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# **ThermWise Business Custom Rebates Program Manual**

**QUESTAR**  
*Gas*

**May 1, 2008**

# Contents

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<b>CONTENTS .....</b>	<b>1</b>
<b>SECTION 1 INTRODUCTION .....</b>	<b>2</b>
1.1    PROGRAM OVERVIEW .....	2
<b>SECTION 2 ELIGIBILITY REQUIREMENTS .....</b>	<b>3</b>
2.1    QUALIFYING CUSTOMERS .....	3
2.2    QUALIFYING MEASURES .....	3
2.3    ELIGIBLE PROJECT EXPENSES.....	4
2.4    BASELINES FOR ENERGY CONSUMPTION.....	4
<b>SECTION 3 PARTICIPANT INFORMATION .....</b>	<b>6</b>
3.1    BUSINESS CUSTOM REBATE STRUCTURE .....	6
3.2    THERMWISE BUSINESS CUSTOM REBATES FUNDING LEVELS.....	6
3.3    PROGRAM TIMELINE .....	6
3.4    CUSTOMER APPLICATION PROCESS .....	6
3.5    PROJECT REVIEW PROCESS .....	8
3.6    INSPECTION PROCESS .....	9
3.7    PROGRAM ADMINISTRATOR CONTACT INFORMATION.....	9
<b>SECTION 4 PROGRAM SUBMITTALS AND REPORTING.....</b>	<b>10</b>
4.1    PRE-INSTALLATION REPORT .....	10
4.2    POST-INSTALLATION REPORT.....	11
4.3    ENERGY ENGINEERING ANALYSIS REQUIREMENTS .....	11
<b>SECTION 5 COMMISSIONING.....</b>	<b>12</b>
5.1    PROJECT COMMISSIONING .....	12
5.2    DEEMED SAVINGS .....	13
5.3    SIMPLE MONITORING & VERIFICATION (M&V).....	13
5.4    FULL MONITORING & VERIFICATION (M&V) .....	13
<b>SECTION 6 THERMWISE BUSINESS PROGRAMS OVERVIEW .....</b>	<b>14</b>
<b>APPENDIX A BUSINESS CUSTOM REBATE PROGRAM AGREEMENT.....</b>	<b>15</b>
<b>APPENDIX B PROGRAM REPORT TEMPLATES.....</b>	<b>16</b>
<b>APPENDIX C FREQUENTLY ASKED QUESTIONS .....</b>	<b>17</b>
<b>APPENDIX D QUESTAR GAS SERVICE TERRITORY MAP.....</b>	<b>19</b>

Questar Gas is pleased to offer the ThermWise Business Custom Rebates Program. The program provides rebates to businesses on a commercial GS rate schedule for cost-effective, natural gas energy efficiency improvement projects within their own facilities.

### **1.1 PROGRAM OVERVIEW**

The ThermWise Business Custom Rebates Program is a demand-side management (DSM) opportunity offered by Questar Gas with the goal of obtaining verifiable, cost-effective, and long-term natural gas savings. Program participants submit project proposals for a firm quantity of natural gas reduction through the installation of demand-side management measures. After installation, review and approval by Questar Gas, customers will receive \$1.00 per therm (th) saved up to 50% of the eligible incurred project cost.

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. Eligible projects must be installed at separately metered customer facilities on a Questar Gas Commercial GS rate schedule. Energy reductions must be obtained through an improvement in efficiency and may be installed as part of a retrofit or new construction project.

Rebates are available on a first-come, first-served basis. Projects must be submitted and approved prior to purchasing equipment and commencing construction activities to be eligible for a rebate. Pre-approval of projects will guarantee rebate funding availability when the project is completed (some restrictions apply). Eligible rebates will be paid within 45 days of approval of a completed project.

This program manual, designed for use by customers, contractors, architecture and engineering firms, energy services companies, and equipment manufacturers, outlines the rules and requirements of the Program. The manual is organized as follows:

- Section 2 addresses eligibility requirements for the customer, project, measure, and expenses.
- Section 3 contains information about participation in the program.
- Section 4 discusses the pre-installation and post-installation reports.
- Section 5 outlines the procedures for commissioning.
- Section 6 describes other ThermWise programs for business customers.

A standard program agreement, application templates, and frequently asked questions are contained in appendices at the end of this manual.

2.1 QUALIFYING CUSTOMERS

To participate in the ThermWise Business Custom Rebates Program, a customer must be served by Questar Gas in the State of Utah and install a qualifying measure in a separately metered commercial facility on a Commercial GS rate schedule. Customers with questions regarding their account should consult the Program Administrator (Section 3.7) or their Questar Account Manager.

Customers can verify their rate schedule and service agreement number by looking on a recent bill. Figure 2.1 shows where to find the rate schedule on a typical Questar Gas customer bill.

**Questar Customer** Account: **0989805663**  
Page 1 of 1

*Thank you for your patronage. Your prompt payment assists us in providing our customers with high-quality natural gas service.*

**Account Summary** as of: January 11, 2007  
 Previous Balance Due - 0.00  
 Current Charges - Gas Service 110.67  
**Total Amount Due Upon Receipt \$ 110.67**  
 1% monthly interest (12% annually) charged on balance on or after 02/02/2007.

