
Energy Efficiency Program Proposal

ThermWise[®] Appliance Rebates Program

Program Overview

Description

Questar Gas Company (Questar Gas) is proposing to continue offering the ThermWise Appliance Rebates Program to Questar Gas residential GS customers in Utah. This program will be delivered to customers in the Company's Utah service territory and administered by (PECI). Rebates will be offered on qualified program measures and mailed to the participating customer upon proof of purchase and/or installation.

Program measures will include high-efficiency clothes washers and space and water-heating appliances, as well as energy-efficient gas fireplaces. Rebates for most measures will be available regardless of who installs the product.

The program will be delivered through local retail, distributor and contractor channels.

Program Design

Program Measures

Qualifying Customers

All residences receiving service on the GS rate schedule in Questar Gas’s Utah service territory are eligible to participate in the program.

List of Qualified Energy Efficiency Measures-

Table 1. Appliance Energy Efficiency Measures

| Measure | Specification |
|---|--|
| High-Efficiency Gas Furnace - Tier 1 | AFUE Rating of $\geq 90\% < 92\%$ |
| High-Efficiency Gas Furnace - Tier 2 | AFUE Rating of $\geq 92\% < 95\%$ |
| High-Efficiency Gas Furnace - Tier 3 | AFUE Rating of $\geq 95\%$ |
| High-Efficiency Gas Furnace - Tier 4 | AFUE Rating $\geq 95\%$ with an ECM (electrically commutated motor) |
| High-Efficiency Gas Storage Water Heater - Tier 1 | Energy Factor (EF) $\geq 0.62 < 0.67$ |
| ENERGY STAR Gas Storage Water Heater - Tier 2 | Energy Factor (EF) ≥ 0.67 |
| ENERGY STAR Gas Tankless Water Heater - Tier 1 | Energy Factor (EF) $\geq 0.82 \leq 0.90$ |
| ENERGY STAR Gas Tankless Water Heater - Tier 2 | Energy Factor (EF) > 0.90 |
| High-Efficiency Gas Condensing Storage Water Heater | Energy Factor (EF) > 0.90 or Thermal Efficiency (TE) $> 90\%$ |
| High-Efficiency Gas Hybrid Water Heater | Energy Factor (EF) > 0.90 or Thermal Efficiency (TE) $> 90\%$ |
| Residential Gas Boiler - Tier 1 | AFUE $\geq 85\% < 95\%$ |
| Residential Gas Boiler - Tier 2 | AFUE $> 95\%$ |
| Solar Assisted Gas Water Heating | Active system certified OG- 300 by SRCC |
| Top Tier Clothes Washer | (MEF) > 2.60 - requires gas water heating |
| Direct Vent Gas Fireplace | AFUE $> 70\%$ or greater, intermittent ignition, heat rated, thermostatically controlled with a blower |

High-Efficiency Gas Furnace

Customers may receive a rebate for installing a high-efficiency gas furnace. Eligibility requirements for differing tiers are defined as follows:

- Tier 1, the customer must purchase and install a model with an AFUE rating of greater than or equal to 90% and less than 92%.
- Tier 2, the customer must purchase and install a model with an AFUE rating of greater than 92% or less than 95%.
- Tier 3, the customer must purchase and install a model with an AFUE rating of greater than 95%.
- Tier 4, the customer must purchase and install a model with an AFUE rating of greater than 95% with an ECM (electrically commutated motor).

High-Efficiency Gas Storage Water Heater

Customers may receive a rebate for installing a high-efficiency gas storage water heater. Eligibility requirements for differing tiers are defined as follows:

- Tier 1, the customer must purchase and install a model with an Energy Factor (EF) of greater than 0.62 and less than or equal to 0.67.
- Tier 2, the customer must purchase and install a model with an Energy Factor (EF) of greater than 0.67.

Tankless Gas Water Heater

Customers may receive a rebate for installing a high-efficiency tankless gas water heater. Eligibility requirements for differing tiers are defined as follows:

- Tier 1, the customer must purchase and install a model with an Energy Factor (EF) greater than 0.82 and less than 0.90.
- Tier 2, the customer must purchase and install a model with an Energy Factor (EF) greater than 0.90.

