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**BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH**

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APPLICATION FOR APPROVAL OF THE	)	
2018 YEAR BUDGET FOR ENERGY	)	Docket No. 17-057-22
EFFICIENCY PROGRAMS AND MARKET	)	APPLICATION
TRANSFORMATION INITIATIVE	)	

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1. Questar Gas Company, doing business as Dominion Energy Utah (Dominion Energy or the Company), respectfully submits this Application for Approval of the 2018 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. Dominion Energy 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's 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 23, 2016 the Commission issued an Order in Docket No. 16-057-15 (December 23, 2016 Order), approving Questar Gas' Application for Approval of the 2017 Year Budget for Energy Efficiency Programs and Market Transformation Initiative.

## **II. OVERVIEW OF PROPOSED 2018 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® EE campaign is a

model for natural gas utility programs nationwide. The ThermWise® 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 contractor Nexant, Inc. (Nexant) and the rebate processing expertise of Blackhawk Network Holdings, Inc. (Blackhawk) in 2018.

5. Based on input from the Utah DSM Advisory Group, Utah-based trade allies, program administrators and other energy efficiency stakeholders, Dominion Energy proposes continuing the eight existing ThermWise® EE programs in 2018: 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).

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 2018 with the addition of boiler reset controls and combined space and water heaters to the list of rebate-eligible equipment.

7. A boiler outside air reset control is an add-on unit used to automatically reduce the boiler supply water temperature at warmer outside air temperatures. This process helps to reduce boiler natural gas consumption. Boiler outside air reset controls are code-required in new homes with boilers. Therefore, the Company proposes to add this equipment as a rebate-eligible measure only in the retrofit appliance program.

8. Combined space and water heating systems provide domestic water and space heating from a single heat source. Qualifying devices use a tankless water heater or boiler and a furnace to provide space heat and are packaged together in a single unit. These devices require less mechanical equipment space and are well suited for small single family and multifamily applications. Eligible units will utilize condensing technology, which is more efficient than code required water and space heating equipment.

9. The Company additionally proposes to continue the Appliance Program in 2018 with the following changes: 1) eliminate the tankless tier 1 water heater as a rebate-eligible measure in an effort to align with ENERGY STAR<sup>®</sup> specifications of  $\geq 90\%$  energy factor (EF); 2) reduce the smart thermostat rebate to \$50 per device; 3) reduce the rebate amount by \$50 for the 95% annual fuel utilization efficiency (AFUE) furnaces, 95% AFUE furnaces with an electrically commutated motor (ECM), and the 98% AFUE furnace with ECM; and 4) make minor changes to the Tariff language to align the format with other ThermWise<sup>®</sup> programs. The changes in rebate amounts are proposed with purpose of aligning the Company's rebate offerings with current market conditions. DEU Energy Efficiency Exhibit 1.1 sets forth the complete program description for 2018.

10. **ThermWise® 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® 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 2018.

11. The Company proposes to continue this program in 2018 with the addition of a new construction multifamily high rise rebate. This measure would incentivize builders, through a \$25 per-unit rebate, to seek the ENERGY STAR® Multifamily High Rise (MFHR) designation for buildings of four stories or greater. Buildings that score a 75 or above (on a 1-100 scale), as determined through ENERGY STAR® Portfolio Manager, are eligible to receive the ENERGY STAR® MFHR designation. New construction commercial facilities such as motels/hotels, nursing homes, assisted-living facilities, and dormitories do not qualify for the ENERGY STAR® MFHR designation and, therefore, would be ineligible to participate in this rebate measure. The Company anticipates several qualifying multifamily high rise projects in the near future and believes the time is right to move these types of residential developments further down the path of energy efficiency.

12. The Company further proposes to add combined space and water heaters as a rebate-eligible measure, implement the \$50 reduction to specific furnaces and the smart

thermostat measure, and to eliminate the tier 1 tankless water heater as a rebate-eligible measure for the reasons outlined in the Appliance Program discussion. DEU Energy Efficiency Exhibit 1.2 sets forth the complete program description for 2018.

13. **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 2018 with the following changes: 1) introduce pipe insulation to the current rebate measure mix; 2) eliminate the tankless tier 1 water heater as a rebate-eligible measure; and 3) reduce the rebate amounts for the 95% AFUE, 95% AFUE with ECM, and 98% AFUE furnace with ECM by \$50 in 2018. The rebate amount for smart thermostats was changed in the 2017 Business Program from a fixed amount per device to a rebate based on the square footage serviced by the device. As such, the Company believes the current rebate structure is in harmony with current market conditions and, therefore, recommends no changes to the Business Program smart thermostat measure for 2018. DEU Energy Efficiency Exhibit 1.3 sets forth the complete program description for 2018.

14. **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 2018. DEU Energy Efficiency Exhibit 1.4 sets forth the complete program description for 2018.

15. **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 2018 with the addition of pipe

insulation as a rebate-eligible measure to participants in the ThermWise Direct-Install Weatherization Pilot Program.