Service Address: 1234 Questar St, Salt Lake City, UT 84104  
 1.887552 0.011203 1189.940000 797.900000

**Commercial Gas Service UTGS1 Rate**  
 Service Agreement: 0989805443

Comparison	Last Year	This Year
Decatherms/Day	N/A	0.36
Dollars/Day	\$0.00	\$3.69

**Service from 12/15/2006 - 1/15/2007**  
 Charge for Gas Used (Avg cost per DTH \$ (9.31835)) 101.57  
 Basic Service Fee Total 5.00  
 Utah Sales Tax (3.85%) 4.10  
 Current Gas Billing 110.67

**Account information**  
 The customer (1) account number and (2) service-agreement number can be found on the Questar Gas monthly statement.

Figure 2.1 Location of Account Information on Customer Bill

2.2 QUALIFYING MEASURES

Qualifying measures include those that target cost-effective natural gas savings, including retrofits of existing systems and first time installations where the system’s efficiency exceeds Utah Energy Code or standard industry practice. A predefined list of eligible measures is not specified, permitting program participants maximum flexibility when 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 DSM program offered by Questar Gas.

Examples of eligible measures are listed in Figure 2.2. Customers are free to propose measures not included in the table, so long as the above requirements are met. Please consult with the Program Administrator to determine whether proposed measures will qualify for the Business Custom Rebate Program.

<b>Energy Efficiency Measures</b>	<ul style="list-style-type: none"> <li>▪ Heat-recovery Installations</li> <li>▪ Solar Hot-Water Heating</li> <li>▪ Retro-commissioning projects</li> <li>▪ Control system upgrades</li> <li>▪ Process equipment insulation improvements</li> </ul>
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**Figure 2.2 Examples of Eligible Measures**

### **2.3 ELIGIBLE PROJECT EXPENSES**

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 labor costs. Expenses are subject to approval by the Program Administrator. For new construction or expansion of existing facilities, eligible expenses are those that are *additional and necessary* to achieve energy efficiency levels that exceed standard industry practice.

Customers shall provide cooperation and access as is reasonably required for the Program Administrator to make a determination of eligible costs. Material and labor costs must be thoroughly documented by the customer. Examples of acceptable documentation of eligible costs include invoices, work orders, time sheets, cancelled checks, and accounting system reports.

### **2.4 BASELINES FOR ENERGY CONSUMPTION**

The ThermWise Business Custom Rebates Program is designed to encourage customers to implement energy-efficiency improvements that result in systems that exceed standard industry practices or Utah State Energy Code requirements. Energy savings and eligible costs are calculated in comparison to an approved baseline, either specified by equipment inventory and operation prior to implementing qualified projects, requirements listed in the Utah State Energy Code, or standard industry practice. Determination of the baseline is project-dependent and Questar Gas has the sole discretion to determine whether the baseline proposed by the customer is appropriate. Determination of an appropriate baseline should be based on the following guidelines:

- If the project is an elective retrofit and the equipment is still operable, the baseline is the existing equipment and operation.
- If the project is new construction, replacement of equipment at the end of its useful life, or an expansion, the baseline is the energy consumption and implementation cost for a facility/system to achieve energy efficiency levels that meet applicable codes or is common practice for the industry in the Salt Lake City area.
- Where applicable, proposed HVAC, water heating, boiler, food service and laundry equipment will be required to meet minimum efficiency standards to qualify for rebates and will be paid only through the Business Rebates Program. Please refer to the ThermWise Business Rebates Program for specific equipment eligibility requirements.

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.

**3.1 BUSINESS CUSTOM REBATE STRUCTURE**

Rebates offered through the ThermWise Business Custom Rebates Program for qualifying, commissioned projects and completed pursuant to the terms of the Program Agreement shall be the lesser of:

- \$1.00 per therm saved during the first year, as approved by the Program Administrator, or
- 50% of the eligible project cost as determined by the Program Administrator.

Rebates will be paid in the form of a check within 45 days of approval of the completed project by the Program Administrator.

*Commissioning Opt-Out:* If the customer elects not to conduct commissioning for the qualifying project, the annual natural gas savings and the eligible measure costs will be reduced by 20% and the rebate will be re-calculated using the provisions specified above. Measures that are commissioned after the customer has “opted-out” of commissioning are not eligible for additional rebates at a later date.

**3.2 THERMWISE BUSINESS CUSTOM REBATES FUNDING LEVELS**

Program rebates are available on a first-come, first-serve basis. Contact your Questar Account Manager or the Program Administrator for information regarding program funding levels.

**3.3 PROGRAM TIMELINE**

The Business Custom Rebates Program became effective on January 1, 2008. Customers can submit Pre-Installation Reports (PIR) to the program subsequent to this date. The Program Administrator will review the PIR within 30 days of submission and notify the customer of approval or denial. Following approval of a Pre-Installation Report (PIR), the customer is required to enter into a Program Agreement with Questar Gas to be eligible for rebates (See Appendix A). After installing and commissioning the approved project, a Post-Installation Report (POR) must be submitted to the Program Administrator. Rebates will be paid in the form of a check within 45 days of approval of the completed project by the Program Administrator.

**3.4 CUSTOMER APPLICATION PROCESS**

Customers must submit a complete Pre-Installation Report (PIR) before the Program Administrator will begin the review process. A PIR template is provided in Appendix B and can be downloaded from the ThermWise website at [www.ThermWise.com](http://www.ThermWise.com). Required components and submittals of the PIR and specific directions on how to properly complete the PIR are discussed in Section 4.

