

ENERGIZE CONNECTICUT<sup>SM</sup> Memorandum of Understanding for Path 3: High Performance Buildings

Path 3 of the Commercial and Industrial (C&I) New Construction and Major Renovation Program is provided by The Companies<sup>1</sup> as a comprehensive new construction/major renovation offering for customers who prefer to pursue support for individual building energy reduction measures versus setting and focusing on an Energy Use Intensity (EUI) target (EUI target setting is key requirement of both Path 1 and Path 2).

The purpose of this path is to reduce building electrical and thermal energy demand and consumption by incorporating effective energy conservation measures early in the project timeline, before the end of Design Development (DD), when changes are least costly.

#### **Project Eligibility:**

- 1. Customer must engage The Companies and schedule an energy charrette during the project's conceptual or Schematic Design (SD) phases, but before 100% Design Development.
- 2. Projects must be greater than 10,000 sf in size. Buildings should be comfort-conditioned (heated and cooled), but partially conditioned buildings, such as warehouses and industrial facilities, may be eligible on a case-by-case basis.
- 3. Projects must be new buildings, building additions, or complete renovations of existing buildings. Qualifying major renovations are such that occupancy is not possible during construction and where the project scope includes at least 3 of the following systems: (1) HVAC, (2) domestic hot water (DHW), (3) lighting, (4) envelope, and (5) process equipment.
- 4. Core and shell projects are eligible for this path, but multi-family projects are not eligible.
- 5. Participants must be a customer of one of The Companies.
- 6. Projects on campus central plants may or may not be eligible contact The Companies to learn more.

#### Key Customer Commitments:

- 1. Work collaboratively with the Energize CT-authorized technical assistance (TA) consultant to maximize energy savings.
- 2. Participate in an energy efficiency charrette before the end of DD.
- 3. Provide design drawings through 100% Construction Documents (CDs).
- 4. Inform The Companies as soon as possible of any major design changes reflected in the as-built conditions.

#### Key Commitments of The Companies

- 1. Assign a pre-qualified technical assistance TA consultant to lead an energy charrette and provide technical assistance throughout design (TA consultant participation in charrette and design assistance may be funded up to 100% by The Companies).
- 2. Provide energy analysis to determine savings and incentives.
- 3. Assist customer in making informed decisions about including energy conservation strategies in the project.
- 4. Pay customers an incentive for each energy conservation measure (ECM) that is included in the project and a multi-end use incentive to qualifying projects (see summary of incentives in Table 1 that follows).
- 5. Offer Design Team Incentives to qualifying projects (see summary of incentives in Table 2 that follows).

# Note: Total Eversource project incentives are capped at \$2 million per federal tax ID. For projects in Avangrid service territory, please contact your Avangrid representative for information regarding federal tax ID caps.

<sup>1</sup> The Companies refers to The Connecticut Light and Power Company (CL&P) and/or Yankee Gas Services Company (Yankee Gas) each dba Eversource Energy (Eversource) and The United Illuminating Company (UI), The Southern Connecticut Gas Company (SCG), and Connecticut Natural Gas Corporation (CNG), subsidiaries of AVANGRID, Inc.







Energize Connecticut – programs funded by a charge on customer energy bills.



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This document outlines the roles and responsibilities of each party and sets transparent expectations for all parties participating in the Program. Under no circumstances does this Memorandum require customers or design teams to incorporate any particular energy conservation measure or group of measures into a project. Building designs proceed at the direction of customers and their design teams. Further, this Memorandum does not bind The Companies to any particular energy conservation measure and/or any Incentive, and any and all assistance offered by the Companies through this Program is offered in an advisory capacity only. Incentive offerings are contingent on availability of funds from the Connecticut Energy Efficiency Fund.

