



# Residential New Construction Program All-Electric Home Bonus Incentive

ENERGIZE CONNECTICUT

All-Electric homes provide builders and future homeowners with the ability to create their own renewable energy future. A high performance thermal envelope, coupled with efficient electric technologies for space conditioning and domestic hot water, can provide for better air quality, less carbon emissions, and greater efficiency, when compared to conventional fossil-fuel heated homes.

## Prerequisites

1. All homes must meet the Residential New Construction ("RNC") program requirements for lighting & appliances as indicated on the Requirements & Submittal Checklist.
2. All homes must meet the RNC program requirements for RESNET Grade 1 insulation installation quality.
3. All homes must meet the RNC program requirements for PV & EV-Readiness as indicated in the PV/EV Ready Checklist.

## Program Paths

The RNC program offers two paths for meeting the requirements for the All-Electric Home bonus incentive.

### Option 1: Prescriptive Path

- This option provides builders with specific prescriptive guidelines in meeting program compliance.

### Option 2: Hybrid Prescriptive/Performance Path

- Under this option, builders must meet specific prescriptive requirements for space conditioning, ventilation and domestic hot water ("DHW"), but there is flexibility in meeting insulation and window requirements through building energy modeling.
- Builders choosing this path can also elect to use Passive House certification to document compliance, but must also meet requirements for space conditioning, ventilation and DHW.

There are also two tiers of incentive for the all-electric home. See RNC application for more details.

## All-Electric Home Bonus Incentive Requirements Tier 1

Component		Option 1: Prescriptive Approach		Option 2: Hybrid Approach	
		Single Family (Detached Dwelling Units)	Multifamily (Attached Dwelling Units)		All Building Types
Infiltration (ACH50)		2.5 ACH50	≥ 850 ft <sup>2</sup>	4.0 ACH50	≤80% of applicable code standard
			≤ 850 ft <sup>2</sup>	5.0 ACH50	
Slab Insulation	< 2' BG	R-10 CI to 3.5' BG			Envelope UA ≥15% better than 2015 IECC
	> 2' BG	R-5 CI Under			
Basement/Crawlspace Wall Insulation		R-15 CI or R-13 Cavity + R-5 CI			
Framed Floor Insulation		R-30 (Over Basement/Crawlspace) R-36 (Over Ambient)			
Rim/Band Joist Insulation		R-24 Cavity or R-20 Cavity + R-5 CI			
Above Grade Wall Insulation					
Ceiling Insulation	Flat	R-55			
	Vaulted				
Windows	U-Value	≤ .26			
Heating Systems & Efficiency	Air-Source Heat Pump	Ducted	≥ 9 HSPF and ≥ 60% of Rated Output Capacity at 17°F		
		Non-Ducted	≥ 10 HSPF and ≥ 60% of Rated Output Capacity at 17°F		
	Ground-Source Heat Pump		≥ 3.6/4.1 COP		
Domestic Hot Water Systems & Efficiency	System Type	Heat Pump Water Heater	Electric Resistance		
	Efficiency	≥ 2.74 EF	≥ 0.93 UEF		
Water Distribution		All DHW fixtures must be WaterSense® certified or equivalent All DHW piping insulated to ≥R3			
Duct System (If Applicable)		Duct leakage shall meet 2015 IECC standards (≤ 4 CFM <sub>25</sub> /100 sq. ft.) if any part of the system is located outside of conditioned space <sup>1</sup>			
Ventilation System Type & Efficiency	System Type	Balanced (HRV/ERV)			
	Efficiency	Building shall be provided with ventilation that meets current code requirements			



# Residential New Construction Program All-Electric Home Bonus Incentive

ENERGIZE CONNECTICUT

All-Electric Home Bonus Incentive Requirements Tier 2					
Component		Option 1: Prescriptive Approach		Option 2: Hybrid Approach	
		Single Family (Detached Dwelling Units)	Multifamily (Attached Dwelling Units)		All Building Types
Infiltration (ACH50)		2.5 ACH50	≥ 850 ft <sup>2</sup>	3.0 ACH50	≤60% of applicable code standard
			≤ 850 ft <sup>2</sup>	4.0 ACH50	
Slab Insulation	< 2' BG	R-15 CI to 3.5' BG		Envelope UA ≥30% better than 2015 IECC	
	> 2' BG	R-5 CI Under			
Basement/Crawlspace Wall Insulation		R-20 CI			
Framed Floor Insulation		R-40 Cavity			
Rim/Band Joist Insulation		R-20 Cavity + R-7.5 CI			
Above Grade Wall Insulation		R-20 Cavity + R-7.5 CI			
Ceiling Insulation	Flat	R-60 / R-25 Cavity + R-35 CI			
	Vaulted	R-60 / R-50 Cavity + R-10 CI			
Windows		U-Value ≤ .24			
Heating Systems & Efficiency	Air-Source Heat Pump	Ducted	≥ 9 HSPF and ≥ 60% of Rated Output Capacity at 17°F		
		Non-Ducted	≥ 10 HSPF and ≥ 60% of Rated Output Capacity at 17°F		
	Ground-Source Heat Pump		≥ 3.6/4.1 COP		
Domestic Hot Water Systems & Efficiency	System Type		Heat Pump Water Heater*		
	Efficiency		≥ 2.74 EF		
Water Distribution		All DHW fixtures must be WaterSense® certified or equivalent All DHW piping insulated to ≥R3			
Duct System (If Applicable)		All air handlers and ductwork fully in conditioned space			
Ventilation System Type & Efficiency	System Type		Balanced (HRV/ERV)		
	Efficiency		≥70% SRE / ≥40% TRE		

\*In scenarios where heat pump water heaters (HPWH) cannot be installed due to design limitations, electric resistance storage water heaters can be used, but must meet specific distribution and system efficiency requirements, and at least 50% of the estimated usage must be offset with renewable energy.

BROUGHT TO YOU BY

**EVERSOURCE**



PROUD SPONSORS OF



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