Notification of pre-installation project approval or denial will be granted by the Program Administrator no later than 30 days after submission of a completed Pre-Installation Report. Incomplete and missing information will delay the approval process. Following approval of the PIR and prior to purchasing equipment or commencing construction activities, each customer will be required to sign the Business Custom Rebate Standard Program Agreement to be eligible for a rebate. A copy of the Standard Program Agreement is supplied in Appendix A. *To be eligible for rebates, the Program Administrator must approve the submitted PIR and receive a signed Standard Program Agreement from the customer **before** any equipment is purchased or installed.*

After receiving approval of the PIR from the Program Administrator, customers may commence with project activities. After installation is complete and the project has been commissioned according to the requirements in Section 5, the customer must submit a Post-Installation Report (POR) to the Program Administrator for review. A POR template is provided in Appendix B and can be downloaded from the ThermWise website at [www.ThermWise.com](http://www.ThermWise.com). Required components and submittals of the POR are discussed in Section 4. Notification of project approval or denial will be granted by the Program Administrator no later than 30 days after submission of a completed Post-Installation Report. Rebates will be paid in the form of a check within 45 days of approval of the completed project by the Program Administrator.

### 3.5 PROJECT REVIEW PROCESS

The review processes for project submittals will follow the flowcharts presented in Figure 3.1.

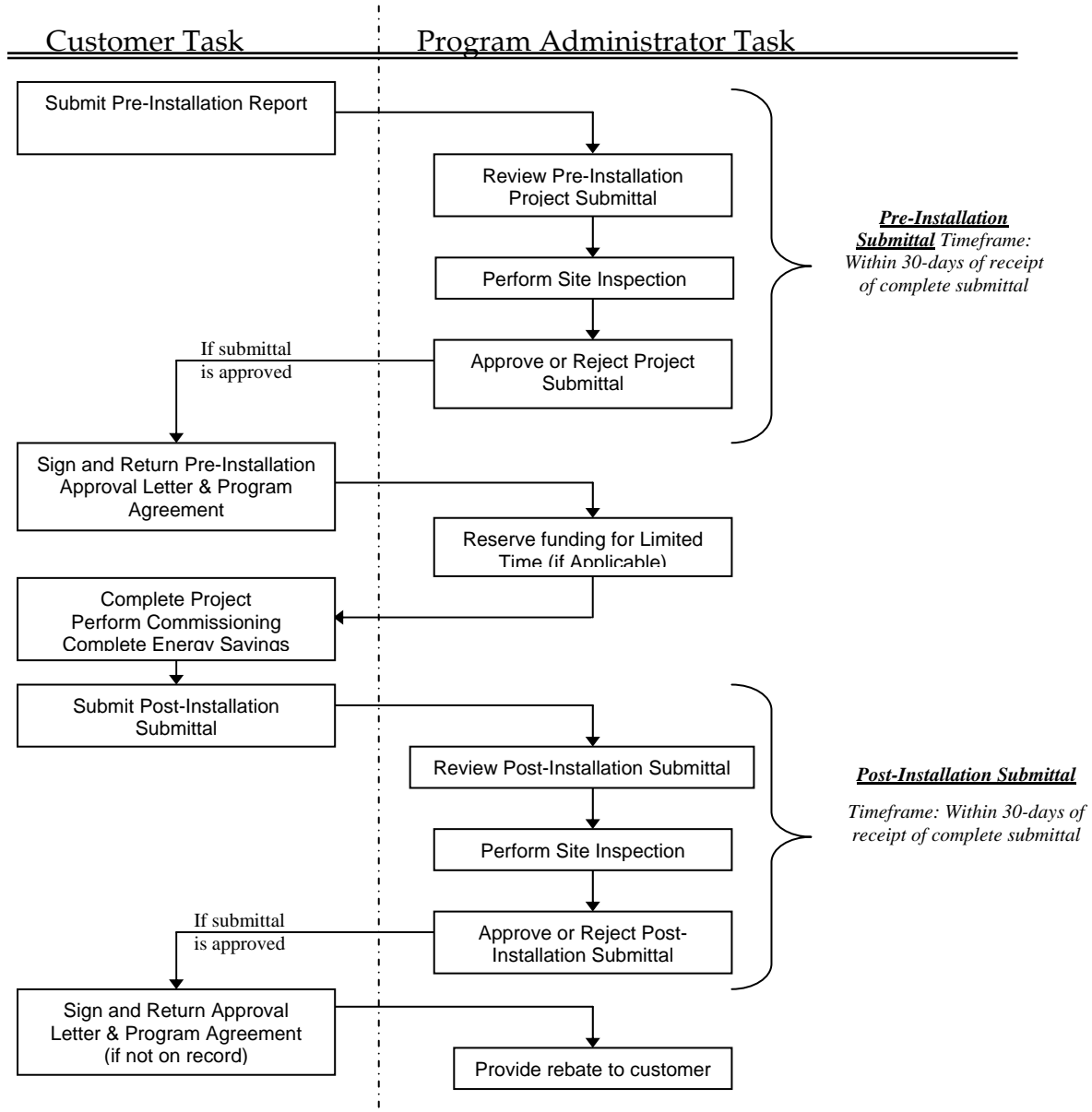


Figure 3.1 Business Custom Program Review Process

### **3.6 INSPECTION PROCESS**

Questar Gas will augment the technical submittal review of the PIR or POR with pre-installation and post-installation inspections and/or measurements as necessary.