High-Efficiency Gas Condensing Water Heater

Customers may receive a rebate for installing a high-efficiency gas condensing storage water heater. To be eligible for a rebate, the customer must purchase and install a model with an Energy Factor (EF) greater than 0.90 or a Thermal Efficiency (TE) greater than 0.90.

High-Efficiency Gas Hybrid Water Heater

Customers may receive a rebate for installing a high-efficiency gas hybrid storage water heater. To be eligible for a rebate, the customer must purchase and install a qualified model with an Energy Factor (EF) greater than 0.90 or a Thermal Efficiency (TE) greater than 0.90.

High-Efficiency Gas Boiler

Customers may receive a rebate for installing a high-efficiency gas boiler. Eligibility requirements for differing tiers are defined as follows:

- Tier 1, the customer must purchase and install a qualified model with an AFUE rating greater than 85% and less than or equal to 95%.
- Tier 2, the customer must purchase and install a qualified model with an AFUE rating greater than 95%.

Solar Assisted Gas Water Heating

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

Top Tier Clothes Washer

Customers may receive a rebate for installing a top tier qualified clothes washer. To be eligible for a rebate, the customer must purchase an ENERGY STAR qualified model with a Modified Energy Factor (MEF) of 2.60 or greater and have a gas water heater.

Direct-Vent Gas Fireplace

Customers may receive a rebate for installing a high-efficiency direct-vent, natural gas fireplace with an AFUE of 70% or greater, intermittent ignition, heat rated, thermostatically controlled with a blower.

Program Rebates

To receive a rebate, customers will complete and submit an application for rebate payment after they purchase and install a qualifying program measure. Rebate amounts are provided in Table 2. These amounts were determined by examining the best available information on incremental costs of the equipment, recognizing the minimum rebate levels necessary to constitute a viable marketing message and overall program cost effectiveness.

Table 2. Appliance Energy Efficiency Incentives

| Single Family (1-4 units) | | |
|---|--------|-------------------------------------|
| Measure | Rebate | Incremental Customer Cost (\$/unit) |
| High-Efficiency Gas Furnace – Tier 1 | \$200 | \$520 |
| High-Efficiency Gas Furnace – Tier 2 | \$300 | \$520 |
| High-Efficiency Gas Furnace – Tier 3 | \$350 | \$956 |
| High-Efficiency Gas Furnace – Tier 4 | \$400 | \$956 |
| High-Efficiency Gas Storage Water Heater – Tier 1 | \$50 | \$100 |
| High-Efficiency Gas Storage Water Heater – Tier 2 | \$100 | \$400 |
| Tankless Gas Water Heater – Tier 1 | \$300 | \$750 |
| Tankless Gas Water Heater – Tier 2 | \$350 | \$1,345 |
| High-Efficiency Gas Condensing Water Heater | \$350 | \$1,150 |
| High-Efficiency Gas Hybrid Water Heater | \$350 | \$1,238 |
| High-Efficiency Residential Gas Boilers – Tier 1 | \$400 | \$1,550 |
| High-Efficiency Residential Gas Boilers – Tier 2 | \$600 | \$1,550 |
| Solar Assisted Gas Water Heating | \$750 | \$4,500 |
| Top Tier Clothes Washer – MEF \geq 2.6 | \$50 | \$100 |
| Direct-Vent Gas Fireplace | \$200 | \$500 |

