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*Attorney for Questar Gas Company*

**BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH**

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APPLICATION FOR APPROVAL OF THE	)	
2017 YEAR BUDGET FOR ENERGY	)	Docket No. 16-057-15
EFFICIENCY PROGRAMS AND MARKET	)	APPLICATION
TRANSFORMATION INITIATIVE	)	

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1. Questar Gas Company (Questar Gas or Company) respectfully submits this Application for Approval of the 2017 Year Budget for Energy Efficiency Programs and Market Transformation Initiative (Application). The Company submits this Application pursuant to the applicable orders of the Public Service Commission of Utah (Commission) identified in the introduction section below. Questar Gas respectfully submits this Application seeking approval of costs associated with the delivery of the Energy Efficiency (EE) programs and associated Market Transformation Initiative.

**I. INTRODUCTION**

2. In its Order issued January 16, 2007 in Docket No. 05-057-T01 (January 16, 2007 Order), the Commission approved Questar Gas Company's Application for Expedited Approval of Demand Side Management Programs and a Market Transformation Initiative (Original Application), and approved a three-year pilot program for Questar Gas

Demand Side Management (DSM) programs in conjunction with the Conservation Enabling Tariff (CET). On June 3, 2010, the Commission issued an Order in Docket No. 09-057-16, approving the CET as an on-going program (June 3, 2010 Order). The Commission has reviewed and approved applications for EE Programs, Budgets, and Market Transformation Initiatives each year thereafter. Most recently, on December 16, 2015 the Commission issued an Order in Docket No. 15-057-16 (December 16, 2015 Order), approving Questar Gas' Application for Approval of the 2016 Year Budget for Energy Efficiency Programs and Market Transformation Initiative.

## **II. OVERVIEW OF PROPOSED 2017 ENERGY EFFICIENCY PROGRAMS AND MARKET TRANSFORMATION INITIATIVE**

3. In the Original Application (Docket No. 05-057-T01), the Company listed seven best practices for developing successful EE programs. These seven best practices are:

- A. Develop a comprehensive energy efficiency approach;
- B. Simplify and integrate program offerings;
- C. Brand EE and focus on customer service;
- D. Develop strategic partnerships with market participants;
- E. Provide customized service, when applicable;
- F. Provide qualified, independent expertise; and
- G. Integrate program evaluation early.

Through the design, development, implementation and administration of EE programs, the Company has successfully achieved, and in many cases exceeded, each of the best practices outlined in the Original Application. The Company's ThermWise<sup>®</sup> EE campaign is a model for natural gas utility programs nationwide. The ThermWise<sup>®</sup> rebate programs are customer friendly and cost effective.

4. In addition to the implementation and development of the ThermWise® EE campaign, the Company has made a concerted effort to maintain high levels of customer service. The Company has developed relationships with trade allies, including wholesalers, heating, ventilation and air conditioning (HVAC), weatherization contractors, dealers and retailers. The Company has built flexibility into the implementation and marketing of its programs to allow for customized service when required. The Company expects to continue utilizing the independent and experienced knowledge base of its contractors, Nexant, Inc. (Nexant) and CLEARResult, Inc. (CLEARResult) and the rebate processing expertise of Blackhawk Network Holdings, Inc. (Blackhawk) in 2017.

5. Based on input from the Utah DSM Advisory Group, Utah-based trade allies, program administrators and other energy efficiency stakeholders, Questar Gas proposes continuing eight of the nine existing ThermWise® EE programs in 2017: 1) the ThermWise® Appliance Rebates Program; 2) the ThermWise® Builder Rebates Program; 3) the ThermWise® Business Rebates Program; 4) the ThermWise® Home Energy Plan Program; 5) the ThermWise® Weatherization Rebates Program; 6) funding for the Low-Income Efficiency Program administered by the Utah Department of Workforce Services; 7) the Market Transformation Initiative; 8) and the ThermWise® Energy Comparison Report (Comparison Report). The Company recommends eliminating the ThermWise® Business Custom Rebates Program as a stand-alone program and merging its measures into the prescriptive Business Program in 2017. The Business Program section, below, contains greater detail on the merging of Business Custom measures into the Business Program.

6. **ThermWise® Appliance Rebates.** This program offers rebates to GS customers for installing high-efficiency qualifying measures. The Company is proposing

to continue this program in 2017 with the elimination of clothes washers as rebate eligible measures.