For pre-installation inspections, the inspector will verify the baseline equipment quantity and nameplate information. If the proposed equipment has been installed before the pre-installation inspection and the baseline conditions cannot be verified, the project will be rejected. The inspector will evaluate the appropriateness of the submitted commissioning plan for the measure, ensure any necessary measurement activities are included and verify the proposed measurement technique.

For post-installation inspections, the inspector will verify that the eligible measure has been installed and is operating as described in the POR.

If measurements are necessary during either pre or post-installation inspections, the customer may be required to disrupt normal operation of equipment to enable measurement devices to be connected. If the inspection cannot be completed in a timely manner, the project will fail the inspection. If a project site fails two inspections, the customer must pay the cost incurred by Questar Gas for any subsequent inspections.

### **3.7 PROGRAM ADMINISTRATOR CONTACT INFORMATION**

Questions about the Program and project applications should be submitted to the Program Administrator at:

ThermWise Business Custom Rebates Program Administrator  
P.O. Box 45360  
Salt Lake City, UT 84145-0360  
800-867-2044  
E-mail: [business@thermwise.com](mailto:business@thermwise.com)

### 4.1 PRE-INSTALLATION REPORT

Program participants must submit a Pre-Installation Report (PIR) describing the scope of the proposed project, existing equipment and operational practices and pertinent site-specific information to be considered for a rebate. A PIR template is provided in Appendix B to assist the customer with compiling and submitting the necessary information to qualify for a rebate.

To adequately assess projects for eligibility and program approval, the customer must submit the following information to the Program Administrator as part of the PIR:

- Customer Contact Information
- Project site address, Questar Gas account number(s), and site-specific information as listed in the PIR template
- Brief summary of the anticipated project timeline.
- Energy engineering analysis of the proposed project and supporting documentation, including but not limited to the following:
  - Descriptions of the energy-efficiency measures;
  - Summary of the estimated energy savings and eligible project costs;
  - Existing equipment specifications, 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 used to 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;
  - A commissioning plan for verifying the proposed measure operation and energy savings (See Section 5).

Following the submittal of a PIR and prior to project installation, the Program Administrator 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 Program Administrator 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 for program consideration.

The customer is responsible for submitting the PIR and allowing adequate time for the Program Administrator's review prior to purchasing equipment. Equipment that has been purchased or installed prior to approval of the PIR will not be eligible for rebates under the ThermWise Business Custom Rebates Program.

## 4.2 POST-INSTALLATION REPORT

After receiving approval of the PIR from the Program Administrator and signing the Program Agreement, the customer may install the proposed measures. Upon completion of installation or construction activities for each approved project, customers should commence with the commissioning phase of the project. After commissioning is completed and any deficiencies addressed, the customer must submit a Post-Installation Report (POR) to the Program Administrator for final review and approval. A POR template is provided in Appendix B to assist the customer with compiling and submitting the necessary information. The customer must submit the following information to the Program Administrator as part of the POR:

- A summary of each installed measure, the commissioning performed, any deficiencies and how they were addressed, and a description of system operation noting pertinent operational set points,
- Additional information necessary for the review of the project such as final calculation spreadsheets, simulation models, invoices, and equipment specifications,
- The amount of natural gas reduction and supporting documentation to verify the calculation methodology and adequately characterize the operation of the system, and
- Eligible project costs and supporting documentation to verify costs.

Once the POR has been reviewed and approved, the Program Administrator 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.

## 4.3 ENERGY ENGINEERING ANALYSIS REQUIREMENTS

Components of the PIR and the POR require either the Customer or a representative of the Customer to calculate natural gas consumption and estimate the savings associated with eligible measures. Such calculations are expected to conform to standard industry practices and techniques. The calculations must:

- Calculate savings explicitly, not by using “rule or thumb” estimates,
- Account for variations in equipment and/or facility operating schedules and part load performance,
- Estimate any interactive effects of any measure on other energy consuming systems, and
- Be well-documented and verifiable and all assumptions must be clearly stated, justifiable, and provide supporting documentation for values chosen.

Applications submitted with inadequate or sub-standard engineering analysis will be rejected. The customer may address any deficiencies in the analysis and resubmit for program consideration.