| Multifamily (5 or more units) | | |
|---|-------|---------|
| High-Efficiency Gas Furnace - Tier 1 | \$200 | \$290 |
| High-Efficiency Gas Furnace – Tier 2 | \$300 | \$300 |
| High-Efficiency Gas Furnace –Tier 3 | \$350 | \$350 |
| High-Efficiency Gas Furnace – Tier 4 | \$400 | \$350 |
| High-Efficiency Gas Storage Water Heater – Tier 1 | \$50 | \$175 |
| High-Efficiency Gas Storage Water Heater – Tier 2 | \$100 | \$400 |
| Tankless Gas Water Heater – Tier 1 | \$300 | \$750 |
| Tankless Gas Water Heater – Tier 2 | \$350 | \$1,345 |
| High-Efficiency Gas Condensing Water Heater | \$350 | \$1,150 |
| High-Efficiency Gas Hybrid Water Heater | \$350 | \$1,238 |
| High-Efficiency Residential Gas Boiler – Tier 1 | \$400 | \$550 |
| High-Efficiency Residential Gas Boiler - Tier 2 | \$600 | \$1,550 |
| Solar Assisted Gas Water Heating | \$750 | \$4,500 |
| Top Tier Clothes Washer - MEF \geq 2.6 | \$50 | \$100 |
| Direct-Vent Gas Fireplace | \$200 | \$500 |

Rebate Limitations

The following requirements apply for all measures:

- Measures must be installed in residences within the Questar Gas Utah service territory with an active Questar Gas account.
- Natural gas must be the primary source of heat to qualify for a rebate.
- Measures must be purchased new, not used or leased.
- Rebates will be paid for up to two of each type of measure purchased and installed per dwelling unit. For example, a rebate will be paid for up to two high-efficiency gas furnaces and up to two high-efficiency gas water heaters, etc., purchased and installed per dwelling unit.
- Except as otherwise provided in the Low-Income Weatherization Assistance Program, each rebate will be mailed to the mailing address listed on the Questar Gas customer account.
- A complete rebate application must be submitted within 6 months of the purchase of the qualifying measure to be eligible to receive a rebate.
- Each rebate check will be made payable to the Questar Gas customer account name on record, not the name provided by the customer in the rebate application.
- Property Owner Addendum will be required when applicable.

Projected Participants

Table 3. Appliance Energy Efficiency Participation

| Single Family (1- 4 units) | |
|---|---------------------|
| Measure | Participants |
| High-Efficiency Gas Furnace - Tier 1 | 86 |
| High-Efficiency Gas Furnace - Tier 2 | 692 |
| High-Efficiency Gas Furnace - Tier 3 | 8,108 |
| High-Efficiency Gas Furnace - Tier 4 | 802 |
| High-Efficiency Gas Storage Water Heater - Tier 1 | 2,279 |
| High-Efficiency Gas Storage Water Heater - Tier 2 | 177 |
| Tankless Gas Water Heater - Tier 1 | 321 |
| Tankless Gas Water Heater - Tier 2 | 594 |
| High Efficiency Gas Condensing Water Heater | 36 |
| High-Efficiency Gas Hybrid Water Heater | 86 |
| High-Efficiency Residential Gas Boiler - Tier 1 | 56 |
| High-Efficiency Residential Gas Boiler - Tier 2 | 105 |
| Solar Assisted Gas Water Heating | 158 |
| Top Tier Clothes Washer - MEF \geq 2.6 | 5,147 |
| Direct-Vent Gas Fireplace | 21 |
| TOTAL | 18,668 |
| Multifamily (5 or more units) | |
| Measure | Participants |
| High-Efficiency Gas Furnace - Tier 1 | 5 |
| High-Efficiency Gas Furnace - Tier 2 | 11 |
| High-Efficiency Gas Furnace - Tier 3 | 132 |
| High-Efficiency Gas Furnace - Tier 4 | 13 |
| High-Efficiency Gas Storage Water Heater - Tier 1 | 37 |
| High-Efficiency Gas Storage Water Heater - Tier 2 | 5 |
| Tankless Gas Water Heater - Tier 1 | 5 |
| Tankless Gas Water Heater - Tier 2 | 10 |
| High-Efficiency Gas Condensing Water Heater | 5 |
| High-Efficiency Gas Hybrid Water Heater | 5 |
| High-Efficiency Residential Gas Boiler - Tier 1 | 5 |

| | |
|---|---------------------|
| High-Efficiency Residential Gas Boiler - Tier 2 | 5 |
| Multifamily (5 or more units) | |
| Measure | Participants |
| Solar Assisted Gas Water Heating | 5 |
| Top Tier Clothes Washer - MEF \geq 2.6 | 84 |
| Direct-Vent Gas Fireplace | 5 |
| TOTAL | 332 |
| TOTAL PROGRAM | 19,000 |

Rebate Application Process

See Application (Section VI. 2012 Rebate Processing) for information regarding rebate applications and processing.

