

Residential New Construction Program Guide

For Fiscal Year 2020

(7/1/2019 through 6/30/2020)

New Jersey's **Clean Energy** Program[™] Residential New Construction Program Guide

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1. Overall Program Description

The Residential New Construction (RNC) Program is designed to increase the energy efficiency and environmental performance of residential new construction buildings (single and multifamily) in New Jersey. The program strategy is to establish standards for energy efficient new construction in New Jersey based on national platforms including EPA ENERGY STAR® Certified Homes Program, DOE Zero Energy Ready Home (ZERH) Program, EPA Multifamily New Construction and the EPA ENERGY STAR Multifamily High-Rise Program (MFHR). The program offers technical support and incentives to builders of new single or multi-family residential structures or homes undergoing a complete rehabilitation (gut) that comply with these standards.

To participate in the RNC program, builders agree to work with independent third-party inspectors (raters) who inspect, measure, and test the home's performance during and after construction. Incentives are designed to partially offset the construction costs associated with building higher efficiency homes.

2. Target Market & Eligibility

Newly constructed single family (i.e. one and two family buildings), multi-single (i.e. townhomes as defined by code; a single-family dwelling unit constructed in groups of three or more attached units in which each unit extends from foundation to roof and with open space on at least two sides), low-rise, and high-rise multifamily buildings are eligible for program benefits if the home or multifamily building will use natural gas and/or electricity as the primary heating fuel supplied by a New Jersey investor owned utility (IOU). Target markets for this program are homebuilders and raters.

Until the new NJCEP Multifamily Program Comprehensive (i.e. Path C) pathway is fully implemented, multifamily buildings of five or more dwelling units can register to participate under the EPA Multifamily New Construction Program. Once the NJCEP Multifamily Program Comprehensive Pathway is fully implemented, participation in the RNC Program will be restricted to buildings of one to four dwelling units.

The RNC Program will also enroll any existing home undergoing substantial gut renovation or remodeling that meets the criteria above. The EPA identifies the following that may be necessary for a gut-rehab project to meet ENERGY STAR Certified Homes program requirements:

- Remove exterior cladding and the outer surface of roof to install and/or verify the components on the Water Management Builder System Checklist and Thermal Enclosure System Rater Checklist
- Replace or expose most systems, equipment, or components (e.g. HVAC and ducts, windows, insulation)
- Grade the site and/or provide drains/swales
- Implement below-grade moisture management strategies

New homes are not eligible for equipment incentives under the Residential HVAC program (COOLAdvantage/WARMAdvantage).

3. Background for IECC Codes and HERS Index

The New Jersey Department of Community Affairs adopted the 2015 International Energy Conservation Code (IECC) on September 21, 2015. Homes that received building permits on or after March 21, 2016 will have to comply with this new code. Homes built to the 2015 code will be at least 15% more efficient than ones built to the former 2009 IECC code. It is expected within the year that New Jersey will adopt the 2018 IECC. The 2018 IECC aims to be more user-friendly and more flexible for builders to achieve targeted energy savings.

A Home Energy Rating System (HERS) Index of 100 equates to the performance levels prescribed in the 2006 IECC (least efficient) and 0 is equivalent to a net-zero-energy home (most efficient). The EPA's ENERGY STAR certification and DOE Zero Energy Ready Home programs also utilize the HERS Index system. In short, the lower the HERS Index, the more efficient the home.

The US Department of Energy created a national Zero Energy Ready Home (ZERH) program with strict requirements. At a minimum, homes built to this standard meet the ENERGY STAR v3.1 guidelines. When a renewable energy component is connected to the home (e.g. Solar PV system), the energy produced by the renewable component can offset the modeled electric consumption of the home annually, therefore, the net energy consumed on an annual basis by the home is zero.

4. Program Offerings

The Program offers builders flexibility and options to participate in the program by building homes to varying standards or guidelines. In all cases, the HERS Index is used to calculate the home's energy efficiency achieved. The three standards are outlined below:

• ENERGY STAR Certified Home v 3.1 Requirements:

Builders can choose to construct a home in conformance with ENERGY STAR v 3.1 specifications and can earn the ENERGY STAR certification for the home. In this case, the rater will score the home's performance using the HERS rating system. Table 1 below displays the incentives based on achieving ENERGY STAR Certification with an additional incentive for each MMBtu energy savings above a New Jersey reference home based on the IECC C 2015 Code. The home must meet or exceed the ENERGY STAR HERS Index Target, comply with all ENERGY STAR v 3.1 mandated requirements and checklists.