## 5.1 PROJECT COMMISSIONING

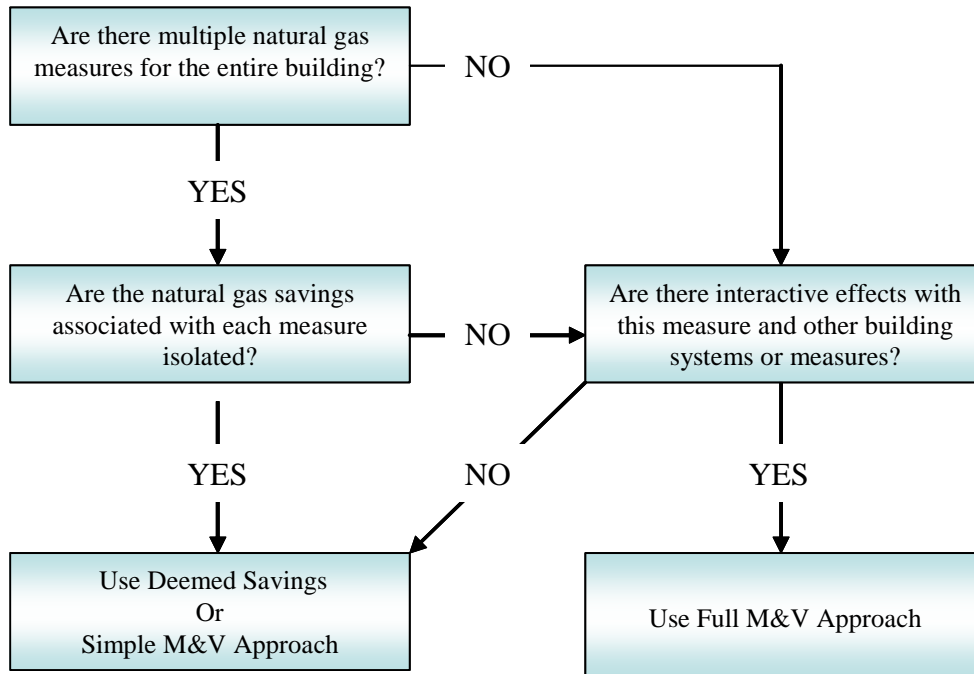
Commissioning includes verification of the estimated project savings and confirmation that the measures are operating as intended. Commissioning is required to receive a full rebate. This step insures that the predicted energy savings are being achieved and that the system's operation and performance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

Commissioning practices will vary depending on the individual characteristics of each project. In general, 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 Monitoring & 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 to further refine calculations.
- *Full Monitoring & Verification (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.

Figure 5.1 on the next page outlines when to use each of the following approaches.

A commissioning plan must be submitted for each project as part of the PIR. Commissioning procedures will vary in detail and rigor depending on the measures installed and is subject to the project size and savings. Please contact the Program Administrator to determine the correct approach required in the commissioning plan for a particular project. If the customer and Program Administrator agree to pursue the "Full M&V" or "Simple M&V" options, the International Performance Measurement and Verification Protocol must be followed. Commissioning must 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 can range from a few days to a few months.



**Figure 5.1 Measurement and Verification Method Selection**

## 5.2 DEEMED SAVINGS

Deemed savings are stipulated based on standard energy engineering calculations using typical equipment characteristics and operating schedules for particular applications. No on-site testing or metering is performed. Common measures or simple equipment upgrades may be able to utilize a deemed savings approach.

## 5.3 SIMPLE MONITORING & VERIFICATION (M&V)

The “Simple M&V” approach will rely heavily on manufacturer’s specifications, in conjunction with simple calculations, to determine equipment performance and estimate natural gas savings. The building may be small and contain only a few pieces of natural gas equipment, allowing the whole-building gas meter to be used to determine natural gas consumption. Spot measurements may be used to verify equipment operation and refine calculations, such as using a flue gas analyzer to determine combustion efficiency, measuring fluid supply/return temperatures with a handheld thermometer, or reading fluid flow rates from a building automation system (BAS).

## 5.4 FULL MONITORING & VERIFICATION (M&V)

The “Full M&V” approach may involve more precise measurement of natural gas consumption at end-use equipment or the construction of a building energy model to determine the interactive effects of natural gas savings measures on other systems. Spot measurements will generally be insufficient for monitoring systems with complex or weather-dependent control sequences or variable loads. Complex systems with a variable load will need to be more fully characterized over a period of time using portable data loggers or a BAS to precisely determine operating parameters and natural gas consumption.

## Section 6

## ThermWise Business Programs Overview

	<b>ThermWise Business Rebates</b>	<b>ThermWise Custom Business Rebates</b>	<b>ThermWise Multifamily Program</b>
<b>Customer Eligibility</b>	Equipment must be installed in a separately metered facility on a Commercial GS rate schedule in Questar Gas' Utah service territory	Eligible measures must be installed in a separately metered commercial facility on a Commercial GS rate schedule in Questar Gas' Utah service territory	Equipment must be installed after January 1, 2008 on a Residential GS rate schedule in Questar Gas' Utah service territory
<b>Program Eligibility</b>	New construction and retrofit projects are eligible	New construction and retrofit projects are eligible	New construction and retrofit projects are eligible; some rebates applicable only for retrofit applications
<b>Program Technical Assistance</b>	Customer chooses participating vendor	Customer is required to complete energy engineering and commissioning; Program Administrator will verify results	Customer chooses participating vendor
<b>Program Financial Offer</b>	Energy-efficiency measure-based rebates (\$ per unit, \$ per kBtu/hr input) paid upon installation and operation of equipment	The lesser of (a) \$1.00/therm saved in the first year or, (b) 50% of the eligible project cost. Rebate is paid upon verification of installation and completion of commissioning	Energy-efficiency measure-based rebates paid upon qualifying installation
<b>Measure Requirements</b>	See <a href="http://www.ThermWise.com">www.ThermWise.com</a> for energy-efficiency measure requirements	Any cost-effective measure that saves natural gas for a minimum of 7 years; Not available for measures contained in ThermWise Business Rebates Program	See <a href="http://www.ThermWise.com">www.ThermWise.com</a> for energy-efficiency measure requirements
<b>When to Apply</b>	Complete program application after energy-efficiency measure installation	Complete Pre-Installation Report before purchasing any equipment and complete Post-Installation Report after installation and commissioning	Complete program application after energy-efficiency measure installation
<b>Key Features</b>	Simple post-purchase application for common measures	Rebates available to buy down capital costs for custom-engineered projects	Rebates available to tenants, builders and property managers/ owners to upgrade natural gas equipment on residential properties with 5+ dwelling units





# Business Custom Rebate Pre-Installation Report (PIR)

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Please complete and submit one (1) hardcopy of this report for each proposed project to the Program Administrator at the address listed below. You will be informed of project approval or denial no later than 30 days after receipt of this application by the Program Administrator. Review of the PIR will be delayed for incomplete applications. Please refer to the Program Manual for descriptions of the necessary information required in the PIR and direct any questions to the Program Administrator.

