



Energy Efficiency Program Proposal

ThermWise[®] Business Custom Rebates Program

Program Overview

Description

The ThermWise Business Custom Rebates program’s goal is to obtain verifiable, cost-effective, and natural gas savings with commercial businesses in the Questar Gas service territory. Program participants provide submittals for a specific quantity of natural gas reduction through the installation of energy efficient measures in return for a fixed price per decatherm rebate up to a cap equal to a percentage of the eligible incurred project cost. Eligible projects must be installed at separately metered commercial Questar Gas GS customer facilities.

The ThermWise Business Custom Rebates program requires customers to submit specific information for each project and to conduct energy engineering and commissioning at their own cost. This project information will be provided in two reports: the Pre-Installation Report and Post-Installation Report. Rebates will be paid directly to participating customers who meet the program requirements.

The program is designed to provide rebates to those business customers who do not qualify through the ThermWise Business Rebates Program. Primary program administrative functions have been contracted to Nexant. Questar Gas will support the program delivery by identifying customer installation opportunities and assisting customers with program requirements where applicable.

Program Design

Program Measures

Qualifying Customers

Commercial and Industrial customers in Questar Gas' Utah service territory that are billed on a GS rate schedule are eligible to participate in the ThermWise® Business Custom Rebates program.

Measure Eligibility

Qualifying measures include those that target cost-effective natural gas savings including retrofits of existing systems, improvements to existing systems, and first time installations where the system's efficiency exceeds Utah Energy Code or standard industry practice. The program does not explicitly specify eligible measures to provide program participants maximum flexibility in identifying potential projects. Participants may propose the inclusion of any measure that:

- Produces a verifiable natural gas usage reduction;
- Is installed in either existing or new construction applications;
- Has a minimum useful life of 7 years; and
- Exceeds minimum cost-effectiveness requirements as required by the Utah Public Service Commission.

Measures that are excluded from consideration in this program include those that:

- Are offered through the ThermWise® Business Rebates program;
- Rely solely on changes in customer behavior;
- Merely terminate existing processes, facilities, or operations;
- Involve fuel-switching;
- Are required by state or federal law, building or other codes, or are standard industry practice; or
- Receive a rebate through any other energy efficiency or Energy Efficiency program offered by Questar Gas.

Simplified Analysis Measures

A defined list of measures will be eligible for rebates utilizing a Simplified Analysis approach.

These measures include:

- Air-to-Air Heat Exchangers
- Steam/Hot Water Pipe Insulation
- Boiler Controls

Eligible measure costs

Customers must contact the Program Administrator to determine if a measure qualifies for the Simplified Analysis approach.

Eligible measure costs are based upon the actual incremental expenses incurred by the customer in connection with the construction, installation or implementation and commissioning of an eligible project. Costs may include equipment costs, engineering and consulting expenses and internal labor costs. Expenses are subject to approval by the program administrator.

Customers shall provide cooperation and access as is reasonably required for the program administrator to make a determination of eligible costs. Acceptable documentation of eligible costs may include invoices, work orders, cancelled checks, and accounting system reports.

Baselines for Savings and Incremental Costs

The ThermWise® Business Custom Rebates program is designed to encourage energy-efficiency improvements that go above and beyond the efficiency gains typically achieved in replacement or new construction projects. Consequently, savings and eligible measure costs will be based only on the difference in the efficiency and cost of the installed system and the baseline system. The baseline system is the current Utah Energy Code minimum efficiency standards, if such standards apply. In cases where standards do not exist, the baseline will be based upon standard industry practice.

The program administrator may adjust baseline natural gas consumption and costs during the submittal review to reflect any of the following: energy codes, standard practice, changes in capacity, equipment operation, changes in production or facility use and equipment at the end of its useful life.

Program Rebates

The ThermWise® Business Custom Rebates program's rebate levels made by Questar Gas for the installation of measures pursuant to the Program Agreement shall be the lesser of the following:

- (a) \$10.00/Decatherm per first year annual Decatherm savings as determined solely by Questar Gas; or
- (b) 50% of the eligible project cost as determined by Questar Gas.

