075	\$13.417	\$17.553	\$16.535	\$16.397
HVAC & Water Heating Equipment	\$ -	\$ -	\$ -	\$6.868	\$5.541	\$7.112	\$9.971	\$8.980	\$8.593	\$8.664	\$8.962	\$8.967
Insulation Rebate	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
HES Early Retirement Furnace Rebate	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Res High-Eff Natural Gas Furnace Replace Rebate	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Window Rebate	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
HES - Total	\$5.626	\$8.378	\$8.721	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
HES-Income Eligible	\$7.546	\$9.458	\$11.060	\$11.941	\$11.093	\$11.922	\$12.443	\$19.509	\$21.170	\$24.038	\$23.264	\$23.363
Water Heating	\$14.605	\$6.680	\$7.409	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Behavior	\$ -	\$ -	\$ -	\$ -	\$1.910	\$3.526	\$4.420	\$ -	\$ -	\$1.085	\$1.085	\$1.085
Subtotal: Residential EE Portfolio	\$6.542	\$8.757	\$9.179	\$10.473	\$7.539	\$8.860	\$9.189	\$11.423	\$12.440	\$12.224	\$12.125	\$12.237
				со	MMERCIAL	. & INDUST	RIAL					
Energy Conscious Blueprint	\$4.432	\$6.005	\$3.402	\$4.536	\$4.944	\$5.309	\$6.321	\$5.681	\$9.242	\$9.794	\$9.598	\$9.756
Energy Opportunities	\$1.808	\$3.343	\$3.629	\$5.006	\$4.137	\$4.753	\$4.328	\$7.507	\$2.058	\$8.119	\$6.347	\$6.392
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	\$1.775	\$1.815	\$1.139	\$1.206	\$0.982	\$1.403	\$2.057	\$1.963	\$1.378	\$3.663	\$2.851	\$2.866
Small Business	\$5.839	\$3.768	\$6.108	\$5.759	\$8.858	\$2.376	\$4.096	\$31.531	\$14.339	\$8.564	\$7.757	\$7.780
Subtotal: C&I EE Portfolio	\$2.929	\$4.176	\$3.277	\$3.803	\$3.559	\$3.929	\$4.281	\$5.467	\$4.795	\$8.237	\$6.840	\$6.904
TOTAL	\$5.189	\$7.257	\$6.698	\$6.760	\$5.967	\$6.664	\$6.951	\$9.019	\$9.945	\$11.692	\$10.045	\$10.176

Table D4 – Eversource Natural Gas Cost per Lifetime Savings CCF (2013-2024)

# Table D4 Eversource CT Gas - Cost per Lifetime Savings (CCF) (2013-2024) Natural Gas Conservation Plan Actual/Budget

	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Goals	2023 Goals	2024 Goals
	<u> </u>				RESID	ENTIAL	<u> </u>		<u> </u>			
Residential New Construction	\$0.165	\$0.331	\$0.234	\$0.261	\$0.304	\$0.283	\$0.207	\$0.201	\$ 0.238	\$ 0.232	\$0.197	\$0.198
HES (Core Services, HVAC, Duct Sealing through 2015)	\$0.315	\$0.435	\$0.437	\$0.671	\$0.556	\$0.518	\$0.496	\$0.660	\$ 0.619	\$ 0.858	\$0.808	\$0.804
HVAC & Water Heating Equipment	\$ -	\$ -	\$ -	\$0.344	\$0.277	\$0.356	\$0.499	\$0.501	\$ 0.459	\$ 0.461	\$0.478	\$0.479
Insulation Rebate	\$ -	\$-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
HES Early Retirement Furnace Rebate	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Res High-Eff Natural Gas Furnace Replace Rebate	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Window Rebate	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
HES - Total	\$0.315	\$0.435	\$0.437	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000
HES-Income Eligible	\$0.476	\$0.498	\$0.535	\$0.654	\$0.567	\$0.584	\$0.657	\$0.983	\$1.050	\$1.214	\$1.174	\$1.179
Water Heating	\$0.730	\$0.348	\$0.394	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential Behavior	\$ -	\$ -	\$ -	\$0.000	\$0.713	\$1.365	\$1.711	\$ -	\$ -	\$1.085	\$1.085	\$1.085
Subtotal: Residential EE Portfolio	\$0.383	\$0.452	\$0.443	\$0.536	\$0.470	\$0.452	\$0.492	\$0.603	\$0.607	\$0.621	\$0.611	\$0.617
				со	MMERCIAL	. & INDUSTI	RIAL					
Energy Conscious Blueprint	\$0.287	\$0.396	\$0.186	\$0.303	\$0.325	\$0.365	\$0.418	\$0.404	\$0.610	\$0.646	\$0.667	\$0.678
Energy Opportunities	\$0.148	\$0.288	\$0.293	\$0.462	\$0.383	\$0.211	\$0.428	\$0.837	\$1.067	\$2.000	\$0.685	\$0.689
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	\$0.237	\$0.312	\$0.196	\$0.196	\$0.162	\$0.247	\$0.278	\$0.261	\$0.230	\$0.477	\$0.371	\$0.373
Small Business	\$0.506	\$0.315	\$0.446	\$0.494	\$0.636	\$0.194	\$0.301	\$2.699	\$1.240	\$0.715	\$0.648	\$0.650
Subtotal: C&I EE Portfolio	\$0.228	\$0.341	\$0.223	\$0.363	\$0.346	\$0.391	\$0.395	\$0.497	\$0.443	\$0.664	\$0.612	\$0.619
TOTAL	\$0.350	\$0.462	\$0.391	\$0.498	\$0.465	\$0.479	\$0.498	\$0.625	\$0.618	\$0.726	\$0.682	\$0.688

Table DE - Fuercourse Natural Coa Units (2012-2024)

#### Table D5 – Eversource Natural Gas Units (2013-2024)

#### Table D5 Eversource CT Gas - Units

Natural Gas Conservation Plan Actual/Budget

							-					
	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Goals	2023 Goals	2024 Goals
				RESID	ENTIAL		<u>'</u>				'	
Residential New Construction	634	792	138	202	1,058	736	796	283	554	254	324	323
HES (Core Services, HVAC, Duct Sealing through 2015)	2,869	3,048	1,613	2,141	4,973	2,212	4,224	4,149	3,930	1,674	2,450	3,064
HVAC & Water Heating Equipment	-	-	-	3,350	3,393	4,783	5,406	22,633	16,878	13,567	16,987	16,977
Insulation Rebate	140	333	306	-	-	-	-	-	-	-	-	-
HES Early Retirement Furnace Rebate	34	394	-	-	-	-	-	-	-	-	-	-
Res High-Eff Natural Gas Furnace Replace Rebate	247	1,334	2,108	-	-	-	-	-	-	-	-	-
Window Rebate	217	529	336	-	-	-	-	-	-	-	-	-
HES - Total	3,507	5,638	4,363	-	-	-	-	-	-	-	-	-
HES-Income Eligible	2,052	4,070	2,978	2,205	8,590	4,036	3,808	5,485	4,479	3,535	4,530	4,511
Water Heating	54	752	1,084	-	-	-	-	-	-	-	-	-
Residential Behavior	-	-	-	-	95,000	29,750	59,270	-	-	22,000	22,000	22,000
Subtotal: Residential EE Portfolio	6,247	11,252	8,563	7,898	113,014	41,517	73,504	32,550	25,841	41,030	46,291	46,875
			со	MMERCIA	L & INDUST	RIAL						
Energy Conscious Blueprint	136	153	150	172	192	153	205	292	19	21	24	24
Energy Opportunities	42	55	49	61	55	49	59	121	102	59	196	195
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	4	8	11	23	25	23	29	26	22	11	23	22
Small Business	50	62	58	50	53	64	78	39	27	303	515	514
Subtotal: C&I EE Portfolio	232	278	268	306	325	289	371	478	170	394	758	755
TOTAL	6,479	11,530	8,831	8,204	113,339	41,806	73,875	33,028	26,011	41,423	47,049	47,630

Eversource Gas CT PMI (2022)

#### **EVERSOURCE CT GAS COMPANY**

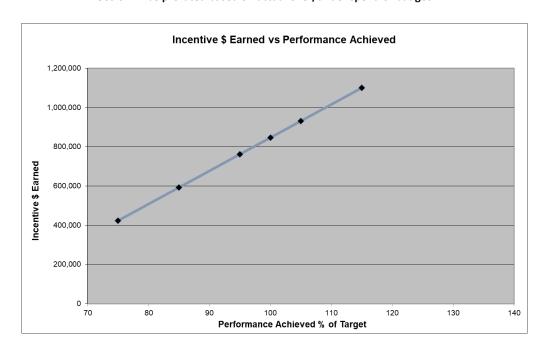
#### 2022 Management Incentive Performance Indicators and Incentive Matrix

Eversource CT Gas and the EEB recognize that having clear indicators and metrics of performance are helpful in delivering quality programs to Connecticut consumers. The following is a table of performance and incentive metrics developed by the Companies with input from the EEB, the EEB's consultants and DEEP. These performance and incentive metrics apply to the programs delineated in the 2022-2024 Plan. The projected Eversource CT Gas Performance Incentive is \$847,047 and is based on achieving 100% of all performance targets and earning an incentive of 5.0% of the total EE program budget of \$16,940,944 as shown on Table A (exclusive of EEB costs, Evaluation Consultant costs, Management incentives and Audit costs). The actual earned amount will be calculated on a sliding scale based on the percent of goal achieved and the actual total expenditures, based on the following performance range:

#### Performance Incentive Illustration

Performance % Minimum	Pretax Incentive	Pre-Tax Incentive
75	2.5%	\$423,524
85	3.5%	\$592,933
95	4.5%	\$762,342
100	5.0%	\$847,047
105	5.5%	\$931,752
115	6.5%	\$1,101,161
Maximum Budget	\$16,940,944	

Goals will be prorated based on actual over/under spend of budget.



# **Eversource Gas CT PMI (2022) (continued)**

SECTOR						Incentive M	letrics	
Progra	ım	Perfo	rmance Indicator	s	Incentive Metric	Target Goal	Weight	Incentive
RESIDEN	IDENTIAL Program Name LT-CCF % (1)							
Residential	\$9,489,368						0.2144	\$181,607
Programs (Sector Level)		New Construction	2,237,484	14.63	% Sum of Ga System	s Gas System Benefit from		
Sector Budget		Home Energy Solutions	2,112,23	13.81	% Benefit from	Residential programs		
		HVAC	8,134,612	2 53.20	Residentia programs			
		HES - Income Eligible	2,797,80	1 18.30		\$12,178,903		
		Behavior	9,218	0.06%	6			
		Total	15,291,34	9				
		Savings Rate	\$0.7965	/ccf				
		Savings	\$12,178,903					
		(1) pe	rcent of target go	al				
Net Residential Gas Benefit:						\$2,689,535	0.2144	\$181,607
Home Energy Solutions	\$1,811,975	Achieve CCF savings from that has air sea homes). Basec adjusted to the current	ling completed (i. d on previous year	e., non-barriered 's actuals		Achieve 157.91 ccf savings/ single-family home	0.0450	\$38,117
HES-Income Eligible	\$3,395,274	Achieve CCF savings from that has air sea homes). Basec adjusted to the current	ling completed (i. d on previous year	e., non-barriered 's actuals		Achieve 140.07 ccf savings/ single-family home	0.0450	\$38,117

# **Eversource Gas CT PMI (2022) (continued)**

SECTOR							Incentive Metrics				
Progr	ram	Perf	ormance Inc	dicators		Incentive Metric	Target Goal	Weight	Incentive		
COMMERCIAL & II	NDUSTRIAL (C&I)	Program Name	LT-CCF % (1)								
C&I Programs (Sector Level)	\$6,202,896	Energy Conscious Blueprint	5,791,	866	62.01%	Total Gas	Gas System Benefit from	0.1856	\$157,212		
Sector Budget		Energy Opportunities	1,872,	118	20.04%	System Benefit from C&I programs	C&I programs				
		Business and Energy Sustainability	994,2	219	10.64%		\$6,577,651				
		Small Business	682,3	360	7.31%						
		Total	9,340,	563							
		Savings Rate	\$0.7042	/ ccf							
		Savings	\$6,577	,651							
		(1) p	(1) percent of target goal								
Net C&I Gas System Benefit:							\$374,755	0.1856	\$157,212		
Small Business	\$487,947	Offerings will cor measure and service financing wl for high-cost, long signed projects that at time of offering rebates). Comprehe	Develop and implement comprehensive offerings.  Offerings will consist of a tailored combination of measure and service bundles, energy management, and financing where appropriate (especially for high-cost, long payback measures). Calculated as signed projects that included comprehensive offerings at time of offering/all signed projects (excluding rebates). Comprehensive shall be defined as including more than one end use. Based on Prior Year Actual				100% of signed projects	0.0500	\$42,352		
Energy Conscious Blueprint / Energy Opportunities	\$5,240,998	Offerings will cor measures and servi SEM, benchmarkin (especially for hig Calculated as comprehensive off projects (excluding defined as use with BES cou Based on Prior Yea	velop and implement comprehensive offerings. ferings will consist of a tailored combination of sures and service bundles, technical assistance for benchmarking and financing where appropriate specially for high-cost, long payback measures). Calculated as signed projects that included orehensive offerings at time of offering/all signed ects (excluding rebates). Comprehensive shall be defined as including at least one end e with BES counting as more than one end use. ed on Prior Year Actual results + 5% (76% + 5% = 81%).			% of Gas Projects	81% of signed projects	0.0500	\$42,352		
Evaluation		Data requests based study. Sliding scale 100% of goal achie	viturnaround on purchase orders and Evaluation equests based on agreed upon timelines for each. Sliding scale as noted in the PMI exhibit - with of goal achievement based on 90% of the datats and purchase orders being completed on time.			Timely turnaround	Based on 90% of data request and purchase orders	0.0100	\$8,470		
Total Incentives								1.00000	\$847,047		

Eversource Gas CT PMI (2023)

#### **EVERSOURCE CT GAS COMPANY**

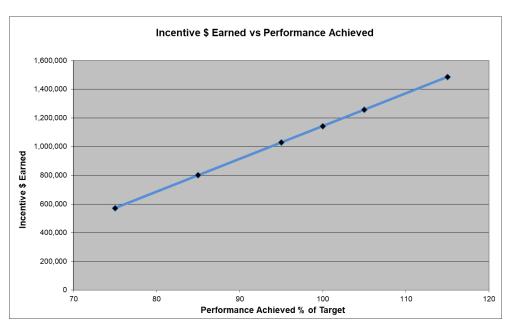
#### 2023 Management Incentive Performance Indicators and Incentive Matrix

Eversource CT Gas and the EEB recognize that having clear indicators and metrics of performance are helpful in delivering quality programs to Connecticut consumers. The following is a table of performance and incentive metrics developed by the Companies with input from the EEB, the EEB's consultants and DEEP. These performance and incentive metrics apply to the programs delineated in the 2022-2024 Plan. The projected Eversource CT Gas Performance Incentive is \$1,143,435 and is based on achieving 100% of all performance targets and earning an incentive of 5.0% of the total EE program budget of \$22,868,702 as shown on Table A (exclusive of EEB costs, Evaluation Consultant costs, Management incentives and Audit costs). The actual earned amount will be calculated on a sliding scale based on the percent of goal achieved and the actual total expenditures, based on the following performance range:

-Performance Incentive Illustration-

Performance %	<u>Pretax</u>	Pre-tax Incentive
<u>Minimum</u>	<u>Incentive</u>	
75	2.5%	\$571,718
85	3.5%	\$800,405
95	4.5%	\$1,029,092
100	5.0%	\$1,143,435
105	5.5%	\$1,257,779
115	6.5%	\$1,486,466
Maximum Budget	\$22,868,702	

Goals will be prorated based on actual over/under spend of budget.



# **Eversource Gas CT PMI (2023) (continued)**

SECTOR							Incentive Metrics			
Prog	ram	Perform	ance Indicator	s		Incentive Metric	Target Goal	Weight	Incentive	
RESIDE	RESIDENTIAL Program Name LT-CCF % (1)		% (1)							
Residential	\$11,942,911							0.2144	\$245,152	
Programs (Sector Level) Sector Budget		New Construction	3,226,74	5	16.51%	Sum of Gas System Benefit	Gas System Benefit from Residential			
		Home Energy Solutions	3,018,28	4	15.44%	from Residential	programs			
		HVAC	9,700,98	1	49.63%	programs				
		HES - Income Eligible	3,591,97	9	18.38%		\$14,978,609			
		Behavior	9,218		0.05%					
		Total	19,547,20	)7						
				1						
		Savings Rate	\$0.7663	/ ccf						
		Savings	\$14,978,609							
		(1) perce	ent of target goa	al						
Net Residential Gas Benefit:							\$3,035,699	0.2144	\$245,152	
Home Energy Solutions	\$2,437,902	Achieve ccf savings from "core services" per single-family home that has air sealing completed (i.e., non-barriered homes). Based on previous year's actuals adjusted to the current year CT PSD plus 2.0% (X*102%).			ccf/home	Achieve X ccf savings/ single-family home	0.0450	\$51,455		
HES-Income Eligible	\$4,217,953	home that has air sealin homes). Based o	n "core services" per single-family ng completed (i.e., non-barriered on previous year's actuals year CT PSD plus 2.0% (X*102%).		ccf/home	Achieve X ccf savings/ single-family home	0.0450	\$51,455		

# **Eversource Gas CT PMI (2023) (continued)**

SECTOR							Incentive M	Incentive Metrics  Target Goal Weight Incentive					
Progr	am	Perform	ance Indic	ators		Incentive Metric	Target Goal	Weight	Incentive				
COMMERCIAL & INDUSTRIAL (C&I)		Program Name	LT-C	CF	% (1)								
C&I Programs (Sector Level) Sector Budget	\$9,677,112	Energy Conscious Blueprint	6,429,0	6,429,084		Total Gas System	Gas System Benefit from C&I programs	0.1856	\$212,222				
		Energy Opportunities	6,256,6	615	39.58%	Benefit from C&I programs							
		Business and Energy Sustainability	1,959,6	586	12.40%		\$11,277,564						
		Small Business	1,160,9	901	7.34%								
		Total	15,806,	.286									
		Savings Rate	\$0.7135	/ccf									
		Savings	\$11,277	,564									
		(1) perc	cent of target goal										
Net C&I Gas System Benefit:							\$1,600,452	0.1856	\$212,222				
Small Business	\$751,883	Offerings will consist measure and service bu financing where appro long payback measure: that included compr offering/all signed propered to the comprehensive shall be one end use. Based or	Develop and implement comprehensive offerings.  Offerings will consist of a tailored combination of measure and service bundles, energy management, and financing where appropriate (especially for high-cost, long payback measures). Calculated as signed projects that included comprehensive offerings at time of offering/all signed projects (excluding rebates).  Comprehensive shall be defined as including more than one end use. Based on Prior Year Actual results + 5%			% of Gas Projects	X% of signed projects	0.0500	\$57,172				
Energy Conscious Blueprint / Energy Opportunities	\$8,198,108	Develop and implem Offerings will consist measures and service be SEM, benchmarking ar (especially for high-c Calculated as sign comprehensive offerin projects (excluding rel defined as including counting as more tha	ement comprehensive offerings. sist of a tailored combination of e bundles, technical assistance for and financing where appropriate n-cost, long payback measures). signed projects that included rings at time of offering/all signed rebates). Comprehensive shall be ng at least one end use with BES han one end use. Based on Prior all results + 5% (X%+5%). In purchase orders and Evaluation on agreed upon timelines for each as noted in the PMI exhibit - with rement based on 90% of the data hase orders being completed on time.			% of Gas Projects	X% of signed projects	0.0500	\$57,172				
Evaluation		Timely turnaround on pata requests based on study. Sliding scale as 100% of goal achiever				Timely turnaround	Based on 90% of data request and purchase orders	0.0100	\$11,434				
otal Incentives								1.00000	\$1,143,43				

Eversource Gas CT PMI (2024)

#### **EVERSOURCE CT GAS COMPANY**

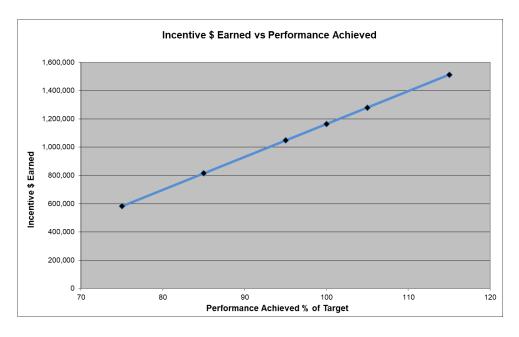
#### 2024 Management Incentive Performance Indicators and Incentive Matrix

Eversource CT Gas and the EEB recognize that having clear indicators and metrics of performance are helpful in delivering quality programs to Connecticut consumers. The following is a table of performance and incentive metrics developed by the Companies with input from the EEB, the EEB's consultants and DEEP. These performance and incentive metrics apply to the programs delineated in the 2022-2024 Plan. The projected Eversource CT Gas Performance Incentive is \$1,164,349 and is based on achieving 100% of all performance targets and earning an incentive of 5.0% of the total EE program budget of \$23,286,981 as shown on Table A (exclusive of EEB costs, Evaluation Consultant costs, Management incentives and Audit costs). The actual earned amount will be calculated on a sliding scale based on the percent of goal achieved and the actual total expenditures, based on the following performance range:

-Performance Incentive Illustration-

Performance %	<u>Pretax</u>	Pre-tax Incentive
<u>Minimum</u>	<u>Incentive</u>	
75	2.5%	\$582,175
85	3.5%	\$815,044
95	4.5%	\$1,047,914
100	5.0%	\$1,164,349
105	5.5%	\$1,280,784
115	6.5%	\$1,513,654
Maximum Budget	\$23,286,981	

Goals will be prorated based on actual over/under spend of budget.