Projected Savings Measure Tool

Table 4. Appliance Energy Efficiency Savings

| Single Family (1-4 units) | | | |
|---|---------------------------------|--------------|----------------------------------|
| Measure | Unit Gross Annual Savings (Dth) | Participants | Total Gross Annual Savings (Dth) |
| High-Efficiency Gas Furnace - Tier 1 | 13.5 | 86 | 1,161 |
| High-Efficiency Gas Furnace - Tier 2 | 16.6 | 692 | 11,487 |
| High-Efficiency Gas Furnace - Tier 3 | 20.5 | 8108 | 166,214 |
| High-Efficiency Gas Furnace - Tier 4 | 20.5 | 802 | 16,441 |
| High-Efficiency Gas Storage Water Heater - Tier 1 | 1.71 | 2279 | 3,897 |
| High-Efficiency Gas Storage Water Heater - Tier 2 | 3.96 | 177 | 701 |
| Tankless Gas Water Heater - Tier 1 | 8.8 | 321 | 2,825 |
| Tankless Gas Water Heater - Tier 2 | 9.6 | 594 | 5,702 |
| High-Efficiency Gas Condensing Water Heater | 9.2 | 36 | 331 |
| High-Efficiency Gas Hybrid Water Heater | 10.2 | 86 | 877 |
| High-Efficiency Residential Gas Boiler - Tier 1 | 18.7 | 56 | 1,047 |
| High-Efficiency Residential Gas Boiler - Tier 2 | 25.2 | 105 | 2,646 |

| | | | |
|---|--|---------------------|---|
| Solar Assisted Gas Water Heating | 17.5 | 158 | 2,765 |
| Top Tier Clothes Washer - MEF \geq 2.6 | 1.74 | 5,147 | 8,956 |
| Direct Vent Natural Gas Fireplace | 10.8 | 21 | 227 |
| TOTAL | | 18,668 | 225,277 |
| Multifamily (5 or more units) | | | |
| Measure | Unit Gross Annual Savings (Dth) | Participants | Total Gross Annual Savings (Dth) |
| High-Efficiency Gas Furnace - Tier 1 | 4.6 | 5 | 23 |
| High-Efficiency Gas Furnace - Tier 2 | 5.6 | 11 | 62 |
| High-Efficiency Gas Furnace - Tier 3 | 6.5 | 132 | 858 |
| High-Efficiency Gas Furnace - Tier 4 | 6.5 | 13 | 85 |
| High-Efficiency Gas Storage Water Heater - Tier 1 | 1.71 | 37 | 63 |
| High-Efficiency Gas Storage Water Heater - Tier 2 | 3.96 | 5 | 19 |
| Tankless Gas Water Heater - Tier 1 | 8.8 | 5 | 44 |
| Tankless Gas Water Heater - Tier 2 | 9.6 | 10 | 96 |
| High-Efficiency Gas Condensing Water Heater | 9.2 | 5 | 46 |
| High-Efficiency Gas Hybrid Water Heater | 10.2 | 5 | 51 |
| High-Efficiency Residential Gas Boilers - Tier 1 | 12.1 | 5 | 60 |
| High-Efficiency Residential Gas Boilers - Tier 2 | 16.1 | 5 | 81 |
| Solar Assisted Natural Gas Water Heating | 17.5 | 5 | 87 |
| Top Tier Clothes Washer - MEF \geq 2.6 | 1.74 | 84 | 146 |
| Direct-Vent Natural Gas Fireplace | 4.10 | 5 | 21 |
| TOTAL | | 332 | 1,743 |
| Total Program | | 19,000 | 227,020 |

Implementation

The program is currently in the marketplace so all existing implementation activities will continue without delay upon Commission approval effective January 1, 2012.

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. Some modifications may be required due to program changes for 2012.