Colleen Larkin Bell (5253)
C. Scott Brown (4802)
Dee L. Heugly (9041)
Questar Gas Company
180 East First South
P.O. Box 45360
Salt Lake City, Utah 84145
(801) 324-5556
(801) 324-5935 (fax)
colleen.bell@questar.com
scott.brown@questar.com
dee.heugly@questar.com
Attorneys for Questar Gas Company

BEFORE THE

PUBLIC SERVICE COMMISSION OF UTAH

| APPLICATION FOR APPROVAL OF SECON | D) | |
|-----------------------------------|----|----------------------|
| YEAR BUDGET FOR 2008 DEMAND SIDE |) | Docket No. 07-057-08 |
| MANAGEMENT PROGRAMS AND |) | |
| MARKET TRANSFORMATION INITIATIVE |) | |

I. INTRODUCTION

1. In its Order issued in Docket No. 05-057-T01 (Order), approving Questar Gas Company's (Questar Gas or Company) Application for Expedited Approval of Demand-Side Management (DSM) Programs and a Market Transformation Initiative (Original Application), the Commission ordered the Company to "submit a second year budget by October 1, 2007 for the second year of the proposed DSM programs and the market transformation initiative." Pursuant to the Order, Questar Gas respectfully submits this Application for Approval of its 2008 Budget for its six existing DSM programs, including new proposed measures; two new DSM programs; and its ongoing market transformation initiative.

II. OVERVIEW OF PROPOSED 2008 DSM PROGRAMS AND MARKET TRANSFORMATION INITIATIVE

- 2. In the Original Application, the Company listed seven best practices for developing successful demand-side management programs. These seven best practices are:
 - 1. Develop a comprehensive energy-efficiency approach
 - 2. Simplify and integrate program offerings
 - 3. Brand DSM and focus on customer service
 - 4. Develop strategic partnerships with market actors
 - 5. Provide customized service, when applicable
 - 6. Provide qualified, independent expertise
 - 7. Integrate program evaluation early

To date, through the design, development, launch, implementation and administration of DSM programs, the Company has successfully integrated, and in many cases exceeded, each best practice outlined in the original DSM Application. The Company's ThermWise energy-efficiency campaign is at the forefront among natural gas utility programs. The ThermWise rebate programs are customer friendly and cost effective. In addition to the implementation and development of the ThermWise energy-efficiency campaign, the Company and its program administrators have placed the highest priority on customer service. To accomplish this, the Company has developed relationships with trade allies, including wholesalers, heating, ventilation and air conditioning (HVAC) contractors, dealers and retailers. The Company has built flexibility into the implementation and marketing of programs to allow for customized service when required. The Company continues to rely on the independent and experienced knowledge base of its program administrators, Nexant, Inc. (Nexant) and Portland Energy Conservation, Inc. (PECI). Pursuant to the Order, the Company has worked closely with the

Division of Public Utilities (Division) and DSM Advisory Group members to develop a timely and meaningful DSM evaluation plan.

- 3. Based on input from the DSM Advisory Group, Utah-based trade allies, program administrators and other energy-efficiency stakeholders, Questar Gas is proposing that the six existing DSM programs, which include certain new measures, be continued. In the initial year, these programs focused primarily on single-family dwellings and had limited programs for commercial customers. Keeping with its commitment to provide energyefficiency programs for all segments of the General Service (GS) rate class, and based on input from the above mentioned groups/stakeholders, the Company is proposing several new measures for existing programs and two new programs. The proposed new measures and two new programs will enhance customer participation, increase gas savings and improve cost effectiveness overall. The majority of the new measures target the commercial market. One of the new programs targets the multi-family residential market and the other is a new commercial program. The new measures added to existing programs are in the ThermWise Appliance Rebates, ThermWise Builder Rebates and ThermWise Business Rebates programs and are described in greater detail in the corresponding exhibits. The two new programs include a ThermWise Multi-Family Rebates program and a ThermWise Business Custom Rebates program as described in Exhibits 2.7 and 2.8. The addition of the new measures and programs result in DSM programs for all of the GS class (single family, multi-family and commercial).
- 4. The existing DSM programs are: 1) the **ThermWise Appliance Rebates Program**; 2) the **ThermWise Builder Rebates Program** (previously called **ENERGY STAR® New Homes Program**); 3) the **ThermWise Business Rebates Program** (previously called **Commercial Rebate Program**); 4) the **ThermWise Weatherization Program**; 5) the

ThermWise Home¹ Energy Audit Program; and 6) funding of \$250,000 for the Low-Income Weatherization Assistance Program administered by the Utah Department of Community and Economic Development.