# **Eversource Gas CT PMI (2024) (continued)**

SECTOR Program							Incentive Metrics  Target Goal Weight Incentive					
		Perfo	rmance Indicato	ors		Incentive Metric	Cas System   Description   Cas System   Ca		Incentive			
RESIDENTIAL		Program Name	LT-CCF	LT-CCF % (1)								
Residential	\$12,358,989							0.2144	\$249,636			
Programs (Sector		New Construction	3,212,92	1	16.03%	Sum of Gas System	•					
Level) Sector Budget		Home Energy Solutions	3,547,95	4	17.70%	Benefit from						
		HVAC	9,695,26	)	48.37%	Residential programs	\$15,427,534					
		HES - Income Eligible	3,576,80	€	17.85%							
		Behavior	9,218		0.05%							
		Total	20,042,16	2								
		Savings Rate	\$0.7698	/ccf		-						
		Savings	\$15,427,534									
		(1) pe	rcent of target g	oal								
Net Residential Gas Benefit:							\$3,068,546	0.2144	\$249,636			
Home Energy Solutions	\$2,853,980	home that has air sea homes). Based	s from "core services" per single-family sealing completed (i.e., non-barriered used on previous year's actuals rrent year CT PSD plus 2.0% (X*102%).			ccf/home	savings/	0.0450	\$52,396			
HES-Income Eligible	\$4,217,953	home that has air sea homes). Based	om "core services" per single-family ing completed (i.e., non-barriered on previous year's actuals t year CT PSD plus 2.0% (X*102%).		ccf/home	Achieve X ccf savings/ single-family home	0.0450	\$52,396				

# **Eversource Gas CT PMI (2024) (continued)**

SECT	OR						Incentive Metrics				
Progr	am	Pe	rformance In	dicato	rs	Incentive Metric	Target Goal	Weight	Incentive		
COMMER INDUSTRIA		Program Name	LT-CCF	LT-CCF % (							
C&I Programs (Sector Level) Sector	\$9,679,313	Energy Conscious Blueprint	6,321,46	55	40.41%	Total Gas System	Gas System Benefit from C&I programs	0.1856	0.1856 \$216,103		
Budget		Energy Opportunities	6,216,20	)1	39.73%	Benefit from C&I programs					
		Business and Energy Sustainability	1,949,32	28	12.46%		\$11,224,715				
		Small Business	1,157,42	18	7.40%						
		Total	15,644,4	12							
		Savings Rate	\$0.7175	/ccf							
		Savings	\$11,224,7	715							
		(1)	(1) percent of target goal								
Net C&I Gas System Benefit:							\$1,545,402	0.1856	\$216,103		
Small Business	\$751,883	Develop and im Offerings will consis and service bundle where appropriate measures). Calculi comprehensive of projects (excludir defined as includir Prior Year	t of a tailored s, energy man (especially fo ated as signed ferings at tim ng rebates). C	I comb nagem r high- d proje ne of o compre one e	oination of measure ent, and financing cost, long payback ects that included ffering/all signed chensive shall be and use. Based on	% of Gas Projects	X% of signed projects	0.0500	\$58,217		
Energy Conscious Blueprint / Energy Opportunities	\$8,200,309	Develop and im Offerings will consist and service bun benchmarking and f for high-cost, long p; projects that includ offering/all sig Comprehensive sha end use with BES	plement comprehensive offerings. t of a tailored combination of measures idles, technical assistance for SEM, inancing where appropriate (especially ayback measures). Calculated as signed ed comprehensive offerings at time of gred projects (excluding rebates). all be defined as including at least one counting as more than one end use. Year Actual results + 5% (X%+5%).			% of Gas Projects	X% of signed projects	0.0500	\$58,217		
Evaluation		requests based on a Sliding scale as noted achievement bas	d on purchase orders and Evaluation Data on agreed upon timelines for each study. Sted in the PMI exhibit - with 100% of goal based on 90% of the data requests and orders being completed on time.			Timely turnaround	Based on 90% of data request and purchase orders	0.0100	\$11,643		
Total Incentives	s							1.00000	\$1,164,349		

#### **E.7 CONNECTICUT NATURAL GAS BUDGET AND SAVINGS TABLES**

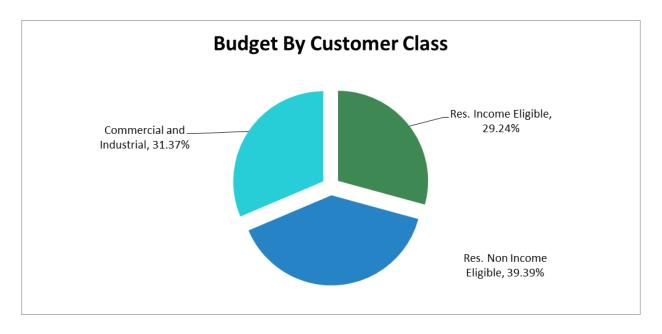
Table A – Connecticut Natural Gas (2021-2024)

Table A: Connecticut Natural Gas 2021-2024 Natural Gas Conservation Budget

2021-20				
Connecticut Natural Gas EE Budget	2021 CNG Actual Results 12/31/2021	2022 CNG Proposed Budget 03/01/2022	2023 CNG Proposed Budget 03/01/2022	2024 CNG Proposed Budget 03/01/2022
	RESIDEN	ITIAL	,	
Residential New Construction	\$21,028	\$480,480	\$587,523	\$562,810
Home Energy Solutions	\$4,516,900	\$2,689,119	\$2,966,300	\$2,954,523
HVAC & Water Heating Equipment	\$3,010,011	\$1,356,035	\$1,627,346	\$1,574,394
HES-Income Eligible			\$4,248,283	
<u> </u>	\$3,696,772	\$3,735,755		\$4,305,853
Residential Behavior	\$62,321	\$133,391	\$152,234	\$151,745
Subtotal: Residential EE Portfolio	\$11,307,032	\$8,394,780	\$9,581,687	\$9,549,324
	COMMERCIAL &	INDUSTRIAL		
Energy Conscious Blueprint	\$3,713,683	\$1,708,701	\$1,975,108	\$2,032,228
Energy Opportunities	\$925,543	\$1,011,722	\$1,152,718	\$1,182,949
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	\$308,472	\$536,581	\$608,763	\$624,239
Small Business	\$94,822	\$433,485	\$475,582	\$484,608
Subtotal: C&I EE Portfolio	\$5,042,520	\$3,690,489	\$4,212,170	\$4,324,023
	DEMAND MAN	NAGEMENT		
Demand Management - Residential	\$ -	\$72,927	\$151,003	\$156,408
Demand Management - C&I	\$ -	\$183,176	\$187,385	\$191,720
Subtotal Demand Management	\$ -	\$256,103	\$338,387	\$348,128
ОТІ	HER - EDUCATION	& ENGAGEMENT		
Energy Education	\$25,240	\$76,667	\$76,667	\$76,667
Workforce Development	\$15,434	\$82,667	\$82,667	\$82,667
Community Outreach	\$17,227	\$80,000	\$80,000	\$80,000
Customer Engagement Initiative	\$ -	\$50,000	\$50,000	\$50,000
Subtotal: Education & Engagement	\$57,901	\$289,334	\$289,334	\$289,334
ОТ	HER - PROGRAMS	/REQUIREMENTS		
Financing Support – Residential	\$ -	\$86,292	\$86,292	\$86,292
Financing Support - C&I	\$ -	\$20,000	\$20,000	\$20,000
Research, Development and Demonstration	\$11,573	\$50,000	\$50,000	\$50,000
Subtotal: Programs/Requirements	\$11,573	\$156,292	\$156,292	\$156,292
<u> </u>		TIVE & PLANNING	7-00,-00	7203,202
Administration	\$207,327	\$188,011	\$188,011	\$188,011
Marketing Plan	\$72,130	\$40,100	\$40,100	\$40,100
Planning	\$99,898	\$122,148	\$122,148	\$122,148
Evaluation Measurement and Verification	\$200,000	\$300,000	\$300,000	\$300,000
Evaluation Administrator	\$21,931	\$29,607	\$29,607	\$29,607
Information Technology	\$339,848	\$584,822	\$284,822	\$260,822
Energy Efficiency Board Consultants	\$43,333	\$53,333	\$53,333	\$53,333
Audits - Financial and Operational	\$10,000	\$10,000	\$10,000	\$10,000
Performance Management Incentive  Subtotal: Other - Administrative & Planning	\$459,606	\$701,104	\$775,647	\$778,909
TOTAL	\$1,454,074	\$2,029,124	\$1,803,668	\$1,782,929

#### Table A Pie Chart - Connecticut Natural Gas (2022)

# Connecticut Natural Gas 2022 Budget Analysis



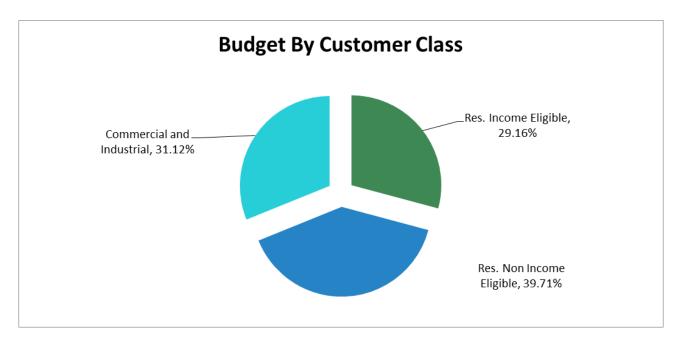
Customer Class	Budget*	% of Total Budget	% of Residential and C&I Budget
Res. Income-Eligible	\$3,735,755	25.21%	29.24%
Res. Non Income-Eligible	\$5,032,990	33.97%	39.39%
Residential Subtotal	\$8,768,746	59.18%	68.63%
Commercial and Industrial	\$4,008,351	27.05%	31.37%
C&I Subtotal	\$4,008,351	27.05%	31.37%
Residential and C&I Subtotal	\$12,777,097	86.24%	100.00%
Other Expenditures			
Other Expenditures	\$2,039,024	13.76%	
Other Expenditures Subtotal	\$2,039,024	13.76%	
TOTAL	\$14,816,121	100.00%	

Totals may vary due to rounding.

<sup>\*</sup>Please see attached Budget Allocation Table.

#### Table A Pie Chart - Connecticut Natural Gas (2023)

# Connecticut Natural Gas 2023 Budget Analysis



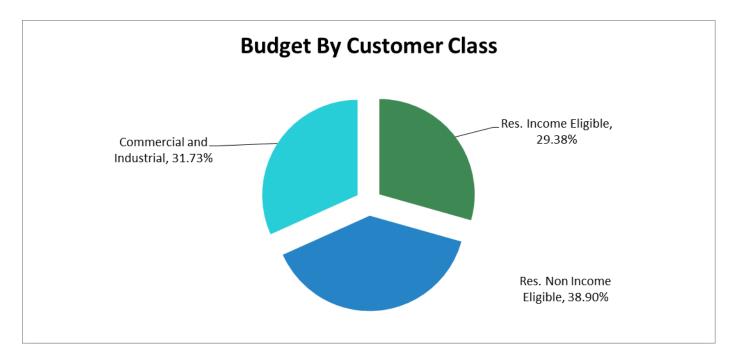
Customer Class	Budget*	% of Total Budget	% of Residential and C&I Budget
Res. Income-Eligible	\$4,248,283	25.93%	29.16%
Res. Non Income-Eligible	\$5,785,445	35.32%	39.71%
Residential Subtotal	\$10,033,728	61.25%	68.88%
Commercial and Industrial	\$4,534,241	27.68%	31.12%
C&I Subtotal	\$4,534,241	27.68%	31.12%
Residential and C&I Subtotal	\$14,567,969	88.93%	100.00%
Other Expenditures			
Other Expenditures	\$1,813,568	11.07%	
Other Expenditures Subtotal	\$1,813,568	11.07%	
TOTAL	\$16,381,537	100.00%	

Totals may vary due to rounding.

<sup>\*</sup>Please see attached Budget Allocation Table.

#### Table A Pie Chart - Connecticut Natural Gas (2024)

# Connecticut Natural Gas 2024 Budget Analysis



Customer Class	Budget*	% of Total Budget	% of Residential and C&I Budget	
Res. Income-Eligible	\$4,305,853	26.18%	29.38%	
Res. Non Income-Eligible	\$5,700,919	34.66%	38.90%	
Residential Subtotal	\$10,006,772	60.83%	68.27%	
Commercial and Industrial	\$4,650,429	28.27%	31.73%	
C&I Subtotal	\$4,650,429	28.27%	31.73%	
Residential and C&I Subtotal	\$14,657,201	89.10%	100.00%	
Other Expenditures				
Other Expenditures	\$1,792,829	10.90%		
Other Expenditures Subtotal	\$1,792,829	10.90%		
TOTAL	\$16,450,030	100.00%		

Totals may vary due to rounding.

<sup>\*</sup>Please see attached Budget Allocation Table.

#### Connecticut Natural Gas Table A Budget Allocation (2020-2024)

Table A Pie Sector Allocation											
	Residential	C&I	Other								
OTHER - EDUCATION & E	NGAGEMENT										
Energy Education	80%	20%	0%								
Workforce Development	50%	50%	0%								
Community Outreach	50%	50%	0%								
Customer Engagement Initiative	80%	20%	0%								
OTHER - PROGRAMS/RE	QUIREMENTS										
Residential Loan Program	100%	0%	0%								
C&I Financing Support	0%	100%	0%								
Research, Development & Demonstration	0%	0%	100%								
OTHER - ADMINISTRATIV	E & PLANNING										
Administration	0%	0%	100%								
Marketing Plan	80%	20%	0%								
Planning	0%	0%	100%								
Evaluation Measurement and Verification	0%	0%	100%								
Evaluation Administrator	0%	0%	100%								
Information Technology	0%	0%	100%								
Energy Efficiency Board Consultants	0%	0%	100%								
Audit - Financial and Operational	0%	0%	100%								
Performance Management Incentive	0%	0%	100%								

Note: Core Residential and C&I programs that produce savings are allocated 100% to the Residential and C&I sectors, respectively. Other programs budgets are allocated to both Residential and C&I sectors based on an estimated percentage of the sector that those dollars will directly benefit by the percentages above.

## Table B – Connecticut Natural Gas (2022)

		Costs (\$000)		ا	Benefits (\$000	0)	Benefit	Cost Ratios	Qua	antities
2022 CNG	Utility Cost	Modified Utility Cost	Total Resource Cost	Utility Benefit	Modified Utility Benefit	Total Resource Benefit	Utility Cost Test	Total Resource Cost Test	No. of Units	Units of Measure
				Resid	ential					
Retail Products	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	-	-	-
New Construction	\$605	\$605	\$1,045	\$1,495	\$1,495	\$2,900	2.47	2.77	422	Homes
Home Energy Solutions	\$2,577	\$2,577	\$2,577	\$2,577	\$2,577	\$4,928	1.00	1.91	1,653	Homes
HVAC & Water Heating Equipment	\$1,606	\$1,606	\$2,329	\$1,735	\$1,735	\$3,372	1.08	1.45	1,837	Units
HES-Income Eligible	\$3,474	\$3,474	\$3,474	\$3,474	\$3,474	\$9,167	1.00	2.64	1,172	Homes
Behavior	\$133	\$133	\$133	\$315	\$315	\$543	2.36	4.07	15,874	Units
Subtotal: Residential	\$8,395	\$8,395	\$9,558	\$9,596	\$9,596	\$20,912	1.14	2.19	-	-
				Commercial	& Industrial					
Energy Conscious Blueprint	\$1,709	\$1,709	\$2,974	\$2,017	\$2,017	\$4,169	1.18	1.40	200	Projects
Energy Opportunities	\$1,012	\$1,012	\$1,682	\$1,007	\$1,007	\$2,075	1.00	1.23	69	Projects
BES	\$537	\$537	\$880	\$850	\$850	\$1,676	1.58	1.91	10	Projects
Small Business	\$433	\$433	\$733	\$517	\$517	\$1,085	1.19	1.48	72	Projects
Subtotal: C&I	\$3,690	\$3,690	\$6,269	\$4,391	\$4,391	\$9,004	1.19	1.44	-	Projects
				ОТ	HER					
Subtotal: Other	\$2,731	\$2,731	\$2,731	\$ -	\$ -	\$ -	-	-	-	-
TOTAL	\$14,816	\$14,816	\$18,558	\$13,987	\$13,987	\$29,916	0.94	1.61	-	-

Table B – Connecticut Natural Gas (2022) (continued)

		Gas Savings			Gas Cos	st Rates			MMBtu S	Savings		Emissions Savings	
2022 CNG	Annual Savings (ccf)	Lifetime Savings (ccf)	Peak Savings (ccf)	Gas Cost Rate \$/ccf Annual	Gas Cost Ratio \$/LT- ccf	Gas Demand Cost \$/ccf	Gas Deman d Cost \$/LT- ccf	Annual MMBtu	Lifetime MMBtu	Cost per Annual MMBt u	Cost per Lifetime MMBtu	Annual Tons CO2	Lifetime Tons CO2
						Residentia	nl						
Retail Products	-	-	-	\$ -	\$ -	-	\$ -	-	-	\$ -	\$ -	-	-
New Construction	78,109	1,952,730	312	\$7.750	\$0.310	\$1,943	\$78	8,037	200,936	\$75	\$3	578	14,451
Home Energy Solutions	162,098	3,201,184	1,605	\$15.895	\$0.805	\$1,605	\$81	16,680	329,402	\$154	\$8	1,205	23,827
HVAC & Water Heating Equipment	111,442	2,222,110	956	\$14.408	\$0.723	\$1,680	\$84	11,467	228,655	\$140	\$7	825	16,445
HES - Income Eligible	209,751	4,397,015	10,078	\$16.561	\$0.790	\$345	\$16	21,583	452,453	\$161	\$8	1,552	32,541
Behavior	141,925	283,850	0	\$0.940	\$0.470			14,604	29,208	\$9	\$5	1,050	2,101
Subtotal: Residential	703,325	12,056,889	12,950	\$11.936	\$0.696	\$648	\$38	72,372	1,240,654	\$116	\$7	5,210	89,365
					Com	mercial & In	dustrial						
Energy Conscious Blueprint	157,329	2,902,463	1,673	\$10.861	\$0.589	\$1,021	\$55	16,189	298,663	\$106	\$6	1,164	21,480
Energy Opportunities	147,122	1,379,111	1,515	\$6.877	\$0.734	\$668	\$71	15,139	141,911	\$67	\$7	1,089	10,206
BES	175,756	1,048,091	2,269	\$3.053	\$0.512	\$236	\$40	18,085	107,849	\$30	\$5	1,301	7,757
Small Business	57,904	749,442	417	\$7.486	\$0.578	\$1,040	\$80	5,958	77,118	\$73	\$6	429	5,546
Subtotal: C&I	538,111	6,079,108	5,875	\$6.858	\$0.607	\$628	\$56	55,372	625,540	\$67	\$6	3,982	44,989
						OTHER							
Subtotal: Other	-	-	-	\$ -	\$ -	-	\$ -	-	-	\$ -	\$ -	-	-
TOTAL	1,241,436	18,135,997	18,825	\$11.935	\$0.817	\$787	\$54	127,744	1,866,194	\$116	\$8	9,193	134,354

## Table B – Connecticut Natural Gas (2023)

		Costs (\$000)	)	E	Benefits (\$00	0)	Benefit	Cost Ratios	Qua	intities
2023 CNG	Utility Cost	Modified Utility Cost	Total Resource Cost	Utility Benefit	Modified Utility Benefit	Total Resource Benefit	Utility Cost Test	Total Resource Cost Test	No. of Units	Units of Measure
				Resid	ential		*			
Retail Products	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	-	-	-
New Construction	\$691	\$691	\$1,258	\$1,943	\$1,943	\$3,789	2.81	3.01	544	Homes
Home Energy Solutions	\$2,941	\$2,941	\$2,941	\$2,942	\$2,942	\$5,663	1.00	1.93	1,877	Homes
HVAC & Water Heating Equipment	\$1,834	\$1,834	\$2,739	\$2,185	\$2,185	\$4,277	1.19	1.56	2,300	Units
HES-Income Eligible	\$3,963	\$3,963	\$3,963	\$3,964	\$3,964	\$10,477	1.00	2.64	1,472	Homes
Behavior	\$152	\$152	\$152	\$321	\$321	\$554	2.11	3.64	15,080	Units
Subtotal: Residential	\$9,582	\$9,582	\$11,054	\$11,354	\$11,354	\$24,759	1.19	2.24	-	-
				Commercial	& Industrial					
Energy Conscious Blueprint	\$1,975	\$1,975	\$3,507	\$2,421	\$2,421	\$5,022	1.23	1.43	242	Projects
Energy Opportunities	\$1,153	\$1,153	\$1,964	\$1,199	\$1,199	\$2,492	1.04	1.27	83	Projects
BES	\$609	\$609	\$1,024	\$1,009	\$1,009	\$2,008	1.66	1.96	12	Projects
Small Business	\$476	\$476	\$839	\$613	\$613	\$1,293	1.29	1.54	79	Projects
Subtotal: C&I	\$4,212	\$4,212	\$7,333	\$5,242	\$5,242	\$10,815	1.24	1.47	-	-
				ОТ	HER					
Subtotal: Other	\$2,588	\$2,588	\$2,588	\$ -	\$ -	\$ -	-	-	-	-
TOTAL	\$16,382	\$16,382	\$20,975	\$16,596	\$16,596	\$35,574	1.01	1.70	-	-

Table B – Connecticut Natural Gas (2023) (continued)

		Gas Savings			Gas Cos	t Rates		MMBtu Savings				Emissio	ns Savings
2023 CNG	Annual Savings (ccf)	Lifetime Savings (ccf)	Peak Savings (ccf)	Gas Cost Rate \$/ccf Annual	Gas Cost Ratio \$/LT-ccf	Gas Demand Cost \$/ccf	Gas Demand Cost \$/LT-ccf	Annual MMBtu	Lifetime MMBtu	Cost per Annual MMBtu	Cost per Lifetime MMBtu	Annual Tons CO2	Lifetime Tons CO2
						Residenti	al						
Retail Products	-	-	-	-	\$ -	\$ -	\$ -	-	-	\$ -	\$ -	-	-
New Construction	100,589	2,514,720	401	\$6.868	\$0.275	\$1,725	\$69	10,351	258,765	\$67	\$3	744	18,610
Home Energy Solutions	184,011	3,633,931	1,822	\$15.984	\$0.809	\$1,614	\$82	18,935	373,932	\$155	\$8	1,368	27,048
HVAC & Water Heating Equipment	139,547	2,782,529	1,197	\$13.143	\$0.659	\$1,532	\$77	14,359	286,322	\$128	\$6	1,033	20,592
HES-Income Eligible	236,452	4,982,916	11,565	\$16.761	\$0.795	\$343	\$16	24,331	512,742	\$163	\$8	1,750	36,877
Behavior	142,154	284,307	-	\$1.071	\$0.535	-	-	14,628	29,255	\$10	\$5	1,052	2,104
Subtotal: Residential	802,753	14,198,403	14,985	\$11.936	\$0.675	\$639	\$36	82,603	1,461,016	\$116	\$7	5,947	105,232
					Com	mercial & Ir	ndustrial						
Energy Conscious Blueprint	186,429	3,439,030	1,982	\$10.594	\$0.574	\$996	\$54	19,184	353,876	\$103	\$6	1,380	25,451
Energy Opportunities	174,597	1,636,659	1,798	\$6.602	\$0.704	\$641	\$68	17,966	168,412	\$64	\$7	1,292	12,112
BES	208,579	1,243,822	2,693	\$2.919	\$0.489	\$226	\$38	21,463	127,989	\$28	\$5	1,544	9,205
Small Business	68,050	880,765	490	\$6.989	\$0.540	\$971	\$75	7,002	90,631	\$68	\$5	504	6,518
Subtotal: C&I	637,655	7,200,276	6,963	\$6.606	\$0.585	\$605	\$54	65,615	740,908	\$64	\$6	4,719	53,286
						OTHER	-					-	
Subtotal: Other	-	-	-	-	\$ -	\$ -	\$ -	-	-	\$ -	\$ -	-	-
TOTAL	1,440,408	21,398,679	21,948	\$11.373	\$0.766	\$746	\$50	148,218	2,201,924	\$111	\$7	10,666	158,518

