

## ➤ ENERGY STAR New Homes

### A. Description

The ENERGY STAR® New Homes product provides homebuilders with an incentive to exceed state and local building codes, applying innovation beyond common construction practices. Homebuilders are encouraged to consider a “whole-house” approach to energy conservation when constructing new single-family and small multi-family homes. This approach combines energy saving construction methods with energy-efficient appliances to achieve significant energy savings and provide the customer with lower energy bills, fewer maintenance concerns, higher resale value, and a more comfortable, quiet home.

Builders have the flexibility to mix and match efficient technologies and building techniques to meet the product requirements and qualify for a rebate. In order to qualify for a rebate, participants are required to build homes that exceed state and local building energy codes by at least ~~15%~~ 10%. In order to measure this, a Performance rating must be completed on all homes by a Residential Energy Services Network (RESNET) certified home energy rating system (HERS) rater. HERS raters will complete the Performance rating for each home using REM/Rate software and will submit selected output information to the Company’s third-party implementer for evaluation. Energy savings are determined individually for each home based on the difference between the energy used by the reference home (or baseline home; modeled to match the local jurisdictional energy code) and the energy used by the new as built home.

Builders will receive a rebate based on the percent improvement achieved over their jurisdictional energy code and can earn a \$100 bonus rebate if their home is ENERGY STAR certified. Additional rebate dollars are available to the builder if qualifying energy-efficient appliances are installed at the time the home is rated. See section G below for rebate details.

Xcel Energy has received several awards from ENERGY STAR for this product:<sup>1</sup>

- *2011 Leadership in Housing Award*
- *2011 ENERGY STAR Partner of the Year*
- *2012 Leadership in Housing Award*
- *2012 Sustained Excellence in Energy Efficiency Program Delivery*
- *2013 Leadership in Housing Award*

The Company utilizes a third-party implementer to encourage builders to participate in the product, working jointly with local raters to get homes enrolled in the product. The HERS rater will model and test the home and, in conjunction with the third-party implementer, determine whether it meets the product requirements and is eligible for a rebate. HERS rating companies have the flexibility to participate in this product by completing a standard scope of work managed by the Company’s third-party implementer. HERS raters in the state of Colorado have established strong relationships with the builder community they serve and the Company wishes

---

<sup>1</sup> View the ENERGY STAR Awards Archive: <https://www.energystar.gov/about/awards/awards-archive>

to build on those relationships and support the raters in their efforts. The third-party implementer will provide product training for the rater and assist with builder training as needed. The third-party implementer will also be responsible for obtaining rating information from the rater and reporting it to the Company.

#### *Product Improvements toward a Year-Round Offering*

The Company recognizes that in 2012 and 2014, the product became fully subscribed prior to the end of the calendar year, which drew concern from interested stakeholders. The Company has made several improvements to the product since implementation of the 2014 DSM Plan, aimed at keeping the product open throughout the calendar year in 2015 and 2016:

- Rebates will no longer be based on the HERS index achieved but instead based on the homes improvement over local energy code. This change better aligns the rebate level with the level of energy savings. Homes built in jurisdictions where IECC 2012 or higher is adopted are generating a low HERS index (low is better), but many of these homes do not provide a high level of energy savings since the baseline home is now more efficient.
- In late July of 2014, the Company implemented a 60-Day Notice which modified how incremental capital costs (ICC) are assigned to each home. The ICC for the reference (baseline) home is now calculated, rather than deemed. This change does a better job aligning the ICC incurred by the builder and the energy savings being claimed by the Company.
- Previously the Company offered an incentive to energy raters for each home that earned a rebate, which ~~will no longer be offered~~ is being reduced from \$200 to \$75 starting in 2015. Here forward the Company will refer to this as an “administrative fee.” ~~Energy raters participating in the product asked the Company discontinue payment of this incentive as it caused challenges for the raters, such as management of contracts with builders and the perception of setting the market price for an energy rating.~~ The ~~elimination~~ reduction of this ~~incentive fee~~ improves the product’s cost-effectiveness.

## **B. Targets, Participants & Budgets**

### Targets and Participants

The product’s energy savings and participation targets are based on historical product performance—the product was fully subscribed prior to calendar year end in 2014—and a forward look into new construction trends based on available market intelligence. Nationally, new home construction-starts in 2014 reached their highest level since 2008, but remained below pre-2008 levels. While, the Colorado market seems to be growing at a faster pace than the national market, growth levels are anticipated to be modest. In addition, the Company has changed its methodology for calculating rebates to be based on the percentage of improvement over local energy code requirements<sup>2</sup> (rather than being based on the HERS Index)—resulting in some homes no longer qualifying for rebate. Nonetheless, the Company is forecasting product participation to increase approximately 7% in 2015 (from 2014 targets) and 8% in 2016 (over 2015 targets).