THE COMPANIES UNDERSTAND THAT THE FOLLOWING CUSTOMER:								
The Customer (name):								
Will undertake the following (check applicable):								
	New construction		Major renovation				Addition	
Project Schedule (Dates)		100% Schematic Designs			0% Design velopment	100% Construction Documents		Expected Completion
Premises (Address)								
Premises SF (excluding unconditioned space):			Premises EUI Target (kBTU/SF/yr):					
This project's design team professionals include:								
Main Contact Name								
Email				Phone				



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### **Detailed Process:**

### Step 1 - Coordination with The Companies

During Schematic Design or Pre-Schematic Design, inform The Companies of your new construction project to see if the High Performance Buildings Path is a good fit. The High Performance Buildings Path is only available when The Companies are engaged early in design and an energy charrette (see Step 2) can be scheduled during Schematic Design or Design Development. The earlier you contact The Companies, the better the opportunity for energy savings and incentives. Following your initial conversation with The Companies, they will identify a TA consultant who will provide design support and technical assistance to the project team at no cost to the customer, starting with an energy charrette.

### Step 2 – Technical Assistance

During the Schematic Design or Design Development phase of the project, the Energize CT-authorized TA consultant will lead an energy charrette with the project's design team. The customer, the architect or design firm official, the MEP (Mechanical, Electrical and Plumbing) Engineers, the lighting designer (if there is one), the commissioning agent (if there is one) and the general contractor (if selected) together with The Companies should participate in this brainstorming session intended to identify, discuss/analyze and compare potential building ECMs.

In advance of the energy charrette, the customer shall provide The Companies and TA consultant with any existing project drawings and design narratives.

The outcome of the energy charrette shall be a report that identifies the ECMs that the team agreed to pursue further, and ideally include in the building design.

The TA consultant will conduct a mid-design review based on the 50% or 100% Design Development set, depending on the project, to assess progress on incorporating the strategies agreed upon during the charrette into the design, and at this time will provide feedback on additional changes to the design that will result in further energy savings. The TA consultant will issue a report to The Companies and the customer based on this mid-design review.

### Step 3 – Energy Analysis and Incentive Pre-Approval

The TA consultant will prepare the final energy savings calculations and report for The Companies to review based on the 100% CD set. A Letter of Agreement (LOA), which describes in detail the ECMs that are contributing to the project's energy savings and the incentive dollars being offered, will accompany the final calculations and report. The customer must review and sign the LOA within 30 days of receipt and prior to the installation of equipment to receive an incentive.

Select projects are subject to 20% hold-back pending receipt of trend data or other information stipulated in the LOA that The Companies will prepare and provide for customers.



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	TABLE 1 - SUMMARY OF CUSTOMER INCENTIVES			
Incentive	Energy Conservation Measure (ECM) Examples	Rate		
	Building Envelope			
	Lighting & Networked Lighting Controls	Electric incentives are the greater of \$0.40/kWh or \$1,000/summer peak kW and gas incentives are \$6.00/ccf.		
	Energy Recovery			
	Demand Control Ventilation			
Custom Incentives	Natural Gas Hot Water Heaters			
	High Efficiency Chillers	All incentives are capped at 95% of incremental cost		
	Air Compressors			
	Non-Ground Source Water Source Heat Pumps			
	Other			
	ncluding packaged and split DX equipment, variable frequency drives r heaters, boilers, furnaces, and kitchen equipment	See Path 3 and 4 Incentive rate sheet on EnergizeCT.com		
Heat Pumps*	Air Source Heat Pumps: \$640/ton capped at: Eversource: \$400,000 Avangrid: \$200,000Variable Refrigerant Flow (VFR): \$1,000/ton capped at: Eversource: \$500,000 Avangrid: \$300,000Ground Source Heat Pumps: \$4,000/ton capped at: Eversource: \$600,000 Avangrid: \$400,000	Heat pumps in the New Construction and Major Renovations program do not need to be on the qualified products list (QPL) used by other programs, but must meet or exceed the requirements listed in the Paths 3 & 4 Incentive Cap Sheet		
Multi-End Use	Project must include a minimum of 3 end uses (defined as Gas or electric, impacting: heating, cooling, lighting, process, domestic water heating, refrigeration and motors and drives)	Calculated at \$0.10 / kWh and/or \$1.00 / ccf (capped at \$20,000)		
	Grid-Interactive Efficient Building Incentives			
	nce: 75% of fee for a grid-interactivity specialist with 25% cost share re r program paid upon successful enrollment in the demand response or			

\* Equipment must be used as a primary heating source to qualify. The heat pump adder is only available for equipment that transfers heat from a source outside of the building (i.e. outside air (OA) or a geothermal source) for space heating purposes. In order to maximize the benefits of electrification designs, supplemental electric resistance and/or fossil fuel use (if any) to the vapor compression heat pump cycle must be limited by having a maximum configured setting of 30°F outdoor air switchover temperature to supplemental heat. Projects not achieving an average annual heating system performance greater than a COP of 2.0 will be considered on a case-by-case basis.