7. When the Company introduced the ThermWise<sup>®</sup> programs in 2007, the minimum Modified Energy Factor (MEF) (an ENERGY STAR<sup>®</sup> metric where increasing values indicate greater efficiency) for rebate-eligible clothes washers at 1.72. Since that time, minimum washer performance standards have continued to increase. In order to keep up with the changing standards, the Company proposed changes to rebate-qualifying clothes washer MEF's in 2010 (Docket No. 09-057-15), 2011 (Docket No. 10-057-15), and 2016 (Docket No. 15-057-16). In the 2016 ThermWise<sup>®</sup> programs, the lowest rebate-eligible washer was established as having a 2.74 Integrated Modified Energy Factor (IMEF) rating. In reviewing market research and preparing to file this Application, the Company found that the efficiency baseline for clothes washers had again moved to a higher level. As a result of the baseline changes and shrinking natural gas savings, the Company believes that the clothes washer market has been transformed and proposes to eliminate the 2.74 clothes washer as a rebate-eligible measures in 2017. QGC Energy Efficiency Exhibit 1.1 sets forth the complete program description for 2017.

8. **ThermWise<sup>®</sup> Builder Rebates.** Under this program, the Company offers rebates to residential builders for installing qualifying energy efficiency measures and constructing homes that meet certain whole home efficiency requirements. The ThermWise<sup>®</sup> Builder Program is currently available to all newly constructed residences receiving service on the GS rate schedule. Qualifying single-family residences are defined as new structures that have up to four residential dwelling units. Qualifying multifamily residence are defined as new structures having five or more residential dwelling units. The

Company will continue to pay, track, and report incentives as single and multifamily in 2017.

9. In 2016, the Utah State Legislature passed (and the Governor signed into law) House Bill 316. The bill, which amended the Utah State Construction Codes, included a provision to increase the State's energy code to the 2015 version of the International Conservation Code (IECC). As a result of the IECC code change and the increased minimum efficiency requirements, the Company proposes to eliminate the current ENERGY STAR<sup>®</sup> 3.0, High Performance, and 10% above code rebate measures for both single and multifamily customer segments. To replace those measures, the Company proposes to implement new whole-home incentive tiers based on exceeding the code-required Home Energy Rating Scores (HERS) of 65 for homes in climate zone 3, 69 in climate zone 5, and 68 in climate zone 6. The Company's proposed 2017 whole-home incentive tiers for single family homes are \$100 for a HERS score of 62 or lower, \$200 for a HERS score of 55 or lower, and \$300 for a HERS score of 48 or lower. For multifamily homes, the Company proposes whole-home incentives of \$50 for a HERS score of 62 or lower, \$100 for a HERS score of 55 or lower, and \$150 for a HERS score of 48 or lower.

10. Also as a result of the IECC code changes, the Company proposes to replace the current ENERGY STAR<sup>®</sup> 3.0 (\$300 single-family / \$200 multifamily) incentives with a smaller bonus incentive (\$50 single-family / \$25 multifamily) for HERS rated homes which receive the additional ENERGY STAR<sup>®</sup> rating. The Company also proposes to change the 2016 2 x 6 rebate requirement from a minimum of R-20 to R-23 in 2017. The Company further proposes to reduce the rebate amount in the 2 x 6 measure to \$150 for

single-family homes and to eliminate this rebate for multifamily homes in 2017. QGC Energy Efficiency Exhibit 1.2 sets forth the complete program description for 2017.

11. **ThermWise® Business Rebates.** Under this program, the Company offers rebates to commercial GS customers who purchase and install qualifying natural gas efficiency measures. The Company proposes to continue this program in 2017 with the following changes: 1) introduce demand control ventilation units to the current rebate measure mix; 2) eliminate new construction attic and wall insulation as rebate-eligible measures; 3) eliminate the high efficiency residential clothes washer for business measure for the reasons outlined in the Appliance Program discussion; 4) reduce the incentive for retrofit attic insulation (from \$0.16 to \$0.08 per square foot) and Tiers 2 and 3 boiler tune ups (Tier 2 from up to \$300 to \$150 per unit / Tier 3 from \$0.20 per kBtu to \$250 per unit); 5) change the smart thermostat rebate from a dollar-per-unit structure to a rebate based on the size (square footage) of a facility; 6) remove the maximum sizing limit on condensing water heaters; and 7) merge the Business Custom Program measures into the prescriptive Business Program in 2017.