## Table B – Connecticut Natural Gas (2024)

		Costs (\$000)		ı	Benefits (\$00	0)	Benefit	Cost Ratios	Qua	ntities
2024 CNG	Utility Cost	Modified Utility Cost	Total Resource Cost	Utility Benefit	Modified Utility Benefit	Total Resource Benefit	Utility Cost Test	Total Resource Cost Test	No. of Units	Units of Measure
				Resid	lential					
Retail Products	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	-	-	-
New Construction	\$689	\$689	\$1,227	\$1,856	\$1,856	\$3,644	2.70	2.97	516	Homes
Home Energy Solutions	\$2,932	\$2,932	\$2,932	\$2,933	\$2,933	\$5,695	1.00	1.94	1,867	Homes
HVAC & Water Heating Equipment	\$1,826	\$1,826	\$2,696	\$2,105	\$2,105	\$4,155	1.15	1.54	2,209	Units
HES-Income Eligible	\$3,951	\$3,951	\$3,951	\$3,955	\$3,955	\$10,505	1.00	2.66	1,624	Homes
Behavior	\$152	\$152	\$152	\$299	\$299	\$527	1.97	3.47	14,326	Units
Subtotal: Residential	\$9,549	\$9,549	\$10,957	\$11,147	\$11,147	\$24,525	1.17	2.24	-	-
				Commercia	l & Industrial					
Energy Conscious Blueprint	\$2,032	\$2,032	\$3,621	\$2,494	\$2,494	\$5,191	1.23	1.43	251	Projects
Energy Opportunities	\$1,183	\$1,183	\$2,024	\$1,223	\$1,223	\$2,564	1.03	1.27	86	Projects
BES	\$624	\$624	\$1,055	\$1,023	\$1,023	\$2,060	1.64	1.95	13	Projects
Small Business	\$485	\$485	\$861	\$622	\$622	\$1,321	1.28	1.53	81	Projects
Subtotal: C&I	\$4,324	\$4,324	\$7,562	\$5,363	\$5,363	\$11,137	1.24	1.47	-	-
				ОТ	HER					
Subtotal: Other	\$2,577	\$2,577	\$2,577	\$ -	\$ -	\$ -	-	-	-	-
TOTAL	\$16,450	\$16,450	\$21,095	\$16,510	\$16,510	\$35,661	1.00	1.69	-	-

Table B – Connecticut Natural Gas (2024) (continued)

		Gas Savings			Gas Cos	t Rates			MMBtu	Savings		Emissions Savings	
2024 CNG	Annual Savings (ccf)	Lifetime Savings (ccf)	Peak Savings (ccf)	Gas Cost Rate \$/ccf Annual	Gas Cost Ratio \$/LT-ccf	Gas Demand Cost \$/ccf	Gas Demand Cost \$/LT-ccf	Annual MMBtu	Lifetime MMBtu	Cost per Annual MMBtu	Cost per Lifetime MMBtu	Annual Tons CO2	Lifetime Tons CO2
						Residentia	nl		'				
Retail Products	-	-	-	\$ -	\$ -	\$ -	\$ -	-	-	\$ -	\$ -		-
New Construction	95,503	2,387,580	381	\$7.211	\$0.288	\$1,808	\$72	9,827	245,682	\$70	\$3	707	17,670
Home Energy Solutions	183,080	3,615,544	1,813	\$16.015	\$0.811	\$1,618	\$82	18,839	372,039	\$156	\$8	1,361	26,911
HVAC & Water Heating Equipment	134,061.9	2,673,152	1,150	\$13.621	\$0.683	\$1,588	\$80	13,795	275,067	\$132	\$7	992	19,783
HES-Income Eligible	234,121	4,962,557	11,676	\$16.875	\$0.796	\$338	\$16	24,091	510,647	\$164	\$8	1,733	36,726
Behavior	136,438	272,876	0	\$1.112	\$0.556			14,039	28,079	\$11	\$5	1,010	2,019
Subtotal: Residential	783,204	13,911,708	15,019	\$12.193	\$0.686	\$636	\$36	80,592	1,431,515	\$118	\$7	5,802	103,109
					Comi	mercial & In	dustrial						
Energy Conscious Blueprint	189,588	3,497,299	2,016	\$10.719	\$0.581	\$1,008	\$55	19,509	359,872	\$104	\$6	1,403	25,882
Energy Opportunities	177,555	1,664,390	1,828	\$6.662	\$0.711	\$647	\$69	18,270	171,266	\$65	\$7	1,314	12,317
BES	212,113	1,264,896	2,739	\$2.943	\$0.494	\$228	\$38	21,826	130,158	\$29	\$5	1,570	9,361
Small Business	68,531	886,992	493	\$7.071	\$0.546	\$982	\$76	7,052	91,272	\$69	\$5	507	6,564
Subtotal: C&I	647,787	7,313,577	7,077	\$6.675	\$0.591	\$611	\$54	66,657	752,567	\$65	\$6	4,794	54,125
						OTHER							
Subtotal: Other	-	-	-	\$-	\$-	\$-	\$-	-	-	\$ -	\$-	-	-
TOTAL	1,430,991	21,225,286	22,096	\$11.496	\$0.775	\$744	\$50	147,249	2,184,082	\$112	\$8	10,596	157,234

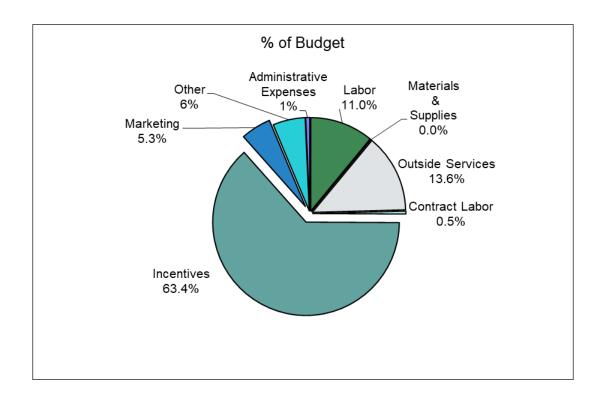
### Table C – Connecticut Natural Gas (2022)

Table C: CNG 2022 EE Budget Details

			Table C	: CNG 2022 EE B	uuget Details				
CNG EE BUDGET	Labor	Materials & Supplies	Outside Services	Contractor Labor	Incentives	Marketing	Other	Admin. Expenses	TOTAL
		- Сиррисс		RESIDENTIA	L				<u>'</u>
Residential New Construction	\$92,544	\$200	\$3,132	\$1,500	\$370,393	\$10,211	\$875	\$1,625	\$480,480
Home Energy Solutions	\$235,608	\$700	\$217,733	\$50,000	\$2,050,411	\$130,639	\$1,409	\$2,618	\$2,689,119
HVAC & Water Heating Equipment	\$79,000	\$500	\$150,672	\$6,000	\$1,075,770	\$41,092	\$1,050	\$1,950	\$1,356,035
HES-Income Eligible	\$235,608	\$1,000	\$47,800	\$6,000	\$3,343,326	\$99,421	\$910	\$1,690	\$3,735,755
Residential Behavior	\$22,572	\$100	\$110,719	\$ -	\$ -	\$ -	\$ -	\$ -	\$133,391
Subtotal: Residential EE Portfolio	\$665,332	\$2,500	\$530,057	\$63,500	\$6,839,900	\$281,364	\$4,244	\$7,883	\$8,394,780
			со	MMERCIAL & INI	DUSTRIAL				
Energy Conscious Blueprint	\$150,458	\$1,000	\$47,970	\$3,000	\$1,265,686	\$216,668	\$3,417	\$20,502	\$1,708,701
Energy Opportunities	\$150,458	\$700	\$26,316	\$4,000	\$669,865	\$155,133	\$250	\$5,000	\$1,011,722
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	\$121,902	\$500	\$7,112	\$1,000	\$342,930	\$55,387	\$250	\$7,500	\$536,581
Small Business	\$84,314	\$200	\$59,250	\$5,000	\$200,000	\$24,220	\$500	\$60,000	\$433,485
Subtotal: C&I EE Portfolio	\$507,132	\$2,400	\$140,649	\$13,000	\$2,478,481	\$451,408	\$4,417	\$93,002	\$3,690,489
			D	EMAND MANAG	EMENT			'	
Demand Management - Residential	\$21,442	\$ -	\$20,860	\$ -	\$30,625	\$ -	\$ -	\$ -	\$72,927
Demand Management - C&I	\$42,884	\$-	\$102,792	\$ -	\$37,500	\$ -	\$ -	\$ -	\$183,176
Subtotal Demand Management	\$64,326	\$ -	\$123,652	\$-	\$68,125	\$ -	\$ -	\$ -	\$256,103
			OTHER	- EDUCATION & E	NGAGEMENT				
Energy Education	\$10,329	\$363	\$53,184	\$ -	\$ -	\$1,815	\$8,444	\$2,533	\$76,667
Workforce Development	\$ -	\$ -	\$82,667	\$ -	\$ -	\$ -	\$ -	\$ -	\$82,667
Community Outreach	\$11,194	\$390	\$61,138	\$ -	\$ -	\$4,196	\$2,371	\$712	\$80,000
Customer Engagement Initiative	\$3,561	\$139	\$42,840	\$ -	\$ -	\$321	\$2,414	\$724	\$50,000
Subtotal: Education & Engagement	\$25,084	\$892	\$239,828	\$ -	\$ -	\$6,332	\$13,229	\$3,969	\$289,334
			OTHER	- PROGRAMS/RE	QUIREMENTS				
Financing Support - Res	\$ -	\$-	\$ -	\$ -	\$ -	\$ -	\$86,292	\$ -	\$86,292
Financing Support – C&I	\$ -	\$-	\$ -	\$ -	\$ -	\$ -	\$20,000	\$ -	\$20,000
RD&D	\$ -	\$-	\$50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$50,000
Subtotal: Programs & Requirements	\$ -	\$-	\$50,000	\$-	\$-	\$-	\$106,292	\$ -	\$156,292
			OTHER -	ADMINISTRATIV	E & PLANNING				
Administration	\$178,628	\$-	\$9,383	\$ -	\$ -	\$ -	\$ -	\$ -	\$188,011
Marketing Plan	\$ -	\$ -	\$ -	\$ -	\$ -	\$40,100	\$ -	\$ -	\$40,100
Planning	\$122,148	\$-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$122,148
EM&V	\$ -	\$-	\$300,000	\$ -	\$ -	\$ -	\$ -	\$-	\$300,000
Evaluation Administrator	\$ -	\$ -	\$29,607	\$ -	\$ -	\$ -	\$ -	\$ -	\$29,607
Information Technology	\$63,501	\$ -	\$521,321	\$ -	\$ -	\$ -	\$ -	\$ -	\$584,822
EEB Consultants	\$ -	\$-	\$53,333	\$ -	\$-	\$ -	\$ -	\$ -	\$53,333
Audits - Financial and Operational	\$ -	\$ -	\$10,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$10,000
PMI	\$ -	\$ -	\$ -	\$ -	\$ -	\$-	\$701,104	\$ -	\$701,104
Subtotal: Other	\$364,276	\$-	\$923,644	\$ -	\$ -	\$40,100	\$701,104	\$-	\$2,029,124
TOTAL BUDGET	\$1,626,150	\$5,792	\$2,007,830	\$76,500	\$9,386,506	\$779,204	\$829,286	\$104,854	\$14,816,121

#### Table C Pie Chart – Connecticut Natural Gas (2022)

#### CONNECTICUT NATURAL GAS 2022 Gas Conservation Budget By Expense Class



Expense Classes	Budget	% of Budget
Labor	\$ 1,626,150	10.98%
Materials & Supplies	\$ 5,792	0.04%
Outside Services	\$ 2,007,830	13.55%
Incentives	\$ 76,500	0.52%
Marketing	\$ 9,386,506	63.35%
Other	\$ 779,204	5.26%
Administrative Expenses	\$ 829,286	<u>5.60%</u>
	'	
Total	\$ 14,816,121	100.00%

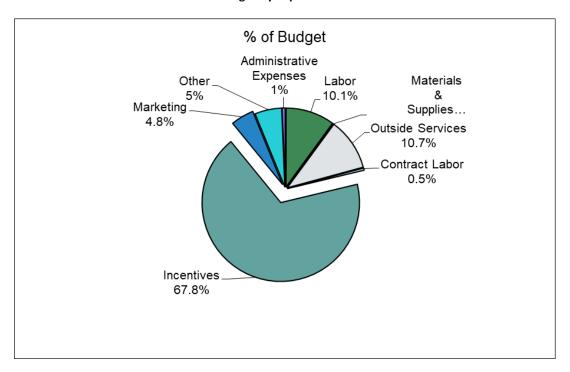
### Table C – Connecticut Natural Gas (2023)

Table C
CNG 2023 EE Budget Details

			CN	G 2023 EE Budg	et Details				
CNG EE BUDGET	Labor	Materials & Supplies	Outside Services	Contractor Labor	Incentives	Marketing	Other	Admin. Expenses	TOTAL
				RESIDENTIA	L		,	'	<u>'</u>
Residential New Construction	\$92,544	\$200	\$3,132	\$1,500	\$477,436	\$10,211	\$875	\$1,625	\$587,523
Home Energy Solutions	\$235,608	\$700	\$217,733	\$50,000	\$2,327,593	\$130,639	\$1,409	\$2,618	\$2,966,300
HVAC & Water Heating Equipment	\$79,000	\$500	\$150,672	\$6,000	\$1,347,081	\$41,092	\$1,050	\$1,950	\$1,627,346
HES-Income Eligible	\$235,608	\$1,000	\$47,800	\$6,000	\$3,855,853	\$99,421	\$910	\$1,690	\$4,248,283
Residential Behavior	\$22,572	\$100	\$129,563	\$ -	\$ -	\$ -	\$ -	\$ -	\$152,234
Subtotal: Residential EE Portfolio	\$665,332	\$2,500	\$548,901	\$63,500	\$8,007,963	\$281,364	\$4,244	\$7,883	\$9,581,687
POLITOIIO			СО	MMERCIAL & INI	DUSTRIAL				
Energy Conscious	Ć150.450	¢1.000				\$216.668	62.417	¢20.502	¢1.07F.109
Blueprint	\$150,458	\$1,000	\$47,970	\$3,000	\$1,532,093	\$216,668	\$3,417	\$20,502	\$1,975,108
Energy Opportunities	\$150,458	\$700	\$26,316	\$4,000	\$810,861	\$155,133	\$250	\$5,000	\$1,152,718
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	\$121,902	\$500	\$7,112	\$1,000	\$415,111	\$55,387	\$250	\$7,500	\$608,763
Small Business	\$84,314	\$200	\$59,250	\$5,000	\$242,097	\$24,220	\$500	\$60,000	\$475,582
Subtotal: C&I EE Portfolio	\$507,132	\$2,400	\$140,649	\$13,000	\$3,000,162	\$451,408	\$4,417	\$93,002	\$4,212,170
POLITOILO				EMAND MANAG	EMENT				
Demand Mgmt Res	\$42,884	\$ -	\$43,806	\$ -	\$64,313	\$ -	\$ -	\$ -	\$151,003
Demand Mgmt C&I	\$42,884	\$-	\$105,876	\$ -	\$38,625	\$ -	\$ -	\$-	\$187,385
Subtotal: Demand Management	\$85,768	\$ -	\$149,682	\$ -	\$102,938	\$ -	\$ -	\$ -	\$338,387
			OTHER	- EDUCATION & I	ENGAGEMENT				
Energy Education	\$10,329	\$363	\$53,184	\$ -	\$ -	\$1,815	\$8,444	\$2,533	\$76,667
Workforce Development	\$ -	\$ -	\$82,667	\$ -	\$ -	\$ -	\$ -	\$ -	\$82,667
Community Outreach	\$11,194	\$390	\$61,138	\$ -	\$ -	\$4,196	\$2,371	\$712	\$80,000
Customer Engagement Initiative	\$3,561	\$139	\$42,840	\$ -	\$ -	\$321	\$2,414	\$724	\$50,000
Subtotal: Education & Engagement	\$25,084	\$892	\$239,828	\$ -	\$-	\$6,332	\$13,229	\$3,969	\$289,334
			OTHER	- PROGRAMS/RE	QUIREMENTS				
Financing Support - Res	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$86,292	\$ -	\$86,292
Financing Support – C&I	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$20,000	\$ -	\$20,000
RD&D	\$ -	\$-	\$50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$50,000
Subtotal: Programs & Requirements	\$ -	\$ -	\$50,000	\$ -	\$ -	\$-	\$106,292	\$ -	\$156,292
			OTHER -	ADMINISTRATIV					
Administration	\$178,628	\$-	\$9,383	\$ -	\$ -	\$ -	\$ -	\$ -	\$188,011
Marketing Plan	\$ -	\$-	\$ -	\$ -	\$ -	\$40,100	\$ -	\$-	\$40,100
Planning	\$122,148	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$122,148
EM&V	\$ -	\$-	\$300,000	\$ -	\$-	\$ -	\$ -	\$ -	\$300,000
Evaluation Administrator	\$ -	\$ -	\$29,607	\$ -	\$ -	\$ -	\$ - \$ -	\$ -	\$29,607
Information Technology EEB Consultants	\$63,501 \$ -	\$ - \$ -	\$221,321	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$284,822
Audits - Financial and	\$ - \$ -	\$-	\$53,333	\$ -	\$ - \$ -	\$ -	\$ -		\$53,333
Operational	Ş -	\$ -	\$10,000	\$ -	\$ -	<b>&gt;</b> -	\$ -	\$ -	\$10,000
					1			1	720,000
PMI	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$775,647	\$ -	\$775,647
	\$ - <b>\$364,276</b>	\$ - <b>\$</b> -		\$ - <b>\$</b> -	\$ - <b>\$</b> -	\$ - <b>\$40,100</b>	\$775,647 <b>\$775,647</b>	\$ - <b>\$ -</b>	\$775,647 <b>\$1,803,668</b>

#### Table C Pie Chart – Connecticut Natural Gas (2023)

#### CONNECTICUT NATURAL GAS 2023 Gas Conservation Budget By Expense Class



Expense Classes	Budget	% of Budget
Labor	\$ 1,647,592	10.06%
Materials & Supplies	\$ 5,792	0.04%
Outside Services	\$ 1,752,703	10.70%
Incentives	\$ 76,500	0.47%
Marketing	\$ 11,111,063	67.83%
Other	\$ 779,204	4.76%
Administrative Expenses	\$ 903,829	<u>5.52%</u>
Total	\$ 16,381,537	100.00%

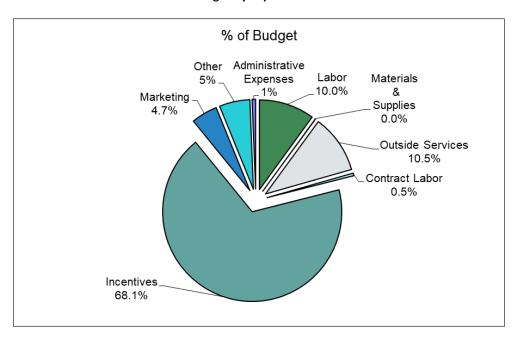
## Table C – Connecticut Natural Gas (2024)

Table C: CNG 2024 EE Budget Details

Table C: CNG 2024 EE Budget Details												
CNG EE BUDGET	Labor	Materials & Supplies	Outside Services	Contractor Labor	Incentives	Marketing	Other	Admin. Expenses	TOTAL			
				RESIDENTIA	Ĺ		•	'	•			
Residential New Construction	\$92,544	\$200	\$3,132	\$1,500	\$452,723	\$10,211	\$875	\$1,625	\$562,810			
Home Energy Solutions	\$235,608	\$700	\$217,733	\$50,000	\$2,315,815	\$130,639	\$1,409	\$2,618	\$2,954,523			
HVAC & Water Heating Equipment	\$79,000	\$500	\$150,672	\$6,000	\$1,294,129	\$41,092	\$1,050	\$1,950	\$1,574,394			
HES-Income Eligible	\$235,608	\$1,000	\$47,800	\$6,000	\$3,913,423	\$99,421	\$910	\$1,690	\$4,305,853			
Residential Behavior	\$22,572	\$100	\$129,073	\$-	\$ -	\$ -	\$ -	\$ -	\$151,745			
Subtotal: Residential EE Portfolio	\$665,332	\$2,500	\$548,411	\$63,500	\$7,976,090	\$281,364	\$4,244	\$7,883	\$9,549,324			
			со	MMERCIAL & INI	DUSTRIAL							
Energy Conscious Blueprint	\$150,458	\$1,000	\$47,970	\$3,000	\$1,589,213	\$216,668	\$3,417	\$20,502	\$2,032,228			
Energy Opportunities	\$150,458	\$700	\$26,316	\$4,000	\$841,092	\$155,133	\$250	\$5,000	\$1,182,949			
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	\$121,902	\$500	\$7,112	\$1,000	\$430,587	\$55,387	\$250	\$7,500	\$624,239			
Small Business	\$84,314	\$200	\$59,250	\$5,000	\$251,123	\$24,220	\$500	\$60,000	\$484,608			
Subtotal: C&I EE Portfolio	\$507,132	\$2,400	\$140,649	\$13,000	\$3,112,016	\$451,408	\$4,417	\$93,002	\$4,324,023			
			С	EMAND MANAG	EMENT							
Demand Mgmt Res	\$42,884	\$ -	\$45,996	\$ -	\$67,528	\$ -	\$ -	\$ -	\$156,408			
Demand Mgmt C&I	\$42,884	\$ -	\$109,052	\$ -	\$39,784	\$ -	\$ -	\$ -	\$191,720			
Subtotal: Demand Management	\$85,768	\$ -	\$155,048	\$ -	\$107,312	\$ -	\$ -	\$ -	\$348,128			
				- EDUCATION & E								
Energy Education	\$10,329	\$363	\$53,184	\$ -	\$ -	\$1,815	\$8,444	\$2,533	\$76,667			
Workforce Development	\$ -	\$ -	\$82,667	\$ -	\$ -	\$ -	\$ -	\$ -	\$82,667			
Community Outreach	\$11,194	\$390	\$61,138	\$ -	\$ -	\$4,196	\$2,371	\$712	\$80,000			
Customer Engagement Initiative	\$3,561	\$139	\$42,840	\$ -	\$ -	\$321	\$2,414	\$724	\$50,000			
Subtotal: Education & Engagement	\$25,084	\$892	\$239,828	\$ -	\$ -	\$6,332	\$13,229	\$3,969	\$289,334			
			OTHER	- PROGRAMS/RE	QUIREMENTS							
Financing Support - Res	\$ -	\$-	\$ -	\$ -	\$ -	\$ -	\$86,292	\$ -	\$86,292			
Financing Support – C&I	\$ -	\$-	\$ -	\$ -	\$ -	\$ -	\$20,000	\$ -	\$20,000			
RD&D	\$ -	\$ -	\$50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$50,000			
Subtotal: Programs & Requirements	\$ -	\$ -	\$50,000	\$ -	\$ -	\$ -	\$106,292	\$ -	\$156,292			
				ADMINISTRATIV								
Administration  Marketing Plan	\$178,628 \$ -	\$ - \$ -	\$9,383 \$ -	\$ - \$ -	\$ - \$ -	\$ - \$40,100	\$ - \$ -	\$ - \$ -	\$188,011			
Planning	\$122,148	\$-	\$ -	\$-	\$ -	\$ -	\$ -	\$ -	\$122,148			
EM&V	\$122,148	\$-	\$300,000	\$-	\$ -	\$-	\$ -	\$-	\$300,000			
Evaluation Administrator	\$ -	\$-	\$29,607	\$ -	\$ -	\$-	\$ -	\$-	\$29,607			
Information Technology	\$63,501	\$-	\$197,321	\$-	\$ -	\$ -	\$ -	\$ -	\$260,822			
EEB Consultants	\$ -	\$-	\$53,333	\$-	\$ -	\$ -	\$ -	\$-	\$53,333			
Audits - Financial and Operational	\$ -	\$-	\$10,000	\$ -	\$-	\$ -	\$ -	\$ -	\$10,000			
PMI	\$ -	\$-	\$ -	\$ -	\$ -	\$ -	\$778,909	\$ -	\$778,909			
Subtotal: Other	\$364,276	\$-	\$599,644	\$ -	\$ -	\$40,100	\$778,909	\$-	\$1,782,929			
			•	1								