ThermWise Business Custom Rebates Program Administrator  
P.O. Box 45360  
Salt Lake City, UT 84145-0360  
1-800-867-2044  
E-mail: business@thermwise.com

## Customer Contact Information

---

**Business Name:** \_\_\_\_\_

**Contact Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

\_\_\_\_\_

**Contact Phone:** \_\_\_\_\_ **Contact Fax:** \_\_\_\_\_

**Contact E-mail:** \_\_\_\_\_

## Customer Acknowledgement

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By signing this document, you, the Customer, acknowledge the implementation of demand side management (DSM) measures within your facility or facilities in conjunction with the Business Custom Rebate Program offered by Questar Gas. Your signature also indicates that:

- Your company intends to move forward with the installation of these measures and expect to complete installation by the project completion date listed below.
- You have the necessary authorization within your firm to approve the installation of these measures.
- You agree to assist Questar gas as required in its efforts to review this report and provide access for an inspection at your facility by Questar Gas to verify existing equipment and operation. Questar Gas's review or inspection of any DSM measures does not constitute any representation as to the technical or economic quality of the DSM measures. Questar Gas, its officers, employees, and contractors will not be liable for the performance of these measures. Questar Gas will not release any propriety information about your business without your permission.

If you have any questions, please contact the Business Custom Rebate Program Administrator at (800) 867-2044.

**Name (printed):** \_\_\_\_\_

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Facility(s) Address:** \_\_\_\_\_

\_\_\_\_\_

**Expected Project Completion Date:** \_\_\_\_\_

**Is this a New Construction Project?** \_\_\_\_\_

## Facility Information

---

<b>Facility Type</b> (e.g., grocery, office building, manufacturing):		
<b>Building Age (Years):</b>		
<b>Building Square Footage:</b>		
<b>% of Gross area by Space Type</b>	<b>Space Type</b>	<b>% of Gross Area</b>
<b>Operating Hours by Space Type</b> (e.g., M-F, 7:00 am – 6:00 pm):	<b>Space Type</b>	<b>Operating Hours</b>
<b>Est. Building Age (Years):</b>		
<b>Number of Floors:</b>		
<b>Site Contact (if different from Host Customer Contact above):</b>		
<b>Site Contact Phone:</b>		
<b>Site Contact E-mail:</b>		
<b>Questar Gas Account Number(s) for Site:</b>		

\*\* Please attach a copy of your most recent Questar Gas Utility Bill



## Measure Description

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Please provide a brief description (diagrams are helpful) of the proposed natural gas energy efficiency measures. Attach additional copies of this sheet as necessary to describe multiple measures. Each description should include the following information:

- What the measure is and where it is located in the facility or system,
- How many measures will be installed, and
- How the measure is expected to save natural gas.

## System Baseline

---

Please check the appropriate box to indicate the type of project:

- Elective retrofit to upgrade existing operable equipment or add functionality
- Retrofit to replace/upgrade inoperable or failed equipment
- New equipment added as part of a facility expansion/renovation
- New construction project

## **Baseline Natural Gas Consumption**

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Include a separate sheet for each measure. Describe the methodology used to estimate the natural gas consumption of the existing system. Attach additional sheets as necessary to justify assumptions used in the analysis (i.e. equipment specification sheets, trended or measured data, equipment schematics) and provide copies of any spreadsheets used. The reviewer should be able to understand and replicate the calculations given the data provided in this report. The description should summarize:

- The calculation algorithm, including formulas used
- Any data collected and used to characterize the existing system
- Major assumptions (i.e. operating hours, average heating load, etc.)

Measure Baseline Annual Natural Gas Consumption (Dth/yr): \_\_\_\_\_

## Proposed Natural Gas Consumption

---

Include a separate sheet for each measure. Describe the methodology used to estimate the natural gas consumption of the proposed system. Attach additional sheets as necessary to justify assumptions used in the analysis (i.e. equipment specification sheets, trended or measured data, equipment schematics) and provide copies of any spreadsheets used. The reviewer should be able to understand and replicate the calculations given the data provided in this report. The description should summarize:

- The calculation algorithm, including formulas used
- Any data collected and used to characterize the existing system
- Major assumptions (i.e. operating hours, average heating load, etc.)