12. Since 2008, the Business Custom Program has existed as a stand-alone offering to Utah GS commercial customers seeking to reduce natural gas usage. The Company found over nearly nine years that many projects which begin in the custom program ultimately result in participation and rebates in the prescriptive business program. As a result, natural gas savings and the dollars expended to generate those savings are misattributed. The Company's proposal to merge these two programs into a single business offering will eliminate the misattribution problem as well as reduce the overall costs

required to administer two separate programs. QGC Energy Efficiency Exhibit 1.3 sets forth the complete program description for 2017.

13. **ThermWise® Home Energy Plan.** The Company continues to receive very positive customer feedback about this program. The Company proposes to continue this program with no major changes in 2017. QGC Energy Efficiency Exhibit 1.4 sets forth the complete program description for 2017.

14. **ThermWise® Weatherization Rebates.** Under this program, the Company offers residential GS customers rebates for installing qualifying weatherization measures. The Company proposes to continue this program in 2017.

**ThermWise® Direct-Install Weatherization Pilot Program**

15. From the beginning of the ThermWise® Programs, weatherization measures have been the leader in terms of customer interest and participation. The Company has been pleased with the historical natural gas savings achieved by participating customers. Over the past three years however, the Company has recognized a trend of decreasing weatherization participation. During meetings, weatherization contractors have cited multiple reasons for this decline. Some of those reasons include increased marketing and collection costs associated with reaching the remaining rebate-eligible retrofit customers. As a result of these costs, contractors began to migrate to the more lucrative, less risky market segments.

16. In an effort to reverse these trends, the Company proposes to introduce a ThermWise® Direct-Install Weatherization Pilot Program. The pilot program would be designed to reach communities and customers with historically low participation in weatherization measures, and run for a period of three years. The Company's pilot

program is also designed to encourage contractors to re-engage in the Weatherization Program, which is a key component to customer participation. As part of the pilot program, the Company proposes to work closely with Rocky Mountain Power (RMP) on developing a combined direct-install weatherization incentives for the targeted communities and customers. The proposed direct-install incentives would not exceed the current QGC and RMP combined rebate levels for natural gas heated and electrically cooled homes. The Company will pay the rebate directly to the contractors, rather than the customer, after the work is performed.

17. The Company proposes to begin this pilot program by contracting directly with qualified weatherization contractors already in the market. The Company will select contractors through a competitive request for proposal process. Contractors will be selected based on skills, experience, past performance, and pricing. The Company will train contractors and educate contractors on correct marketing practices, program guidelines, and install requirements. Ongoing training will be provided through the pilot period by the Company to ensure compliance with program guidelines.

18. After the selections of contractors and completion of training, the Company plans to direct contractors to communities with lower historical participation and higher levels of potential energy savings. The Company will use historical participation data, the Energy Comparison Report, and the Home Energy Plan to identify communities with high savings potential. The Company will provide the zip codes/street data to contractors and guide them to neighborhoods which could most benefit from weatherization measures. Homes previously insulated through the ThermWise<sup>®</sup> Programs will not be eligible to participate in the direct install pilot.



19. Once contractors have completed the weatherization work, the Company's inspectors will perform quality control/assurance (QA/QC) on a percentage of jobs and document pilot program compliance. Inspections will be random and QA/QC will be done at a higher rate in the initial year of the program. As the program matures, the Company expects to continue QA/QC at a percentage necessary to maintain a high level of energy savings.

20. At the end of the pilot period, the Company will use the data generated by the program to assess the combination of weatherization measures that are most effective in producing energy savings. The Company proposes to keep the Advisory Group informed on the progress of the direct-install pilot program throughout the three year period. QGC Energy Efficiency Exhibit 1.5 details the complete Weatherization Program requirements for 2017.

21. **Low-Income Efficiency Program.** The Company proposes to maintain funding for the Low-Income Efficiency Program at \$500,000 per year. The Company will continue to disburse \$250,000 every six months, with the disbursements occurring in January and in July.

22. The Company will continue to allow non-profit or governmental agencies to follow an abbreviated application process and qualify for the direct-payment exemption. The non-profit or governmental organization must continue to comply with all other requirements of the Company's Natural Gas Tariff No. 400 (Tariff) and program rules to qualify for rebates. QGC Energy Efficiency Exhibit 1.6 sets forth the complete program description for 2017.

