

## ➤ Insulation Rebate Product - Summary of 60-day notice

Public Service provides this 60-day notice as agreed to in the Stipulation and Settlement Agreement in Docket No. 11A-631EG. Specifically, the Settlement Agreement requires Public Service to do the following:

*The Company agrees that it shall work to evaluate and develop a quality assurance program to ensure program standards and guidelines are met. The Company agrees to consult with interested stakeholders as this quality assurance program is developed. The Company will increase gas budgets \$134,000 and electric budgets \$16,000 per year to fund this quality assurance (QA) component. As part of the QA component, the company agrees to require air sealing, if necessary, in order to meet a to-be-defined air tightness standard for the customer to participate in the Insulation Rebate Program.<sup>2</sup>*

In addition to the Settlement requirement, this 60 day notice also makes additional modifications to improve the overall product. The major changes to the Insulation Rebate product include:

- requirement of air sealing
- blower door testing for each customer to be eligible for a rebate
- selection of a Building Performance Institute, Inc. (BPI) certified contractor.

Due to these changes, we are anticipating an increase in the quality assurance of the product, adding onsite measurement and verification, and an increase in energy savings per customer overall.

In order to maintain product quality assurance and align with industry standards we worked with interested stakeholders which included representatives from Populus Sustainable Design, Southwest Energy Efficiency Project, Colorado Office of Consumer Council and the Energy Efficiency Business Coalition, to determine program requirements to modify our product in a manner that meets our settlement goal while continuing to be cost effective. Three meetings occurred and numerous emails for program development and data were shared. The Company is not proposing to change or modify the filed approved budget or goals for this product. For 2013, we anticipate the forecasted spend will increase by \$209,334 over the current approved budget and decrease the Natural Gas spend by \$193,652. The Company also anticipates an increase in Electric savings by 548,757 kWh and decrease in our Natural Gas savings goals by 2,569 dekatherms. Here are explanations for these increases and decreases in spending and achievements:

- Electric and Natural Gas spend will be impacted particularly in 2013 due to our current method of splitting costs between gas and electric fuels for combination fuel measures, such as insulation. Using Avoided Revenue Requirements shifts

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<sup>2</sup> Stipulation and Settlement Agreement, Docket No. 11A-631EG, page 12.

rebates and incremental costs more onto electric as more of the benefits from avoiding generation costs accrue from electric savings than from gas.

- Both electric and natural gas savings per participant will increase due to the addition of air sealing measure requirement.
- Participation distribution was re-evaluated based on the year-to-date 2012 participation statistics – this shows increased participation in electric heating measures. The updated energy O&M resulted in a change in anticipated gas only participants from over 66% to about 2%. The change in percent made a large change in the weighted average energy O&M cost per unit.
- An overall reduction in participation will occur for both fuels given the stricter requirements to participate in the program. Current market potential given increased barriers and new Quality Assurance Measures were evaluated which further decreased expected participation in the program

Tables below show the net effect of the modifications on the projected participants, spend, savings, and Modified TRC test in 2013.

**Electric**

<b>2013</b>	Participants	Budget	Net Gen kw	Net Gen kWh	MTRC
DSM Approved Plan	3,120	\$115,505	540	428,993	3.63
Forecasted 60 day notice	1,948	\$324,839	900	977,750	1.78
Incremental Difference	-1,172	+\$209,334	+360	+548,757	-1.85

**Gas**

<b>2013</b>	Participants	Budget	Net Annual Dth Savings	Annual Dth/\$M	MTRC Test Net Benefits	MTRC
DSM Approved Plan	8,000	\$1,571,066	81,533	51,896	\$2,117,244	1.27
Forecasted 60 day notice	5,500	\$1,377,414	78,964	57,328	\$598,597	1.09
Incremental Difference	-2,500	-\$193,652	-2,569	+5,432	-\$1,518,647	-0.18

Following this summary is a red-lined copy of the Product Write-Up. Additionally, we are posting red-lined deemed savings sheets which can be found on our DSM Website at the following link:

[http://www.xcelenergy.com/About\\_Us/Rates\\_&\\_Regulations/Regulatory\\_Filings/CO\\_DSM](http://www.xcelenergy.com/About_Us/Rates_&_Regulations/Regulatory_Filings/CO_DSM)

## ➤ **Insulation Rebate Product**

### **A. Description**

The Insulation Rebate Product offers Public Service residential natural gas and electric-heated customers rebate incentives for installing insulation and air sealing measures in their existing single-family home or one-to-four unit property. ~~Homes must have a pre-project insulation level of R-20 or below.~~

Public Service will rebate the following types of qualifying insulation installations:

- Attic insulation (where existing is R-19 or less) to an R-value of 40 or greater
- Attic insulation (where existing is R-20 or more) to at least R-25 higher than existing
- Wall insulation to an R-value of 13 (where existing is an empty wall cavity)
- Air sealing and weather stripping (required with insulation applications unless home is .45 NACH or better)
- ~~Attic insulation and bypass sealing to an R-value of 38 or greater,~~
- ~~Wall insulation to an R-value of 13, and/or~~
- ~~Air sealing and weather stripping.~~

~~Customers must use a licensed, bonded and insured insulation contractor to qualify for the rebate.~~

The Department of Energy reports that heating and cooling accounts for 54% ~~50 to 70%~~ of the energy used in the average home today. They also add that inadequate insulation and air leakage are the leading causes for energy waste in most homes. Recent estimates from the Environmental Protection Agency indicate that homeowners can typically save ~~up to between 20%-50%~~ 25% of heating and cooling costs ~~(or up to 10% of total energy costs)~~ by air sealing their homes and adding insulation to attics, floors and over crawl spaces, and accessible basement rim joists.