---

<sup>2</sup> Reference is to an individual participating home’s presiding local energy code requirements.

### Budgets

The budget for this product is driven by forecasted participation levels for 2015/16 and includes costs for: product administration, builder rebates, promotional and outreach activities, measurement and verification, and internal Company labor. Product administration costs include third-party implementer services. Builder rebates are the single largest expense component for this product.

## **C. Application Process**

Enrollment for this product is typically completed by the HERS raters on behalf of their clients (builders). HERS raters have strong, long standing relationships with most of the builders operating within the Company's Colorado service territory. To initiate the enrollment process, HERS raters will contact builders to encourage their participation, or the builder will contact a rater and express interest in constructing a better-than-code home. The rater will explain the product and potential rebates available, review the home's blueprints and building schedule, and enter the home details into the third-party implementer's tracking database. The rater will also consult with the builder throughout the construction phase to construct the home to better-than-code standards.

When the home is completed, the HERS rater will perform an air tightness test on the house and determine the energy impacts using REM/Rate. This information is submitted to the third-party implementer who will review and approve each request. The builder will receive a rebate based on a percent improvement achieved over the prevailing jurisdiction's energy code. The percent improvement achieved in each home is used to determine the rebate level earned. Specific gas and electric savings are determined by the HERS raters modeling. There is no rebate application for the builder or rater to complete since all required information is entered by the HERS rater into the third-party implementer's database using a web portal interface. The third-party implementer reviews and ensures all information is accurate and captured and works directly with the energy rater to correct any omissions or errors. Once the data is deemed complete, the third-party implementer is responsible for manually entering a portion of the collected data for each home into the Company's database.

## **D. Marketing Objectives & Strategies**

The Company will update existing marketing materials to distribute to participants and possibly develop new materials for homebuyers and other stakeholders such as realtors and builder's sales agents. The development of new materials will be driven in large part by the outreach plans of the third-party implementer selected for 2015/16. The objective of the marketing material is to effectively communicate the benefits (energy, economics, and comfort/durability) and requirements of participation to existing and new participants. The product does not utilize mass marketing campaign efforts as a method of driving participation.

The Company's third-party implementer will engage in outreach activities with participants and stakeholders. The objective of outreach efforts is to maintain working relationships with builders and raters, ensuring that they are satisfied with the product offering and are provided clear

communications and customer service. This is accomplished through a combination of in-person and conference-call meetings with raters and one-on-one meetings and routine email and phone communications with raters and builders.

The third-party implementer will develop and offer training to participants (primarily raters) on the use of their database system and REM/Rate modeling software, with the objective of improved efficiency and more accurate data output, and to encourage energy-efficient building practices resulting in increased energy savings. Additionally, the third-party implementer will work the Company to identify key stakeholders and will be responsible for developing specific outreach plans designed to increase product visibility and awareness. Key stakeholders may include organizations such as local homebuilder associations, the Colorado Energy Office (CEO), and other related industry organizations.

## **E. Product-Specific Policies**

This product applies to builders of residential single-family buildings, small multi-family (duplex, triplex, fourplex) buildings and town homes that receive combined electric and gas service, or gas only service, from Public Service. Structures that have common conditioned space such as hallways and elevator shafts are not eligible for the product.

HERS raters must be RESNET certified and must use the REM/Rate modeling software for each home. All qualifying homes must be rated using the widely adopted Performance path method, which requires independent verification by a qualified, participating HERS rater. The HERS rater must complete the Thermal Enclosure System Rater Checklist and the home must pass all applicable sections in order for the builder to qualify for a rebate.

Homes do not need to be ENERGY STAR-certified to receive rebates; however, homes achieving ENERGY STAR certification may be eligible for an additional \$100 bonus rebate. The requirements for the ENERGY STAR-certified rebate tier are detailed in Section G below.

Natural gas only participants are not eligible to receive the appliance rebate for installing the ENERGY STAR refrigerator or Lighting Efficiency measures. Natural gas only participants that do not install a natural gas water heater are not eligible for the ENERGY STAR dishwasher or clothes washer rebate. Homes that receive electric service only from the Company are not eligible to participate in this product. In other words, the home must receive gas only service or combined gas and electric service from the Company in order to participate.