23. **Market Transformation.** In addition to the EE rebate programs outlined above, Questar Gas is proposing to continue its comprehensive Market Transformation initiative. Market Transformation involves promoting ongoing and lasting changes to natural gas appliance penetration rates and new construction markets, as well as natural gas conservation. Questar Gas believes that its EE programs, including its Market Transformation initiative, will complement the stated goal of Utah's 2014 Energy Efficiency & Conservation Plan to "promote energy efficiency, conservation and peak consumption reductions."

24. One component of the Market Transformation initiative is a market awareness campaign designed to (1) enhance the Company's involvement in energy efficiency and conservation promotion; (2) change consumer and market participation behaviors; and (3) encourage persistent demand for energy efficiency products and practices.

25. Another component of the Market Transformation initiative involves the sponsorship of building code training for stakeholders in the construction industry. The Governor's Office of Energy Development conducts building code training programs, in collaboration with and through partial funding from Questar Gas. The purpose of the training is to support the adoption, awareness, and enforcement of building codes associated with the new IECC code. Based on the success of previous training sessions, and the ongoing need in the market for additional and more specific training sessions, the Company is proposing to continue funding these training sessions in 2017 at a level of \$50,000. The State Energy Program will continue to work with an outside vendor to design and conduct the training.

26. The next component of the market transformation initiative 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 EE program descriptions, rebate applications, information regarding the economics of energy efficiency, other information to help consumers 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 ThermWise.com to increase customer awareness, education and participation in energy efficiency and conservation.

27. The Company also proposes to continue funding for Salt Lake Community College's (SLCC) Associate Degree program in Energy Management. The Company previously proposed to pay \$40,000 over three years (beginning in 2009) with a match by Rocky Mountain Power. Questar Gas proposes continuing this funding by paying \$14,000 in 2017 to support the continued development and implementation of the program.

28. Finally, 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. The Company proposes to continue the sponsorship of REAL Salt Lake in 2017. This sponsorship was added to the 2013 marketing mix in an effort to increase exposure of the ThermWise® Programs and the message of energy efficiency to the State's Hispanic population. This particular demographic has historically participated at levels below other demographic groups. QGC Energy Efficiency Exhibit 1.7 sets forth the complete program description for 2017.

29. **ThermWise<sup>®</sup> Energy Comparison Report.** The ThermWise<sup>®</sup> Energy Comparison Report allows customers to compare their natural gas usage with neighboring homes that are similarly sized and situated. The Comparison Report encourages customers to employ energy efficiency measures and behaviors. The Company developed the Comparison Report and first offered it to customers in November 2011. The Company initially sent the report to a small group of customers (Group A – 8,000 customers) as a pilot program. The Company has since launched larger pilot groups in 2012 (Group B – 25,000), 2013 (Group C – 100,000), and 2014 (Group D – 100,000). Currently the Company sends the report, via U.S. and electronic mail, to more than 230,000 of its customers. The Company maintains an additional group of nearly 50,000 customers in order to determine natural gas savings achieved from delivery of the Comparison Report. With the exception of the control group, all customers are able to generate and view a copy of their Comparison Report through their online account at [www.questargas.com](http://www.questargas.com). As of the end of September 2016, the Comparison Report had been generated over 236,000 times online by nearly 100,000 unique customers.

30. The Company proposes to deliver the Comparison Report to 255,000 customers in 2017. The Company realizes this total number by eliminating Group B, which will conclude its distribution period at the end of 2016, and adding Group E which will be delivered to 50,000 additional customers in 2017. Data shows that customers not only change behaviors to save natural gas as a result of the Comparison Report, but they are also more likely to participate in other ThermWise<sup>®</sup> Programs if they have received the report. The Company conducted an analysis in 2014 that showed, when contrasted against a control group of non-recipients, customers who had received their Comparison Report

were more likely to participate in a ThermWise<sup>®</sup> rebates and/or request a Home Energy Plan. The Company proposes to continue to target the Comparison Report to customers with higher usage relative to conditioned square footage in 2017.