#### Settlement Terms

The Company agrees that it shall work to evaluate and develop a quality assurance program to ensure program standards and guidelines are met. The Company agrees to consult with interested stakeholders as this quality assurance program is developed. The Company will increase gas budgets \$134,000 and electric budgets \$16,000 per year to fund this quality assurance (QA) component. As part of the QA component, the company agrees to require air sealing, if necessary, in order to meet a to-be-defined air tightness standard for the customer to participate in the Insulation Rebate Program.

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

#### Goals and Participants

The Insulation Product participation were developed based on historical participation and current projected market conditions with analysis of our current trade partner database that meet our criterion.

Goals were derived from evaluation of the data provided by Populus from 349 homes, as well as a subset of the Insulation and Home Performance rebate program for incremental costs and pre and post installation. Because the air sealing measure is a requirement, the participation for the measure is substantially higher than the 2012 program. The anticipation from review is that about 15% of the homes will be tight enough and therefore not required to air seal. The other 85% of the attic insulation homes will be eligible for participation.

Actual pre and post CFM 50 will be used for electric and/or gas savings. The new air sealing measures are three tiers of reduction (10% 25% and 33%) and are derived from review of the data set provided by Populus, Inc., as well as an additional subset of data from the Insulation Rebate program to verify participation by customer types and by heating system and cooling system types. The new air sealing measures have been calculated using the same baseline home as the original program, but with the anticipated average reductions within each bin:

<u>Segment</u>	<u>Percentage Minimum to qualify</u>	<u>Percent of expected participation</u>	<u>Estimated therms per home</u>
<u>Tier 1</u>	<u>10% minimum</u>	<u>66%</u>	<u>4.20 Therms</u>
<u>Tier 2</u>	<u>25% minimum</u>	<u>9%</u>	<u>7.39 Therms</u>
<u>Tier 3</u>	<u>33% minimum</u>	<u>24%</u>	<u>10.32 Therms</u>

### Budgets

Budgets were based on 2011 and 2012 product performance. The Colorado heating market was also analyzed for typical insulation costs including materials, blower door testing and installed costs (not just materials). The air sealing incremental costs include allocating the cost to the customer for bypass attic air sealing, weatherization and envelope, as well as additional cost of blower door testing. Budgets were then created using 20% of total insulation costs to frame the annual budget for rebates, in addition to promotions, labor and verification of a percentage of the insulation installations in the field to ensure they meet quality installation standards and achieved the expected energy savings.

Rebate amounts were originally set to match the Insulate Colorado program and provide a seamless way for either Public Service or the GEO to serve all qualified Colorado

~~residents with very similar program procedures and benefits. Public Service will continue to offer this rebate level to customers because it has been proven effective with customers in previous years.~~

~~Budgets were based upon the 2011 Colorado product offering, as well as average insulation costs in the Colorado market.~~

~~Costs associated with processing are relatively low since we do not require customers to work with a specific insulation provider and the product is based on a set percentage of the total cost of the insulation install, not just materials. Typically, this product is promoted through Xcel Energy's website and newsletters, communications to local area insulation contractors, and community events and home shows focused on the environment and energy efficiency. For that reason, historically it has required little budget for promotion and marketing purposes. Additional budget was added for contractor trainings and educational opportunities for the trade community for 2013.~~

#### Goals

~~The Insulation Rebate Product goals were developed based on historical participation.~~

### **C. Application Process**

The application process requires that the customer use a registered BPI (Building Performance Institute, Inc.) certified contractor. Qualified insulation contractors must be fully licensed, bonded, insured and listed in our trade partner website with BPI Analyst, Envelope or Residential Whole House Air Leakage Control Installer or Crew Chief certifications. These contractors have agreed to the terms of Xcel Energy trade partner's agreement and meet the requirements related to quality installation practices per BPI. A list of registered contractors can be found on the Xcel Energy website.

Qualified customers must complete a rebate application, which is available on the Xcel Energy website or by contacting our customer call center or the customer's insulation contractor. Air sealing and weather-stripping are required in each insulation install, unless a .45 NACH is met within the home. Pre and Post blower door results in CFM 50 are required for all projects, regardless if installing insulation or not. Customers must provide Public Service with a copy of their dated invoice reflecting the qualified installation performed by a listed BPI certified contractor along with the rebate application. Qualified installs will be processed accordingly by the rebate operations team and checks issued within six to eight weeks. Public Service will issue the rebate directly to the customer, but the rebate form may be submitted through the insulation contractor.