#### Table C Pie Chart – Connecticut Natural Gas (2024)

#### CONNECTICUT NATURAL GAS 2024 Gas Conservation Budget By Expense Class



Expense Classes	Budget	% of Budget
Labor	\$ 1,647,592	10.02%
Materials & Supplies	\$ 5,792	0.04%
Outside Services	\$ 1,733,580	10.54%
Incentives	\$ 76,500	0.47%
Marketing	\$ 11,195,418	68.06%
Other	\$ 779,204	4.74%
Administrative Expenses	<u>\$ 907,091</u>	<u>5.51%</u>
Total	\$ 16,450,030	100.00%

### Table D – Connecticut Natural Gas CT Historical and Projected Expenditures (2013-2024)

#### Table D: CNG Historical and Projected \$ (2013-2024)

#### Expenditures \$ (000)

	2013	2014	2015	2016	2017	2018
	Actual	Actual	Actual	Actual	Actual	Actual
		RESIDE	NTIAL			
HES-Income Eligible Weatherization	\$904	\$2,912	\$4,513	\$4,256	\$5,307	\$4,987
Home Energy Solutions	\$2,014	\$4,584	\$3,342	\$2,439	\$2,356	\$1,846
HVAC & Water Heating Equipment	\$22	\$97	\$344	\$1,870	\$1,746	\$2,051
Residential New Construction	\$1,374	\$448	\$562	\$710	\$427	\$480
Residential Behavior	\$ -	\$ -	\$ -	\$165	\$32	\$138
Subtotal: Residential	\$4,314	\$8,041	\$8,761	\$9,440	\$9,868	\$9,502
Energy Conscious Blueprint	\$1,177	\$1,885	\$1,151	\$2,120	\$2,297	\$1,902
Energy Opportunities	\$1,536	\$814	\$1,150	\$854	\$1,286	\$716
Business & Energy Sustainability		¢20F				
(O&M, RCx, BSC, CSP/SEM)	\$90	\$385	\$78	\$312	\$602	\$1,012
Small Business	\$211	\$199	\$192	\$195	\$138	\$212
Subtotal: C&I	\$3,014	\$3,283	\$2,571	\$3,481	\$4,323	\$3,841
		DEMAND MA	NAGEMENT			
Demand Management - Residential	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Demand Management – C&I	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal: Demand Management	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	7	OTHER - EDUCATION	· ·	, ,	, ,	7
Educate the Public	\$ -	\$ -	\$ -	\$200	\$186	\$68
Customer Engagement	\$ -	\$ -	\$ -	\$94	\$34	\$33
Educate the Students	\$ -	\$ -	\$ -	\$33	\$68	\$26
Educate the Workforce	\$ -	\$ -	\$ -	\$30	\$14	\$12
SmartLiving Center/Science Center	\$ -	\$167	\$100	\$ -	\$ -	\$ -
Eesmarts/K-12 Education	\$ -	\$26	\$70	\$ -	\$ -	\$ -
Clean Energy Communities	\$6	\$41	\$57	\$ -	\$ -	\$ -
Subtotal: Education	\$6	\$234	\$227	\$357	\$302	\$139
		OTHER - PROGRAMS	S/REQUIREMENTS			
Financing Support – Residential	\$56	\$56	\$77	\$59	\$67	\$ -
Financing Support - C&I	\$ -	\$ -	\$ -	-\$7	\$23	\$ -
RD&D	\$79	\$ -	\$ -	\$7	\$16	\$55
Institute for Sustainable Energy	\$ -	\$37	\$41	\$ -	\$-	\$-
ESPC Project Manager	\$ -	\$6	\$3	\$ -	\$ -	\$ -
C&I Loan Program	\$18	\$ -	\$9	\$ -	\$ -	\$ -
Subtotal: Programs/Requirements	\$153	\$99	\$130	\$59	\$106	\$55
		U OTHER - ADMINISTRA	ATIVE & PLANNING			
Administration	\$90	\$130	\$237	\$130	\$172	\$143
Marketing Plan	\$ -	\$97	\$85	\$109	\$73	\$31
Planning	\$145	\$99	\$101	\$141	\$169	\$108
EM&V	\$36	\$132	\$231	\$200	\$200	\$218
Evaluation Administrator	\$ -	\$26	\$26	\$20	\$20	\$19
Information Technology	\$49	\$101	\$141	\$109	\$107	\$150
EEB Consultants	\$43	\$24	\$63	\$43	\$43	\$32
Audits - Financial and Operational	\$ -	\$ -	\$ -	\$ -	\$10	\$4
PMI	\$601	\$598	\$733	\$687	\$896	\$877
Subtotal: Admin. & Planning	\$964	\$1,208	\$1,617	\$1,439	\$1,690	\$1,582
TOTAL	\$8,450	\$12,865	\$13,306	\$14,776	\$16,289	\$15,120

Table D - Connecticut Natural Gas CT Historical and Projected Expenditures (2013-2024)(continued)

Table D: CNG Historical and Projected \$ (2013-2024) Expenditures \$ (000)

	2019	2020	2021	2022	2023	2024
	Actual	Actual	Actual	Budget	Budget	Budget
		RESIDE	NTIAL			
HES-Income Eligible Weatherization	\$345	\$96	\$3,697	\$3,736	\$4,248	\$4,306
Home Energy Solutions	\$1,653	\$2,498	\$4,517	\$2,689	\$2,966	\$2,955
HVAC & Water Heating Equipment	\$2,572	\$2,683	\$3,010	\$1,356	\$1,627	\$1,574
Residential New Construction	\$4,516	\$470	\$21	\$480	\$588	\$563
Residential Behavior	\$30	\$151	\$62	\$133	\$152	\$152
Subtotal: Residential	\$9,116	\$5,897	\$11,307	\$8,395	\$9,583	\$9,551
	<del>+5)</del> ==0	<b>+ + 0</b> , <b>0 0 1</b>	<b>+==,00</b> :	<b>+</b> 0,000	<b>Ψ</b> σ,σσσ	45,552
Energy Conscious Blueprint	\$1,418	\$4,146	\$3,714	\$1,709	\$1,975	\$2,032
Energy Opportunities	\$1,245	\$813	\$926	\$1,012	\$1,153	\$1,183
Business & Energy Sustainability (O&M, RCx, BSC, CSP/SEM)	\$403	\$419	\$308	\$537	\$609	\$624
Small Business	\$253	\$119	\$95	\$433	\$476	\$485
Subtotal: C&I	\$3,319	\$5,496	\$5,043	\$3,690	\$4,212	\$4,324
Justician Car	<b>43,31</b> 3	DEMAND MA		<b>43,030</b>	Y7,616	77,324
Developed the second to the se				670	6454	4456
Demand Management - Residential	\$ -	\$ -	\$ -	\$73	\$151	\$156
Demand Management – C&I	\$ -	\$ -	\$ -	\$183	\$187	\$192
Subtotal: Demand Management	\$ -	\$ -	\$ -	\$256	\$338	\$348
		OTHER - EDUCATIO	N & ENGAGEMENT			
Educate the Public	\$70	\$31	\$25	\$80	\$80	\$80
Customer Engagement	\$ -	\$25	\$15	\$50	\$50	\$50
Educate the Students	\$30	\$65	\$17	\$77	\$77	\$77
Educate the Workforce	\$16	\$ -	\$0	\$83	\$83	\$83
SmartLiving Center/Science Center	\$ -	\$ -	\$ -	\$ -	\$ -	\$-
Eesmarts/K-12 Education	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Clean Energy Communities	\$-	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal: Education	\$117	\$121	\$58	\$289	\$289	\$289
		OTHER - PROGRAM	S/REQUIREMENTS			
Financing Support – Residential	\$66	\$52	\$ -	\$86	\$86	\$86
Financing Support - C&I	\$ -	\$ -	\$ -	\$20	\$20	\$20
RD&D	\$37	\$20	\$12	\$50	\$50	\$50
Institute for Sustainable Energy	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
ESPC Project Manager	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
C&I Loan Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal: Programs/Requirements	\$103	\$73	\$12	\$156	\$156	\$156
		OTHER - ADMINISTR	ATIVE & PLANNING			
Administration	\$120	\$81	\$207	\$188	\$188	\$188
Marketing Plan	\$18	\$11	\$72	\$40	\$40	\$40
Planning	\$114	\$114	\$100	\$122	\$122	\$122
EM&V	\$218	\$198	\$200	\$300	\$300	\$300
Evaluation Administrator	\$19	\$22	\$22	\$30	\$30	\$30
Information Technology	\$148	\$98	\$340	\$585	\$285	\$261
EEB Consultants	\$31	\$43	\$43	\$53	\$53	\$53
Audits - Financial and Operational	\$10	\$2	\$10	\$10	\$10	\$10
PMI	\$854	\$728	\$460	\$701	\$776	\$779
Subtotal: Admin. & Planning	\$1,532	\$1,297	\$1,454	\$2,029	\$1,804	\$1,783
TOTAL	\$14,185	\$12,885	\$17,873	\$14,816	\$16,382	\$16,450

Table D1 – Connecticut Natural Gas Annual Savings CCF (2013-2024)

# Table D1 CNG – Annual Savings (CCF) Natural Gas Conservation Plan Actual/Budget

	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Goals	2023 Goals	2024 Goals
					RESID	DENTIAL						
HES-Income Eligible	95	423	451	594	473	442	369	145	264	210	236	234
Home Energy Solutions	403	607	486	278	243	216	195	187	417	162	184	183
HVAC &Water Heating Equipment	1	16	44	257	215	269	244	232	257	111	140	134
Residential New Construction	74	90	49	96	97	95	79	77	33	78	101	96
Residential Behavior	NA	NA	NA	89	62	-	96	-	96	142	142	136
Subtotal: Residential EE Portfolio	573	1,136	1,030	1,314	1,090	1,022	983	641	1,068	703	803	783
				cc	MMERCIA	L & INDUST	TRIAL					
Energy Conscious Blueprint	399	274	256	403	528	193	213	546	346	157	186	190
Energy Opportunities	403	264	203	222	307	427	344	112	73	147	175	178
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	91	245	133	134	195	392	268	161	81	176	209	212
Small Business	33	14	40	16	48	24	51	7	11	58	68	69
Subtotal: C&I EE Portfolio	926	797	632	775	1,078	1,036	876	826	510	538	638	648
TOTAL	1,500	1,934	1,662	2,089	2,168	2,058	1,859	1,467	1,578	1,241	1,440	1,431

### Table D2 – Connecticut Natural Gas Lifetime Savings CCF (2013-2024)

# Table D2 CNG – Lifetime Savings (CCF) Natural Gas Conservation Plan Actual/Budget

	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual
		RESIDENTI/	 AL			
HES-Income Eligible (Weatherization)	1,612	8,285	8,660	12,047	9,848	9,235
Home Energy Solutions	7,461	12,033	9,870	5,652	4,944	4,367
HVAC & Water Heating Equipment	25	285	809	5,114	4,264	5,369
Residential New Construction	1,675	2,078	1,116	2,384	2,414	2,261
Residential Behavior	NA	NA	NA	232	162	-
Subtotal: Residential EE Portfolio	10,773	22,681	20,455	25,430	21,632	21,232
<u>'</u>	C	COMMERCIAL & IN	DUSTRIAL			
Energy Conscious Blueprint	6,670	4,233	4,136	6,233	8,415	2,926
Energy Opportunities	4,517	2,793	2,476	2,331	3,541	4,411
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	466	1,700	889	729	1,041	2,037
Small Business	442	217	485	181	592	277
Subtotal: C&I EE Portfolio	12,095	8,943	7,986	9,474	13,589	9,651
TOTAL	22,868	31,624	28,441	34,904	35,221	30,883

#### Table D2 - Connecticut Natural Gas Lifetime Savings CCF (2013-2024)(continued)

# Table D2 CNG – Lifetime Savings (CCF) Natural Gas Conservation Plan Actual/Budget

	2019 Actual	2020 Actual	2021 Actual	2022 Goals	2023 Goals	2024 Goals
	Actual	RESIDENTI		Godis	Godis	00013
HES-Income Eligible (Weatherization)	7,965	3,065	5,127	4,397	4,983	4,963
Home Energy Solutions	3,777	3,856	8,567	3,201	3,634	3,616
HVAC & Water Heating Equipment	4,862	4,515	5,091	2,222	2,783	2,673
Residential New Construction	2,540	1,933	824	1,953	2,515	2,388
Residential Behavior	202	-	193	284	284	273
Subtotal: Residential EE Portfolio	19,346	13,369	19,802	12,057	14,198	13,912
·	(	COMMERCIAL & IN	IDUSTRIAL			
Energy Conscious Blueprint	3,006	8,654	4,920	2,902	3,439	3,497
Energy Opportunities	3,508	1,136	795	1,379	1,637	1,664
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	1,414	851	467	1,048	1,244	1,265
Small Business	604	74	151	749	881	887
Subtotal: C&I EE Portfolio	8,532	10,715	6,333	6,079	7,200	7,314
TOTAL	27,878	24,084	26,135	18,136	21,399	21,225

Table D3 – Connecticut Natural Gas Cost per Annual Savings CCF (2013-2024)

# Table D3 CNG - Cost per Annual Savings (CCF) (2013-2024)

#### Natural Gas Conservation Plan Actual/Budget

	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Goals	2023 Goals	2024 Goals	
	Actual	Actual	Actual	Actual			Actual	Actual	Actual	Goals	Goals	Goals	
HFS-Income	RESIDENTIAL HES-Income												
Eligible - Weatherization	\$9.464	\$6.884	\$10.007	\$7.165	\$11.220	\$11.283	\$0.936	\$0.664	\$13.987	\$17.810	\$17.967	\$18.392	
Home Energy Solutions	\$4.998	\$7.552	\$6.877	\$8.773	\$9.695	\$8.547	\$8.475	\$13.356	\$10.832	\$16.589	\$16.120	\$16.138	
HVAC & Water Heating Equipment	\$17.200	\$6.013	\$7.818	\$7.276	\$8.121	\$7.625	\$10.541	\$11.565	\$11.703	\$12.168	\$11.662	\$11.744	
Residential New Construction	\$18.663	\$4.978	\$11.469	\$7.396	\$4.402	\$5.050	\$57.164	\$6.110	\$0.638	\$6.151	\$5.841	\$5.893	
Residential Behavior	\$ -	\$ -	\$ -	\$1.854	\$0.516	NA	\$0.310	\$ -	\$0.647	\$0.940	\$1.071	\$1.112	
Subtotal: Residential EE Portfolio	\$7.523	\$7.077	\$8.506	\$7.184	\$9.053	\$9.297	\$9.273	\$9.199	\$10.589	\$11.936	\$11.937	\$12.195	
				СС	MMERCIAL	. & INDUSTI	RIAL						
Energy Conscious Blueprint	\$2.950	\$6.880	\$4.496	\$5.261	\$4.350	\$9.853	\$6.659	\$7.593	\$10.747	\$10.861	\$10.594	\$10.719	
Energy Opportunities	\$3.811	\$3.083	\$5.665	\$3.847	\$4.189	\$1.677	\$3.619	\$7.261	\$12.684	\$6.877	\$6.602	\$6.662	
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	\$0.989	\$1.571	\$0.586	\$2.328	\$3.087	\$2.581	\$1.504	\$2.599	\$3.815	\$3.053	\$2.919	\$2.943	
Small Business	\$6.337	\$13.808	\$4.800	\$12.188	\$2.875	\$8.831	\$4.954	\$16.959	\$8.719	\$7.486	\$6.989	\$7.071	
Subtotal: C&I EE Portfolio	\$3.254	\$4.117	\$4.068	\$4.492	\$4.010	\$3.708	\$3.789	\$6.654	\$9.883	\$6.858	\$6.606	\$6.675	

Table D4 – Connecticut Natural Gas Cost per Lifetime Savings CCF (2013-2024)

# Table D4 CNG - Cost per Lifetime Savings (CCF) (2013-2024)

#### Natural Gas Conservation Plan Actual/Budget

	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Goals	2023 Goals	2024 Goals	
	RESIDENTIAL												
HES-Income Eligible - Weatherization	\$0.561	\$0.351	\$0.521	\$0.353	\$0.539	\$0.540	\$0.043	\$0.031	\$0.721	\$0.850	\$0.853	\$0.868	
Home Energy Solutions	\$0.270	\$0.381	\$0.339	\$0.432	\$0.477	\$0.423	\$0.438	\$0.648	\$0.527	\$0.840	\$0.816	\$0.817	
HVAC & Water Heating Equipment	\$0.860	\$0.341	\$0.425	\$0.366	\$0.409	\$0.382	\$0.529	\$0.594	\$0.591	\$0.610	\$0.585	\$0.589	
Residential New Construction	\$0.821	\$0.216	\$0.504	\$0.298	\$0.177	\$0.212	\$1.778	\$0.243	\$0.026	\$0.246	\$0.234	\$0.236	
Residential Behavior	\$ -	\$ -	\$ -	\$0.711	\$0.198	\$ -	\$0.147	\$ -	\$0.324	\$0.470	\$0.535	\$0.556	
Subtotal: Residential EE Portfolio	\$0.400	\$0.355	\$0.428	\$0.371	\$0.456	\$0.448	\$0.471	\$0.441	\$0.571	\$0.696	\$0.675	\$0.687	
				C	OMMERCIAL	. & INDUSTR	IAL						
Energy Conscious Blueprint	\$0.176	\$0.445	\$0.278	\$0.340	\$0.273	\$0.650	\$0.472	\$0.479	\$0.755	\$0.589	\$0.574	\$0.581	
Energy Opportunities	\$0.340	\$0.291	\$0.464	\$0.366	\$0.363	\$0.162	\$0.355	\$0.716	\$1.165	\$0.734	\$0.704	\$0.711	
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	\$0.193	\$0.226	\$0.088	\$0.428	\$0.578	\$0.497	\$0.285	\$0.492	\$0.660	\$0.512	\$0.489	\$0.494	
Small Business	\$0.476	\$0.918	\$0.396	\$1.077	\$0.233	\$0.765	\$0.418	\$1.604	\$0.627	\$0.578	\$0.540	\$0.546	
Subtotal: C&I EE Portfolio	\$0.249	\$0.367	\$0.322	\$0.367	\$0.318	\$0.398	\$0.389	\$0.513	\$0.796	\$0.607	\$0.585	\$0.591	

Table D5 – Connecticut Natural Gas Units (2013-2024)

#### Table D5 CNG – Units

#### Natural Gas Conservation Plan Actual/Budget

	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Goals	2023 Goals	2024 Goals	
	RESIDENTIAL												
HES Income Eligible – Weatherization	800	3,766	4,036	5,720	1,584	11,563	5,785	1,491	2,589	1,172	1,472	1,624	
Home Energy Solutions	4,543	4,872	3,957	2,937	2,251	2,724	2,427	2,035	1,662	1,653	1,877	1,867	
HVAC & Water Heating Equipment	26	288	736	2,922	2,452	3,272	3,938	4,861	3,529	1,837	2,300	2,209	
Residential New Construction	345	163	181	275	355	1,005	408	310	507	422	544	516	
Residential Behavior	-	-	-	26,243	26,455	-	14,432	-	15,800	15,874	15,080	14,326	
Subtotal: Residential EE Portfolio	5,714	9,089	8,910	38,097	33,097	18,564	26,990	8,697	24,087	20,958	21,273	20,542	
				co	MMERCIAL	& INDUSTRI	AL						
Energy Conscious Blueprint	125	97	54	125	163	118	185	262	46	200	242	251	
Energy Opportunities	24	31	22	38	32	49	39	23	32	69	83	86	
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	8	19	26	12	26	36	47	22	18	10	12	13	
Small Business	20	24	31	26	28	22	54	24	60	72	79	81	
Subtotal: C&I EE Portfolio	177	171	133	201	249	225	325	331	156	351	416	430	
TOTAL	5,891	9,260	9,043	38,298	33,346	18,789	27,315	9,028	24,243	21,309	21,689	20,973	

Connecticut Natural Gas PMI (2022)

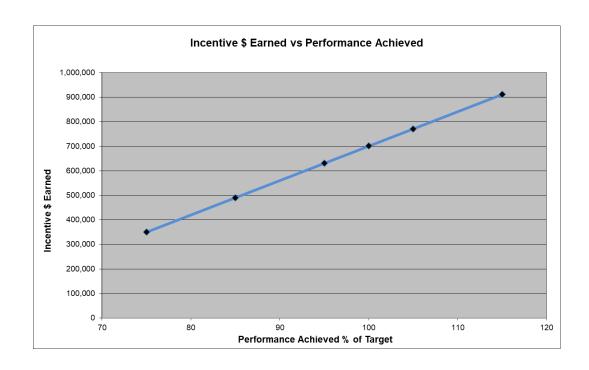
#### **CONNECTICUT NATURAL GAS COMPANY**

#### 2022 Management Incentive Performance Indicators and Incentive Matrix

CNG and the EEB recognize that having clear indicators and metrics of performance are helpful in delivering quality programs to Connecticut consumers. The following is a table of performance and incentive metrics developed by the Companies with input from the EEB, the EEB consultants and DEEP. These performance and incentive metrics apply to the programs delineated in the 2022-2024 Plan. The projected CNG Performance Incentive is \$701,104 and is based on achieving 100% of all performance targets and earning an incentive of 5.0% of the total EE program budget of \$14,022,077 as shown on Table A (exclusive of EEB costs, Evaluation Consultant costs, Management incentives and Audit costs). The actual earned amount will be calculated on a sliding scale based on the percent of goal achieved and the actual total expenditures, based on the following performance range:

-Performance	Incentive	Illustration-
--------------	-----------	---------------

Performance % Minimum	<u>Pretax Incentive</u>	Pre-tax Incentive
75	2.5%	\$350,552
85	3.5%	\$490,773
95	4.5%	\$630,993
100	5.0%	\$701,104
105	5.5%	\$771,214
115	6.5%	\$911,435
Maximum Budget	\$14,022,077	



# **Connecticut Natural Gas PMI (2022) (continued)**

SEC	TOR						Incentive Me	etrics	
Prog	gram	Performance Indicators Incentive Metric					Target Goal	Weight	Incentive
RESIDI	ENTIAL	Program Name	LT-CCF	LT-CCF % (1)					
Residential Programs (Sector Level) Sector Budget	\$8,394,780	New Construction  Home Energy Solutions	e Energy Solutions 3,201,184 26.55		16.20% 26.55%	Sum of Gas System Benefit	Gas System Benefit from Residential programs	0.2144	\$150,317
		HVAC HES - Income Eligible	, ,		from Residential programs	\$9,595,671	-		
		Behavior <b>Total</b>	283,850 <b>12,056,8</b> 8		2.35%	;			
		Savings Rate Savings	\$0.7959 \$9,595,671	/ccf					
		-	ent of target go	oal					
Net Residential Gas Benefit:							\$1,200,892	0.2144	\$150,317
Home Energy Solutions	\$2,689,119	home that has air sealir homes). Based o	ieve CCF savings from "core services" per single-family me that has air sealing completed (i.e., non-barriered homes). Based on previous year's actuals usted to the current year CT PSD plus 2.0% (X*102%).				Achieve 172.86 ccf savings/ single-family home	0.0450	\$31,550
HES-Income Eligible	\$3,735,755	Achieve CCF savings from home that has air sealin homes). Based of adjusted to the current	ng completed (i. on previous yea	-barriered als	ccf/home	Achieve 87.34 ccf savings/ single-family home	0.0450	\$31,500	