31. While proposed program participants remain stable from 2016, natural gas savings are projected to increase by 33% in 2017. The Company expects savings to increase more than previously believed because of the projected expansion of the ECR in 2017 and because of savings persistence. The Company conducted a study in 2016 that focused analysis on all current recipients of the report (Groups B, C, and D). The study showed weather-normalized usage reductions per participant of .91 Dth/year. As a result, the Company updated the natural gas savings number from .76 Dth/year in the 2016 Model, to .91 Dth/year in the 2017 Model. QGC Energy Efficiency Exhibit 1.8 describes the methodology used in the realization studies and sets forth the complete program description for 2017.

32. **Tariff Sheets.** Tariff sheets for all programs are attached in both legislative and proposed formats as QGC Energy Efficiency Exhibit 1.9. The Company proposes that these Tariff sheets become effective January 1, 2017.

### **III. PROPOSED 2017 BUDGET**

33. The total 2017 projected budget for Questar Gas's Energy Efficiency Programs and the Market Transformation Initiative is \$25.1 million and is shown in QGC Energy Efficiency Exhibit 1.10, column V, line 13. The proposed 2017 budget is a \$1.8 million decrease from the 2016 budget filed with the Commission on October 13, 2015 in Docket No. 15-057-16. This projected decrease is attributed to decreased demand for weatherization measures in 2017 (31% lower participation or \$2.7 million reduction in incentives). The 2017 budget is reflective of the 2016 eight (8) month (January-August)

actual participation numbers; insights from retailers, distributors and other trade allies; and the market knowledge of the Company's contractors, CLEAResult and Nexant. To the extent actual participation levels differ from projected levels, actual costs will differ from budget. The Company proposes to continue to report to the Division of Public Utilities (Division) quarterly and to provide the actual participation levels and related costs and gas savings compared to projections.

34. The Company projects that administrative or non-incentive costs will shrink by about 6% from 2016 (\$7.4 million) to 2017 (\$7 million). This decrease results from lower expected rebate processing costs and the Company's continuing efforts to reduce reliance on third-party program administrators. The most recently published American Gas Association (AGA) study of natural gas efficiency programs (*Natural Gas Efficiency Programs Brief – Investment and Savings Impacts 2014 Program Year, Report Appendices*<sup>1</sup>) showed that the average non-incentive costs for the 39 states participating in natural gas efficiency programs to be 46% of total expenditures. Additionally, of the 22 states with natural gas efficiency expenditures over ten million dollars, Utah ranked third in terms of lowest non-incentive costs as a percentage of overall expenditures. QGC Energy Efficiency Exhibit 1.7 provides greater detail on the results of the 2014 AGA study.

35. **ThermWise® Appliance Rebates.** The Company expects participation in this program to decrease in 2017 by 3%. The Company also expects the 2017 program budget to increase by 11% (QGC Energy Efficiency Exhibit 1.10, column I, line 14) and the related gas savings to decrease by 25% (QGC Energy Efficiency Exhibit 1.10, column I, line 17). These changes are largely the result of the proposed elimination of clothes

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<sup>1</sup> [https://www.aga.org/sites/default/files/natural\\_gas\\_efficiency\\_programs\\_2014\\_program\\_year\\_-\\_report\\_appendices\\_0.pdf](https://www.aga.org/sites/default/files/natural_gas_efficiency_programs_2014_program_year_-_report_appendices_0.pdf)

washer rebates (a low natural gas savings measure) coupled with greater expected participation in higher natural gas savings measures such as furnaces and smart thermostats.

36. **ThermWise® Builder Rebates.** For 2017 the Company is projecting a 10% increase in program participants over 2016. Non-incentive costs are expected to be slightly lower than budgeted in 2016. The Company projects a 3% decrease in natural gas savings under the program for 2017 (QGC Energy Efficiency Exhibit 1.10, column G, line 17). The increase in participation relative to the projected decrease in projected natural gas savings is caused by the increasing codes and standards outlined earlier in paragraph 9 and the resulting changes in equipment/measure baselines.

37. **ThermWise® Business Rebates.** The Company projects that the 2017 program budget will increase by 40% (QGC Energy Efficiency Exhibit 1.10, column K, line 14) above the 2016 budget and that natural gas savings will increase by 92% (QGC Energy Efficiency Exhibit 1.10, column K, line 17). The projected increases in program budget and natural gas savings are mainly due to greater expected participation in high savings measures such as infrared heaters and the elimination of lower savings like new construction attic insulation. The addition of custom business projects to the prescriptive program also contribute the projected increases in program budget and natural gas savings.

