

New Jersey Clean Energy Programs 2001 Program Plan

RESIDENTIAL NEW CONSTRUCTION PROGRAM

Overview

The Residential New Construction Program, offered by PSE&G, GPU, Conectiv, Rockland Electric Company, New Jersey Natural Gas, Elizabethtown Gas and South Jersey Gas, is designed to increase the efficiency of residential new construction, with the long term goal of transforming the market to one in which all new homes are built at least as efficiently as the current ENERGY STAR homes standard. There are a number of market barriers to efficiency investments in new construction. Key among these are: (1) split incentives (i.e. builders who make design decisions will not pay the energy bills associated with those decisions); (2) lack of information on the benefits of efficiency (on the part of consumers, builders, lenders, appraisers, realtors and others); (3) limited technical skills to address key elements of efficiency; and (4) inability of consumers, lenders, appraisers and others to differentiate between efficient and standard homes. The program will employ several key strategies to overcome these barriers:

- Marketing assistance to builders of efficient homes (promoting ENERGY STAR label);
- Technical assistance to builders and their subcontractors;
- Home energy ratings and ENERGY STAR certification to qualified homes;
- Incentives to builders to construct homes to program standards;
- Support to the Department of Community Affairs to foster the development of market-based mechanisms to facilitate market transformation, including a uniform statewide energy rating system, accreditation of raters, development of preferential mortgage products for efficient homes; and
- Technical support/training on residential energy code updates and implementation.

Target Market/Eligibility

Any new home or existing home undergoing substantial renovation or remodeling is eligible to participate if it has gas heat, electric heat and/or central air conditioning. Both single family and multi-family buildings are eligible as long as they are individually metered (i.e. non-commercial accounts). Some utilities may provide integrated shell/HVAC incentives for new construction. In such cases, a utility will pay *either* the integrated incentive *or* the HVAC incentive, but not both.

Efficiency Measures/Standards

To participate in the program a home must: (1) meet a *performance standard* of at least 30% less energy consumption (same as EPA's ENERGY STAR standard) than if it had been built to the national model energy code; and (2) document proper HVAC equipment sizing and installation. The performance standard can be met through any combination of insulation up-grades, efficient windows, air sealing, efficient HVAC equipment, and/or

duct sealing. A home energy rating (score of 86 points) will be required to demonstrate a combination of such measures has resulted in attainment of the standard.

Homes meeting the core envelope/HVAC standard will also be eligible for supplemental incentives for high efficiency lighting fixtures, appliances and ventilation equipment.

Incentives

Incentives will reflect changing baselines, market barriers to efficiency improvements and incremental costs of efficiency improvements. Initially, they will be designed to cover approximately 100% of the incremental cost of efficiency up-grades for homes with electric heat or gas heat and approximately 50% of incremental cost for homes with central air conditioning and oil or propane heat. However, as program participation grows, market barriers become less severe and/or baselines increase, incentives in future years may be reduced. Incentives for efficient light fixtures, appliances and ventilation equipment will also be based on the severity of market barriers, baseline practices and incremental costs of efficiency.

For 2001, the Program offers three different incentives. First, and most important, are incentives for building a home to the Program’s core efficiency standard for building shell and HVAC equipment. The Program standard is a Home Energy Rating System score of at least 86.0 points, plus certain prescriptive requirements for 1) central air conditioners and/or heat pumps (where applicable); 2) ducts (where applicable); and 3) house air sealing. This core incentive varies by dwelling type as follows:

Core Incentive

Dwelling Type	Incentive Level¹
Single Family	\$700 + \$.60/sq. ft.
Multiple Single Family (“Townhouse”)	\$200 + \$.60/sq. ft.
Multiple-Family Building (“Multi-Family”) ¹	\$50 per dwelling unit + \$.60/sq. ft.

