

Rhode Island Energy™

# New Construction & Major Renovations

# Achieve Net Zero and Low Energy Use Intensity (EUI)

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Rhode Island Energy's **New Construction and Major Renovations Program** encourages customers to pursue a sustained focus on low Site Energy Use Intensity (EUI) from early design all the way through post occupancy. This offering uses performance-based participation; final customer incentives are based on the building's post occupancy site EUI. While the offering is a path to achieving net zero emissions, customers are not required to install solar or purchase renewable energy offsets to participate.

## **Project Eligibility**

- To participate, a customer must engage Rhode Island Energy before the end of their project's Design Development phase, preferably during the project's Feasibility or Conceptual Design phases.
- Projects must be whole buildings and must have a minimum of 20,000 square feet of comfort conditioned (heated and cooled) space.
- Projects must be new buildings, building additions, or full gut renovations.
- Projects must anticipate year-round occupancy.
- Building must be separately metered (not on same meters as other buildings).
- The project may not include Combined Heat and Power (CHP) or utilize district steam.
  Projects on campus central plants may or may not be eligible talk with your Rhode Island Energy representative.
- Participants must be customers of Rhode Island Energy. Note that projects located in the service territory of a municipal electric utility are not eligible for this program.
- Customers participating in this offering may not also participate in the Rhode Island Energy midstream programs where incentives for HVAC, domestic hot water, food service and lighting equipment are offered directly to distributors.

## What is EUI?

Site Energy Use Intensity (EUI) is a measure of a building's gross annual site energy consumption (including all fuels) relative to its gross square footage. The units are kBtu/sf/year.

EUI Targets	Site EUI Range by Building Type					
	K-12 School	Office	Library	Public Safety	Hotel	Other
Tier 1 – Net Zero Level	28 or less	33 or less	33 or less	39 or less	39 or less	Site Specific
Tier 2	29-35	34-38	34-39	40-44	40-44	Target

#### Incentives

Tier 1 – Net Zero Level	\$2.00/sf, paid at end of construction			
Tier 2	\$1.50/sf, paid at end of construction			
1 year post occupancy	\$1.50/sf			
EUI Design Incentives	Calculated at \$0.20/sf and capped at \$15,000, but not less than \$8,000			

## **Key Customer Commitments**

- 1. Work with project team to set a Tier 1 or Tier 2 site EUI target based on building type, as noted above.
- 2. Agree to cost share the services of the Rhode Island Energy net zero/EUI expert.
- **3.** Continuously monitor the predicted EUI of the project with iterative energy modeling throughout each phase of design. Design team's energy model should meet the requirements of ASHRAE 90.1 G2.2.
  - a. At minimum, whole building energy modeling runs must take place at 100% Schematic Design, 50% Design Development, 100% Design Development and 100% Construction Documents (Rhode Island Energy may request additional runs). Project teams will need to report predicted EUIs to Rhode Island Energy at each of these intervals.
- 4. Ensure the following are separately metered:
  - a. Electric vehicle charging stations;
  - b. On-site generation; and
  - c. Non-ancillary unconditioned spaces (e.g., parking garages).
- 5. Meet the requirements of ASHRAE 90.1-2016, para. 8.4.3 related to metering and data storage and provide necessary post occupancy data to Rhode Island Energy at the end of an agreed-upon one-year post occupancy period.

## **Key Rhode Island Energy Commitments**

1. Cost-share the services of a net zero/low EUI expert (75% of fee up to \$25,000 cost share) with the customer to help the project team develop a roadmap to low EUI and net zero success.

# **Detailed Process**



#### Step 1: Set an EUI Target and Take Advantage of the Services of a Net Zero Expert

Engage with Rhode Island Energy as early as possible in design. You'll need to participate in a net zero scoping session and set a target EUI. To assist the project team in achieving its target EUI, Rhode Island Energy will enlist the support of a net zero specialist who will provide technical assistance and road mapping services for the project through feasibility and early design. We'll work with you on the best scope to suit your project needs, though we do have a minimum scope that we require and ask customers to cost share.

For this program, gross square footage excludes parking garages and penthouse square footage, as these are not typically conditioned spaces. If there are enclosed spaces in garages with equipment loads (i.e., unit heaters in elevators lobbies), these loads and square footages will be included in the building's EUI calculation. In addition, the program's EUI calculation does not include onsite renewables.

#### Step 2: Design to the Target EUI

The project team will pursue the EUI target throughout design and will conduct the iterative energy modeling necessary to ensure the design remains on track.

At the end of design, Rhode Island Energy will request PDFs of the Final Design Documents and may conduct further analysis at their own expense to determine more granular information regarding program energy savings. Rhode Island Energy will share the design documents with at least one additional vendor.

#### Step 3: Ensure data collection method is in place

Develop a plan to collect post occupancy EUI data, keeping in mind the following end of design report requirements:

- The final design's site EUI.
- The final predicted energy use for electricity as well as any fossil fuels (natural gas, propane, oil).
- The building's total gross square footage per the definition on the first page of this MOU.
- Whether there is a natural gas meter associated with the building for any purpose, including backup generation.

Consider how you'll take corrective action if the project strays from the final design EUI.

#### Step 4: Incentive offer letter issued by Rhode Island Energy

At the end of design, provide Rhode Island Energy with the design team's energy model and a short report that details the requirements listed in Step 3.

Rhode Island Energy will issue incentive offer letters based on the Tier in which the final design EUI lands. The incentive offers will be split into two major components and payment time-frames:

**Payment 1:** Rhode Island Energy will make the first payment at the end of construction which will include the \$/sf Construction Incentive.