# **Connecticut Natural Gas PMI (2022) (continued)**

SECTOR Program		Performance Indicators				Incentive Metrics			
						Incentive Metric	Target Goal	Weight	Incentive
COMMERCIAL & INDUSTRIAL (C&I)		Program Name	LT-CCF		% (1)				
C&I Programs (Sector Level) Sector Budget	\$3,690,489	Energy Conscious Blueprint	2,902,463		47.74%	Total Gas System Benefit from C&I programs	Gas System Benefit from C&I programs \$4,391,132	0.1856	\$130,125
		Energy Opportunities	1,379,111		22.69%				
		Business and Energy Sustainability	1,048,091		17.24%				
		Small Business	749,442		12.33%				
		Total	6,079,108						
		Savings Rate	\$0.7223	/ccf					
		Savings	\$4,391,	132					
		(1) percent of target goal							
Net C&I Gas System Benefit:							\$700,643	0.1856	\$130,125
Small Business	\$433,485	Develop and implement comprehensive offerings.  Offerings will consist of a tailored combination of measure and service bundles, energy management, and financing where appropriate (especially for high-cost, long payback measures). Calculated as signed projects that included comprehensive offerings at time of offering/all signed projects (excluding rebates).  Comprehensive shall be defined as including more than one end use. Based on Prior Year Actual results + 5% (X%+5%).				% of Gas Projects	52% of signed projects	0.0500	\$35,055
Energy Conscious Blueprint / Energy Opportunities	\$2,720,422	Develop and implement comprehensive offerings. Offerings will consist of a tailored combination of measures and service bundles, technical assistance for SEM, benchmarking and financing where appropriate (especially for high-cost, long payback measures). Calculated as signed projects that included comprehensive offerings at time of offering/all signed projects (excluding rebates). Comprehensive shall be defined as including at least one end use with BES counting as more than one end use. Based on Prior Year Actual results + 5% (X%+5%).				% of Gas Projects	44% of signed projects	0.0500	\$35,505
Evaluation	Timely turnaround on purchase orders and Evaluation Data requests based on agreed upon timelines for each study. Sliding scale as noted in the PMI exhibit - with 100% of goal achievement based on 90% of the data requests and purchase orders being completed on time.					Timely turnaround	Based on 90% of data request and purchase orders	0.0100	\$7,011
Total Incentives								1.0000	\$701,104

Connecticut Natural Gas PMI (2023)

#### CONNECTICUT NATURAL GAS COMPANY

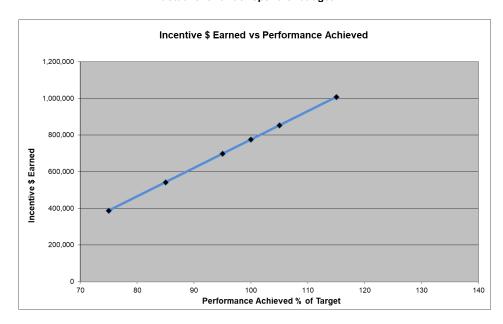
#### 2023 Management Incentive Performance Indicators and Incentive Matrix

CNG and the EEB recognize that having clear indicators and metrics of performance are helpful in delivering quality programs to Connecticut consumers. The following is a table of performance and incentive metrics developed by the Companies with input from the EEB, the EEB consultants and DEEP. These performance and incentive metrics apply to the programs delineated in the 2022-2024 Plan. The projected CNG Performance Incentive is \$775,647 and is based on achieving 100% of all performance targets and earning an incentive of 5.0% of the total EE program budget of \$15,512,950 as shown on Table A (exclusive of EEB costs, Evaluation Consultant costs, Management incentives and Audit costs). The actual earned amount will be calculated on a sliding scale based on the percent of goal achieved and the actual total expenditures, based on the following performance range:

-Performance Incentive Illustration-

Performance %	Pretax	Pre-tax Incentive
<u>Minimum</u>	<u>Incentive</u>	
75	2.5%	\$387,824
85	3.5%	\$542,953
95	4.5%	\$698,083
100	5.0%	\$775,647
105	5.5%	\$853,212
115	6.5%	\$1,008,342
Maximum Budget	\$15,512,950	

Goals will be prorated based on actual over/under spend of budget.



# **Connecticut Natural Gas PMI (2023) (continued)**

SEC	TOR						Incentive Me	etrics	
Prog	gram	Perfor	mance Indicators			Incentive Metric	Target Goal	Weight	Incentive
RESIDI	ENTIAL	Program Name	LT-CCF		% (1)				
Residential Programs (Sector Level) Sector Budget	\$9,581,687	New Construction  Home Energy Solutions	2,514,72 3,633,93		17.71% 25.59%	Sum of Gas System Benefit	Gas System Benefit from Residential programs	0.2144	\$166,299
Buuget		HVAC HES - Income Eligible	2,782,52 4,982,91		19.60% 35.09%	from Residential programs	\$11,354,458		
		Behavior	284,307		2.00%		programs		
		Total	14,198,40						
		Savings Rate Savings	\$0.7997 \$11,354,458	/ccf					
		(1) pero	ent of target go	al					
Net Residential Gas Benefit:							\$1,772,771	0.2144	\$166,299
Home Energy Solutions	\$2,966,300	home that has air seali homes). Based (	chieve CCF savings from "core services" per single-family nome that has air sealing completed (i.e., non-barriered homes). Based on previous year's actuals adjusted to the current year CT PSD plus 2.0% (X*102%).				Achieve X ccf savings/ single-family home	0.0450	\$34,904
HES-Income Eligible	4,248,283	home that has air seali homes). Based (	ng completed (i. on previous yea	g completed (i.e., non-barriered n previous year's actuals		ccf/home	Achieve X ccf savings/ single-family home	0.0450	\$34,904

# **Connecticut Natural Gas PMI (2023) (continued)**

SECT	OR		Performance Indicators				Gas System Benefit from C&I programs \$5,241,841  \$1,029,671  X% of  0.1856 \$143,9									
Progra	am	Perfo	rmance Ind	licators		Incentive Metric	Target Goal	Weight	Incentive							
COMMER(		Program Name	LT-C	CF	% (1)											
C&I Programs (Sector Level)	\$4,212,170	Energy Conscious Blueprint	3,439,0	030	47.76%	Total Gas	-	-	-	-	-	-	Total Gas	,	0.1856	\$143,960
Sector Budget		Energy Opportunities	1,636,0	659	22.73%	System Benefit from										
		Business and Energy Sustainability	1,243,8	822	17.27%	C&I programs	\$5,241,841									
		Small Business	880,7	65	12.23%											
		Total	7,200,2	276												
		Savings Rate	\$0.7280	/ccf												
		Savings	\$5,241,	841												
		(1) pe	ercent of tar	get goal												
Net C&I Gas System Benefit:							\$1,029,671	0.1856	\$143,960							
Small Business	\$475,582	Develop and imple Offerings will cons measure and service k financing where app long payback measur that included com offering/all signed Comprehensive shall one end use. Based	ist of a tailo oundles, en ropriate (es res). Calcula prehensive d projects ( be defined	ored cor ergy ma specially ated as s offering excludir as inclu ar Actua	mbination of anagement, and of for high-cost, signed projects gs at time of ng rebates). ding more than	% of Gas Projects	signed	0.0500	\$38,782							
Energy Conscious Blueprint / Energy Opportunities	\$3,127,825	Offerings will cons measures and service SEM, benchmarking (especially for high Calculated as si comprehensive offer projects (excluding r defined as includin counting as more than Actual re	ist of a tailder bundles, to and financi le-cost, long igned projectings at time ebates). Cong at least on one end uesults + 5%	(X%+5%).  nent comprehensive offerings.  It of a tailored combination of bundles, technical assistance for and financing where appropriate cost, long payback measures). and projects that included angs at time of offering/all signed bates). Comprehensive shall be at least one end use with BES one end use. Based on Prior Year sults + 5% (X%+5%).		% of Gas Projects	X% of signed projects	0.0500	\$38,782							
Evaluation		Timely turnaround of Data requests based of study. Sliding scale of 100% of goal achiev requests and purchason	on agreed u as noted in ement base	upon tim the PM ed on 90	nelines for each I exhibit - with 0% of the data	Timely turnaround	Based on 90% of data request and purchase orders	0.0100	\$7,756							
Total Incentives	3							1.0000	\$775,647							

Connecticut Natural Gas PMI (2024)

#### **CONNECTICUT NATURAL GAS COMPANY**

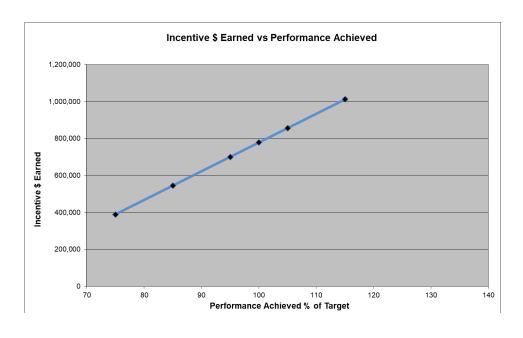
#### 2024 Management Incentive Performance Indicators and Incentive Matrix

CNG and the EEB recognize that having clear indicators and metrics of performance are helpful in delivering quality programs to Connecticut consumers. The following is a table of performance and incentive metrics developed by the Companies with input from the EEB, the EEB consultants and DEEP. These performance and incentive metrics apply to the programs delineated in the 2022-2024 Plan. The projected CNG Performance Incentive is \$778,909 and is based on achieving 100% of all performance targets and earning an incentive of 5.0% of the total EE program budget of \$15,578,181 as shown on Table A (exclusive of EEB costs, Evaluation Consultant costs, Management incentives and Audit costs). The actual earned amount will be calculated on a sliding scale based on the percent of goal achieved and the actual total expenditures, based on the following performance range:

-Performance Incentive Illustration-

Performance %	<u>Pretax</u>	Pre-tax Incentive
<u>Minimum</u>	<u>Incentive</u>	
75	2.5%	\$389,455
85	3.5%	\$545,236
95	4.5%	\$701,018
100	5.0%	\$778,909
105	5.5%	\$856,800
115	6.5%	\$1,012,582
Maximum Budget	\$15,578,181	

Goals will be prorated based on actual over/under spend of budget.



# **Connecticut Natural Gas PMI (2024) (continued)**

SEC	TOR						Incentive Me	etrics			
Prog	gram	Perfor	mance Indicators			Incentive Metric	Target Goal	Weight	Incentive		
RESIDI	ENTIAL	Program Name	LT-CCF		% (1)						
Residential Programs (Sector Level) Sector Budget	\$9,549,324	New Construction  Home Energy Solutions  HVAC  HES - Income Eligible  Behavior	3,615,544 25.99% 2,673,152 19.22%		17.16% 25.99% 19.22% 35.67%	Sum of Gas System Benefit from Residential programs  \$11,147,194	Benefit from Residential programs	Benefit from Residential programs	Benefit from Residential programs	0.2144	\$166,998
		Total	13,911,70	)8							
		Savings Rate Savings	\$0.8013 \$11,147,194	/ccf							
		(1) perc	cent of target go	al							
Net Residential Gas Benefit:							\$1,597,870	0.2144	\$166,998		
Home Energy Solutions	\$2,954,523	home that has air seali homes). Based (	chieve CCF savings from "core services" per single-family nome that has air sealing completed (i.e., non-barriered homes). Based on previous year's actuals djusted to the current year CT PSD plus 2.0% (X*102%).				Achieve X ccf savings/ single-family home	0.0450	\$35,051		
HES-Income Eligible	\$4,305,853	home that has air sealii homes). Based (	ng completed (i. on previous yea	g completed (i.e., non-barriered n previous year's actuals		ccf/home	Achieve X ccf savings/ single-family home	0.0450	\$35,051		

# **Connecticut Natural Gas PMI (2024) (continued)**

SECT	OR						Stal Gas   Gas System   Benefit from   C&I programs   \$5,362,570   \$144,50   \$1,038,547   0.1856   \$144,50   \$1,038,547   0.1856   \$144,50   \$1,038,547   0.0500   \$38,94   \$1,038,547		
Progr	am	Perfo	rmance Ind	licators		Incentive Metric	Target Goal	Weight	Incentive
COMMER INDUSTRIA		Program Name	LT-C	CF	% (1)				
C&I Programs (Sector Level)	\$4,324,023	Energy Conscious Blueprint	3,497,2	299	47.82%	Total Gas	· ·	0.1856	\$144,566
Sector Budget		Energy Opportunities	1,664,3	390	22.76%	System Benefit from			
		Business and Energy Sustainability	1,264,8	896	17.30%	C&I programs	\$5,362,570		
		Small Business	886,9	92	12.13%				
		Total	7,313.	577					
		Savings Rate	\$0.7332	/ccf					
		Savings (1) no	\$5,362,						
Net C&I		(1) pe	rcent of tar	get goal					
Gas System Benefit:							\$1,038,547	0.1856	\$144,566
Small Business	\$484,608	Offerings will cons measure and service to financing where app long payback measur that included com offering/all signed Comprehensive shall	Develop and implement comprehensive offerings. Offerings will consist of a tailored combination of measure and service bundles, energy management, and financing where appropriate (especially for high-cost, long payback measures). Calculated as signed projects that included comprehensive offerings at time of offering/all signed projects (excluding rebates). Comprehensive shall be defined as including more than one end use. Based on Prior Year Actual results + 5%				signed	0.0500	\$38,945
Energy Conscious Blueprint / Energy Opportunities	\$3,215,176	Offerings will cons measures and service SEM, benchmarking (especially for high Calculated as si comprehensive offer projects (excluding r defined as includin counting as more than Actual re	ist of a tailor bundles, the and financing-cost, long gned projeings at time rebates). Cong at least on one end upsults + 5%	(X%+5%).  It of a tailored combination of coundles, technical assistance for and financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).  In the financing where appropriate cost, long payback measures).			X% of signed projects	0.0500	\$38,945
Evaluation		Timely turnaround of Data requests based of study. Sliding scale of 100% of goal achiev requests and purchase	n purchase on agreed u as noted in ement base	orders a upon tim the PM ed on 90	and Evaluation nelines for each I exhibit - with 0% of the data	Timely turnaround	Based on 90% of data request and purchase orders	0.0100	\$7,789
Total Incentives	•							1.0000	\$778,909

## **E.8 SOUTHERN CONNECTICUT GAS BUDGET AND SAVINGS TABLES**

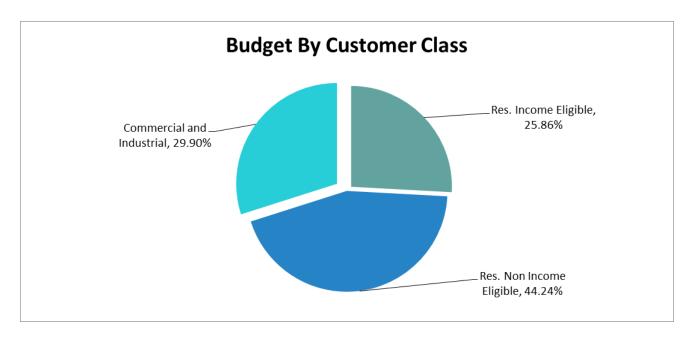
Table A – Southern Connecticut Gas (2021-2024)

Table A: Southern Connecticut Gas 2021-2024 Natural Gas Conservation Budget

2021-20	24 Natural Gas Cons	scivation baaget		
Southern CT Gas EE Budget	2021 SCG Actual	2022 SCG Proposed	2023 SCG Proposed	2024 SCG Proposed
Southern ST Gas EE Budget	Results	Budget	Budget	Budget
	12/31/2021	03/1/2022	03/1/2022	03/1/2022
	RESIDENTIAL	-		
Residential New Construction	\$6,016	\$533,018	\$650,953	\$673,793
Home Energy Solutions	\$3,888,662	\$1,994,681	\$2,562,059	\$2,545,775
HVAC & Water Heating Equipment	\$3,675,770	\$1,412,138	\$1,807,236	\$1,823,107
HES-Income Eligible	\$3,088,035	\$2,663,429	\$3,426,508	\$3,506,727
Residential Behavior	\$145,113	\$118,187	\$147,656	\$153,821
Subtotal: Residential EE Portfolio	\$10,803,596	\$6,721,453	\$8,594,411	\$8,703,223
Subtotui. Residential EE i Ortiolio	COMMERCIAL & IND		70,334,411	<b>70,703,223</b>
Energy Conscious Blueprint	\$2,906,608	\$1,200,881	\$1,627,060	\$1,647,316
Energy Opportunities	\$750,905	\$822,946	\$1,072,738	\$1,086,025
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	\$249,022	\$369,558	\$481,971	\$487,917
Small Business	\$428,445	\$314,296	\$296,671	\$299,602
Subtotal: C&I EE Portfolio	\$4,334,980	\$2,707,681	\$3,478,441	\$3,520,860
	DEMAND MANAGE	MENT		
Demand Management - Residential	\$ -	\$198,352	\$206,534	\$214,717
Demand Management - C&I	\$ -	\$183,176	\$200,260	\$204,981
Subtotal Demand Management	\$ -	\$381,528	\$406,794	\$419,698
ОТН	IER - EDUCATION & E	NGAGEMENT		
Energy Education	\$22,829	\$76,667	\$76,667	\$76,667
Workforce Development	\$15,434	\$82,667	\$82,667	\$82,667
Community Outreach	\$17,227	\$80,000	\$80,000	\$80,000
Customer Engagement Initiative	\$ -	\$50,000	\$50,000	\$50,000
Subtotal: Education & Engagement	\$55,490	\$289,334	\$289,333	\$289,333
ОТІ	IER - PROGRAMS/REC	QUIREMENTS	-	
Financing Support – Residential	\$ -	\$86,292	\$86,292	\$86,292
Financing Support - C&I	\$ -	\$75,000	\$75,000	\$75,000
Research, Development and Demonstration	\$84,073	\$50,000	\$50,000	\$50,000
Subtotal: Programs/Requirements	\$84,073	\$211,292	\$211,292	\$211,292
ОТН	ER - ADMINISTRATIVE	& PLANNING		
Administration	\$109,316	\$188,007	\$188,007	\$188,007
Marketing Plan	\$70,801	\$40,100	\$40,100	\$40,100
Planning	\$90,033	\$63,502	\$63,502	\$63,502
Evaluation Measurement and Verification	\$200,000	\$300,000	\$300,000	\$300,000
Evaluation Administrator	\$21,931	\$29,607	\$29,607	\$29,607
Information Technology	\$328,131	\$609,473	\$332,473	\$310,473
Energy Efficiency Board Consultants	\$93,291	\$53,333	\$53,333	\$53,333
Audits - Financial and Operational	\$10,000	\$10,000	\$10,000	\$10,000
Performance Management Incentive	\$696,820	\$575,618	\$695,218	\$702,324
Subtotal: Other - Administrative & Planning	\$1,620,324	\$1,869,640	\$1,712,240	\$1,697,346
TOTAL Subtotal: Other - Administrative & Planning	\$1,620,324 \$16,898,463	\$1,869,640 \$12,180,928	\$1,712,240 \$14,692,511	\$1,697,34

### Table A Pie Chart – Southern Connecticut Gas (2022)

# Southern Connecticut Gas 2022 Budget Analysis



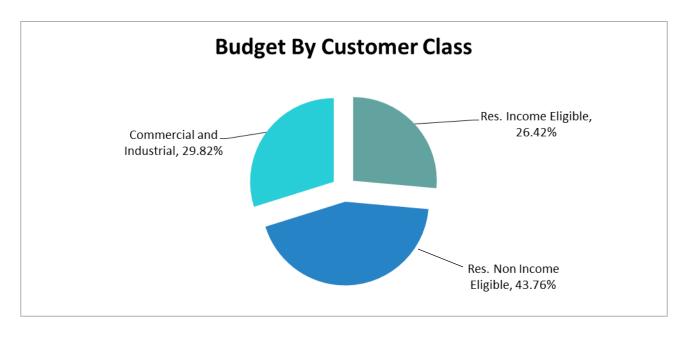
Customer Class	Budget*	% of Total Budget	% of Residential and C&I Budget
Res. Income-Eligible	\$2,663,429	21.87%	25.86%
Res. Non Income-Eligible	\$4,557,414	37.41%	44.24%
Residential Subtotal	\$7,220,844	59.28%	70.10%
Commercial and Industrial	\$3,080,544	25.29%	29.90%
C&I Subtotal	\$3,080,544	25.29%	29.90%
Residential and C&I Subtotal	\$10,301,387	84.57%	100.00%
Other Expenditures			
Other Expenditures	\$1,879,540	15.43%	
Other Expenditures Subtotal	\$1,879,540	15.43%	
TOTAL	\$12,180,928	100.00%	

Totals may vary due to rounding.

<sup>\*</sup>Please see attached Budget Allocation Table.

### Table A Pie Chart – Southern Connecticut Gas (2023)

# Southern Connecticut Gas 2023 Budget Analysis



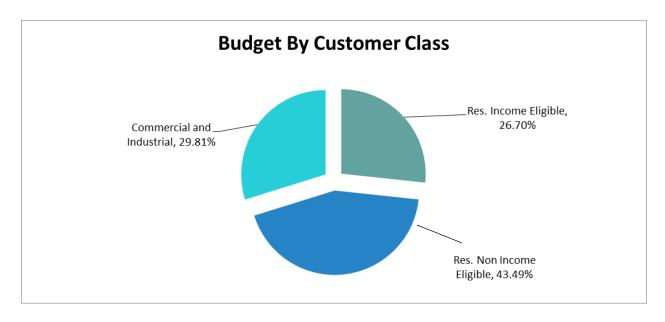
Customer Class	Budget*	% of Total Budget	% of Residential and C&I Budget
Res. Income-Eligible	\$3,426,508	23.32%	26.42%
Res. Non Income-Eligible	\$5,675,476	38.63%	43.76%
Residential Subtotal	\$9,101,984	61.95%	70.18%
Commercial and Industrial	\$3,868,387	26.33%	29.82%
C&I Subtotal	\$3,868,387	26.33%	29.82%
Residential and C&I Subtotal	\$12,970,371	88.28%	100.00%
Other Expenditures			
Other Expenditures	\$1,722,140	11.72%	
Other Expenditures Subtotal	\$1,722,140	11.72%	
TOTAL	\$14,692,511	100.00%	

Totals may vary due to rounding.

<sup>\*</sup>Please see attached Budget Allocation Table.

#### Table A Pie Chart – Southern Connecticut Gas (2024)

# Southern Connecticut Gas 2024 Budget Analysis



Customer Class	Budget*	% of Total Budget	% of Residential and C&I Budget
Res. Income-Eligible	\$3,506,727	23.63%	26.70%
Res. Non Income-Eligible	\$5,712,251	38.49%	43.49%
Residential Subtotal	\$9,218,978	62.12%	70.19%
Commercial and Industrial	\$3,915,528	26.38%	29.81%
C&I Subtotal	\$3,915,528	26.38%	29.81%
Residential and C&I Subtotal	\$13,134,506	88.50%	100.00%
Other Expenditures			
Other Expenditures	\$1,707,246	11.50%	
Other Expenditures Subtotal	\$1,707,246	11.50%	
TOTAL	\$14,841,752	100.00%	

Totals may vary due to rounding.

