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# Energy Efficiency Program Proposal

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ThermWise<sup>®</sup> Builder Rebates Program

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## Program Overview

### Description

Dominion Energy Utah (Dominion Energy or the Company) is proposing to continue the ThermWise® Builder Rebates program. The program will be delivered to the market and administered by Dominion Energy. The program will be available to residential builders in the Company's Utah service territory and include rebates for installing natural gas energy-efficiency measures in newly constructed single and multifamily residences receiving service on the GS rate schedule. Rebates under the program will be paid directly to the home builder or owner-builder (builder) or as indicated on the application form for energy efficient construction. Rebates will be paid for installing specific energy-efficient natural gas measures, including high efficiency natural gas space heating and water heating appliances or solar assisted gas water heating systems.

The program is designed to leverage marketing and delivery directly to Utah home builders using the Company's staff and any additional program implementation staff as needed. Development, implementation, training, support, and administration will be provided by the Company. All rebates will be available directly to builders upon completion of program requirements.

# Program Design

## Program Measures

### Qualifying Customers

Newly constructed single family and multifamily residences in the Company's service territory are eligible to participate in the ThermWise® Builder Rebates program.

### Qualified Energy Efficiency Measures

For a complete list of minimum efficiency requirements and rebate amounts, see section 2.11 of the Company's Utah Tariff (DEU Energy Efficiency Exhibit 1.9).

### Pay for Performance

Both single family and multifamily builders must show natural gas savings achieved by comparing usage of the subject home against a software designed User Defined Reference Home (UDRH). Specific software and UDRH requirements are available at ThermWise.com. The UDRH is based on common construction practices for new buildings in Utah and will be developed by the energy engineers specifically for this program. Incentives for this measure are \$3 per saved therm (\$30 per dekatherm (Dth)) and will be based on the software's calculation of gas savings achieved between the reference (UDRH) and the property being built. This proposed Performance measure is similar to the Commission-approved HERS rebate incentives offered by the Company beginning in the 2017. That HERS index measure is being replaced with this more robust alternative. To be eligible, homes must include qualified natural gas service.

### ENERGY STAR® Bonus

Builders may receive a bonus rebate for building a dwelling unit that meets the Pay-for-Performance requirements and qualifies as ENERGY STAR® under the most current version of RemRate as outlined by the RESNET guidelines or other equivalent versions of approved software tools. Any updates will be posted on www.ThermWise.com. Field verification and ENERGY STAR® compliance certificate must be completed by a HERS rater and will be required before ENERGY STAR® rebate will be paid. To be eligible, homes must include qualified natural gas service.

### DOE Zero Energy Ready Homes Bonus

Builders may receive a bonus rebate for building a dwelling unit that meets the Pay for Performance requirements and qualifies as a DOE Zero Energy Ready Home. Builders must follow DOE Zero Energy Ready Homes National Program Guidelines and certify the project using an approved rating company. ENERGY STAR® is a required element of the Zero Energy Ready Homes program. Field verification and compliance certificate will be required before rebate will be paid. This measure is intended to be offered in conjunction with the Pay for Performance and ENERGY STAR® Bonus. To be eligible, homes must have natural gas service. This is only available to Dominion Energy Utah residential GS customers.

## **ENERGY STAR® Highrise (new Multifamily)**

Builders may receive rebates for building a dwelling unit that qualifies under the most recently adopted version of ENERGY STAR® Multifamily Highrise. Submittals, which must be validated by a licensed professional, are used to demonstrate that the program's requirements have been met, that all prerequisites are included, and that each energy conservation measure is installed to specification. To be eligible, homes must include qualified natural gas service. This is only available to Dominion Energy residential GS customers.

### **Gas Furnaces**

Builders may receive a rebate for installing a high-efficiency natural gas furnace. Eligibility requirements are as follows:

- The builder must purchase and install a model with an AFUE Rating of  $\geq 95\% < 97.5\%$ .
- The builder must purchase and install a model with an AFUE Rating of  $\geq 97.5\%$ .

### **Gas Storage Water Heaters**

Builders may receive a rebate for installing a high-efficiency natural gas storage water heater. Eligibility requirements are as follows:

- The builder must purchase and install an ENERGY STAR® Certified water heater. Qualifying water heaters will have a minimum of 40 gallons in capacity.

### **Tankless Gas Water Heater**

Builders may receive a rebate for installing a high-efficiency tankless natural gas water heater. Eligibility requirements are as follows:

- The builder must purchase and install a tankless ENERGY STAR® certified water heater.