- 5. ThermWise Appliance Rebates. This program offers rebates on qualifying program measures to customers. The Company is proposing to continue this program with the addition of two new measures. The new measures are: 1) High-Efficiency Gas Boilers and 2) Supplemental Solar Water Heating. In addition, the Company is proposing to modify the Storage Water Heater measure eligibility requirement from 0.63 EF (Energy Factor) to 0.62 EF, to more closely align with the availability of water heaters offered by Utah retailers and HVAC and plumbing contractors and in anticipation of a possible ENERGY STAR labeling at this level. This program will continue to be offered to customers in the Company's Utah service territory and administered by PECI. The complete program description for 2008 is included in OGC DSM Exhibit 2.1
- 6. ThermWise Builder Rebates. This program, formerly called the Energy Star New Homes Program, offers rebates to residential builders for installing qualifying energy-efficiency measures. The Company is proposing to continue this program with the addition of two new measures. The two new measures are: 1) High-Efficiency Gas Boilers and 2) Supplemental Solar Water Heating. As with the ThermWise Appliance Program, the Company is proposing to modify the Storage Water Heater measure eligibility requirement from 0.63 EF (Energy Factor) to 0.62 EF. Additionally, the Company proposes to replace the high-efficiency water heaters and furnaces as "add-on" measures with a premium ENERGY STAR certification that requires meeting a federal tax credit standard and installing a 90% efficient or

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¹ The Home Energy and Weatherization programs shared a common title in the first year application but have been split into separate programs.

higher furnace. This program will continue to be administered by PECI. The program will continue to be available to residential builders in the Questar Gas Utah service territory and include incentives for installing natural gas energy-efficiency measures in newly constructed residences receiving service on a GS rate schedule. The complete program description for 2008 is included in QGC DSM Exhibit 2.2.

- 7. ThermWise Business Rebates. This program, formerly called the Commercial Rebate Program, offers rebates to commercial customers who purchase and install qualifying natural gas efficiency measures. The Company is proposing to continue this program with the addition of eight new measures. The new measures include: 1) ENERGY STAR Commercial Fryers; 2) ENERGY STAR Steam Cookers; 3) High-Efficiency Convection Ovens; 4) High-Efficiency Combination Ovens; 5) High-Efficiency Griddles; 6) Roof Insulation; 7) Wall Insulation; and 8) High-Efficiency Windows. In addition to the new measures, several measures in this program have been updated with new eligibility requirements and cost-effectiveness inputs. These updates more closely align with market conditions. This program will continue to be available to GS commercial customers in the Company's Utah service territory and administered by Nexant. The complete program description is included in QGC DSM Exhibit 2.3.
- 8. ThermWise Weatherization Rebates. This program offers residential customers rebates for installing qualifying weatherization measures. The Company is proposing to continue this program with one modification. The modification removes the Solar Heat Gain Coefficient (SHGC) eligibility requirement on the high-efficiency window measure. The SHGC was originally included as a requirement to be in direct alignment with Rocky Mountain Power's Home Energy Savers Program. However, after market experience and more thorough investigation and analysis, the Company has determined that this

requirement is reducing customer and supplier participation with this program measure and causing market confusion. Furthermore, the SHGC requirement is a "cooling load" related requirement and has virtually no impact on natural gas usage or natural gas savings. By removing the SHGC requirement, the remaining eligibility requirement for the windows measure will be a 0.35 U-factor or lower. Meeting this eligibility requirement results in natural gas space heating savings and is in alignment with ENERGY STAR requirements and current federal tax incentives. This program will continue to be available to residential customers in the Company's Utah service territory and administered by Nexant. The complete program description is included in QGC DSM Exhibit 2.4.