Proposed Measure Annual Natural Gas Consumption (Dth/yr): \_\_\_\_\_

## Measure Costs

---

Provide a summary of the anticipated costs for each measure. Attach additional copies of this sheet as necessary to describe multiple measures. Attach copies of any material/labor estimates, purchase order requests and bid estimates for each measure. The cost estimate summary should include the following:

- Estimated material/equipment costs
- Estimated labor/installation costs
- Documentation of estimated costs including estimates for equipment/labor costs from contractors or a description of how costs were estimated (i.e. hours of internal labor multiplied by hourly rate)
- Estimated commissioning costs
- Estimated energy engineering costs
- Other estimated costs (i.e. contingency, shipping, taxes) as necessary

Estimated Measure Costs (\$): \_\_\_\_\_

## Commissioning Plan

---

Please provide a commissioning plan for each proposed measure on a separate copy of this sheet. Attach additional sheets as necessary for to describe data trending, functional testing, and deficiency reporting. Measures will not be approved for rebates unless a commissioning plan is provided or adequate explanation is provided why a particular measure does not require commissioning. Commissioning procedures will vary in detail and rigor depending on the measures installed and are subject to approval by Questar Gas. Please reference the Program Manual for additional guidance defining the scope and type of commissioning required for each measure. The commissioning plan should include the following:

- Data to be collected to verify system operation,
- Period of time to collect data,
- Measurement technique for each data point,
- Estimated commissioning cost, and
- Any measure-specific commissioning practices.

## Commissioning Method

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Please check the appropriate box to indicate the type of commissioning to be performed:

- No commissioning required
- Deemed savings approach
- Simple Monitoring & Verification
- Full Monitoring & Verification

## Other Information

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Please list here and attach any additional information necessary to describe the proposed measures, calculation methodologies, commissioning plans or cost estimates. Additional information may include:

- Building or system schematics
- Equipment specification sheets
- System operation manuals
- Sequence of Operations or control strategies

# Business Custom Rebate Post-Installation Report (POR)

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Please complete and submit one (1) hardcopy of this report for each completed project to the Program Administrator at the address listed below. You will be informed of project approval or denial no later than 30 days after receipt of this application by the Program Administrator. Review of the POR will be delayed for incomplete applications. Please refer to the Program Manual for descriptions of the necessary information required in the POR and direct any questions to the Program Administrator.

ThermWise Business Custom Rebates Program Administrator  
P.O. Box 45360  
Salt Lake City, UT 84145-0360  
1-800-867-2044  
E-mail: business@thermwise.com

## Customer Contact Information

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**Business Name:** \_\_\_\_\_

**Contact Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

\_\_\_\_\_

**Contact Phone:** \_\_\_\_\_ **Contact Fax:** \_\_\_\_\_

**Contact E-mail:** \_\_\_\_\_

## Customer Acknowledgement

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By signing this document, you, the Customer, acknowledge the implementation of demand side management (DSM) measures within your facility or facilities in conjunction with the Business Custom Rebate Program offered by Questar Gas. Your signature also indicates that:

- Your company has completed installation of these measures.
- You agree to assist Questar gas as required in its efforts to review this report and provide access for an inspection at your facility by Questar Gas to verify existing equipment and operation. Questar Gas's review or inspection of any DSM measures does not constitute any representation as to the technical or economic quality of the DSM measures. Questar Gas, its officers, employees, and contractors will not be liable for the performance of these measures. Questar Gas will not release any propriety information about your business without your permission.

If you have any questions, please contact the Business Custom Rebate Program Administrator at (800) 867-2044.

**Name (printed):** \_\_\_\_\_

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Facility(s) Address:** \_\_\_\_\_

\_\_\_\_\_

**Was this a New Construction Project?** \_\_\_\_\_



## Measure Description

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Attach the measure description from the PIR report and note any changes to the measure that occurred during installation in the space below. Attach additional copies of this sheet as necessary to describe multiple measures. The revised description should include the following information:

- Any changes to the measure from the description provided in the PIR that occurred during installation (i.e. size of equipment, control strategy, operating set points, etc.)

## System Baseline

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Please check the appropriate box to indicate the type of project:

- Elective retrofit to upgrade existing operable equipment or add functionality
- Retrofit to replace/upgrade inoperable or failed equipment
- New equipment added as part of a facility expansion/renovation
- New construction project

## Commissioning Summary

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Commissioning procedures will vary in detail and rigor depending on the measures installed and are subject to approval by Questar Gas. Please reference the Program Manual for additional guidance defining the scope and type of commissioning required for each measure.

For each installed measure, summarize the commissioning tasks performed, state any deficiencies and how they were addressed, and describe the final operating characteristics of the commissioned system. Attach additional sheets as necessary to show data trended, results of functional testing, and deficiency reporting. Measures requiring commissioning will not be approved for rebates unless the system was sufficiently commissioned and determined to be operating as intended to achieve natural gas savings. The commissioning summary should include the following:

- Data collected to verify system operation,
- Period of time data was collected,
- List of deficiencies and how they were addressed,
- Final operating parameters and set points of the commissioned system, and
- Any measure-specific commissioning results.

## Commissioning Method

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Please check the appropriate box to indicate the commissioning method approved in the PIR:

- No commissioning required
- Deemed savings approach
- Simple Monitoring & Verification
- Full Monitoring & Verification

## Estimated Natural Gas Savings

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Include a separate sheet for each measure. Describe the methodology used to estimate the natural gas consumption of the proposed system. Attach additional sheets as necessary to justify assumptions used in the analysis (i.e. equipment specification sheets, trended or measured data, equipment schematics) and provide copies of any spreadsheets used. Natural gas savings should be calculated using operational characteristics verified when the system was commissioned. The reviewer should be able to understand and replicate the calculations given the data provided in this report. The description should summarize:

- The calculation algorithm, including formulas and data values used
- Operational characteristics of the fully commissioned system
- Major assumptions (i.e. operating hours, average heating load, etc.)