• Zero Energy Ready Home & Zero Energy Home + RE

Builders can choose to build the home in conformance with the DOE Zero Energy Ready Home specification which are above ENERGY STAR v3.1 specifications, meet or exceed the 2015 IECC insulation level, and certify to EPA's Indoor airPLUS Program. The program also has a Zero Energy Ready Home 100% Renewables offering, whereby 100% of the building's modeled electric site

energy usage must be met by renewable energy systems installed onsite at the time of completion of the home. Table 1 below displays the incentives based on achieving ZERH Certification with an additional incentive for each MMBtu energy savings above a New Jersey reference home based on the IECC 2015 Code, plus an incentive if installing the renewable energy component.

• ENERGY STAR Multifamily New Construction:

Builders must meet or exceed EPA ENERGY STAR Multifamily New Construction (MFNC) Program standards including following Performance Path which utilizes either HERS or ASHRAE approved energy modeling to determine energy savings of a customized set of measures.

5. Financial Incentives

The table below displays the financial incentives payable to the builder or contractor depending on the home's final certification level and incremental MMBtu savings. *Note: The higher the energy savings, the larger the rebate.*

Single-family, Multi-Single, Low-Rise Multifamily and Multifamily High Rise incentive structure.

	Single Home (i.e., 1 & 2 family)	Multi-Single (Townhouse)	Rater Incentive	Multifamily	Multifamily High Rise
ENERGY STAR	\$1,000 + \$30/ MMBtu	\$500 + \$30/ MMBtu	N/A	\$500 + \$30/ MMBtu	\$500 + \$30/MMBtu
ZERH	\$4,000 + \$30/MMBtu	\$2,500 + \$30/MMBtu	\$1,200 (single & multi-single only)	\$1,500 + \$30/MMBtu	N/A
ZERH + RE	\$4,000 + \$30/MMBtu+ \$2,000	\$2,500 + \$30/MMBtu +\$1,500	\$1,200 (single & multi-single only)	\$1,500 + \$30/MMBtu +\$750	N/A
UEZ Bonus	+\$500 (add to any level above)	+\$500 (add to any level above)	N/A	N/A	N/A

Notes:

• The above \$30/MMBTU is based on savings before any savings from Renewable Energy. RE represents renewable energy to offset the remaining annual energy load. MMBtu is the incremental annual MMBtu saved as compared to the calculated annual usage of the baseline reference home, defined by the applicable energy code as described in more detail in the New Jersey Clean Energy Program Protocols to Measure Resource Savings.

- UEZ Bonus requires verification of the home being located in a designated Urban Enterprise Zone. During FY20, BPU may further define eligibility of the bonus for affordable housing units.
- This table is only for Dwelling Units and single-room occupancy (SRO) units. As relevant
 to this table, SROs are limited to buildings of less than five (5) units; buildings with five (5)
 or more SRO units may be eligible to participate only in the NJCEP Multifamily Program
 once its Path C is fully implemented.
- As previously mentioned, the transition to the new Multifamily Program will continue during FY20. Once Path C of the new Multifamily Program is fully implemented, new multifamily buildings having five (5) or more Dwelling Units will be eligible to participate only in that Multifamily Program, while new multifamily buildings having less than five (5) Dwelling Units will continue to be eligible for this RNC Program.

6. General Process Outline

Specific program requirements and construction processes must be met for a builder to benefit from each incentive level. For all offerings, the program mandates that builders/developers work with a program participating HERS Rating Company to ensure that the high efficiency requirements are met.

In general, there is an overall process for a Builder to participate in the program as outlined below which applies to either single-family of multifamily projects.

- 1. A builder or developer selects and enters into agreement with a Rating Company (that is a participating member of the program) to perform the energy ratings, inspections, testing, and certifications required by the RNC program.
- 2. The builder/developer works with the Rating Company to ensure that the builder's site personnel, crews, and contractors are familiar with program requirements.
- 3. The Builder will attend the Rating Company's design review meeting and a pre-construction meeting with all other appropriate contractors, sub-contractors, and stakeholders.
- 4. The Rating Company then registers a project with the program through the online portal before drywall is installed in the building.
- The Builder proceeds with construction and coordinates the scheduling of all required inspections with the Rating Company, mainly a Pre-Drywall Inspection and Final Inspection. The project must be successfully registered before notifying the RNC program about the Pre-Drywall inspection.
- 6. The Program reviews the Site Registration and all supporting documents. If deemed incomplete, the Rater will be notified of any deficiencies. The Rater will resolve the document issues and revise the online application and resubmit. Once all portal entries and documents are in order, the RNC program will enroll the project(s) and send an enrollment letter to the Rater.