The incentive calculation is based upon the nominal heating capacity (BTU/hr) at AHRI or ISO conditions divided by 12,000.

- Air Source Heat Pumps (ASHP): heating capacity at AHRI standard rating conditions Air-to-Air Systems:AHRI 340/360 - OA 47°F dry bulb (db) Air-to-Water Systems: AHRI 550/590 - OA 17°F db, Leaving Water Temperature (LWT) 120°F
- Variable Refrigerant Flow Air Source (VRF):heating capacity at AHRI 1230 standard rating conditions Air-to-Refrigerant Systems: OA 47°F db
- Ground Source Heat Pumps: heating capacity at ISO 13256 or AHRI 1230 (if VRF) standard rating conditions Ground Loop Heat Pump (GLHP): 32°F liquid entering heat exchanger Ground Water Heat Pump (GWHP): 50°F liquid entering heat exchanger

Incentives for ground source heat pump projects will be based upon the lesser value of the peak heating load capacity of the heat pump systems or the peak heating load capacity of the geothermal source/wells. Prior to payment of any incentives, confirmation of equipment capacities, quantities, ratings, and system configuration/ control settings as installed at the project site will be required.

\*\*Projects can have their 25% cost share for grid-interactive efficient building technical assistance reimbursed upon successful enrollment in the ConnectedSolutions and/or Energy Storage Solutions programs.



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## Table 2: Design Team Incentives

### Calculated at \$0.07 kWh or \$0.34/ccf (as applicable) and capped at \$10,000

### Step 4 - Construction Completion, Construction Phase and Design Team Incentive Payment

Customers must commit to constructing the building as it was designed and as documented in the LOA. Major deviations from the design could jeopardize the customer's opportunity to obtain full incentives. The TA consultant may be required to adjust savings based on as-built conditions at the end of construction.

A few weeks before substantial completion, The Companies may request a set of the approved submittals, invoices and photographs associated with all of the ECMs being supported with incentives.

All projects participating in the program pathway are subject to inspection by each participating Company.

Upon The Companies' review of submittals and invoice documents, and upon completion of the post inspection, The Companies will provide the incentive payment to the customer and will provide 100% Design Team Incentive payment. Design team incentives are paid to the design team lead, which may disperse to other team members as appropriate.

Select projects are subject to 20% incentive hold-back pending receipt of trend data or other information stipulated in the LOA.



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### **IMPORTANT:**

Customers participating in this pathway may not also participate in the Energize CT *Midstream (program payments made to distributors) or Express (customer rebate)* programs. To help ensure participation in only one Energize CT program pathway, designers must include language in project documents informing contractors that this project is participating in a Energize CT downstream program pathway, and that they may not pursue or accept any HVAC, domestic hot water, food service or lighting incentives made to distributors for this project. Customers may not separately apply for support through the Energize CT Express offers (which provide rebate payments after equipment purchase and installation).

By signing below, the customer represents that they (1) are an authorized representative of the customer at the Premises and (2) have read and understand the requirements for participation in Path 3 of the Program outlined above. Signing this document does not guarantee payment of incentives nor any commitment financial or otherwise on behalf of the participant. The terms and conditions for receiving incentives will be outlined in the LOA discussed in Step 4.

Customer Signature:					
Customer Printed Name:	Date:				
Design Firm Official Signature:			I		
Design Firm Official Printed Name and Company Affiliation:	Date:				
AGREED:				Date:	
AGREED:			Date:		
The Companies (specific Utility and its representative to be identified)	Eversource	UI	SCG	CNG	
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For Utility Use Only		
	Email	Phone
Project Architect:		
Electrical Engineer:		
Mechanical Engineer:		
Other Contact:		
Electric Company and Contact:		
Gas Company and Contact:		









Energize Connecticut – programs funded by a charge on customer energy bills.