**Measure Baseline Annual Natural Gas Consumption from PIR (Dth/yr):** \_\_\_\_\_

**Proposed Measure Annual Natural Gas Consumption (Dth/yr):** \_\_\_\_\_

## Measure Costs

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Provide a summary of the actual incurred costs for each measure. Attach additional copies of this sheet as necessary to describe multiple measures. Attach copies of any material/labor estimates, purchase order requests and bid estimates for each measure. The cost summary should include any or all the following depending on the project:

- Material/equipment invoices
- Labor/installation invoices, internal labor tracking sheet or other equivalent documentation
- Invoices for any commissioning work
- Invoices for any energy engineering analysis
- Documentation of other estimated costs (i.e. contingency, shipping, taxes) as necessary

Actual Measure Costs (\$): \_\_\_\_\_

## Other Information

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Please list here and attach any additional information necessary to describe the proposed measures, calculation methodologies, commissioning plans or cost estimates. Additional information may include:

- Building or system schematics
- Equipment specification sheets
- System operation manuals
- Sequence of Operations or control strategies

**THERMWISE BUSINESS CUSTOM REBATES****What is the rebate amount and how is it paid?**

Rebates offered through the ThermWise Business Custom Rebates Program for qualifying, commissioned projects and completed pursuant to the terms of the Program Agreement shall be the lesser of:

- \$1.00 per therm saved during the first year, as approved by the Program Administrator, or
- 50% of the eligible project cost as determined by the Program Administrator.

Rebates will be paid in the form of a check within 45 days of approval of the completed project by the Program Administrator.

**Can measures that qualify for post-purchase rebates from the Business Rebate Program be submitted through the Business Custom Program?**

Only measures that are not included in the Business Rebate Program are eligible for rebates through the Custom Program. Any qualifying measures identified in the PIR that are eligible for the Business Rebates Program will be removed from the Custom Program and processed according to the Business Rebates Program guidelines.

**CUSTOMER ELIGIBILITY****Are customers who receive natural gas on residential, commercial F-1, F-3, F-4, or interruptible rate schedules (I-4, IS-4, T-1, E-1) eligible?**

No. Only customers where the installation address is on a Commercial GS-1 or Commercial GSS rate schedule are eligible.

**Are customers in the Wyoming territory of Questar Gas eligible?**

No. Customers must be served by Questar Gas within its Utah or Idaho service territory as determined by the facility address on the Customer's Questar Gas bill. See Appendix D for a map of the Questar Gas Utah Service Territory.

**Are customers with multiple meters on different rate schedules at a single facility address eligible?**

For customers with multiple meters on different rate schedules, eligibility must be determined on a measure-specific basis. Measures are eligible only if directly supplied with natural gas from a meter on a Commercial GS rate schedule. Please contact the Program Administrator or your Questar Gas Account Representative to confirm whether measures will qualify for the Program.

## **PROCESS DETAILS**

### **What is an appropriate baseline for energy consumption?**

The appropriate baseline is project-dependent and may be based upon existing system operation, energy code requirements, or industry standard practice. See Section 2.4 of the Program Manual for guidelines for determining the baseline for a particular project.

### **What project expenses are eligible?**

See Section 2.3 of the Program Manual for a description of eligible project expenses. Costs must be fully documented and submitted to the Program Administrator to be eligible.

### **Is it required to hire an energy engineer to perform the engineering calculations and draft the Pre-Installation and Post-Installation Reports?**

Hiring an energy engineer is not a requirement to participate in the Program. The scope of analysis required, and the capability of the Customer to complete the analysis, will depend on the proposed energy efficiency measures and the scale of the project. Where in-house customer engineering expertise is not available or adequate for the project, it is recommended that the Customer contract with an energy engineer familiar with the proposed measures and the program. Please contact the Program Administrator to determine whether hiring an energy engineer may be beneficial to your project. A list of recommended energy engineering consultants is provided on the ThermWise web site at [www.ThermWise.com](http://www.ThermWise.com).

### **Can an energy study performed as part of a Rocky Mountain Power energy efficiency project be used for the PIR and POR required by the ThermWise Business Custom Rebates program?**

Rocky Mountain Power energy studies focus only on electric energy efficiency measures. A Customer may contract separately with the Rocky Mountain Power energy consultant to examine natural gas savings opportunities as part of the energy analysis performed for Rocky Mountain Power. In such a case, the Rocky Mountain Power Energy Analysis Report (EAR) may be submitted for the PIR and the Final Inspection Report (FIR) may be submitted for the POR, assuming all of the requirements listed in this Program Manual are satisfied.

## **QUESTAR GAS'S OTHER ENERGY EFFICIENCY PROGRAMS**

### **Are customers eligible to participate in Questar Gas's other energy efficiency programs and the ThermWise Business Custom Rebates program at the same time?**

Yes, but not on the same project.

### **What if I choose to participate in the ThermWise Business Custom Rebates program and later decide I want to switch to the ThermWise Business Rebate or Multifamily Rebate Programs?**

Measures submitted to the Business Custom Rebate Program that are identified as eligible for the Business Rebate or Multifamily Rebate programs will be transferred to the appropriate program and processed according to the respective program guidelines. Only measures with verifiable natural gas savings that do not qualify for either the Business Custom or Multifamily Rebate Programs will be processed through the Business Custom Rebate Program.

## Appendix D

## Questar Gas Service Territory Map

A complete listing of communities served by Questar Gas can be found on the following webpage: <http://www.questargas.com/AreaMap/ServiceMap.html>

