



New Jersey ENERGY STAR® Homes
Residential New Construction (RNC) Program Guide

For Fiscal Year 2017
(7/1/2016 through 6/30/2017)



Table of Contents

1. Overall Program Description	3
2. Target Market & Eligibility	3
3. Background for IECC Codes, ERI Path, and HERS Index	3
4. Program Offerings.....	4
5. Financial Incentives.....	5
6. General Process Outline	6
7. Program Enrollment Procedures and Requirements.....	7
8. Quality Assurance Inspections.....	7
9. Program Dispute Resolution	8
10. Call Center Support.....	8
11. Links to Website Information	8

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 RNC program strategy is to establish standards for energy efficient new construction in New Jersey based on national platforms including IECC 2015, EPA ENERGY STAR® Certified New Homes Program, EPA ENERGY STAR Multifamily High-Rise Program (MFHR), and the DOE Zero Energy Ready Home (ZERH) Program. 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, multi-single (townhome), low-rise, and high-rise multifamily buildings up to six stories are eligible for program benefits if the home or multifamily building will use natural gas and/or electricity supplied by a New Jersey investor owned utility (IOU). Target markets for this program are homebuilders and raters.

Multifamily buildings can either be considered low-rise (which participate in the first four pathways described above) or high-rise (which participate in the MFHR Program) depending on several factors including number of stories, heating and cooling systems, and square footage of commercial space in the building.

The RNC Program will also enroll any existing home undergoing substantial gut renovation or remodeling that meets the above criteria.

New homes are not eligible for incentives under the Residential HVAC program (*COOL*Advantage/*WARM*Advantage).

3. Background for IECC Codes, ERI Path, and HERS Index

The New Jersey Department of Community Affairs adopted the 2015 International Energy Conservation Code (IECC) on September 21, 2015. Homes that receive 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.

The 2015 IECC aims to be more user-friendly and more flexible for builders to achieve targeted energy savings. New in this code is the Energy Rating Index (ERI) compliance path. The ERI is voluntary but gives builders the option of taking a “whole house” performance approach to meet the targeted ERI Index. In other words, rather than a builder having to install prescriptive measures, a builder can select a package of most efficient measures as well as the building envelope to achieve the best performance for each home.

A score of 100 equates to the 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 also uses an index system called the Home Energy Rating System (HERS) on a scale of 100 to 0 and the lower the Index, the more efficient the home. In short, the lower the ERI or 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 and achieve a HERS Index of 50 or lower. 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 and to determine the cash rebate the builder will earn. The three standards are outlined below:

- **IECC 2015 Energy Rating Index (ERI):**
As stated above, NJ has recently adopted this code and new residential construction must be in compliance with this code. Builders are encouraged to utilize the ERI “whole-house” performance pathway to achieve compliance with the code so that materials, systems, and appliances are all working together to maximize a home's energy efficiency. This is the standalone “entry level” pathway into the RNC program. The incentive for construction to this standard is a flat \$750 but could also be combined with all the other incentive levels listed below if the house or multifamily buildings meet all the requirements.
- **ENERGY STAR Certified Home v 3.1 Requirements:**
Builders can choose to construct a home in conformance with ENERGY STAR v3.1 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 HERS Index. The home must meet or exceed the HERS Index Target, comply with all ENERGY STAR v. 3.1 mandated requirements and checklists and construction documents are required.
- **Zero Energy Ready Home & Zero Energy Home + RE**

New Jersey's Clean Energy Program™

Residential New Construction Program Guide

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 2015 IECC insulation requirements, 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 HERS Index.

- **ENERGY STAR Multi-Family High Rise:**
Builders must meet or exceed EPA ENERGY STAR Multifamily High Rise (MFHR) Program standards including:
 1. Following Performance Path which utilizes ASHRAE approved energy modeling software to determine energy savings of a customized set of measures;
 2. Align with EPA guidance to allow multiple baseline codes with corresponding percent above code requirements.

5. Financial Incentives

Tables 1 and 2 below display the financial incentives payable to the builder or contractor depending on the home's final HERS Index. *Note: The lower the Index, the larger the rebate.*

Table 1: Single-family, Multi-Single and Low-Rise Multifamily incentive structure.