9. **ThermWise Home Energy Audit.** The Company is proposing to continue this The ThermWise Home Energy Audit Program is offered and administered by Questar Gas with periodic consulting and assistance from Nexant as needed. This program includes two primary components: in-home energy audits performed by trained and experienced Questar Gas Auditors and "do-it-yourself" mail-in audits with on-line data input availability. The in-home energy audit requires the customer to pay a nominal \$25 fee per account. This fee is fully refundable upon participation in any ThermWise energy-efficiency rebate program. The do-it-yourself audit is offered at no charge. Customers participating in either home energy audit will receive a customized report recommending home improvements that can be implemented to reduce natural gas usage. In addition, the program will provide certain low-cost energy-efficiency measures at no charge or with a rebate in the case of the programmable thermostat for customer installation at the customer's residence. This program will continue to be available to customers in the Company's Utah service territory and administered by Questar Gas. The complete program description is included in QGC DSM Exhibit 2.5.

- 10. <u>Low-Income Weatherization Assistance.</u> The Company is proposing to continue funding the Low-Income Weatherization Assistance Program at \$250,000 per year. The Company proposes to disburse \$125,000 every six months, with the disbursements occurring in January and in July. The complete program description is included in QGC DSM Exhibit 2.6.
- 11. ThermWise Multi-Family Rebates. To help broaden energy-efficiency participation throughout the GS class, the Company is proposing to add this new program for 2008. This program will target both new and existing multi-family projects. The current programs do not include the multi-family market segment. This program will be available to Questar Gas Utah service territory property owners/managers, builders, developers, home owner associations and directly to tenants. Adding this program will help to ensure program offerings to all GS customer classes. Existing multi-family projects will be offered rebates for installation of high-efficiency space and water heating appliances, ENERGY STAR clothes washers, gas clothes dryers with moisture sensors, high-efficiency window replacements, upgrades to insulation and high-efficiency space and water heating appliances for property common areas. Builders of multi-family construction projects will be offered rebates for adhering to or exceeding ENERGY STAR requirements for multi-family projects. program will be administered by PECI. The complete program description is included in QGC DSM Exhibit 2.7.
- offerings to the commercial market segment, the Company is proposing to add this new program for 2008. This program will target new and existing Utah GS commercial customers. This program augments the existing ThermWise Business Rebates program by offering rebates to business customers for energy savings resulting from more customized energy systems

improvements that are not otherwise available through a rebate from other ThermWise programs. The rebate would be in the form of a one-time cash payment to the customer upon successful completion and savings verification of the project. This program will be administered by Nexant. The complete program description is included in QGC DSM Exhibit 2.8.

13. <u>Tariff Sheets.</u> Tariff sheets for the revised existing and new programs are attached in both legislative and proposed formats as QGC DSM Exhibit 2.9. The Company proposes that these tariff sheets become effective January 1, 2008.

III. MARKET TRANSFORMATION

- 14. In addition to the DSM programs outlined above, Questar Gas is proposing to continue its comprehensive market transformation initiative. Market transformation involves ongoing and lasting changes to natural gas appliances and new construction markets, as well as natural gas conservation. Questar believes that its DSM programs, including its market transformation initiative, will continue to complement Governor Huntsman's goal of reducing energy consumption in Utah by 20% by 2015.
- 15. The market transformation initiative has four distinct components. The first component is a market awareness campaign designed to continue the Company's involvement in energy-efficiency and conservation promotion. The second component is a market awareness campaign designed to change consumer and market participant behaviors and to encourage persistent demand for energy-efficient products and practices.
- 16. The third component is building codes training. The State Energy Program, a sub-division of the Utah Geological Survey, in partnership and through partial funding from

Questar Gas, conducted over twenty building codes training sessions during 2007. The purpose of the training was to support the adoption, awareness and enforcement of more stringent building codes associated with the current International Energy Conservation Code (IECC 2006), which became effective in Utah on January 1, 2007. Based on the success of the 2007 training sessions, and the need in the market for additional and more specific training sessions, the Company is proposing to fund training sessions for 2008 at \$50,000. The training sessions will be scheduled beginning early-to mid-year 2008. The State Energy Program will continue to work with an outside vendor to design and conduct the training. A description of the proposed training is included as QGC DSM Exhibit 2.10.