### **Condensing Storage Gas Water Heater**

Builders may receive a rebate for installing a high-efficiency condensing natural gas storage water heater. To be eligible for a rebate, the builder must purchase an ENERGY STAR® Certified water heater with documentation verifying it is a condensing unit.

### **Hybrid Gas Water Heater**

Builders may receive a rebate for installing a high efficiency hybrid natural gas storage water heater. To be eligible for a rebate, the builder must purchase and install a qualified model with a TE of  $\geq .90$ .

### **Gas Boilers**

Builders may receive a rebate for installing a high-efficiency natural gas boiler. Eligibility requirements are as follows:

- The builder must purchase and install a model with an AFUE Rating of  $\geq 85\% < 95\%$ .
- The builder must purchase and install a model with an AFUE Rating of  $\geq 95$ .

### **Solar Assisted Gas Water Heating (domestic)**

Builders may receive a rebate for installing solar assisted domestic natural gas water heating system, certified OG-300 by the Solar Rating and Certification Corporation (SRCC).

### **Solar Assisted Gas Water Heating (pool)**

Builders may receive a rebate for installing solar assisted pool natural gas water heating system, certified OG-100 by the Solar Rating and Certification Corporation (SRCC).

### **2x6 Walls**

Builders may receive rebates for installing an R-23 cavity insulation or equivalent exterior walls with continuous exterior insulation in single family homes. To be eligible, builder must certify the installation of qualifying products.

### **Windows - U-value $\leq$ 0.22**

Builders may receive rebates for installing a window with a U-value  $\leq$  0.22. To be eligible, builder must purchase and install qualified windows.

### **Smart Thermostat – Tier 1**

Customers may receive a rebate for installing a smart thermostat. Eligibility requirements are defined as follows:

- Energy Star qualified thermostat
- Wi-Fi enabled; must be able to communicate wirelessly
- Programmable for schedules
- With qualifying geofencing technology

### **Smart Thermostat – Tier 2**

Customers may receive a rebate for installing a smart thermostat. Eligibility requirements are defined as follows:

- Intuitive User Interface (UI); may include touchscreen or buttons
- Wi-Fi enabled; must be able to communicate wirelessly
- Programmable for schedules
- Online dashboard and/or mobile app connected to the user account
- With qualifying occupancy sensor technology

A list of manufacturers and rebate-qualifying models is available at [www.ThermWise.com](http://www.ThermWise.com).

### **Combined Space and Water Heater Units**

Customers may receive a rebate for installing a combined space and water heating units. Eligibility requirements are defined as follows:

- Must be considered one unit by manufacturer
- AFUE  $\geq$  95%

### **Smart Water Heater Controller**

Customers may receive a rebate for installing a smart water heater control or purchasing a new storage water heater that has factory installed web enabled smart water heater control. Eligibility requirements are defined as follows:

- The rebate is limited to smart water heater controllers installed on gas fired storage tank water heaters
- The controls must have remote water heater on and off and/or setback capabilities using a smartphone app or other online interface
- The ability to implement and/or suggest a water heating schedule to prevent standby firings of the water heater during periods of non-use

### **Dual-Fuel Heating System – Tier 1**

Customers may receive a rebate for installing a high-efficiency dual-fuel heating system. Eligibility and installation requirements are defined as follows:

- The customer must purchase and install an ENERGY STAR® Certified ducted heat pump with heating seasonal performance factor (HSPF)  $\geq 9.0$  and seasonal energy efficiency ratio (SEER)  $\geq 14$ .
- The customer must purchase and install an ENERGY STAR® Certified natural gas heating system to provide heat at low ambient outside air temperatures.
- The changeover set point, from heat pump to the natural gas backup, for the dual-fuel heating system must be set at 40° F or lower.

### **Dual-Fuel Heating System – Tier 2**

Customers may receive a rebate for installing a high-efficiency dual-fuel heating system. Eligibility and installation requirements are defined as follows:

- The customer must purchase and install an ENERGY STAR® Certified ducted heat pump with heating seasonal performance factor (HSPF)  $\geq 10.0$ , seasonal energy efficiency ratio (SEER)  $\geq 18$ , and energy efficiency ratio (EER)  $\geq 11.5$ .
- The customer must purchase and install an ENERGY STAR® Certified natural gas heating system with  $\geq 98\%$  AFUE to provide heat at low ambient outside air temperatures.
- The changeover set point, from heat pump to the natural gas backup, for the dual-fuel heating system must be set at 40° F or lower.