HERS (Before Renewables)	IECC2015 ERI Compliance	Single-Family			Multi-Single			Multifamily		
		ENERGY STAR [®] Home	Zero Energy Ready Home	Zero Energy Home 100% Renewables	ENERGY STAR Home	Zero Energy Ready Home	Zero Energy Home 100% Renewables	ENERGY STAR Home	Zero Energy Ready Home	Zero Energy Home 100% Renewables
75								\$625		
70					\$1,125			\$750		
65		\$1,750			\$1,313			\$875		
60		\$2,000			\$1,500			\$1,000		
55		\$3,000			\$2,250			\$1,500		
50	\$750	\$4,500	\$6,500	\$9,500	\$3,375	\$4,875	\$7,125	\$2,250	\$3,250	\$4,750
45		\$7,250	\$9,250	\$12,250	\$5,438	\$6,938	\$9,188	\$3,625	\$4,625	\$6,125
40		\$10,250	\$12,250	\$15,250	\$7,688	\$9,188	\$11,438	\$5,125	\$6,125	\$7,625
35		\$13,750	\$15,750	\$18,750	\$10,313	\$11,813	\$14,063	\$6,875	\$7,875	\$9,375
30		\$17,250	\$19,250	\$22,250	\$12,938	\$14,438	\$16,688	\$8,625	\$9,625	\$11,125
25		\$18,250	\$20,250	\$23,250	\$13,688	\$15,188	\$17,438	\$9,125	\$10,125	\$11,625
20		\$19,250	\$21,250	\$24,250	\$14,438	\$15,938	\$18,188	\$9,625	\$10,625	\$12,125

Table 2: Multifamily High Rise Incentive Structure

Baseline	Savings Before RE	Baseline	Savings Before RE	Baseline	Savings Before RE	Incentive Per Unit
90.1-2007	25%	90.1-2010	20%	90.1-2013 App G 2010 OR 2013	15%	\$1,250
	30%		25%		20%	\$1,500
	35%		30%		25%	\$1,750
	40%		35%		30%	\$2,000
	45%		40%		35%	\$2,250

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 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 or 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 Rating Company then registers a project with the program through the online portal and uploads all supporting documents specified on the portal.
4. 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.
5. 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.
6. 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.
7. If any deficiencies are identified by the Rating Company during these inspections, the builder must rectify until inspections are passed. The Rating Company uploads these inspection reports into the portal.
8. When all program requirements are met, an ENERGY STAR labels/certificates are issued if applicable.

9. The Rating Company will complete the online incentive application and upload completed checklists, REM/Rate data files, ENERGY STAR summary reports, etc.
10. The Program reviews and approves the Incentive Application and payment is sent directly to the Builder in the form of a check.

7. Program Enrollment Procedures and Requirements

1. Raters must utilize an **online portal** to submit electronic applications and all required program documents.
2. Projects will receive an Enrollment Letter and funds will be committed to each project. These projects will expire according to building type:
 - a. Single Family projects expire in one year;
 - b. All other building types (Multi-Single, Low-Rise Multifamily, and Multifamily High-Rise) will expire in two years.
3. All applicants must submit a valid municipal building permit and permitted set of plans 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 into the online portal the permit and permitted set of plans once the permit is granted.
4. Single Family projects must complete a Pre-Drywall Inspection within 60 days of enrollment date. Projects missing this deadline will be eligible for a one-time 60-day extension if the Program is notified of the extension request prior to the expiration of the original enrollment. Should these requirements not be met in the above mentioned timeframes, the project may be cancelled and the commitment amount re-allocated for other projects.
5. Low-Rise Multifamily and Multifamily High-Rise may be granted one extension of its enrollment or commitment for a period equivalent to its original enrollment or commitment if it demonstrates that its Pre-Drywall Inspections have been successfully completed by the time of its enrollment or commitment expiration date. Should these requirements not be met in the above mentioned timeframes, the project may be cancelled and the commitment amount re-allocated for other projects.

8. Quality Assurance Inspections

The Program Administrator Team will conduct sample QA site inspections and file reviews to confirm program requirements are being met. Errors and/or inappropriate rating procedures identified through QA inspections 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 qualifying requirements of the Program.

9. Program Dispute Resolution

The program is designed to allow for participation by any third party rating company that meets the program requirements. 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 [dispute 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-NJSMART. 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

- The below link routes to the overall homepage for the Residential New Construction program.
<http://www.njcleanenergy.com/residential/programs/nj-energy-star-homes/nj-energy-star-homes>
- The below link routes to the Building & Rating Company Information webpage:
<http://www.njcleanenergy.com/residential/programs/nj-energy-star-homes/builder-information/builder-information>
- The below link routes to the 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.
<http://www.njcleanenergy.com/rncportal>

New Jersey's Clean Energy Program™

Residential New Construction Program Guide

- This link below routes to all the 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.
<http://njcleanenergy.com/residential/programs/nj-energy-star-homes/builder-information/participation-documents/participation->
- The below link routes to a Frequently Asked Question (FAQ) page:
<http://www.njcleanenergy.com/residential/programs/nj-energy-star-homes/faqs/new-jersey-energy-star-homes-frequently-asked-questio>
- The below links routes to the webpage showing the rating companies approved to work within the program.
<http://www.njcleanenergy.com/residential/programs/nj-energy-star-homes/rating-companies>
- The below link routes to the program Incentives page:
<http://www.njcleanenergy.com/files/file/Residential%20Programs/NJ%20ENERGY%20STAR%20Homes/FY2016/New%20Financial%20Incentives%20Table.pdf>