- 17. The fourth component is the ThermWise.com website. The Company launched an informative, interactive, easy-to-use and dedicated energy-efficiency website (www.ThermWise.com) during 2007. The website provides consumers with DSM program descriptions and applications, information regarding the economics of energy efficiency, resources available to consumers to help them reduce their energy consumption, on-line energy audit input capability and links to other useful websites related to energy efficiency and conservation. The Company proposes to continue developing, enhancing and operating this website to increase customer awareness, education and participation in energy efficiency and conservation.
- 18. As part of its Market Transformation initiative, the Company will continue to pursue strategies to influence each market segment in the GS rate class to adopt higher levels of energy efficiency. Initial market transformation goals include: 1) achieving higher penetration of high-efficiency furnaces and water heaters in new and existing residential and commercial buildings; 2) recruiting trade allies to promote and deliver a complete line of energy-efficiency products; 3) encouraging trade allies to price the higher-efficiency products

competitively with lower-efficiency products; 4) positioning energy-efficiency products as the market leaders; and 5) working with code enforcement officials to ensure energy-efficiency aspects of the building codes are understood and adopted by builders.

IV. PROPOSED 2008 BUDGET

- 19. The total 2008 budget for Questar Gas DSM programs and the Market Transformation Initiative is estimated at \$10.5 million and is shown in QGC DSM Exhibit 2.11. The primary increase in the 2008 budget is driven by the increase in rebates paid and for rebate processing (a combined \$2.5 million). For comparison purposes, the 2007 budget has been included in this exhibit. The budget estimate is predicated on participation levels projected by each program administrator. To the extent actual participation levels differ from projected levels, actual costs will differ from budget. On a quarterly basis, the Company will continue to report to the Division the actual participation levels and related costs and gas savings compared to projections.
- 20. ThermWise Home Energy Audit. For 2008 this program will have very few operational changes from 2007. However, one significant change in the year to year budget is a reduction in design and development costs. Substantial costs were incurred in 2007 to design and implement this program, including developing an audit database and purchasing tools and equipment for auditors. These costs will not need to be repeated in 2008. With continuation of this program the systems and program created in 2007 will continue to provide value to the DSM effort and produce natural gas savings for customers in 2008. The Company is projecting that the number of year to year audits performed and the associated gas savings for

this program will increase by 6% over 2007. At the same time, it is expected that the overall costs to the program will be 6% less than 2007.

- 21. **ThermWise Weatherization Rebates.** During 2007, this program has been very well received by Questar Gas customers and is expected to continue through 2008. The Company is proposing nearly a 200% increase in overall weatherization program costs for 2008. Eighty-five percent of this 200% increase is related to the increase in rebates paid. A substantial portion (75%) of this 2008 program budget is attributed to rebates being paid to customers. The projected natural gas savings for this program for 2008 are expected to increase by 340% from 2007 projections.
- 22. **ThermWise Builder Rebates.** Experience in 2007 showed that inherent with this type of program is a significant lag between program introduction and full customer participation. Nevertheless, the Company continues to expect this program to be the "flagship" of DSM programs long-term because of the substantial gas savings opportunities per home and rebate offering. For 2008 the Company is projecting a 17% reduction in program costs due mostly to a softening in the residential new single-family construction market. Fewer homes will likely result in lower program participation and less gas savings as is reflected in the projected 22% decrease in natural gas savings for 2008 over 2007 projections. While overall program costs, participation and natural gas savings are projected to be lower for 2008, the Company still intends to continue cost-effective program marketing and implementation as reflected in the program budget.
- 23. **ThermWise Appliance Rebates.** This program has been very well received by customers in 2007. The Company expects the 2008 program budget to increase by 39% and the gas savings to increase by 65%. Reflected in the budget are increases resulting from

increased customer participation and rebates paid. Rebates account for approximately 67% of the annual costs for this program.