### **D. Marketing Objectives, Goals, & Strategy**

The Insulation Rebate Product will be marketed through a variety of channels such as the Home Energy Audit Product, the Xcel Energy website, direct mailings to local area BPI certified insulation contractors, and environmentally-focused community events and home shows. Since this rebate program is available to residential natural gas and electric

–heated customers from Public Service, we will support this marketing strategy with seasonal bundled direct mail efforts and bundled messaging winter bill inserts to targeted customers. Historically, this strategy has worked well when implemented during the key heating months of December, January and February.

Additionally, the Company will incorporate communications activities to local insulation contractors so they can educate qualified customers on how they can benefit from this rebate. By collaborating on outreach to our customers, the local contractors may be able to drive more customers to commit to quality assured insulation installs.

Finally, we will initiate cross marketing efforts with other natural gas rebate programs offered by Public Service. An example of this could be a winter bill insert that outlines existing rebate and energy efficiency products available to natural gas customers of Public Service. This strategy has proved successful in the past with this program.

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

To qualify, all projects must have a pre installation R value of 20 or less. To qualify, all projects must fall within the pre and post R-values set forth for both attic and wall insulation, as well as achieve a 10 percent minimum energy reduction through air sealing (unless the home meets a .45 NACH (Natural Air Changes per Hour) threshold). Qualified insulation contractors must be fully licensed, bonded, insured and with BPI Analyst, Envelope or Residential Whole House Air Leakage Control Installer or Crew Chief certifications. A qualified list of contractors will be posted on our website. Self-installs, or installs done by contractors without BPI certifications listed above, do not qualify for rebates.

All projects are required to perform a Pre and Post blower door test following the current requirements:

- i. For a customer to be eligible for rebate, contractors must perform Pre and Post Blower door test using CFM 50 on all projects.
- ii. Each specific insulation efficiency measure must have the corresponding building shell air sealed. Air sealing is required every time there is insulation installed, with exception when meeting our .45 NACH. Air sealing must be done first.
- iii. If home is already air sealed, the home can receive insulation, if Pre Blower door number is equal or better than .45 NACH
- iv. Minimum 10% building envelope air leakage reduction is required: Unless the building envelope is already air sealed or significantly air tight as described above.

All projects must be verified by a blower door test before and after. This is regardless even if the project is not going for air sealing reduction with instances that meet our .45 NACH.

This product is available to Public Service residential natural gas and electric customers in Colorado with existing residential housing. This product excludes new residential construction, new residential additions, insulation of doors, garages, sheds, and workshops, below-ground basements, mobile homes and properties with more than four units. To qualify for a rebate, all insulation must be installed to the manufacturer's specifications and meet all state and local codes and federal regulations. Air sealing and weather stripping must follow industry-accepted practices for mitigating air leakage. A combustion appliance zone or CAZ test check box will be included within the rebate application. Contractors are required to acknowledge that the testing was completed and/or note a recommendation for CAZ testing to be performed by an HVAC contractor. Public Service reserves the right to inspect installations before issuing a rebate. Rebates will not be issued if the same purchase has already been rebated through other Public Service rebate programs, such as through the Home Performance with ENERGY STAR Program. Customers are eligible for one rebate per calendar year.

2012 Measurement and Verification funding and applications Product Specific policy changes:

In order to provide quality assurance measurement on only the 2013 program participants and provide funds for the increased dollar per home the following will be implemented for 2012 applications; all applications need to be submitted by March 31<sup>st</sup>, 2013 in order to qualify. Invoice dates need to be prior to January 1, 2013, and submitted on the 2012 rebate application. The Company will communicate this change to customers and trade via email and/or mail and other communications if necessary.

The 2012 program year additional dollars per the Stipulation and Settlement Agreement was used in 2012 to provide contractor trainings and education surrounding Building Performance Institute, Inc. (BPI) certification<sup>2</sup>. The Company hosted an educational clinic in coordination with Colorado BPI proctors and testing centers over requirements and best practices on air sealing, blower door testing and combustion safety. Grants to encourage professional training were given to a limited number of contractors and proof of certification was provided for payment back to the trade partner.

## **F. Stakeholder Involvement**

The CO DSM Roundtable quarterly meetings provide a forum for stakeholder involvement and feedback about this product as well as the full portfolio of Public Service's DSM Products. Public Service conducted meetings with interested Stakeholders per the Settlement agreement to develop and assist with the goal of program improvement. This included quality assurance concerns and potential to require air

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<sup>2</sup> Stipulation and Settlement Agreement, Docket No. 11A-631EG, page 12.

sealing. Public Service will continue to involve stakeholders for future program feedback. Public Service also met with other local non-profits and utilities who offer additional rebates and conducts similar efforts with home insulation in Colorado.

## **G. Rebate Levels**

The product will provide a rebate equal to 20% of the total cost of the insulation/air sealing and installation up to a maximum rebate of \$300 per customer per natural gas or electric meter. Rebates will be offered on a one-time only basis, per calendar year. Public Service will not provide additional rebates through this product for future insulation or air sealing installs at the same residence unless the owner implements additional qualified installs.