

National Grid Zero Net Energy Buildings Pilot Program

Commercial Buildings
Rhode Island

2020



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Overview: Why a pilot program?

National Grid is working to develop a Zero Net Energy (ZNE) Building program, for Rhode Island, in the next five years. To determine the best approach and necessary support to the building industry, National Grid is looking to partner and assist with projects that are working to achieve ZNE goals. The learnings from these **pilot projects** will allow National Grid to launch a full program in the future.

- The **Zero Net Energy Building Pilot Program** is focused on maximizing energy efficiency and load reduction through design, construction and building operations before addition of on-site renewable energy generation.

Funding for this pilot is limited and will be based on first-come, first-serve basis. Eligibility criteria is listed below.

- For this pilot, a **Zero Net Energy Building is defined** as “an ultra-energy-efficient building that is built at a minimum 30% better than code, meets the minimum Energy Use Intensity (EUI) target set for the project*, and that produces as much clean, renewable, grid-tied energy on-site as it uses, when measured over a calendar year.”
- Additionally, **Zero Net Energy Ready** projects that are not able to add renewables on-site, but achieve Energy Use Intensity (EUI) targets set for the project*, are also eligible to participate in the program as Zero Net Energy Ready projects.

* EUI targets for a project are set as a collaborative process with the owner, design team and National Grid. For this Pilot Program, EUI does not include on-site renewable energy generation as part of the calculated targets. EUI is measured in kBtu/sf/year.

Pilot Program Details

National Grid provides design, technical and post construction support for Zero Net Energy Buildings

Owner Assistance Design Team Selection

National Grid will provide owner support for:

- Selection of design and construction team, with RFQ procurement requirements.
- Aiding in setting Energy Use Intensity (EUI) goal for the project.
- Design review and energy model review at design conceptual, design development and construction document stages.

National Grid support to building owners extends through all stages of design such that the Energy Use Intensity goals set by the owner are met.

Design and Technical Assistance

National Grid will provide the design team support with:

- Holding a **Design Charette** and input to design team from technical experts. Design teams are eligible for an energy efficiency charrette incentive, of \$5,000 for participating in a charrette during the schematic design phase or earlier. 100% of payment made on successful completion of charrette.
- No-cost technical assistance from National Grid consultants to help design teams develop

and achieve EUI target and ZNE Building goals.

- Cover 100% of energy modelling expenses.
- Incentives of \$2.75/SF will be awarded for projects up to a maximum incentive of \$130,000 for projects between 20,000 SF and 50,000 SF, and up to a maximum incentive of \$500,000 for projects over 50,000 SF. Incentives will be based on meeting a minimum threshold performance of 30% above current code, achieving EUI goals set as part of the Memorandum of Understanding (MOU) between the owner, design team, and National Grid and the project's ability to demonstrate that it's ZNE ready.
- 70% of project incentives to be paid after post inspection and documentation and verification of the completed project. 30% of project incentive to be paid after one year of monitoring and verification of ZNE ready status of the project.
- Additionally, an incentive of \$15,000 is available for the design team on design completion and achieving design goals (EUI and design goals of 30% better than code).
- Finance options for energy efficiency and renewables available for project through Property Assessed Clean

Energy (PACE) and third-party finance sources.

- Guidance on process related to distributed generation interconnection of the renewable energy, net-metering capacity to the power grid, will be made available to the design team and owner.

Post-Construction Support includes:

- Commissioning (Cx) and energy monitoring costs**.
- Assistance to develop an Operations and Maintenance Plan as well as help with building operations for the first year of occupancy.
- Independent third-party verification and registration of the ZNE project at no cost to the owner.

Pilot Project Eligibility requirements:

- Building project must be in Rhode Island.
- Commercial New Construction project.
- In Schematic Design Phase or earlier phase.
- 20,000 SF and above.
- Building owner and operations manager must be willing to allow monitoring of the facility during a one-year post occupancy period to verify ZNE performance.
- Building intended for operation for at least 10 months a year at a consistent occupancy level.

Other Project Goal Requirements:

- MOU to be signed between the owner, design team and National Grid.
- The goal of the project is to achieve ultra-low energy use intensity (EUI) targets determined and agreed to by the owner, National Grid and/or the Design team, based on the building type. At a minimum, building performance to be 30% better than current building energy code.
- The design team is expected to work with the owner and operation and maintenance personal to determine an O&M structure and plan for the ZNE building project upon completion of construction.

Learn More

Please contact Denise Rouleau at 781-907-1542 or email Denise.Rouleau@nationalgrid.com for questions, information and details.

** Commissioning and energy monitoring incentive is capped based on the size of the project