The product does not include the impacts of a PV or other renewable generation systems when calculating the percent better-than-code achieved by a home. Incentives for PV systems are paid through the Company's Solar\*Rewards product, under separate application. Accordingly, energy savings credit for installed PV systems are not captured within this product.

## **F. Stakeholder Involvement**

The product continues to evolve due to changes occurring in the new homes marketplace. The Company maintains on-going relationship with the U.S. Environmental Protection Agency (EPA) and U.S. Department of Energy, which jointly oversee the national ENERGY STAR program. The Company is an active Sponsor and participant in the national program, recognizing the strong customer awareness of the ENERGY STAR brand.

In 2013, the Company initiated product research, conducted with participating builders and energy raters, recognizing that the product savings were declining due to jurisdictions adopting increasingly stringent energy codes. Product changes would be necessary to maintain cost-effectiveness. The Company also solicited feedback on the product's operational strengths and weaknesses, and sought input on test concepts for future product design. Some of the key findings included:

- The builder and energy rater's relationship is highly valued by both parties and builders want the freedom to choose their rater.
- Builders value third-party testing conducted by energy raters and the assurance it provides that installation is done properly.
- Participants responded positively to the concept of awarding rebates based on a home's percent improvement over local energy code.
- Builders value the rebate offered by the Company and a tiered approach that increases the reward as additional energy efficiency levels are achieved.
- Builders would like assistance communicating the benefits of energy efficiency to homebuyers and specifically suggested a more robust website that helps potential homebuyers find participating builders.
- Participants wanted the Company to design a product that would allow year-round participation.

In addition, the Company serves on the new home construction committee of the Consortium for Energy Efficiency (CEE), which meets regularly and works closely with the EPA. The third-party implementer attends RESNET conferences on behalf of the Company.

Public Service will strive to work with the CEO and other Colorado stakeholders, such as the City of Denver, to continue the product's success, including via consistent messaging.

The Company will continue monthly communications to builders and energy raters, providing year-to-date product updates on participation, achievements and other important product information as it arises.

## **G. Rebates & Incentives**

Builders with qualifying homes are eligible to receive a rebate based on the percent better than local energy code achieved. Additional rebates are available for homes that are ENERGY STAR certified and for installing one, or any combination of, the qualifying appliances. A builder's

home must achieve a minimum ~~15%~~ 10% better-than-code improvement (over their local jurisdiction' building energy code) in order to qualify.

**Builder Rebate Levels Based on Percent Better than Local Energy Code**

Percent “Better than Local Energy Code”	Rebate
10% - 14.999%	\$200
15% - 19.999%	\$350
20% - 24.999%	\$500
25% - 29.999%	\$650
30% - 34.999%	\$800
35% <del>and higher</del> – 39.999%	\$1,000
40% and higher	\$1,400
ENERGY STAR certified bonus*	\$100

\*The ENERGY STAR-certified bonus rebate is only available to combined natural gas and electric homes served by the Company. Gas only or electric only homes served by the Company are not eligible for the bonus rebate. Qualifying homes that earn the ENERGY STAR label are eligible to receive a bonus rebate when the following criteria are met:

- a) The home receives both electric and gas service from Public Service;
- b) The home qualifies for a percent better than local energy code rebate;
- c) The HERS rater has verified the home meets all requirements for the applicable ENERGY STAR certification standard and;
- d) The ENERGY STAR label is applied to the home’s electrical breaker box.

For the appliance rebate option, the builder will receive a rebate for installing one or any combination of the qualifying appliances. The appliance rebate option is available to all newly constructed homes served by the Company with combined residential natural gas and electric service. Homes that receive natural gas service only from the Company are not eligible for the ENERGY STAR Refrigerator or Lighting Efficiency product rebates.

**Appliance Rebate Levels for Qualifying Homes**

Appliance	Rebate
ENERGY STAR Dishwasher	\$10
ENERGY STAR Clothes Washer	\$50
ENERGY STAR Refrigerator	\$10
Lighting Efficiency (minimum 20 CFL lamps)	\$20

Appliance rebates will only be paid to builders for homes that also qualify for a percent better than local energy code rebate. Separate prescriptive rebates offered by the Company for other equipment such as lighting, air conditioners, furnaces, insulation, and hot water heaters are not available for homes participating in the ENERGY STAR New Homes product because the impacts from this equipment are already included in the performance analysis and are reflected within any rebate earned by the participating builder.

*Implemented: January 29, 2015*