<sup>\*</sup>Please see attached Budget Allocation Table.

### Southern Connecticut Gas Table A Budget Allocation (2020-2024)

Table A Pie Sector Allocation	Table A Pie Sector Allocation								
	Residential	C&I	Other						
OTHER - EDUCATION & ENGAGEME	NT								
Energy Education	80%	20%	0%						
Workforce Development	50%	50%	0%						
Community Outreach	50%	50%	0%						
Customer Engagement Initiative	80%	20%	0%						
OTHER - PROGRAMS/REQUIREMEN	ITS								
Residential Loan Program	100%	0%	0%						
C&I Financing Support	0%	100%	0%						
Research, Development & Demonstration	0%	0%	100%						
OTHER - ADMINISTRATIVE & PLANN	ING								
Administration	0%	0%	100%						
Marketing Plan	80%	20%	0%						
Planning	0%	0%	100%						
Evaluation Measurement and Verification	0%	0%	100%						
Evaluation Administrator	0%	0%	100%						
Information Technology	0%	0%	100%						
Energy Efficiency Board Consultants	0%	0%	100%						
Audit - Financial and Operational	0%	0%	100%						
Performance Management Incentive	0%	0%	100%						

Note: Core Residential and C&I programs that produce savings are allocated 100% to the Residential and C&I sectors, respectively. Other programs budgets are allocated to both Residential and C&I sectors based on an estimated percentage of the sector that those dollars will directly benefit by the percentages above.

# Table B – Southern Connecticut Gas (2022)

		Costs (\$000)		l l	Benefits (\$00	0)	Benefit Cost Ratios		Quantities	
2022 SCG	Utility Cost	Modified Utility Cost	Total Resource Cost	Utility Benefit	Modified Utility Benefit	Total Resource Benefit	Utility Cost Test	Total Resource Cost Test	No. of Units	Units of Measure
				Resid	lential					
Retail Products	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	-	-	-
New Construction	\$533	\$533	\$995	\$1,684	\$1,684	\$3,275	3.16	3.29	424	Homes
Home Energy Solutions	\$1,995	\$1,995	\$1,995	\$2,088	\$2,088	\$3,990	1.05	2.00	1,109	Homes
HVAC & Water Heating Equipment	\$1,553	\$1,553	\$2,307	\$1,858	\$1,858	\$3,589	1.20	1.56	1,939	Units
HES - Income Eligible	\$2,522	\$2,522	\$2,522	\$2,525	\$2,525	\$6,575	1.00	2.61	909	Homes
Behavior	\$118	\$118	\$118	\$283	\$283	\$488	2.40	4.13	16,212	Units
Subtotal: Residential	\$6,721	\$6,721	\$7,937	\$8,438	\$8,438	\$17,918	1.26	2.26		-
				Commercia	& Industrial					
Energy Conscious Blueprint	\$1,201	\$1,201	\$2,252	\$1,465	\$1,465	\$3,099	1.22	1.38	498	Projects
Energy Opportunities	\$823	\$823	\$1,499	\$974	\$974	\$2,107	1.18	1.41	29	Projects
BES	\$370	\$370	\$561	\$525	\$525	\$1,085	1.42	1.93	9	Projects
Small Business	\$314	\$314	\$577	\$403	\$403	\$823	1.28	1.43	97	Projects
Subtotal: C&I	\$2,708	\$2,708	\$4,888	\$3,367	\$3,367	\$7,114	1.24	1.46	-	-
				ОТ	HER	'				
Subtotal: Other	\$2,752	\$2,752	\$2,752	\$ -	\$ -	\$ -	-	-	-	-
TOTAL	\$12,181	\$12,181	\$15,577	\$11,805	\$11,805	\$25,032	0.97	1.61	-	-

Table B – Southern Connecticut Gas (2022) (continued)

		Gas Savings			Gas Co	st Rates		MMBtu Savings				Emission	ns Savings
2022 SCG	Annual Savings (ccf)	Lifetime Savings (ccf)	Peak Savings (ccf)	Gas Cost Rate \$/ccf Annual	Gas Cost Ratio \$/LT- ccf	Gas Demand Cost \$/ccf	Gas Deman d Cost \$/LT-ccf	Annual MMBtu	Lifetime MMBtu	Cost per Annual MMBtu	Cost per LT MMBtu	Annual Tons CO2	Lifetime Tons CO2
						Residentia	ı						
Retail Products	-	-	-	\$ -	\$ -	\$ -	\$ -	-	-	-	-	-	-
New Construction	88,421	2,210,520	412	\$6.028	\$0.241	\$1,293	\$52	9,099	227,463	\$59	\$2	654	16,359
Home Energy Solutions	127,049	2,599,741	1,309	\$15.700	\$0.767	\$1,523	\$74	13,073	267,513	\$153	\$7	940	19,240
HVAC & Water Heating Equipment	117,773	2,348,355	1,046	\$13.188	\$0.661	\$1,485	\$74	12,119	241,646	\$128	\$6	872	17,379
HES-Income Eligible	145,833	3,148,079	1,557	\$17.297	\$0.801	\$1,621	\$75	15,006	323,937	\$168	\$8	1,079	23,298
Behavior	127,616	255,233	-	\$0.926	\$0.463	\$ -	\$ -	13,132	26,263	\$9	\$5	944	1,889
Subtotal: Residential	606,692	10,561,928	4,324	\$11.079	\$0.636	\$1,555	\$89	62,429	1,086,822	\$108	\$6	4,490	78,165
					Com	mercial & In	dustrial						
Energy Conscious Blueprint	128,570	2,189,075	998	\$9.340	\$0.549	\$1,204	\$71	13,230	225,256	\$91	\$5	951	16,200
Energy Opportunities	148,092	1,465,854	926	\$5.557	\$0.561	\$889	\$90	15,239	150,836	\$54	\$5	1,096	10,848
BES	133,242	708,727	814	\$2.774	\$0.521	\$454	\$85	13,711	72,928	\$27	\$5	986	5,245
Small Business	33,274	563,297	385	\$9.446	\$0.558	\$815	\$48	3,424	57,963	\$92	\$5	246	4,169
Subtotal: C&I	443,178	4,926,952	3,123	\$6.110	\$0.550	\$867	\$78	45,603	506,983	\$59	\$5	3,280	36,462
						OTHER							
Subtotal: Other	\$ -	\$ -	\$ -	\$ -	-	-	\$ -	\$ -	-	-	-	-	-
TOTAL	1,049,870	15,488,880	7,447	\$11.602	\$0.786	\$1,636	\$111	108,032	1,593,806	\$113	\$8	7,770	114,627

## Table B – Southern Connecticut Gas (2023)

		Costs (\$000)		1	Benefits (\$00	D)	Benefit	Cost Ratios	Qua	ıntities
2023 SCG	Utility Cost	Modified Utility Cost	Total Resource Cost	Utility Benefit	Modified Utility Benefit	Total Resource Benefit	Utility Cost Test	Total Resource Cost Test	No. of Units	Units of Measure
				Resid	ential					
Retail Products	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	-	-	-
New Construction	\$651	\$651	\$1,249	\$2,199	\$2,199	\$4,298	3.38	3.44	549	Homes
Home Energy Solutions	\$2,562	\$2,562	\$2,562	\$2,865	\$2,865	\$5,513	1.12	2.15	1,512	Homes
HVAC & Water Heating Equipment	\$1,939	\$1,939	\$2,947	\$2,500	\$2,500	\$4,862	1.29	1.65	2,594	Units
HES-Income Eligible	\$3,295	\$3,295	\$3,295	\$3,296	\$3,296	\$8,608	1.00	2.61	1,294	Homes
Behavior	\$148	\$148	\$148	\$290	\$290	\$501	1.97	3.39	15,402	Units
Subtotal: Residential	\$8,594	\$8,594	\$10,200	\$11,151	\$11,151	\$23,782	1.30	2.33	-	-
				Commercia	& Industrial					
Energy Conscious Blueprint	\$1,627	\$1,627	\$3,104	\$2,023	\$2,023	\$4,297	1.24	1.38	700	Projects
Energy Opportunities	\$1,073	\$1,073	\$1,998	\$1,312	\$1,312	\$2,864	1.22	1.43	57	Projects
BES	\$482	\$482	\$786	\$806	\$806	\$1,686	1.67	2.15	14	Projects
Small Business	\$297	\$297	\$533	\$356	\$356	\$730	1.20	1.37	91	Projects
Subtotal: C&I	\$3,478	\$3,478	\$6,421	\$4,497	\$4,497	\$9,577	1.29	1.49		-
	'		,	ОТ	HER	'			'	
Subtotal: Other	\$2,620	\$2,620	\$2,620	\$ -	\$ -	\$ -	-	-	-	-
TOTAL	\$14,693	\$14,693	\$19,241	\$15,648	\$15,648	\$33,360	1.07	1.73	_	-

Table B – Southern Connecticut Gas (2023) (continued)

		Gas Savings			Gas Cos	st Rates			MMBtu	Savings		Emission	ns Savings
2023 SCG	Annual Savings (ccf)	Lifetime Savings (ccf)	Peak Savings (ccf)	Gas Cost Rate \$/ccf Annual	Gas Cost Ratio \$/LT- ccf	Gas Demand Cost \$/ccf	Gas Demand Cost \$/LT-ccf	Annual MMBtu	Lifetime MMBtu	Cost per Annual MMBtu	Cost per LT MMBtu	Annual Tons CO2	Lifetime Tons CO2
						Residentia	al						
Retail Products	-	-	-	\$ -	\$ -	\$ -	\$ -	-	-	\$ -	\$ -	-	-
New Construction	114,387	2,859,675	533	\$5.691	\$0.228	\$1,222	\$49	11,770	294,261	\$55	\$2	847	21,163
Home Energy Solutions	173,323	3,546,630	3,973	\$14.782	\$0.722	\$645	\$32	17,835	364,948	\$144	\$7	1,283	26,247
HVAC & Water Heating Equipment	157,555	3,141,605	1,399	\$12.308	\$0.617	\$1,386	\$70	16,212	323,271	\$120	\$6	1,166	23,250
HES-Income Eligible	188,003	4,089,631	2,008	\$17.524	\$0.806	\$1,641	\$75	19,346	420,823	\$170	\$8	1,391	30,266
Behavior	128,724	257,448	-	\$1.147	\$0.574	\$ -	\$ -	13,246	26,491	\$11	\$6	953	1,905
Subtotal: Residential	761,993	13,894,989	7,912	\$11.279	\$0.619	\$1,086	\$60	78,409	1,429,794	\$110	\$6	5,639	102,831
					Com	mercial & In	dustrial						
Energy Conscious Blueprint	175,447	2,987,223	1,361	\$9.274	\$0.545	\$1,196	\$70	18,054	307,385	\$90	\$5	1,298	22,107
Energy Opportunities	198,869	1,968,464	1,243	\$5.394	\$0.545	\$863	\$87	20,464	202,555	\$52	\$5	1,472	14,568
BES	205,296	1,091,985	1,254	\$2.348	\$0.441	\$384	\$72	21,125	112,365	\$23	\$4	1,519	8,081
Small Business	29,051	491,808	337	\$10.212	\$0.603	\$882	\$52	2,989	50,607	\$99	\$6	215	3,640
Subtotal: C&I	608,663	6,539,480	4,195	\$5.715	\$0.532	\$829	\$77	62,631	672,912	\$56	\$5	4,504	48,396
						OTHER							
Subtotal: Other	-	-	-	\$-	\$ -	\$ -	\$ -	-	-	\$ -	\$ -	-	-
TOTAL	1,370,656	20,434,469	12,107	\$10.719	\$0.719	\$1,214	\$81	141,040	2,102,707	\$104	\$7	10,144	151,227

# Table B – Southern Connecticut Gas (2024)

		Costs (\$000)		1	Benefits (\$00	0)	Benefit	Cost Ratios	Qua	ntities
2024 SCG	Utility Cost	Modified Utility Cost	Total Resource Cost	Utility Benefit	Modified Utility Benefit	Total Resource Benefit	Utility Cost Test	Total Resource Cost Test	No. of Units	Units of Measure
	•			Resid	lential	'				
Retail Products	\$ -	\$ -	\$ -	-	\$ -	\$ -	-	-	-	-
New Construction	\$674	\$674	\$1,299	\$2,312	\$2,312	\$4,548	3.43	3.50	574	Homes
Home Energy Solutions	\$2,546	\$2,546	\$2,546	\$2,851	\$2,851	\$5,531	1.12	2.17	1,501	Homes
HVAC & Water Heating Equipment	\$2,017	\$2,017	\$3,035	\$2,531	\$2,531	\$4,964	1.25	1.64	2,620	Units
HES-Income Eligible	\$3,313	\$3,313	\$3,313	\$3,315	\$3,315	\$8,717	1.00	2.63	1,425	Homes
Behavior	\$154	\$154	\$154	\$268	\$268	\$472	1.74	3.07	14,632	Units
Subtotal: Residential	\$8,703	\$8,703	\$10,346	\$11,277	\$11,277	\$24,232	1.30	2.34	-	-
				Commercia	& Industrial					
Energy Conscious Blueprint	\$1,647	\$1,647	\$3,145	\$2,017	\$2,017	\$4,302	1.22	1.37	709	Projects
Energy Opportunities	\$1,086	\$1,086	\$2,025	\$1,309	\$1,309	\$2,883	1.20	1.42	57	Projects
BES	\$488	\$488	\$798	\$801	\$801	\$1,698	1.64	2.13	15	Projects
Small Business	\$300	\$300	\$540	\$356	\$356	\$734	1.19	1.36	92	Projects
Subtotal: C&I	\$3,521	\$3,521	\$6,507	\$4,482	\$4,482	\$9,617	1.27	1.48		-
				ОТ	HER					
Subtotal: Other	\$2,618	\$2,618	\$2,618	\$ -	\$ -	\$ -	-	-	-	-
TOTAL	\$14,842	\$14,842	\$19,471	\$15,759	\$15,759	\$33,849	1.06	1.74	-	-

Table B – Southern Connecticut Gas (2024) (continued)

		Gas Savings			Gas C	ost Rates			MMBtu	Savings		Emissions Savings		
2024 SCG	Annual Savings (ccf)	Lifetime Savings (ccf)	Peak Savings (ccf)	Gas Cost Rate \$/ccf Annual	Gas Cost Ratio \$/LT-ccf	Gas Demand Cost \$/ccf	Gas Deman d Cost \$/LT-ccf	Annual MMBtu	Lifetime MMBtu	Cost per Annual MMBtu	Cost per Lifetime MMBtu	Annua I Tons CO2	Lifetim e Tons CO2	
				'	·	Residential					·			
Retail Products	-		-	\$ -	\$ -	\$ -	\$ -	-	-	-	-	-	-	
New Construction	119,480	2,987,010	556	\$5.639	\$0.226	\$1,212	\$48	12,295	307,363	\$55	\$2	884	22,106	
Home Energy Solutions	171,995	3,519,455	3,942	\$14.801	\$0.723	\$646	\$32	17,698	362,152	\$144	\$7	1,273	26,046	
HVAC & Water Heating Equipment	159,153	3,173,471	1,413	\$12.674	\$0.636	\$1,428	\$72	16,377	326,550	\$123	\$6	1,178	23,486	
HES - Income Eligible	187,791	4,119,004	2,006	\$17.640	\$0.804	\$1,651	\$75	19,324	423,846	\$171	\$8	1,390	30,483	
Behavior	122,289	244,578	-	\$1.258	\$0.629	\$ -	\$ -	12,584	25,167	\$12	\$6	905	1,810	
Subtotal: Residential	760,709	14,043,517	7,917	\$11.441	\$0.620	\$1,099	\$60	78,277	1,445,078	\$111	\$6	5,630	103,930	
					Cor	nmercial & Inc	lustrial							
Energy Conscious Blueprint	172,892	2,943,678	1,341	\$9.528	\$0.560	\$1,229	\$72	17,791	302,904	\$93	\$5	1,280	21,785	
Energy Opportunities	197,769	1,957,576	1,237	\$5.491	\$0.555	\$878	\$89	20,350	201,435	\$53	\$5	1,464	14,487	
BES	205,208	1,091,517	1,254	\$2.378	\$0.447	\$389	\$73	21,116	112,317	\$23	\$4	1,519	8,078	
Small Business	28,730	486,377	333	\$10.428	\$0.616	\$900	\$53	2,956	50,048	\$101	\$6	213	3,599	
Subtotal: C&I	604,599	6,479,149	4,164	\$5.823	\$0.543	\$846	\$79	62,213	666,704	\$57	\$5	4,474	47,950	
						OTHER								
Subtotal: Other	-	-	-	\$ -	\$ -	\$-	\$ -	-	-	\$ -	\$ -	-	-	
TOTAL	1,365,308	20,522,666	12,081	\$10.871	\$0.723	\$1,228	\$82	140,490	2,111,782	\$106	\$7	10,104	151,880	

# Table C – Southern Connecticut Gas (2022)

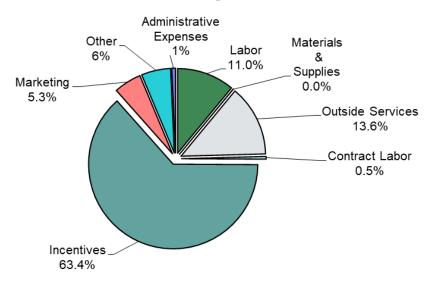
**Table C: SCG Budget Details** 

			Tabi	e C: SCG Budg	et Details				
SCG EE BUDGET	Labor	Materials & Supplies	Outside Services	Contractor Labor	Incentives	Marketing	Other	Admin. Expenses	TOTAL
			<u>'</u>	RESIDENTIA	Ĺ			'	
Residential New Construction	\$92,544	\$200	\$3,132	\$1,500	\$370,393	\$10,211	\$875	\$1,625	\$480,480
Home Energy Solutions	\$235,608	\$700	\$217,733	\$50,000	\$2,050,411	\$130,639	\$1,409	\$2,618	\$2,689,119
HVAC & Water Heating Equipment	\$79,000	\$500	\$150,672	\$6,000	\$1,075,770	\$41,092	\$1,050	\$1,950	\$1,356,035
HES-Income Eligible	\$235,608	\$1,000	\$47,800	\$6,000	\$3,343,326	\$99,421	\$910	\$1,690	\$3,735,755
Residential Behavior	\$22,572	\$100	\$110,719	\$ -	\$ -	\$ -	\$ -	\$-	\$133,391
Subtotal: Residential EE Portfolio	\$665,332	\$2,500	\$530,057	\$63,500	\$6,839,900	\$281,364	\$4,244	\$7,883	\$8,394,780
			со	MMERCIAL & INI	DUSTRIAL				
Energy Conscious Blueprint	\$150,458	\$1,000	\$47,970	\$3,000	\$1,265,686	\$216,668	\$3,417	\$20,502	\$1,708,701
Energy Opportunities	\$150,458	\$700	\$26,316	\$4,000	\$669,865	\$155,133	\$250	\$5,000	\$1,011,722
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	\$121,902	\$500	\$7,112	\$1,000	\$342,930	\$55,387	\$250	\$7,500	\$536,581
Small Business	\$84,314	\$200	\$59,250	\$5,000	\$200,000	\$24,220	\$500	\$60,000	\$433,485
Subtotal: C&I EE Portfolio	\$507,132	\$2,400	\$140,649	\$13,000	\$2,478,481	\$451,408	\$4,417	\$93,002	\$3,690,489
	,			EMAND MANAG	EMENT	,			,
Demand Mgmt. Res	\$21,442	\$ -	\$20,860	\$ -	\$30,625	\$ -	\$ -	\$ -	\$72,927
Demand Mgmt. – C&I	\$42,884	\$-	\$102,792	\$ -	\$37,500	\$ -	\$ -	\$-	\$183,176
Subtotal: Deman Mgmt.	\$64,326	\$-	\$123,652	\$-	\$68,125	\$-	\$ -	\$-	\$256,103
	70,000	· ·		- EDUCATION & E		, ,	T		7200,200
Energy Education	\$10,329	\$363	\$53,184	\$ -	\$ -	\$1,815	\$8,444	\$2,533	\$76,667
Workforce Development	\$ -	\$ -	\$82,667	\$ -	\$ -	\$ -	\$ -	\$ -	\$82,667
Community Outreach	\$11,194	\$390	\$61,138	\$ -	\$ -	\$4,196	\$2,371	\$712	\$80,000
Customer Engagement Initiative	\$3,561	\$139	\$42,840	\$ -	\$ -	\$321	\$2,414	\$724	\$50,000
Subtotal: Education & Engagement	\$25,084	\$892	\$239,828	\$ -	\$ -	\$6,332	\$13,229	\$3,969	\$289,334
			OTHER	- PROGRAMS/RE	QUIREMENTS				
Financing Support - Res	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$86,292	\$ -	\$86,292
Financing Support -C&I	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$20,000	\$ -	\$20,000
RD&D	\$ -	\$ -	\$50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$50,000
Subtotal: Programs & Requirements	\$ -	\$ -	\$50,000	\$ -	\$ -	\$ -	\$106,292	\$ -	\$156,292
				ADMINISTRATIV					
Administration	\$178,628	\$ -	\$9,383	\$ -	\$ -	\$-	\$ -	\$ -	\$188,011
Marketing Plan	\$-	\$ -	\$ -	\$ -	\$ -	\$40,100	\$ -	\$-	\$40,100
Planning	\$122,148	\$-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$122,148
EM&V	\$ -	\$ -	\$300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$300,000
Evaluation Administrator	\$ -	\$ -	\$29,607	\$ -	\$ -	\$ -	\$ -	\$-	\$29,607
Information Technology	\$63,501	\$ -	\$521,321	\$ -	\$ -	\$ -	\$ -	\$ -	\$584,822
Audits - Financial and	\$ - \$ -	\$ - \$ -	\$53,333 \$10,000	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$53,333 \$10,000
Operational									
PMI Subtotal: Other	\$ - \$364,276	\$ - \$ -	\$ - \$923,644	\$ - \$ -	\$ - \$ -	\$ - \$40,100	\$701,104 <b>\$701,104</b>	\$ - \$ -	\$701,104 <b>\$2,029,124</b>
Juniolai. Utilei	7504,270	. · ·	7323,044	- ډ	. · ·	940,100	7701,104	γ -	72,023,124

### Table C Pie Chart – Southern Connecticut Gas (2022)

## SOUTHERN CONNECTICUT GAS 2022 Gas Conservation Budget By Expense Class

# % of Budget



Expense Classes	Budget	% of Budget
Labor	\$ 1,626,150	10.98%
Materials & Supplies	\$ 5,792	0.04%
Outside Services	\$ 2,007,830	13.55%
Incentives	\$ 76,500	0.52%
Marketing	\$ 9,386,506	63.35%
Other	\$ 779,204	5.26%
Administrative Expenses	\$ 829,286	<u>5.60%</u>
Total	\$ 14,816,121	100.00%