- 24. **ThermWise Business Rebates.** For 2008 this program budget is projected to increase by 92% from the 2007 budget and natural gas savings are expected to increase by 116%. As with other ThermWise programs, the increase to this program is primarily from projected increased customer participation and rebates paid. However, this program budget also reflects an increase in cost-effective program specific marketing to bring increased awareness and participation to the program. This program represents potentially some of the highest gas savings measures per rebate paid; therefore, increased and targeted marketing is expected to result in increased program cost-effectiveness.
- 25. **Market Transformation.** For 2008, the Company is proposing to build upon the success and momentum created in 2007 with its ThermWise energy efficiency education and awareness campaign. The 2008 proposed budget for Market Transformation includes \$277,000 in increased media purchases for year round and targeted advertising, \$50,000 for special marketing events, trade/consumer shows and special event sponsorship(s) and \$30,000 for national and regional industry association participation to leverage outside resources to advance energy efficiency in the state. Also included in this budget is \$30,000 for potential 2009 new program design(s), which if needed, would occur and be paid for 2008. The projected budget for Market Transformation increases by 34% over 2007.
- 26. **Low-Income Weatherization.** The 2008 proposed budget for this program is \$250,000, which is unchanged from the 2007 budget.
- 27. **ThermWise Multi-family Rebates.** This is a new program for 2008. The budget reflects program design and development costs associated with a first year program, including program specific marketing and outreach to introduce the program to a broad market

segment. Projected rebates to be paid for this program in 2008 represent approximately 50% of the total budget.

- 28. **ThermWise Business Custom Rebates.** This is a new program for 2008. The budget reflects program design and development costs associated with a first year program. This program augments the ThermWise Business Rebates program by reaching parts of the business market segment with unique energy consuming systems and needs. This program has the potential to acquire significant cost-effective natural gas savings opportunities per project.
- 29. The total 2008 budget, including the two new programs, increases by \$3.5 million. Total projected savings increases by 66,224 Dth/year. This increase in the 2008 proposed budget is consistent with the commitment that the Company made when it agreed to aggressively promote and implement cost-effective energy-efficiency programs. In short, the 2008 proposed budget reflects a concerted effort to reach all GS market segments and produce significant and persistent natural gas savings through a comprehensive energy efficiency campaign.

V. COST EFFECTIVENESS

30. A summary of the cost effectiveness for each program is attached as QGC DSM Exhibit 2.12. This is a 9 page exhibit. Page 1 of the exhibit summarizes the test results of the proposed programs along with the market transformation initiative. Although the market transformation initiative does not lend itself to the same economic analysis as the DSM rebate programs, it has been included so that the overall impact of all programs can be measured and analyzed. As shown on page 1, line 10, column C of QGC DSM Exhibit 2.12, the overall benefit-cost ratio for the Total Resource Cost (TRC) test of all programs and the market

transformation activities is 1.5. And as shown on column G, the Utility Cost test (UCT) for all programs is 2.0. A benefit-cost ratio greater than 1 is indicative of benefits exceeding costs, and therefore "passes" the test. Additionally, as shown on line 10, column E, the overall benefit cost ratio for the participant cost test passes at 2.5, and as shown on column I, the ratepayer impact test for all programs passes at 1.5. A detailed benefit-cost analysis of each program by measure has been included in pages 2-11 of this exhibit.

- 31. The model developed by the Company to measure the cost effectiveness of the DSM Programs (DSM Model) is based on the California Standard Practice Manual and is the same model that was used in the 05-057-T01 docket. The DSM Model has been reviewed by Nexant and the DSM Advisory Group.
- 32. The DSM Model has the capability of running sensitivity analyses on various inputs and assumptions such as the discount rate and participation levels. The cost-effectiveness tests included in this application have been calculated using a 7% discount rate. This is the same discount rate that was used in the last year's DSM program application and this interest rate is consistent with the Company's IRP report filed in May 2007 (see IRP Report page 9-4).
- 33. The Company has relied on specific market reports, industry studies, the DSM Advisory Group, and the expertise of PECI and Nexant to arrive at the savings levels, measure life and incremental customer cost for each measure of each program. QGC DSM Exhibit 2.13 provides the source and/or references for the estimated gas savings (pages 1-2), measure life (pages 3-4), and incremental cost (pages 5-6) for each measure of each program.