- 7. If any deficiencies are identified by the Rating Company during either of these inspections, the builder must rectify until the inspection has passed. The Rating Company enters the inspection result and uploads these inspection reports into the portal.
- 8. When all program requirements are met, an ENERGY STAR or ZERH label(s)/certificate(s) is issued by the Rater to the Builder/homeowner,
- 9. The Rating Company will complete the online incentive application and upload completed checklists, rating software data files, ENERGY STAR or ZERH summary reports, etc.
- 10. The Program reviews and approves the Incentive Application and payment is sent directly to the builder or homeowner in the form of a check.

7. Program Registration and Enrollment Procedures and Requirements

- Raters must utilize an <u>online portal</u> to submit electronic applications and all required program documents. Raters obtain an RBT number from the portal indicating the project has been registered. Once a project is registered, the rater may proceed with performing the pre-drywall inspection.
- 2. Projects will receive an Enrollment Letter and funds will be committed to each project when the Site Registration portal entries and documents are deemed complete. These projects will expire according to building type as listed below, with the time measured from the issuance of the Registration (i.e. RBT number) as applicable:
 - a. Single Family and Multi-single (i.e. townhome) projects expire in one year;
 - b. Low-Rise Multifamily and Multifamily High-Rise will expire in three years.
- 3. All applicants must submit a valid municipal building permit with the enrollment application. In instances where an applicant is pursuing code compliance through the RNC Program, an Acknowledgement Letter will be issued with the understanding that the applicant must upload to the online portal the permit once the permit is granted.
- 4. The project must be successfully registered before notifying the RNC program about the Pre-Drywall inspection.
- 5. An applicant for Single Family or Multi-single project may apply to the Program Manager for an extension of its expiration date. The applicant must document extenuating circumstances beyond their control.
- 6. Multifamily projects will not be granted any extensions of its enrollment or commitment.

- 7. Among other consequences of expiration, the project's commitment amount, if any, will be terminated, freeing the previously committed amount for other NJCEP purposes.
- 8. Expired projects may reapply, in which case they will be governed by the technical requirements applicable at the time the project's then-current building permit issued and will be eligible for the incentives, if any, available at the time of reapplication.

8. Quality Assurance Inspections

The Program Administrator will conduct sample QA site inspections of the Rater's Pre-drywall and/or Final Inspections and file reviews of all EPA ENERGY STAR Checklists and rating software file to confirm program requirements are being met. Errors and/or inappropriate rating procedures identified through QA inspections or file reviews will subject rating companies to actions as defined in the contractor remediation process.

Inspection requirements will be adjusted based upon the track record of the program participants. Initial inspection rates for new builders and rating companies will be higher and will decrease as they demonstrate proficiency in proper building techniques and the requirements of the Program.

9. Program Dispute Resolution

The program is designed to allow for participation by any RESNET Certified Rater operating under a RESNET Accredited Rating Provider that meets the program requirements upon completion of a program participation agreement. There are BPU approved contractor remediation procedures that will be followed if a contractor is found to violate program procedures and rules or consistently violates program requirements which may include being barred from participating in the program.

Disputes, concerns, or complaints that arise will be addressed initially by the Program Manager or Program Staff at the point of contact. If resolution for whatever reason is not possible, there is a <u>dispute</u> resolution process backed by the NJ Board of Public Utilities.

For contractual disputes between a customer and a contractor or builder, an online complaint can be filed with the NJ Division of Consumer Affairs (DCA).

10. Call Center Support

New Jersey's Clean Energy Program operates a call center staffed weekdays between 8 AM and 7 PM. The phone number is 866-657-6278. The call center is trained in answering general questions about the program and application processes as well as able to provide specific information pertaining to an application.

11. Links to Website Information

- Overall homepage for the Residential New Construction program: www.NJCleanEnergy.com/RNC
- Building & Rating Company Information webpage: <u>www.NJCleanEnergy.com/residential/programs/nj-energy-star-homes/builder-information/builder-information</u>
- RNC portal that Raters use to upload documents, inspection reports, and other submittals for program review. There is also a training video that Raters can watch to learn how to use the portal. Raters must register with the RNC program to use the portal.
 www.NJCleanEnergy.com/RNCPORTAL
- Technical information that is required for Builders and Raters to participate in the program including step-by-step instructions on how to enroll a home in the program along with program checklists used by the raters.
 <a href="https://www.NJCleanEnergy.com/residential/programs/nj-energy-star-homes/builder-information/participation-documents/participation-
- Frequently Asked Question (FAQ) page: http://www.njcleanenergy.com/residential/programs/nj-energy-star-homes/faqs/new-jersey-energy-star-homes-frequently-asked-questio
- List of rating companies approved to work within the program: www.NJCleanEnergy.com/RATERS