**Payment 2:** Rhode Island Energy will make the second payment(s) at the end of an agreed upon one-year post occupancy period. The post occupancy payment will be made if the operating EUI lands within the Tier the project set out to achieve.

#### Step 5: Incentives issued for construction phase and post occupancy

Customer incentives are capped at 100% of the combined incremental cost of the EUI reduction strategies included in the project. Projects must be cost-effective to receive the full customer incentives and are subject to Rhode Island Energy's program budget.

To receive incentives, customers are required to sign:

- 1. Custom application, formally requesting Rhode Island Energy incentives.
- 2. The incentive offer letter from Rhode Island Energy, and
- **3.** The Rhode Island Energy Minimum Requirements Document (MRD), which lays out the energy-using equipment and system details that will lead the project to achieve the target EUI.
  - Customers must commit to constructing the building as it was designed and documented in the MRDs. Major deviations from the design could jeopardize the project's ability to achieve the target EUI and opportunity to obtain full incentives.

#### **Construction and Construction Phase Incentive Payment**

A few weeks before substantial completion, customers must provide a set of approved submittals, invoices and photographs corresponding with major equipment that is key in attaining the predicted EUI. All projects participating in the program are subject to inspection by Rhode Island Energy. Once Rhode Island Energy completes their review and affirm the project was built substantially in accordance with the design, they will make the construction phase incentive payments to the customer.

#### **Post Occupancy Incentive**

Once the building is functioning in a steady state, the customer and Rhode Island Energy agree to begin the Performance Period, which will last for one year. At the end of the Performance Period, the customer is responsible for supplying post occupancy energy usage data for Rhode Island Energy to review.

The Performance Period as it relates to the post occupancy incentive will begin once the customer affirms:

- The metering system is set up and operating properly per ASHRAE 90.1-2016, para. 8.4.3. The system shall be capable of maintaining all data collected for a minimum of 36 months.
- All significant corrective action the customer intends to take has been completed.
- The occupancy and use of the building have reached a "steady state."

Customer shall supply Rhode Island Energy with the following at the end of the Performance Period:

- Final commissioning report, if available.
- Electrical energy usage for the following loads shall be recorded and reported to Rhode Island Energy on at least an hourly, daily, monthly, and annual basis for the one-year period (Exception – up to 10% of the load for each of the following categories (b) through (e) shall be allowed to be from other electrical loads)
  - Total building electrical energy Interior lighting Receptacle circuits
  - HVAC systems Exterior lighting On-site generation
- Energy use from non-electrical sources (e.g., gas or propane for space heating, cooking, hot water, etc.) must be recorded and reported at least monthly (or if using delivered fuels, as often as deliveries are made) and annually for the same one-year period as for the electrical usage.
- All data shall be provided in either an Excel or CSV format.

If, at the end of the Performance Period, the building achieves an operational EUI, which, when adjusted for weather by Rhode Island Energy, falls within the Tier in which the project's final design EUI landed, the customer will receive the additional \$1.50/sf incentive for this program. The post occupancy EUI is adjusted for weather so that customers are not unfairly penalized for particularly harsh weather and are not unfairly benefitted by particularly mild weather.

## **Customer Information**

Project Details						
Customer Name:						
Planned Project (cl	heck applicable):					
New Construct	ion Major rer	novation Additi	ion			
Project Schedule	100% SD 100% DDs		100% CDs	Expected Construction Completion		
(Dates)						
Premises (address):						
Building Type:						
Hotel Library K-12 School Public Safety (Police/Fire Station) Office Other						
Premises SF (excluding unconditioned space):		Premises EUI Target (kBTU/SF):				
This project's design team professionals include:						
Architect:						
Electrical Engineer:						
Mechanical Engine	er:					

By signing below, customers represent that they (1) will be the lawful utility customers of the Premises and (2) have read, understand, accept, and agree to the terms and conditions for participation in the program outlined in this document. The project's lead architect is required to also review and sign the MOU acknowledging that he/she has read and understands the terms and conditions for participation.

Customer Signature:		Customer Printed Name:		
Date:	Phone:	Email:		
Architect Signature:		Architect Printed Name and Company Affiliation:		
Date:	Phone <sup>.</sup>	Email <sup>.</sup>		

#### Disclaimers

This document outlines the roles and responsibilities of each party to set transparent expectations for all parties participating in the program. Under no circumstances does this document require customers or design teams to incorporate any particular EUI reduction strategy, nor does this document bind customers or design teams to a particular EUI target. All assistance offered by Rhode Island Energy through this program is offered in an advisory capacity only and is subject to change.

Except for payment of incentives as set forth hereunder, Rhode Island Energy does not make any representations, warranties, promises, or guarantees in connection with the program, energy conservation measures (ECMs), EUI reduction strategies, energy savings, benefits, adequacy or safety of ECMs or other items, or any work, services or other item performed in connection with the program including, without limitation, the warranty of merchantability or fitness for a particular purpose. Also, other than the (i) energy cost savings realized by Customer, (ii) energy or ancillary service market revenue achieved through market sensitive dispatch, (iii) alternative energy credits, and (iv) renewable energy credits (altogether, the "Customer Credits"), Rhode Island Energy has unilateral rights to apply for any credits or payments resulting from the program or ECMs (the "Credits"). Such Credits include but are not limited to credits and payments for: (a) ISO-NE capacity, (b) forward capacity credits, (c) other electric or natural gas capacity and avoided cost payments or credits, and (d) demand response program payments. Customer waives, and agrees not to seek, any right to any Credit. Rhode Island Energy is not responsible for the payment of any taxes assessed by federal, state or local governments on either benefit conferred on the customer by Rhode Island Energy or design incentives paid to the design team.