38. **ThermWise® Home Energy Plan.** The Company projects 2,800 home energy plans will be performed in 2017. This projection is 11% lower (QGC Energy Efficiency Exhibit 1.10, column c, line 14) than the 2016 home energy plan forecast. While this projection is lower than 2015 and 2016 budgets, the 2017 forecast is more in line with the actual participation seen in recent years (2,650 home energy plans in 2014 and 2,800

in 2015) and the Company's September total 2016 forecast of 2,700 home energy plans. The Company expects the overall cost for the program will also decrease by 17% in 2016 (QGC Energy Efficiency Exhibit 1.10, column C, line 14). While participation and program costs are expected to decrease, the Company projects that gas savings will increase by 15% (QGC Energy Efficiency Exhibit 1.10, column C, line 17) in comparison to the 2016 budget. This increase is due to the mix of efficiency measures projected to be distributed (greater expected demand for high natural gas savings measures/lower demand for low savings measures) to program participants in 2017.

39. **ThermWise® Weatherization Rebates.** The Company projects 2017 participation will decrease by 31% and that natural gas savings will decrease by 26% (QGC Energy Efficiency Exhibit 1.10, column E, line 17) in comparison to the 2016 budget. The Company anticipates that participation will decline due to insulation contractors leaving the retrofit attic insulation segment for the more lucrative new construction segment. The Company believes that the proposed direct-install pilot program will ultimately slow this trend. The Company expects the overall costs for the program in 2017 will decrease by 27%, as compared to 2016 (QGC Energy Efficiency Exhibit 1.10, column E, line 14).

40. **Low-Income Efficiency Program.** The 2017 proposed budget for this program is \$.86 million or 3% lower (QGC Energy Efficiency Exhibit 1.10, column S, lines 13 & 14) than the 2016 budget. The decrease is due to lower expected participants (particularly for weatherization measures) in 2017. Funding for furnace replacements is proposed to remain at \$500,000 in 2017.

41. **Market Transformation.** The fundamentals of the ThermWise® marketing campaign are expected to remain similar to past years. Therm will



continue to perform his role as the “Energy Wise Guy.” The 2017 proposed budget for Market Transformation includes \$725,000 in advertising and media purchases; \$425,000 for marketing contracts and promotions; \$80,000 for special marketing events, trade/consumer shows and special event sponsorships; and \$50,000 for Questar Gas management and administration. The budget also includes \$10,000 for program design, \$14,000 for the SLCC Energy Management program, and \$50,000 for State of Utah codes training. The projected budget for Market Transformation is 5% lower (QGC Energy Efficiency Exhibit 1.10, column O, line 14) than 2015. The decrease in budget is due to the lower expected costs for special marketing events in 2017. A comprehensive discussion of the Market Transformation Initiative is included as QGC Exhibit 1.7.

42. **ThermWise<sup>®</sup> Energy Comparison Report.** The Company proposes to increase the budget for the ThermWise<sup>®</sup> Energy Comparison Report by 17% (QGC Energy Efficiency Exhibit 1.10, column Q, line 14) in the third year of the stand-alone program. The additional funds included in this year’s budget are related to postage costs for the proposed expanded distribution of the Comparison Report and the need for additional IT programming in 2017. Natural gas savings are projected to increase by 33% (QGC Energy Efficiency Exhibit 1.10, column Q, line 17) in 2016. The reason for the increase in savings has to do with greater Comparison Report distribution and realization studies conducted by the Company in 2015 and 2016. The 2015 study focused analysis on both second and third-year participants (Groups B & C) and showed usage reductions per participant of .76 Dth/year. As a result, the natural gas savings number has been updated in the 2017 Model to reflect the results of the most recent realization study.

43. The majority of the Comparison Report budget (85%) is directly attributable to the postage costs associated with delivering the report to customers. The remainder of the Comparison Report budget is necessary for programming and other labor associated with the ongoing maintenance of the Company developed system. It is important to note that the Company's internally-developed Energy Comparison Report has been delivered at significant cost savings to Utah customers. Comparable programs, delivered by third-party vendors, can cost up to six times as much annually as the Company's internally-developed program. The Company believes that it has developed a program that will not only deliver energy savings but will also deliver those savings at a cost that is unmatched in the market.