1. For all residential conditioned floor space.

The HVAC equipment incentives are the same as those offered under the Residential Electric HVAC and Gas HVAC Programs, except that the \$300 per ENERGY STAR furnace or boiler will go into effect on May 9 instead of July 31, 2001. The HVAC equipment incentives follow:

HVAC Equipment Incentives

Equipment Type	Minimum Efficiency Standards	Incentive Level²
Gas Boiler	ENERGY STAR – 85% AFUE	\$300
Gas Furnace	ENERGY STAR – 90% AFUE	\$300
Central A/C	13 SEER, 11 EER, 8.0 HSPF	\$370
Central A/C	14 SEER, 12 EER, 8.5 HSPF	\$550
Heat Pump	13 SEER, 11 EER, 8.0 HSPF	\$460
Heat Pump	14 SEER, 12 EER, 8.5 HSPF	\$710
Ground Source Heat Pump	13 EER	\$580/ton

2. Per installed unit.

Homes that qualify for the Program's core incentives are also eligible for supplemental incentives for other end uses. These are as follows:

Measure	Efficiency Standard	Incentive Level
Washing Machine	ENERGY STAR model	\$175
Light Fixtures	Unlimited quantities of ENERGY STAR fixtures in high-use locations (not closets, garages, unfinished basements or other locations where lights are typically on for less than 2 hours/day)	\$30 for recessed cans \$20 for all others
Mechanical Ventilation System	<ul style="list-style-type: none"> • Ducted fan (maximum .5 Watts/cfm and 2.0 sones) on automatic control • Maximum of one system for 1,000 dwelling sq. ft. of conditioned space 	\$100 per system

Joint/Coordinated Delivery

All gas and electric utilities will meet regularly to both coordinate the development of a consistent program design and ensure that it is implemented in a consistent fashion across the state. As noted above, the utilities will use identical program eligibility requirements, efficiency standards (including verification with home energy ratings) and incentive levels. In addition, the utilities will develop and implement a joint marketing strategy and a joint evaluation plan. Finally, the utilities will assist the Department of Community Affairs with the development of a statewide rating system, rater accreditation infrastructure, energy efficient mortgage products and mechanisms for promoting market transformation.

2001 Timeline/Milestones

Existing utility residential new construction Programs will be modified/enhanced, and those utilities with different or no Programs will offer the joint Program design filed by the utilities and approved by the BPU. The utilities will jointly meet the following milestones for implementation of the new statewide Program:

- Offer technical assistance, inspections, energy ratings and the incentives outlined above to builders across the entire state by May 9, 2001;
- Finalize baseline survey by June 15, 2001;
- Complete Program marketing plan by August 15, 2001;
- Begin implementing marketing plan by October 15, 2001; and
- Hire independent vendor to begin statewide Program process evaluation by December 31, 2001.

Performance Indicators

The following criteria will be used to judge performance:

- Market share for ENERGY STAR homes;

- Attitudes/awareness among consumers, builders and other key market actors;
- Installation rates for efficient lighting fixtures, appliances and ventilation equipment;
- Leveraging of marketing assistance from trade allies; and
- Increasing availability/use of home energy ratings and energy efficient mortgages.

2001 Program Goals

The ENERGY STAR Homes Program has several inter-related goals for the 2001 Program year, including the following:

- Enroll at least 3,156 participating residential new construction dwelling units (single family, townhouse and multi-family) with commitments¹ to build to the ENERGY STAR Homes Program’s core efficiency standards when the units are constructed;
- Recruit at least one “large” builder to commit to construct the majority of homes built in New Jersey to the ENERGY STAR Homes Program’s core efficiency standards;
- Achieve an average of three ENERGY STAR light fixtures per certified dwelling unit; and
- Achieve an average of 0.25 of ENERGY STAR washing machines and/or mechanical ventilation systems per certified dwelling unit.

Minimum Requirements for Program Administration

For 2001, the utilities must do each of the following:

- Collectively implement all elements of the Program in a consistent manner across the entire state;
- Collectively complete all activities listed under the timelines and milestones above within 60 days of the target date.
- Individually achieve the following “enrollment” participant numbers (i.e., 60% of the statewide goal for a total of 1,894 completed and/or committed homes):²

Conectiv	GPUE	PSE&G Electric	RECO	NUI/E-Town	NJNG	PSE&G Gas	SJG
391	426	1,030	16	172	276	1,109	261

¹ “Commitment” means a signed agreement by the Program participant to construct and complete each enrolled dwelling unit to the Program standards within two years.

² Program goals include homes served by both gas and electric companies. A home served by both counts toward each company’s goal.