### **Energy Recovery Ventilation (ERV)**

Customers may receive a rebate for installing an energy recovery ventilation (ERV) system. Eligibility requirements are defined as follows:

- Gas space heating is required
- Must include a central system with internal fan system and separation of indoor and outdoor airflows
- Must not be required by code

## Exterior Insulation

Customers may receive a rebate for installing continuous exterior insulation. Eligibility requirements are defined as follows:

- $\geq$  R-5 continuous insulation (ci)
- Gas space heating is required
- Must not be required by code
- The installation must not interfere with compliance to the ventilation requirements outlined in the applicable International Mechanical Code

## HVAC Monitoring

Customers may receive a rebate for installing HVAC monitoring system. Eligibility requirements are defined as follows:

- System must provide automatic fault detection and diagnostics to homeowner and/or HVAC contractor

## Program Rebates, Projected Participation and Savings

A completed rebate application must be submitted within six months of the home occupancy date for subject dwelling units to be eligible to receive a rebate. Rebates will be sent to the Builder contact listed on the builder submitted application.

**Table 1. Builder Projected Participation and Savings**

Single Family (1-3 units)		
Measure	Projected Participation	Total Projected Savings (annual Dth)
Pay for Performance	6,000	120,000
Energy Star 3.0 Bonus	500	11,390
DOE Zero Energy Ready Homes Bonus	150	3,567
Natural Gas Furnace 95% AFUE	2,500	25,313
Natural Gas Furnace 97.5% AFUE	500	6,075
Storage Water Heater	250	715
Tankless Water Heater	500	4,280
Condensing Storage Water Heater	20	174
Hybrid Water Heater .90 TE	1	9
Natural Gas Boiler 85% AFUE	10	69
Natural Gas Boiler 95% AFUE	30	378
Solar Assisted Water Heater SRCC OG-300	1	18
Solar Assisted Pool Heater SRCC OG-100	1	69
2X6 R-23Walls	600	3,240

Windows – U-Value $\leq$ 0.22	30	290
Smart Thermostat (Tier 1)	400	2,440
Smart Thermostat (Tier2)	500	3,850
Combined Space and Hot Water	3	55
Smart Water Heater Controller	4	10
Dual-Fuel Heating System (Tier 1)	100	2,900
Dual-Fuel Heating System (Tier 2)	200	6,800
Energy Recovery Ventilation	40	416
Exterior Insulation	5	33
HVAC Monitoring	5	5
<b>TOTAL Single Family</b>	<b>12,350</b>	<b>192,094</b>
<b>Multifamily (4 or more units)</b>		
<b>Measure</b>	<b>Projected Participation</b>	<b>Total Projected Savings (annual Dth)</b>
Pay for Performance	3,200	32,000
Energy Star 3.0 Bonus	400	4,452
DOE Zero Energy Ready Homes Bonus	50	613
Natural Gas Furnace 95% AFUE	2,800	21,280
Natural Gas Furnace 97.5% AFUE	300	2,730
Storage Water Heater	1,000	1,390
Tankless Water Heater	1,000	5,400
Condensing Storage Water Heater	0	0
Hybrid Water Heater .90 TE	4	22
Natural Gas Boiler 85% AFUE	4	27
Natural Gas Boiler 95% AFUE	12	151
Solar Assisted Water Heater SRCC OG-300	4	70
Solar Assisted Pool Heater SRCC OG-100	4	276
Windows – U-Value $\leq$ 0.22	4	0
Smart Thermostat (Tier 1)	100	400
Smart Thermostat (Tier 2)	100	600
Combined Space and Hot Water	15	180
Smart Water Heater Controller	0	0
Dual-Fuel Heating System (Tier 1)	4	60
Dual-Fuel Heating System (Tier 2)	4	78
Energy Recovery Ventilation	4	21
Exterior Insulation	1	4



HVAC Monitoring	10	8
Energy Star Highrise	0	0
<b>TOTAL Multifamily</b>	<b>9,020</b>	<b>69,763</b>
<b>TOTAL Builder Program</b>	<b>21,370</b>	<b>261,857</b>

**Rebate Limitations**

ThermWise® Builder Rebate program limitations are defined in Section 2.11 of the Company’s Utah Tariff (DEU Energy Efficiency Exhibit 1.9).

**Implementation**

This program is currently in the marketplace. Upon Commission approval, implementation activities will begin for the new program year January 1, 2023.

**Administration**

The program administration represents the on-going delivery of the program. All internal systems, processes and procedures have been created and are in place for 2023.