Commissioning Opt-Out: If the customer chooses not to conduct the commissioning activities, the annual natural gas savings and the eligible measure costs will all be reduced by 20% and the rebate will be recalculated using the provisions specified above. For measures where the customer has "opted-out" of commissioning and are later commissioned are not eligible for additional rebates at a later date.

Subsequent to approval of a Pre-Installation Report, the customer will be required to enter into a Program Agreement with Questar Gas in order to be eligible for rebates.

Projected Participants

During 2012, Questar Gas anticipates approximately 40 projects to participate in the ThermWise® Business Custom Rebates program.

Program Participation Process

Project Identification (Pre-Installation Report)

The first report required prior to project installation is titled the Pre-Installation Report (PIR). To assess projects for eligibility and program approval, the customer must submit the following information:

- Identification of the project site and account information.
- An energy analysis report adhering to industry standard practices for energy engineering containing the following:
 - Descriptions of the proposed set of energy-efficiency measures;
 - Summary of the energy savings and eligible project costs;
 - Baseline operational conditions and energy consumption data supported by spot or short-term measurements, trended data, or accepted engineering practices for each proposed measure;
 - A description of the calculations and methodologies that support the baseline, proposed operation, natural gas savings, and eligible costs;
 - Supporting documentation for the estimated eligible measure costs;
 - Any additional information necessary for the review of the project such as calculation spreadsheets, simulation models, vendor quotes, and equipment specifications; and
 - Commissioning plan for verifying the proposed measure operation and energy savings.
- Brief summary of the anticipated project timeline.

To assist customers with the Pre-Installation Report, the Company may provide a limited budget for conducting technical energy audits for eligible customers. Customers will be eligible to apply for technical energy audit funds through an application process administered by the Company. The Company will have sole discretion for the approval of each customer application for technical energy audit funds. Criteria for funding approval will be based upon but not limited to: funding availability, the customer's ability to complete identified energy efficiency measures, potential energy efficiency opportunities at the customer's site, and technical feasibility of the measure. The Company may limit the funding amount for each project at its sole discretion.

Following the submittal of a PIR and prior to project installation, the Company will conduct any site inspection activities necessary to confirm the baseline conditions and anticipated project scope. Once the initial application has been reviewed and approved, the Company will prepare and send an approval letter to the customer to notify them of their project review results and anticipated rebate amount.

If the project does not meet the eligibility requirements, the PIR is not complete, or of sufficient quality, the PIR will be rejected. The customer may address deficiencies in the PIR and resubmit it for program consideration.

The customer is responsible for submitting the Pre-Installation Report and allowing time for the appropriate review prior to purchasing equipment. Projects that have been purchased or installed prior to Pre-Installation Approval may not be eligible for rebates under the ThermWise® Business Custom Rebates program.

Project Commissioning

For purposes of this program, commissioning includes verification of the project savings and confirmation that the measures are operating as intended. This step insures that the predicted energy savings are being achieved and that the system's operation and performance has been optimized. Commissioning is the responsibility of the building owner and can be completed by internal staff or contracting with the installing contractor. Commissioning is required to receive a full rebate.

Project-specific commissioning procedures may be classified according to three distinct approaches that represent increasing levels of detail and rigor.

- Deemed savings: Savings values are stipulated based on engineering calculations using typical equipment characteristics and operating schedules developed for particular applications, without on-site testing or metering.
- Simple Measurement and Verification (M&V): Savings values are based on engineering calculations using typical equipment characteristics and operating schedules developed for particular applications, with some short-term testing or simple long-term metering.
- Full M&V: Savings are estimated using a higher level of rigor than in the deemed savings or simple M&V approaches through the application of metering, billing analysis, or computer simulation.

The commissioning plan will be required to be submitted for each project with the Pre-Installation Report. Commissioning procedures will vary in detail and rigor depending on the measures installed. The level of detail and rigor of the commissioning plan is subject to the project size and risk to rebates and project savings. The program administrator will specify the approach required in the commissioning plan.