# Table C – Southern Connecticut Gas (2023)

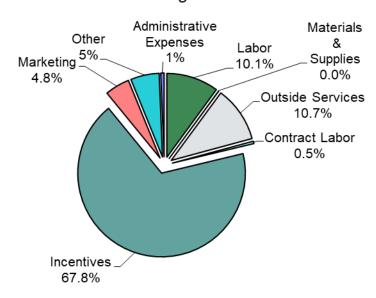
Table C SCG Budget Details

				SCG Budget De	tails				
SCG EE BUDGET	Labor	Materials & Supplies	Outside Services	Contractor Labor	Incentives	Marketing	Other	Admin. Expenses	TOTAL
				RESIDENTIA	L		'		
Residential New Construction	\$92,544	\$200	\$3,132	\$1,500	\$477,436	\$10,211	\$875	\$1,625	\$587,523
Home Energy Solutions	\$235,608	\$700	\$217,733	\$50,000	\$2,327,593	\$130,639	\$1,409	\$2,618	\$2,966,300
HVAC & Water Heating Equipment	\$79,000	\$500	\$150,672	\$6,000	\$1,347,081	\$41,092	\$1,050	\$1,950	\$1,627,346
HES-Income Eligible	\$235,608	\$1,000	\$47,800	\$6,000	\$3,855,853	\$99,421	\$910	\$1,690	\$4,248,283
Residential Behavior	\$22,572	\$100	\$129,563	\$ -	\$ -	\$ -	\$ -	\$ -	\$152,234
Subtotal: Residential EE Portfolio	\$665,332	\$2,500	\$548,901	\$63,500	\$8,007,963	\$281,364	\$4,244	\$7,883	\$9,581,687
			со	MMERCIAL & INC	DUSTRIAL				
Energy Conscious Blueprint	\$150,458	\$1,000	\$47,970	\$3,000	\$1,532,093	\$216,668	\$3,417	\$20,502	\$1,975,108
Energy Opportunities	\$150,458	\$700	\$26,316	\$4,000	\$810,861	\$155,133	\$250	\$5,000	\$1,152,718
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	\$121,902	\$500	\$7,112	\$1,000	\$415,111	\$55,387	\$250	\$7,500	\$608,763
Small Business	\$84,314	\$200	\$59,250	\$5,000	\$242,097	\$24,220	\$500	\$60,000	\$475,582
Subtotal: C&I EE Portfolio	\$507,132	\$2,400	\$140,649	\$13,000	\$3,000,162	\$451,408	\$4,417	\$93,002	\$4,212,170
			D	EMAND MANAG	EMENT				
Demand Mgmt. Res	\$42,884	\$ -	\$43,806	\$ -	\$64,313	\$ -	\$ -	\$ -	\$151,003
Demand Mgmt. – C&I	\$42,884	\$ -	\$105,876	\$ -	\$38,625	\$ -	\$ -	\$ -	\$187,385
Subtotal: Deman Mgmt.	\$85,768	\$ -	\$149,682	\$ -	\$102,938	\$-	\$ -	\$-	\$338,387
			OTHER	- EDUCATION & E	NGAGEMENT				
Energy Education	\$10,329	\$363	\$53,184	\$ -	\$ -	\$1,815	\$8,444	\$2,533	\$76,667
Workforce Development	\$ -	\$ -	\$82,667	\$ -	\$ -	\$ -	\$ -	\$ -	\$82,667
Community Outreach	\$11,194	\$390	\$61,138	\$ -	\$ -	\$4,196	\$2,371	\$712	\$80,000
Customer Engagement Initiative	\$3,561	\$139	\$42,840	\$ -	\$ -	\$321	\$2,414	\$724	\$50,000
Subtotal: Education & Engagement	\$25,084	\$892	\$239,828	\$ -	\$ -	\$6,332	\$13,229	\$3,969	\$289,334
			OTHER	- PROGRAMS/RE	QUIREMENTS				
Financing Support - Res	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$86,292	\$ -	\$86,292
Financing Support -C&I	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$20,000	\$ -	\$20,000
RD&D	\$ -	\$ -	\$50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$50,000
Subtotal: Programs & Requirements	\$ -	\$ -	\$50,000	\$ -	\$ -	\$ -	\$106,292	\$ -	\$156,292
				ADMINISTRATIV					
Administration	\$178,628	\$ -	\$9,383	\$ -	\$ -	\$ -	\$ -	\$ -	\$188,011
Marketing Plan	\$-	\$ -	\$ -	\$ -	\$ -	\$40,100	\$-	\$ -	\$40,100
Planning	\$122,148	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$122,148
EM&V	\$ -	\$ -	\$300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$300,000
Evaluation Administrator	\$ - \$63,501	\$ - \$ -	\$29,607 \$221,321	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$29,607 \$284,822
Information Technology EEB Consultants	\$63,501	\$ - \$ -	\$53,333	\$ -	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$-	\$284,822
Audits - Financial and Operational	\$ -	\$ -	\$10,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$10,000
PMI	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$775,647	\$ -	\$775,647
	. 7	· ~	· ~	ı 7	. 7	· · ·	7,,3,07,	l 4	7.7.5,047
Subtotal: Other	\$364,276	\$ -	\$623,644	\$ -	\$ -	\$40,100	\$775,647	\$ -	\$1,803,668

#### Table C Pie Chart – Southern Connecticut Gas (2023)

## SOUTHERN CONNECTICUT GAS 2023 Gas Conservation Budget By Expense Class

# % of Budget



Expense Classes	Budget	% of Budget
Labor	\$ 1,647,592	10.06%
Materials & Supplies	\$ 5,792	0.04%
Outside Services	\$ 1,752,703	10.70%
Incentives	\$ 76,500	0.47%
Marketing	\$ 11,111,063	67.83%
Other	\$ 779,204	4.76%
Administrative Expenses	\$ 903,829	<u>5.52%</u>
Total	\$ 16,381,537	100.00%

#### Table C – Southern Connecticut Gas (2024)

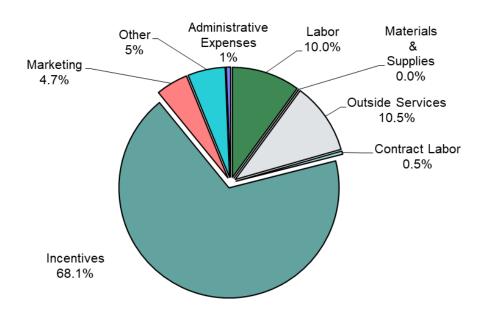
Table C SCG Budget Details

				SCG Budget De	tails				
SCG EE BUDGET	Labor	Materials & Supplies	Outside Services	Contractor Labor	Incentives	Marketing	Other	Admin. Expenses	TOTAL
				RESIDENTIA	L			·	<u>'</u>
Residential New Construction	\$92,544	\$200	\$3,132	\$1,500	\$452,723	\$10,211	\$875	\$1,625	\$562,810
Home Energy Solutions	\$235,608	\$700	\$217,733	\$50,000	\$2,315,815	\$130,639	\$1,409	\$2,618	\$2,954,523
HVAC & Water Heating Equipment	\$79,000	\$500	\$150,672	\$6,000	\$1,294,129	\$41,092	\$1,050	\$1,950	\$1,574,394
HES-Income Eligible	\$235,608	\$1,000	\$47,800	\$6,000	\$3,913,423	\$99,421	\$910	\$1,690	\$4,305,853
Residential Behavior	\$22,572	\$100	\$129,073	\$ -	\$ -	\$ -	\$ -	\$ -	\$151,745
Subtotal: Residential EE Portfolio	\$665,332	\$2,500	\$548,411	\$63,500	\$7,976,090	\$281,364	\$4,244	\$7,883	\$9,549,324
			СО	MMERCIAL & INC	DUSTRIAL				
Energy Conscious Blueprint	\$150,458	\$1,000	\$47,970	\$3,000	\$1,589,213	\$216,668	\$3,417	\$20,502	\$2,032,228
Energy Opportunities	\$150,458	\$700	\$26,316	\$4,000	\$841,092	\$155,133	\$250	\$5,000	\$1,182,949
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	\$121,902	\$500	\$7,112	\$1,000	\$430,587	\$55,387	\$250	\$7,500	\$624,239
Small Business	\$84,314	\$200	\$59,250	\$5,000	\$251,123	\$24,220	\$500	\$60,000	\$484,608
Subtotal: C&I EE Portfolio	\$507,132	\$2,400	\$140,649	\$13,000	\$3,112,016	\$451,408	\$4,417	\$93,002	\$4,324,023
			D	EMAND MANAG	EMENT				
Demand Mgmt. Res	\$42,884	\$ -	\$45,996	\$ -	\$67,528	\$ -	\$ -	\$ -	\$156,408
Demand Mgmt. – C&I	\$42,884	\$ -	\$109,052	\$ -	\$39,784	\$ -	\$ -	\$ -	\$191,720
Subtotal: Deman Mgmt.	\$85,768	\$ -	\$155,048	\$ -	\$107,312	\$ -	\$ -	\$-	\$348,128
			OTHER -	EDUCATION & E	NGAGEMENT				
Energy Education	\$10,329	\$363	\$53,184	\$ -	\$ -	\$1,815	\$8,444	\$2,533	\$76,667
Workforce Development	\$ -	\$-	\$82,667	\$-	\$ -	\$ -	\$ -	\$-	\$82,667
Community Outreach	\$11,194	\$390	\$61,138	\$ -	\$ -	\$4,196	\$2,371	\$712	\$80,000
Customer Engagement Initiative	\$3,561	\$139	\$42,840	\$ -	\$ -	\$321	\$2,414	\$724	\$50,000
Subtotal: Education & Engagement	\$25,084	\$892	\$239,828	\$ -	\$-	\$6,332	\$13,229	\$3,969	\$289,334
			OTHER	- PROGRAMS/RE	QUIREMENTS				
Financing Support - Res	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$86,292	\$ -	\$86,292
Financing Support -C&I	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$20,000	\$ -	\$20,000
RD&D	\$ -	\$ -	\$50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$50,000
Subtotal: Programs & Requirements	\$ -	\$ -	\$50,000	\$ -	\$ -	\$ -	\$106,292	\$ -	\$156,292
Administration	¢470.630			ADMINISTRATIV		<b>A</b>			¢400.044
Administration  Marketing Blan	\$178,628	\$ -	\$9,383	\$-	\$ -	\$-	\$ -	\$-	\$188,011
Marketing Plan	\$-	\$ -	\$-	\$-	\$-	\$40,100	\$ -	\$-	\$40,100
Planning	\$122,148	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$122,148
EM&V	\$-	\$ -	\$300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$300,000
Evaluation Administrator	\$ - \$63,501	\$ - \$ -	\$29,607	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$29,607 \$260,822
Information Technology EEB Consultants	\$ -	\$ - \$ -	\$197,321 \$53,333	\$ -	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$53,333
Audits - Financial and Operational	\$ -	\$ -	\$10,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$10,000
PMI	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$778,909	\$ -	\$778,909
Subtotal: Other	\$364,276	\$ -	\$599,644	\$ -	\$-	\$40,100	\$778,909	\$ -	\$1,782,929

#### Table C Pie Chart – Southern Connecticut Gas (2024)

## SOUTHERN CONNECTICUT GAS 2024 Gas Conservation Budget By Expense Class

# % of Budget



Expense Classes	Budget	% of Budget
Labor	\$ 1,647,592	10.02%
Materials & Supplies	\$ 5,792	0.04%
Outside Services	\$ 1,733,580	10.54%
Incentives	\$ 76,500	0.47%
Marketing	\$ 11,195,418	68.06%
Other	\$ 779,204	4.74%
Administrative Expenses	<u>\$ 907,091</u>	<u>5.51%</u>
Total	\$ 16,450,030	100.00%

# Table D – Southern Connecticut Natural Gas Historical and Projected Expenditures (2013-2024)

Table D: SCG Historical and Projected \$ (2013-2024) Expenditures \$ (000)

	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual
	Hetuai	RESIDE	<u> </u>	Hetdui	rtetaar	/ recual
HES-Income Eligible	\$3,816	\$3,541	\$1,898	\$2,731	\$2,804	\$3,217
Home Energy Solutions	\$1,666	\$3,344	\$3,029	\$1,477	\$1,648	\$1,425
	\$39	\$266	\$585	\$1,675	\$1,497	\$2,812
HVAC & Water Heating						
Residential New Construction	\$596	\$281	\$453	\$623	\$392	-\$256
Residential Behavior	\$ -	\$114	-\$37	\$7	\$ -	\$126
Subtotal: Residential	\$6,116	\$7,546	\$5,928	\$6,513	\$6,341	\$7,323
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Energy Conscious Blueprint	\$697	\$1,483	\$941	\$1,247	\$956	\$760
Energy Opportunities	\$835	\$808	\$1,247	\$911	\$1,446	\$1,208
Business & Energy Sustainability (O&M, RCx, BSC, CSP/SEM)	\$20	\$46	\$134	\$69	\$118	\$130
Small Business	\$92	\$113	\$99	\$241	\$157	\$73
Subtotal: C&I	\$1,604	\$2,450	\$2,421	\$2,468	\$2,677	\$2,171
		DEMAND MA	NAGEMENT			
Demand Management - Residential	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Demand Management – C&I	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal: Demand Management	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		OTHER - EDUCATION				
Educate the Public	\$ -	\$ -	\$ -	\$218	\$210	\$68
Customer Engagement	\$ -	\$ -	\$ -	\$67	\$17	\$5
Educate the Students	\$ -	\$ -	\$ -	\$35	\$68	\$26
Educate the Workforce	\$ -	\$ -	\$ -	\$30	\$16	\$13
SmartLiving Center/Science Center	\$ -	\$167	\$100	\$ -	\$ -	\$ -
Eesmarts/K-12 Education	\$ -	\$26	\$70	\$ -	\$ -	\$ -
Clean Energy Communities	\$22	\$47	\$68	\$ -	\$ -	\$ -
Subtotal: Education	\$22	\$240	\$238	\$350	\$311	\$112
		OTHER - PROGRAM	S/REQUIREMENTS			
Financing Support – Residential	\$79	\$87	\$86	\$77	\$103	\$8
Financing Support - C&I	\$ -	\$ -	\$0	\$ -	\$ -	\$ -
RD&D	\$86	\$ -	\$0	\$8	\$17	\$59
Institute for Sustainable Energy	\$ -	\$37	\$41	\$ -	\$ -	\$ -
ESPC Project Manager	\$ -	\$6	\$3	\$ -	\$ -	\$ -
Subtotal: Programs/Requirements	\$169	\$130	\$130	\$85	\$120	\$66
		OTHER - ADMINISTR	ATIVE & PLANNING			
Administration	\$89	\$127	\$170	\$130	\$172	\$143
Marketing Plan	\$ -	\$97	\$85	\$109	\$73	\$30
Planning	\$151	\$99	\$102	\$141	\$169	\$98
EM&V	\$24	\$141	\$161	\$200	\$200	\$218
Evaluation Administrator	\$ -	\$26	\$26	\$20	\$20	\$19
Information Technology	\$14	\$101	\$210	\$109	\$106	\$140
EEB Consultants	\$43	\$24	\$15	\$43	\$43	\$32
Audits - Financial and Operational	\$ -	\$ -	\$ -	\$ -	\$10	\$4
PMI	\$655	\$694	\$596	\$687	\$435	\$709
Subtotal: Admin. & Planning	\$977	\$1,310	\$1,365	\$1,439	\$1,228	\$1,393
TOTAL	\$8,888	\$11,676	\$10,082	\$10,855	\$10,677	\$11,067

Table D – Southern Connecticut Gas CT Historical and Projected Expenditures (2013-2024)(continued)

Table D: SCG Historical and Projected \$ (2013-2024) Expenditures \$ (000)

		Experiantal				
	2019	2020	2021	2022	2023	2024
	Actual	Actual	Actual	Budget	Budget	Budget
		RESIDE			I .	
HES-Income Eligible	\$3,050	\$1,681	\$3,697	\$3,736	\$4,248	\$4,306
Home Energy Solutions	\$1,858	\$2,556	\$4,517	\$2,689	\$2,966	\$2,955
HVAC & Water Heating Equipment	\$3,493	\$3,257	\$3,010	\$1,356	\$1,627	\$1,574
Residential New Construction	\$499	\$463	\$21	\$480	\$588	\$563
Residential Behavior	\$30	\$151	\$62	\$133	\$152	\$152
Subtotal: Residential	\$8,929	\$8,107	\$11,307	\$8,395	\$9,583	\$9,551
	10,000	7-7-51	¥==,000	10,000	40,000	70,000
Energy Conscious Blueprint	\$1,226	\$2,157	\$3,714	\$1,709	\$1,975	\$2,032
Energy Opportunities	\$734	\$2,033	\$926	\$1,012	\$1,153	\$1,183
Business & Energy Sustainability						
(O&M, RCx, BSC, CSP/SEM)	\$197	\$229	\$308	\$537	\$609	\$624
Small Business	\$217	\$238	\$95	\$433	\$476	\$485
Subtotal: C&I	\$2,373	\$4,656	\$5,043	\$3,690	\$4,212	\$4,324
	'	DEMAND MA	NAGEMENT			'
Demand Management - Residential	\$ -	\$ -	\$ -	\$73	\$151	\$156
Demand Management – C&I	\$-	\$ -	\$-	\$183	\$187	\$192
				-		
Subtotal: Demand Management	\$ -	\$ -	\$ -	\$256	\$338	\$348
Educate the Dublic	¢71	OTHER - EDUCATION		ćao	ćoo	ćoo
Educate the Public	\$71 \$-	\$31 \$26	\$25	\$80	\$80	\$80
Customer Engagement Educate the Students	\$31		\$15	\$50 \$77	\$50	\$50 \$77
		\$65	\$17	-	\$77	
Educate the Workforce	\$16 \$-	\$ - \$ -	\$ - \$ -	\$83 \$ -	\$83 \$ -	\$83 \$ -
SmartLiving Center/Science Center Eesmarts/K-12 Education	\$-	\$ -	\$-	\$-	\$ -	\$-
Clean Energy Communities	\$ -	\$ -	\$ -	\$ -	\$ -	\$-
Subtotal: Education	\$117	\$122	\$58	\$289	\$289	\$289
Subtotal. Education	\$117			<b>3203</b>	3283	<b>3283</b>
		OTHER - PROGRAM	S/REQUIREMENTS		I	
Financing Support – Residential	\$82	\$62	\$ -	\$86	\$86	\$86
Financing Support - C&I	\$ -	\$ -	\$ -	\$20	\$20	\$20
RD&D	\$38	\$20	\$12	\$50	\$50	\$50
Institute for Sustainable Energy	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
ESPC Project Manager	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal: Programs/Requirements	\$120	\$82	\$ -	\$ -	\$ -	\$-
		OTHER - ADMINISTR	ATIVE & PLANNING			
Administration	\$120	\$81	\$207	\$188	\$188	\$188
Marketing Plan	\$18	\$9	\$72	\$40	\$40	\$40
Planning	\$106	\$114	\$100	\$122	\$122	\$122
EM&V	\$218	\$201	\$200	\$300	\$300	\$300
Evaluation Administrator	\$19	\$22	\$22	\$30	\$30	\$30
Information Technology	\$128	\$79	\$340	\$585	\$285	\$261
EEB Consultants	\$31	\$43	\$43	\$53	\$53	\$53
Audits - Financial and Operational	\$10	\$43	\$10	\$10	\$10	\$10
PMI	\$901	\$630	\$460	\$701	\$776	\$779
Subtotal: Admin. & Planning	\$1,550	\$1,181	\$1,454	\$2,029	\$1,804	\$1,783
TOTAL	\$15,995	\$14,149	\$17,873	\$14,816	\$16,382	\$16,450

Table D1 – Southern Connecticut Gas Annual Savings CCF (2013-2024)

# Table D1 SCG – Annual Savings (CCF) Natural Gas Conservation Plan Actual/Budget

	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Goals	2023 Goals	2024 Goals
				<u> </u>	RESII	DENTIAL	l .	l	l	l	<u> </u>	
HES-Income Eligible	635	459	186	205	229	326	316	103	397	146	188	188
HES	284	501	388	187	168	156	202	186	378	127	173	172
HVAC & Water Heating Equipment	-	-	-	232	197	407	439	378	334	118	158	159
Residential New Construction	19	30	24	53	15	19	26	18	56	88	114	119
Residential Behavior	-	-	-	-	-	-	95	-	70	128	129	122
Subtotal: Residential EE Portfolio	945	1,035	679	677	609	908	1,078	685	1,234	607	762	761
				(	COMMERCIA	L & INDUST	RIAL					
Energy Conscious Blueprint	290	201	138	411	134	99	212	404	243	129	175	173
Energy Opportunities	222	508	540	727	438	585	470	646	237	148	199	198
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	86	2	5	47	108	243	214	193	219	133	205	205
Small Business	11	37	30	68	42	33	30	22	29	33	29	29
Subtotal: C&I EE Portfolio	609	748	713	1,253	722	960	927	1,265	727	443	609	605
TOTAL	1,554	1,783	1,392	1,930	1,331	1,868	2,005	1,950	1,962	1,050	1,371	1,365

# Table D2 – Southern Connecticut Gas Lifetime Savings CCF (2013-2024)

# Table D2 SCG – Lifetime Savings (CCF) Natural Gas Conservation Plan Actual/Budget

	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual
·		RESIDENTIA	AL			
HES-Income Eligible (Weatherization)	13,533	9,680	3,903	4,333	4,941	7,151
HES	5,613	10,147	7,797	3,970	3,425	3,159
HVAC & Water Heating Equipment	136	861	1,553	4,619	3,992	8,147
Residential New Construction	457	705	593	1,272	370	473
Residential Behavior	-	-	-	-	-	-
Subtotal: Residential EE Portfolio	19,739	21,393	13,846	14,194	12,728	18,930
	C	OMMERCIAL & IN	DUSTRIAL			
Energy Conscious Blueprint	4,484	3,339	2,194	7,539	2,107	1,660
Energy Opportunities	2,322	5,158	6,421	7,630	4,445	6,924
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	430	10	25	343	559	1,337
Small Business	152	408	427	895	438	382
Subtotal: C&I EE Portfolio	7,388	8,915	9,067	16,407	7,549	10,303
TOTAL	27,127	30,308	22,913	30,601	20,277	29,233

## Table D2 - Southern Connecticut Gas Lifetime Savings CCF (2013-2024)(continued)

# Table D2 SCG – Lifetime Savings (CCF) Natural Gas Conservation Plan Actual/Budget

	2019 Actual	2020 Actual	2021 Actual	2022 Goals	2023 Goals	2024 Goals
		RESIDENTIAL				
HES-Income Eligible (Weatherization)	6,558	2,238	6,606	3,148	4,090	4,119
HES	4,089	3,852	8,282	2,600	3,547	3,519
HVAC/Water Heating	8,455	7,003	6,595	2,348	3,142	3,173
Residential New Construction	657	447	1,401	2,211	2,860	2,987
Residential Behavior	200	-	139	255	257	245
Subtotal: Residential EE Portfolio	19,959	13,540	23,023	10,562	13,895	14,044
	COMI	MERCIAL & INDI	JSTRIAL			
Energy Conscious Blueprint	3,006	5,382	3,576	2,189	2,987	2,944
Energy Opportunities	4,249	7,402	3,022	1,466	1,968	1,958
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	1,076	1,103	1,194	709	1,092	1,092
Small Business	381	280	345	563	492	486
Subtotal: C&I EE Portfolio	8,712	14,167	8,138	4,927	6,539	6,479
TOTAL	28,671	27,707	31,161	15,489	20,434	20,523