44. **Total Budget.** The total 2017 budget is proposed to be \$25.1 million (QGC Energy Efficiency Exhibit 1.10, column V, line 13). This budget is a decrease of \$1.8 million (QGC Energy Efficiency Exhibit 1.10, column X, line 13) or 6% below the total 2016 budget. Total savings are projected to be 1,043,817 Dth/year (QGC Energy Efficiency Exhibit 1.10, column V, line 16) or 11% above projected 2016 natural gas savings estimates. The primary reason for the expected increase in 2017 natural gas savings is due to the Energy Comparison report. The 2017 proposed budget reflects a concerted effort to reach all GS market segments and produce significant, persistent, and cost effective natural gas savings through a comprehensive energy efficiency campaign.

#### **IV. COST EFFECTIVENESS**

45. A summary of the cost effectiveness for each program is attached as QGC Energy Efficiency Exhibit 1.11. Page 1 of this 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 Energy Efficiency rebate programs, it has been included so that the overall impact of all programs

can be measured and analyzed. A benefit-cost ratio greater than 1 is indicative of benefits exceeding costs, and therefore “passes” the test. As shown on page 1, line 10, column C of QGC Energy Efficiency Exhibit 1.11, the overall benefit-cost ratio for the Total Resource Cost (TRC) test of all programs and the market transformation activities is 1.12. And as shown on line 10, column G, the Utility Cost test (UCT) for all programs is 1.31. Additionally, as shown on line 10, column E, the overall benefit-cost ratio for the Participant Cost test passes at 3.10, and as shown on line 10 column I, the Ratepayer Impact Measure test (RIM) for all programs equals .78. A detailed benefit-cost analysis of each program by measure has been included in pages 2-10 of QGC Energy Efficiency Exhibit 1.11. The cost-effectiveness tests included in this Application have been calculated using a 6% discount rate which is consistent with the Company’s Integrated Resource Plan (IRP). Additionally, gas prices and GS rates have also been updated in the Model to reflect expected 2016 market conditions and to be consistent with the gas costs projected in Questar Gas’ most recent IRP.

46. The Model has the capability of running sensitivity analyses on various inputs and assumptions such as the discount rate and participation levels. For purposes of this type of analyses, the Company calculated the cost-effectiveness tests in the Model using the Energy Efficiency carrying charge of 4.51% which was approved by the Commission in Docket No. 14-057-32 (April 29, 2015 Order). At the current carrying charge rate the TRC result for all programs was 1.28, UCT result was 1.49, Participant Cost test was 3.39, and the RIM test result was .84.

47. An examination of the benefit-cost results at the IRP discount rate shows that a few individual measures are marginal in the current low-gas-price environment. The

Company has chosen not to eliminate measures solely on the basis of failing a benefit-cost test. Most programs and individual measures are fairly low cost to maintain, but expensive to start-up. The Company feels taking the long view in this low-price environment is in the best interest of customers and the ThermWise® programs.

48. The Model developed by the Company to measure the cost-effectiveness of the programs (Model) is based on the California Standard Practice Manual and is the same Model that was used in the 05-057-T01 docket. The Model has been reviewed by Nexant and the Utah DSM Advisory Group and has been used by other utilities in the nation in program implementation and cost-effectiveness analysis.

49. The Company has relied on specific market reports, industry studies, and the expertise of CLEAResult and Nexant to arrive at the savings levels, measure life and incremental customer cost for each measure of each program. QGC Energy Efficiency Exhibit 1.12 provides the source and/or references for the estimated gas savings (pages 1-8), measure life (pages 9-13), and incremental cost (pages 14-20) for each measure of each program.

50. Questar Gas has successfully implemented a broad range of programs and a Market Transformation Initiative. 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. This 2017 Application and Budget will continue and expand these efforts to meet the gas savings goals of customers and the State of Utah.

**V. PRAYER FOR RELIEF**

51. Based on the foregoing, Questar Gas respectfully requests that the Commission issue an order: 1) approving the application for the 2017 budget for the Energy Efficiency Programs and continuation of Questar Gas' Market Transformation Initiative for implementation on January 1, 2017; and 2) approving the proposed Tariff sheets effecting the improvements in the EE programs described herein.

DATED this 18<sup>th</sup> day of October, 2016.

Respectfully submitted,

QUESTAR GAS COMPANY

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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 18, 2016:

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