VI. PROGRAM EVALUATION

34. The Company has worked closely with the Division to develop an evaluation plan and has received input regarding the evaluation plan from the DSM Advisory Group to develop a comprehensive and cost-effective first year evaluation plan and an on-going evaluation plan for natural gas DSM programs during the Pilot Program. This plan was submitted for Commission approval on July 26, 2007. Although this plan did not specifically address 2008 programs, its structure can be used to evaluate 2008 and other DSM programs in the future as required. The Company has budgeted \$273,500 for program evaluations in 2008 based on a level consistent with the Division's proposal as shown in QGC DSM Exhibit 2.11, line 19. However, if the Commission accepts the Committee of Consumer Services' recommendation on other program evaluation requirements, that budgeted amount would likely need to be increased.

VII. PRAYER FOR RELIEF

35. Questar Gas has successfully implemented a broad range of DSM programs and a Market Transformation Initiative in the first year of the DSM Pilot Program. The Company has implemented best practices to help ensure that necessary and reasonable steps have been taken to implement cost-effective programs that benefit all GS customers. The Company anticipates that it will require between 30 and 45 days to modify existing programs and 45 to 90 days to successfully implement the proposed new DSM programs. The Company will need to update, revise, and/or develop ThermWise applications; renew and initiate contracts with

program administrators, including staffing requirements by program administrators; update the ThermWise website; and update and/or initiate new advertising campaigns.

36. Therefore, Questar Gas respectfully requests a Commission order approving the application for the 2008 budget for Questar Gas' existing and new DSM programs and continuation of its market transformation initiative and approving the proposed tariff sheets.

DATED this 1st day of October, 2007.

Respectfully submitted,

QUESTAR GAS COMPANY

Dee L. Heugly (9041)
Colleen Larkin Bell (5253)
C. Scott Brown (4802)
Attorneys for Questar Gas Company
180 East First South
P.O. Box 45360
Salt Lake City, Utah 84145-0360
(801) 324-5556

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CERTIFICATE OF SERVICE

I, Evelyn Zimmerman, certify that a true and correct copy of the foregoing Application was served upon the following by electronic mail on October 1, 2007:

| Michael Ginsberg | Sarah Wright | |
|------------------------------------|----------------------------------|--|
| Patricia E. Schmid | Executive Director | |
| Assistant Attorney Generals | Utah Clean Energy | |
| 500 Heber M. Wells Building | 917 2 nd Avenue | |
| 160 East 300 South | Salt Lake City, UT 84103 | |
| Salt Lake City, UT 84111 | sarah@utahcleanenergy.org | |
| mginsberg@utah.gov | Survivi e diameterationergy (org | |
| pschmid@utah.gov | | |
| rg. | | |
| Paul H. Proctor | Reed T. Warnick | |
| Assistant Attorney General | Acting Executive Director | |
| 500 Heber M. Wells Building | Committee of Consumer Services | |
| 160 East 300 South | 400 Heber M. Wells Building | |
| Salt Lake City, UT 84111 | 160 East 300 South | |
| pproctor@utah.gov | Salt Lake City, UT 84111 | |
| | rwarnick@utah.gov | |
| | | |
| Gary A. Dodge | Kevin Higgins | |
| Hatch, James & Dodge | Neal Townsend | |
| 10 West Broadway, Suite 400 | Energy Strategies | |
| Salt Lake City, UT 84101 | 39 Market Street, Suite 200 | |
| gdodge@hjdlaw.com | Salt Lake City, UT 84101 | |
| | khiggins@energystrat.com | |
| | ntownsend@energystrat.com | |
| F. Robert Reeder | Roger Swenson | |
| William J. Evans | Energy Consultant | |
| Parsons Behle & Latimer | US Magnesium LLC | |
| 201 South Main Street, Suite 1800 | 238 North 2200 West | |
| P.O. Box 45898 | Salt Lake City, Utah 84116 | |
| Salt Lake City, UT 84145-0898 | roger.swenson@prodigy.net | |
| bobreeder@parsonsbehle.com | 10gono monicon e produgimen | |
| wevans@parsonsbehle.com | | |
| r | | |
| Betsy Wolf | Roger J. Ball | |
| Utility Ratepayer Advocate | 1375 Vintry Lane | |
| Salt Lake Community Action Program | Salt Lake City, UT 84121 | |
| 764 South 200 West | ball.roger@gmail.com | |
| Salt Lake City, UT 84101 | | |
| bwolf@slcap.org | | |
| | | |