Table D3 – Southern Connecticut Gas Cost per Annual Savings CCF (2013-2024)

# Table D3 SCG - Cost per Annual Savings (CCF) (2013-2024) Natural Gas Conservation Plan Actual/Budget

	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Goals	2023 Goals	2024 Goals
					RESIDI	NTIAL						
HES-Income Eligible - Weatherization	\$6.009	\$7.715	\$10.204	\$13.322	\$12.245	\$9.868	\$9.652	\$16.316	\$7.777	\$18.264	\$18.226	\$18.674
Home Energy Solutions	\$5.866	\$6.675	\$7.807	\$7.898	\$9.810	\$9.135	\$9.197	\$13.743	\$10.291	\$15.700	\$14.782	\$14.801
HVAC/Water Heating	\$0.000	\$0.000	\$0.000	\$7.220	\$7.599	\$6.909	\$7.957	\$8.616	\$11.010	\$11.990	\$11.471	\$11.455
Residential New Construction	\$31.464	\$9.449	\$18.875	\$11.755	\$26.133	(\$13.451)	\$19.173	\$25.741	\$0.107	\$6.028	\$5.691	\$5.639
Residential Behavior	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$0.313	\$ -	\$2.086	\$0.926	\$1.147	\$1.258
Subtotal: Residential EE Portfolio	\$6.473	\$7.289	\$8.730	\$9.620	\$10.412	\$8.065	\$8.283	\$11.835	\$8.752	\$11.081	\$11.281	\$11.445
				cc	MMERCIAL	& INDUSTRI	AL					
Energy Conscious Blueprint	\$2.403	\$7.378	\$6.819	\$3.034	\$7.134	\$7.676	\$5.783	\$5.339	\$11.968	\$9.340	\$9.274	\$9.528
Energy Opportunities	\$3.761	\$1.591	\$2.309	\$1.253	\$3.301	\$2.065	\$1.561	\$3.147	\$3.170	\$5.557	\$5.394	\$5.491
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	(\$0.233)	\$22.277	\$26.800	\$1.468	\$1.093	\$0.537	\$0.920	\$1.186	\$1.139	\$2.774	\$2.348	\$2.378
Small Business	\$8.364	\$3.054	\$3.300	\$3.544	\$3.738	\$2.208	\$7.145	\$10.806	\$14.911	\$9.446	\$10.212	\$10.428
Subtotal: C&I EE Portfolio	\$2.634	\$3.276	\$3.396	\$1.970	\$3.708	\$2.262	\$2.561	\$3.681	\$5.962	\$6.110	\$5.715	\$5.823

Table D4 Courthorn Connecticut Cas Cost par Lifetime Sovings CCE (2012-2024)

### Table D4 – Southern Connecticut Gas Cost per Lifetime Savings CCF (2013-2024)

# Table D4 SCG - Cost per Lifetime Savings (CCF) (2013-2024) Natural Gas Conservation Plan Actual/Budget

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Goals	Goals	Goals
					RESID	ENTIAL		-			-	
HES-Income Eligible - Weatherization	\$0.282	\$0.366	\$0.486	\$0.630	\$0.567	\$0.450	\$0.465	\$0.751	\$0.467	\$0.846	\$0.838	\$0.851
Home Energy Solutions	\$0.297	\$0.330	\$0.388	\$0.372	\$0.481	\$0.451	\$0.454	\$0.664	\$0.470	\$0.767	\$0.722	\$0.723
HVAC/Water Heating	\$0.283	\$0.309	\$0.377	\$0.363	\$0.375	\$0.345	\$0.413	\$0.465	\$0.557	\$0.601	\$0.575	\$0.574
Residential New Construction	\$1.304	\$0.399	\$0.764	\$0.490	\$1.059	(\$0.540)	\$0.759	\$1.037	\$0.004	\$0.241	\$0.228	\$0.226
Residential Behavior	\$ -	\$ -	\$-	\$-	\$ -	\$ -	\$0.149	\$ -	\$1.043	\$0.463	\$0.574	\$0.629
Subtotal: Residential EE Portfolio	\$0.310	\$0.353	\$0.428	\$0.459	\$0.498	\$0.387	\$0.447	\$0.599	\$0.469	\$0.636	\$0.619	\$0.620
				C	OMMERCIAL	. & INDUSTR	IAL					
Energy Conscious Blueprint	\$0.155	\$0.444	\$0.429	\$0.165	\$0.454	\$0.458	\$0.408	\$0.401	\$0.813	\$0.549	\$0.545	\$0.560
Energy Opportunities	\$0.360	\$0.157	\$0.194	\$0.119	\$0.325	\$0.174	\$0.173	\$0.275	\$0.248	\$0.561	\$0.545	\$0.555
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	(\$0.047)	\$4.455	\$5.360	\$0.201	\$0.211	\$0.098	\$0.183	\$0.208	\$0.209	\$0.521	\$0.441	\$0.447
Small Business	\$0.605	\$0.277	\$0.232	\$0.269	\$0.358	\$0.191	\$0.568	\$0.849	\$1.241	\$0.558	\$0.603	\$0.616
Subtotal: C&I EE Portfolio	\$0.217	\$0.275	\$0.267	\$0.150	\$0.355	\$0.211	\$0.272	\$0.329	\$0.533	\$0.550	\$0.532	\$0.543

Table D5 – Southern Connecticut Gas Units (2013-2024)

## Table D5 SCG – Units

#### Natural Gas Conservation Plan Actual/Budget

	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Goals	2023 Goals	2024 Goals
	RESIDENTIAL											
HES Income Eligible – Weatherization	3,647	2,395	1,187	1,329	1,319	2,818	5,314	868	1,726	909	1,294	1,425
Home Energy Solutions	2,619	3,957	3,758	1,783	1,600	1,467	1,729	4,577	2,110	1,109	1,512	1,501
HVAC/Water Heating	155	747	1,218	3,099	2,128	5,004	6,777	13,504	5,075	1,939	2,594	2,620
Residential New Construction	116	336	54	294	43	136	126	121	358	424	549	574
Residential Behavior	-	-	-	-	-	-	14,250	-	16,000	16,212	15,402	14,632
Subtotal: Residential EE Portfolio	6,537	7,435	6,217	6,505	5,090	9,425	28,196	19,070	25,269	20,593	21,352	20,753
				co	MMERCIAL	& INDUSTRI	AL					
Energy Conscious Blueprint	100	87	40	67	32	75	223	216	321	498	700	709
Energy Opportunities	31	40	22	28	18	48	11	47	14	29	57	57
Business & Energy Sustainability (O&M, RCx, CSP/SEM)	3	4	2	9	3	22	10	4	16	9	14	15
Small Business	72	57	28	51	72	62	45	46	148	97	91	92
Subtotal: C&I EE Portfolio	206	188	92	155	125	207	289	313	499	633	862	873
TOTAL	6,743	7,623	6,309	6,660	5,215	9,632	28,485	19,383	25,768	21,225	22,213	21,626

Southern Connecticut Gas PMI (2022)

#### **SOUTHERN CONNECTICUT GAS COMPANY**

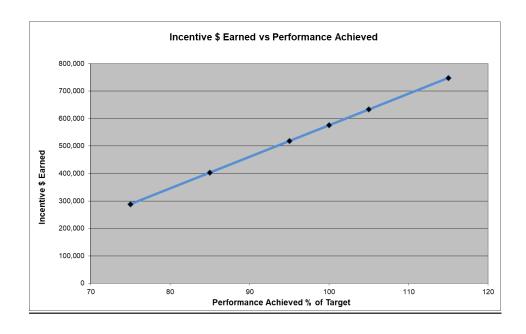
#### **2022 Management Incentive Performance Indicators and Incentive Matrix**

SCG and the EEB recognize that having clear indicators and metrics of performance are helpful in delivering quality programs to Connecticut consumers. The following is a table of performance and incentive metrics developed by the Companies with input from the EEB, the EEB consultants and DEEP. These performance and incentive metrics apply to the programs delineated in the 2022-2024 Plan. The projected SCG Performance Incentive is \$575,618 and is based on achieving 100% of all performance targets and earning an incentive of 5.0% of the total EE program budget of \$11,512,369 as shown on Table A (exclusive of EEB costs, Evaluation Consultant costs, Management incentives and Audit costs). The actual earned amount will be calculated on a sliding scale based on the percent of goal achieved and the actual total expenditures, based on the following performance range:

#### Performance Incentive Illustration-

Performance % Minimum	<u>Pretax Incentive</u>	Pre-tax Incentive
75	2.5%	\$287,809
85	3.5%	\$402,933
95	4.5%	\$518,057
100	5.0%	\$575,618
105	5.5%	\$633,180
115	6.5%	\$748,304
Maximum Budget	\$11,512,369	)

Goals will be prorated based on actual over/under spend of budget.



# Southern Connecticut Gas PMI (2022) (continued)

SEC	TOR					Incentive Me	etrics	
Prog	gram	Perforr	mance Indicators		Incentive Metric	Target Goal	Weight	Incentive
RESID	ENTIAL	Program Name	LT-CCF	% (1)				
Residential Programs	\$6,721,453	New Construction	2,210,520	20.93%	Sum of Gas	Gas System	0.2144	\$123,413
(Sector Level) Sector		Home Energy Solutions	2,599,741	24.61%	System Benefit from	Benefit from Residential programs		
Budget		HVAC	2,348,355	22.23%	Residential			
		HES - Income Eligible	3,148,079	29.81%	programs	\$8,438,486		
		Behavior	255,233	2.42%				
		Total	10,561,928					
		Savings Rate	\$0.7990	/ccf	-			
		Savings	\$8,438,486					
		(1) perce	ent of target goa	I				
Net Residential Gas Benefit:						\$1,717,033	0.2144	\$123,413
Home Energy Solutions	\$1,994,681	Achieve CCF savings for family home that has a barriered homes). Ba adjusted to the cur	air sealing comple sed on previous y	eted (i.e., non- year's actuals	ccf/home	Achieve 183.95 ccf savings/ single-family home	0.0450	\$25,903
HES- Income Eligible	\$2,663,429	Achieve CCF savings for family home that has a barriered homes). Ba adjusted to the cur	air sealing comple sed on previous y	ccf/home	Achieve 101.84 ccf savings/ single-family home	0.0450	\$25,903	

# Southern Connecticut Gas PMI (2022) (continued)

SECTO	OR					Incentive Mo	etrics	
Progra	am		Performance Indica	ators	Incentive Metric	Target Goal	Weight	Incentive
COMMERCIAL &		Program Name	LT-CCF	% (1)				
C&I Programs (Sector Level)	\$2,707,681	Energy Conscious Blueprint	2,189,075	44.43%	Total Gas	Gas System Benefit from	0.1856	\$106,835
Sector Budget		Energy Opportunities	1,465,854	29.75%	System Benefit from C&I	C&I programs		
		Business and Energy Sustainability	708,727	14.38%	programs	\$3,366,818		
		Small Business	563,297	11.43%				
		Total	4,926,952					
		Savings Rate	<b>\$0.6833</b> /ccf					
		Savings	\$3,366,818					
N. 1 601		(1	) percent of targe	et goal				
Net C&I Gas System Benefit:						\$659,137	0.1856	\$106,835
Small Business	\$314,296	will consist of a taild bundles, energ appropriate (e measures). Calcu comprehensive projects (excluding as including more	ored combination y management, a specially for high- ulated as signed p offerings at time rebates). Compre	of measure and service of measure and service of measure and service ond financing where ecost, long payback rojects that included of offering/all signed hensive shall be defined e. Based on Prior Year (%+5%).	% of Gas Projects	80% of signed projects	0.0500	\$28,781
Energy Conscious Blueprint / Energy Opportunities	\$2,023,826	Develop and implet will consist of a tailor bundles, technica financing where appayback measur included compresigned projects (exterior)	ment comprehens red combination assistance for SE opropriate (espectes). Calculated as nensive offerings cluding rebates). (at least one end	sive offerings. Offerings of measures and service M, benchmarking and ially for high-cost, long signed projects that at time of offering/all Comprehensive shall be use with BES counting as ior Year Actual results +	% of Gas Projects	35% of signed projects	0.0500	\$28,781
Evaluation		requests based or Sliding scale as not achievement ba	n agreed upon tim ed in the PMI exh	ers and Evaluation Data nelines for each study. ibit - with 100% of goal e data requests and oleted on time.	Timely turnaround	Based on 90% of data request and purchase orders	0.0100	\$5,756
Total Incentive	s						1.0000	\$575,618

Southern Connecticut Gas PMI (2023)

#### SOUTHERN CONNECTICUT GAS COMPANY

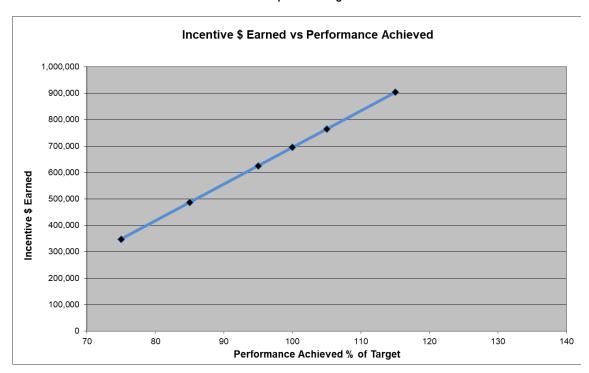
#### 2023 Management Incentive Performance Indicators and Incentive Matrix

SCG and the EEB recognize that having clear indicators and metrics of performance are helpful in delivering quality programs to Connecticut consumers. The following is a table of performance and incentive metrics developed by the Companies with input from the EEB, the EEB consultants and DEEP. These performance and incentive metrics apply to the programs delineated in the 2022-2024 Plan. The projected SCG Performance Incentive is \$695,218 and is based on achieving 100% of all performance targets and earning an incentive of 5.0% of the total EE program budget of \$13,904,353 as shown on Table A (exclusive of EEB costs, Evaluation Consultant costs, Management incentives and Audit costs). The actual earned amount will be calculated on a sliding scale based on the percent of goal achieved and the actual total expenditures, based on the following performance range:

-Performance Incentive Illustration-

Performance % Minimum	Pretax Incentive	Pre-tax Incentive
75	2.5%	\$347,609
85	3.5%	\$486,652
95	4.5%	\$625,696
100	5.0%	\$695,218
105	5.5%	\$764,739
115	6.5%	\$903,783
Maximum Budget	\$13,904,353	

Goals will be prorated based on actual over/under spend of budget.



# Southern Connecticut Gas PMI (2023) (continued)

SEC.	ГOR						Incentive	Metrics	
Prog	ram	Perform	ance Indicators	•		Incentive Metric	Target Goal	Weight	Incentive
RESIDE	NTIAL	Program Name	LT-CCF		% (1)				
Residential	\$8,594,411							0.2144	\$149,055
Programs (Sector	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	New Construction	2,859,67	5	20.58%	Sum of Gas	Gas System Benefit from		, , , , , , ,
Level) Sector		Home Energy Solutions	3,546,63	0	25.52%	System Benefit	Residential		
Budget		HVAC	3,141,60	5	22.61%	from	programs		
		HES - Income Eligible			Residential programs	\$11,150,837			
		Behavior							
		Total	13,894,989						
			4	, ,		-			
		Savings Rate	\$0.8025	/ccf					
		Savings	\$11,150,837						
		(1) perce	ent of target goa	al					
Net Residential Gas Benefit:							\$2,556,425	0.2144	\$149,055
Home Energy Solutions	\$1,654,261	Achieve CCF savings from family home that has a barriered homes). Bas adjusted to the currick (X	e., non- actuals	ccf/home	Achieve X ccf savings/ single-family home	0.0450	\$31,285		
HES-Income Eligible	\$2,954,634	Achieve CCF savings from "core services" per single-family home that has air sealing completed (i.e., non-barriered homes). Based on previous year's actuals adjusted to the current year CT PSD plus 2.0% (X*102%).				ccf/home	Achieve X ccf savings/ single-family home	0.0450	\$31,285

# Southern Connecticut Gas PMI (2023) (continued)

SECTOR Program							Incentive Metrics			
		Perfo	rmance Ind	icators		Incentive Metric	Target Goal	Weight	Incentive	
COMMERCIAL & INDUSTRIAL (C&I)		Program Name	LT-C	CCF	% (1)					
C&I Programs (Sector Level)	\$3,478,441	Energy Conscious Blueprint	2,987	7,223	45.68%	Total Gas System	Gas System	0.1856	\$129,032	
Sector Budget		Energy Opportunities	1,968,464		30.10%	Benefit from C&I programs	Benefit from C&I programs \$4,497,253			
		Business and Energy Sustainability	1,091,985		16.70%					
		Small Business	491,808		7.52%					
		Total	6,539,480							
		Savings Rate	\$0.6877	/ccf						
		Savings	\$4,49	7,253						
		(1) pe	rcent of tar	get goal						
Net C&I Gas System Benefit:							\$1,018,812	0.1856	\$129,032	
Small Business	\$296,671	Develop and implemen will consist of a tailored bundles, energy ma appropriate (especimeasures). Calculate comprehensive offer projects (excluding rebats including more tha Actual r	ure and service cing where ng payback hat included ng/all signed shall be defined	% of Gas Projects	X% of signed projects	0.0500	\$34,761			
Energy Conscious Blueprint / Energy Opportunities	\$2,699,799	Develop and implemen will consist of a tailo service bundles, technic and financing where a long payback measures included comprehens signed projects (excludidefined as including at as more than one end u	% of Gas Projects	X% of signed projects	0.0500	\$34,761				
Evaluation		requests based on agreed upon timelines for each study. Sliding scale as noted in the PMI exhibit - with 100% of goal achievement based on 90% of the data requests and purchase orders being completed on time.				turnaround	90% of data request and purchase orders	0.0100	70,332	
Total Incentives								1.0000	\$695,218	

Southern Connecticut Gas PMI (2024)

#### SOUTHERN CONNECTICUT GAS COMPANY

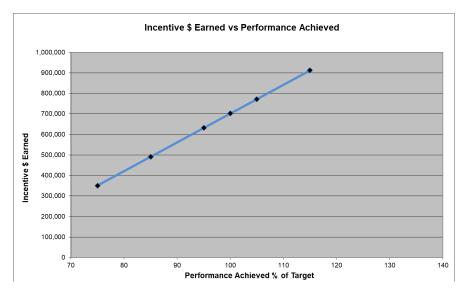
#### 2024 Management Incentive Performance Indicators and Incentive Matrix

SCG and the EEB recognize that having clear indicators and metrics of performance are helpful in delivering quality programs to Connecticut consumers. The following is a table of performance and incentive metrics developed by the Companies with input from the EEB, the EEB consultants and DEEP. These performance and incentive metrics apply to the programs delineated in the 2022-2024 Plan. The projected SCG Performance Incentive is \$702,324 and is based on achieving 100% of all performance targets and earning an incentive of 5.0% of the total EE program budget of \$14,046,488 as shown on Table A (exclusive of EEB costs, Evaluation Consultant costs, Management incentives and Audit costs). The actual earned amount will be calculated on a sliding scale based on the percent of goal achieved and the actual total expenditures, based on the following performance range:

-Performance Incentive Illustration-

Performance %	<u>Pretax</u>	Pre-tax Incentive					
<u>Minimum</u>	<u>Incentive</u>						
75	2.5%	\$351,162					
85	3.5%	\$491,627					
95	4.5%	\$632,092					
100	5.0%	\$702,324					
105	5.5%	\$772,557					
115	6.5%	\$913,022					
Maximum Budget	\$14,046,488						

Goals will be prorated based on actual over/under spend of budget.



# Southern Connecticut Gas PMI (2024) (continued)

SECTOR Program						Incentive Metrics  Incentive Target Goal Weight Incentive				
		Perfor	mance Indicators				Target Goal	Weight	Incentive	
RESIDENTIAL		Program Name	LT-CCF		% (1)					
Residential Programs (Sector Level) Sector Budget	\$8,703,223	New Construction  Home Energy Solutions  HVAC	2,987,01 3,519,45 3,173,47	5	21.27% 25.06% 22.60%	Sum of Gas System Benefit from	Gas System Benefit from Residential programs \$12,782,463	0.2144	\$150,578	
		HES - Income Eligible  Behavior	4,119,00 244,578		29.33% 1.74%	Residential programs				
		Savings Rate	\$0.8030 \$11,276,774	/ ccf						
		Savings \$11,276,774 (1) percent of target goal								
Net Residential Gas Benefit:							\$3,965,609	0.2144	\$150,578	
Home Energy Solutions	\$2,545,775	Achieve CCF savings from "core services" per single-family home that has air sealing completed (i.e., non-barriered homes). Based on previous year's actuals adjusted to the current year CT PSD plus 2.0% (X*102%).				ccf/home	Achieve X ccf savings/ single-family home	0.0450	\$31,605	
HES-Income Eligible	\$3,506,727	Achieve CCF savings from "core services" per single-family home that has air sealing completed (i.e., non-barriered homes). Based on previous year's actuals adjusted to the current year CT PSD plus 2.0% (X*102%).				ccf/home	Achieve X ccf savings/ single-family home	0.0450	\$31,605	

# Southern Connecticut Gas PMI (2024) (continued)

SECTOR						Incentive Metrics			
Program		Perfo	rmance Ind	licators		Incentive Metric	Target Goal	Weight	Incentive
COMMERCIAL & INDUSTRIAL (C&I)		Program Name	LT-C	CF	% (1)				
C&I Programs (Sector Level)	\$3,520,860	Energy Conscious Blueprint	2,943,678		45.43%	Total Gas System Benefit from C&I programs	Gas System Benefit from C&I programs \$4,482,115	0.1856	\$130,351
Sector Budget		Energy Opportunities	1,957,576		30.21%				
		Business and Energy Sustainability	1,091,517		16.85%				
		Small Business	486,377		7.51%				
		Total	6,479,149						
		Savings Rate	\$0.6918	/ccf					
		Savings	\$4,482,	115					
		(1) pe	ercent of tar	get goal					
Net C&I Gas System Benefit:							\$961,255	0.1856	\$130,351
Small Business	\$299,602	Develop and implement comprehensive offerings. Offerings will consist of a tailored combination of measure and service bundles, energy management, and financing where appropriate (especially for high-cost, long payback measures). Calculated as signed projects that included comprehensive offerings at time of offering/all signed projects (excluding rebates). Comprehensive shall be defined as including more than one end use. Based on Prior Year Actual results + 5% (X%+5%).				% of Gas Projects	X% of signed projects	0.0500	\$35,116
Energy Conscious Blueprint / Energy Opportunities	\$2,733,341	Develop and implement comprehensive offerings. Offerings will consist of a tailored combination of measures and service bundles, technical assistance for SEM, benchmarking and financing where appropriate (especially for high-cost, long payback measures). Calculated as signed projects that included comprehensive offerings at time of offering/all signed projects (excluding rebates). Comprehensive shall be defined as including at least one end use with BES counting as more than one end use. Based on Prior Year Actual results + 5% (X%+5%).			% of Gas Projects	X% of signed projects	0.0500	\$35,116	
Evaluation		Timely turnaround on purchase orders and Evaluation Data requests based on agreed upon timelines for each study. Sliding scale as noted in the PMI exhibit - with 100% of goal achievement based on 90% of the data requests and purchase orders being completed on time.				Timely turnaround	Based on 90% of data request and purchase orders	0.0100	\$7,023
Total Incentives								1.0000	\$702,324