If the customer and program administrator agree to pursue the "Full M&V" or "Simple M&V" options, it must follow the International Performance Measurement and Verification Protocol.

Commissioning is required to be completed when the building is fully occupied and when the system's operation can be verified. Some measures may require operation during the cooling or heating seasons and the time required to complete commissioning activities will range from a few days up to a few months.

Project Reviews – Simplified Analysis

Project-specific review procedures will be determined by the Program Administrator based on the measure submitted. Rather than completing the Pre-Installation Report in full, projects that qualify under the Simplified Analysis approach will instead need to submit a measure specific application, including the following:

- Identification of the project site and account information, including contact information.
- Eligible Measure Costs: Eligible costs are based upon actual incremental expenses incurred by the customer in connection with the energy study, construction, installation, or implementation and commissioning of an eligible project. Costs may include equipment costs, engineering and consulting expenses, and labor costs. Expenses are subject to approval by the Program Administrator on a case-by-case review. For new construction facilities, eligible expenses are those that are additional and necessary to achieve energy efficiency levels that exceed standard industry practice.
- Measure specific parameters necessary to complete energy savings calculations.

The Simplified Analysis approach will require customers to submit measure specific parameters to allow for calculation of energy savings using a standard calculation methodology. Key parameters to be included in the analysis for each measure are identified in the table below.

Air to Air Heat Exchanger	Pipe Insulation	Boiler Controls
Discharge Air Temperature Setpoint (°F)	Nominal Pipe Size/Diameter (inches)	Boiler Size (kBtu/hr)
Space Temperature Setpoint (°F)	Pipe Material (i.e. steel, iron)	Boiler Efficiency (%)
Space Type	Bare Pipe Surface Temperature (°F)	Building Type/Space Type
Space Type Occupied Hours (hrs/yr)	Insulated Pipe Surface Temperature (°F)	Supply Water Temperature Setpoint (°F)
Heat Exchanger Effectiveness (%)	Insulated Area (sq. ft.)	Boiler High/Low Limits (°F)
Heat Exchanger Location	Insulation Layers (Type, Thickness)	Historical Gas Consumption (Dth/yr)
Supply Air Volume (cfm)	System application (hot water, steam, hot oil)	
Exhaust Air Volume (cfm)	System run time (hrs/yr)	

Additional Eligibility Requirements may apply for Boiler Controls:

- No facility with more than one boiler shall be eligible for the simplified analysis approach.
- The annual gas consumption for any boiler approved must be 90% or more of the facilities' total gas usage.
- Installation must occur after a boiler tune up.
- Only boilers that serve space heating applications shall qualify for a streamlined rebate.

Upon approval of the Simplified Analysis application, a site visit may be scheduled to verify the submitted values associated with the project and the customer will be apprised of the approved rebate amount, a rebate will be paid when project completion is verified and all requested information has been submitted and approved by the program administrator.

Project Installation (Post-Installation Report)

After receiving approval of the PIR from the Company, customers may install the identified measures. Upon completion of installation or construction activities for each approved project, customers should commence with the commissioning phase of the project. Upon completion of commissioning, the customer must submit a post-installation report (POR) that identifies the following:

- A report summarizing the results of the commissioning activities and as-installed operation of the measures;
- Additional information necessary for the review of the project such as final calculation spreadsheets, simulation models, invoices, and equipment specifications;
- Verified natural gas reduction;
- Verified eligible project costs; and
- Estimated rebate amount.

Once the POR has been reviewed and approved, the Company will prepare and send an approval letter to the customer to notify them of their project review results and rebate amount.

If the project does not meet the eligibility requirements, the POR is not complete, or of sufficient quality; the POR will be rejected. The customer may address deficiencies in the POR and resubmit for program consideration.

Rebate Application Process

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

Projected Savings

Table 1 presents the estimated annual savings per project for the ThermWise® Business Custom Rebates program and the estimated net total program savings (based on participation).

Table 1. Business Custom Program Participation and Savings Estimates (Dth/yr)

2012 Program Year	Business Custom Program
Projected Participants	40
Estimated Project Savings (Dth/project/yr)	750
Net Total Savings	30,000

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.