16. In January 2017, the Company introduced the ThermWise Direct-Install Weatherization Pilot Program. This program is designed to reach communities and customers with historically low participation in weatherization measures. The Company published a request for proposal (RFP), selected two contractors to perform the work, and began marketing efforts in June of 2017. Direct-install work commenced in July, 2017. The Company is pleased with the results of this new initiative to date and has kept the Advisory Group informed as to the early results. Participating contractors have also provided positive feedback on the direct-install pilot and have additionally made suggestions intended to help augment natural gas savings. One such suggestion was to establish a rebate for the installation of pipe insulation, on the water supply pipes, in the unconditioned space of homes. After performing an evaluation of potential savings, the Company proposes to add a pipe insulation rebate at \$0.50 per linear foot in 2018. The Company additionally recommends that participation in this measure be limited to the Direct-Install pilot, where quality installation can be ensured through the Company's already-established quality assurance/quality control (QA/QC) process.

17. The Company also proposes to launch a three year pilot initiative, through the 2018 Weatherization Program, designed to achieve natural gas savings in both low-income and market rate multifamily properties. This initiative, called the Pilot Multifamily Program, aims to entice multifamily property owners to implement comprehensive energy efficiency retrofits and replace energy systems across the entire property instead of waiting to replace equipment at the point of failure. The Company is proposing that the Pilot

Multifamily Program be administered by the International Center for Appropriate and Sustainable Technology (ICAST). ICAST seeks to achieve participation by educating multifamily property owners on the ancillary benefits of retrofits including increase in value of their property, increase in net operating income (NOI), access to Fannie, Freddie and FHA green lending initiatives, tax credits and deduction, access to low-cost financing and other incentives. ICAST specializes in developing and administering a one-stop-shop program solely for multifamily customers who are typically underserved and considered hard-to-reach. ICAST will promote the installation of current rebate measures to both low-income and market rate properties ( $\approx 50\%$  low income /  $50\%$  market rate) and target first year natural gas savings of 12,500 decatherms. ICAST's administrative fee will be paid by the Company based on natural gas savings achieved. In other words, ICAST will be paid only if and when natural gas savings are realized. In addition to funding, the Company may assist in making introductions between ICAST and Utah's other multifamily stakeholders, developing a marketing plan, and providing marketing collateral. The Company has modeled this pilot initiative for cost-effectiveness and determined Total Resource Cost (TRC) and Utility Cost Test (UCT) results to be 1.4 for the 2018 program year. The Company proposes to keep the Advisory Group informed as to the progress of the Pilot Multifamily Program and to file annual updated budgets, included in the annual ThermWise budget filing, with the Commission over the remaining life of the pilot period.

18. **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. The Company further proposes to align the furnace rebate amounts in



the Low-Income Efficiency Program with those changes previously mentioned in the Appliance Program discussion and to eliminate the tier 1 tankless water heater as a rebate-eligible measure in 2018.

19. 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. DEU Energy Efficiency Exhibit 1.6 sets forth the complete program description for 2018.

20. **Market Transformation.** In addition to the EE rebate programs outlined above, Dominion Energy 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. Dominion Energy believes that its EE programs, including its Market Transformation initiative, will complement the goals of Utah's 2014 Energy Efficiency & Conservation Plan.

21. 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.

22. 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 (OED) conducts building code training programs, in collaboration with and through partial funding from Dominion Energy. The purpose of the training is to support the adoption, awareness, and enforcement of building codes associated with the 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 fund these training sessions in 2018 at a level of \$80,000. The Office of Energy Development will continue to work with an outside vendor to design and conduct these trainings in 2018.

23. 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](http://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.

24. 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 Larry H. Miller Entertainment and major University sponsorships in 2018. DEU Energy Efficiency Exhibit 1.7 sets forth the complete program description for 2018.

25. **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), 2014 (Group D – 100,000), and in 2017 (Group F – 50,000). Currently the Company sends the report, via U.S. and electronic mail, to more than 255,000 of its customers. The Company maintains an additional group of nearly 100,000 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.dominionenergy.com](http://www.dominionenergy.com). As of the end of September 2017, the Comparison Report had been generated over 275,000 times online by nearly 110,000 unique customers.

26. The Company proposes to increase delivery of the Comparison Report to 285,000 in 2018. The Company realizes this total number by reintroducing Group B in 2017, pausing Group C beginning September 2017, and adding Group F which will be delivered to 50,000 additional customers in 2018. 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 2018.

27. While proposed program participants increase slightly from 2017, natural gas savings are projected to increase by 34% in 2018. The Company expects savings to increase because of the projected expansion of the ECR in 2018 and because of savings persistence. The Company conducted a study in 2017 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 1.22 Dth/year. As a result, the Company updated the natural gas savings number from .91 Dth/year in the 2017 Model, to 1.22 Dth/year in the 2018 Model. DEU Energy Efficiency Exhibit 1.8 describes the methodology used in the realization studies and sets forth the complete program description for 2018.

28. **Tariff Sheets.** Tariff sheets for all programs are attached in both legislative and proposed formats as DEU Energy Efficiency Exhibit 1.9. The Company proposes that these Tariff sheets become effective January 1, 2018.

### **III. PROPOSED 2018 BUDGET**

29. The total 2018 projected budget for Dominion Energy's Energy Efficiency Programs and the Market Transformation Initiative is \$24.5 million and is shown in DEU Energy Efficiency Exhibit 1.10, column T, line 13. The proposed 2018 budget is a \$0.54 million decrease from the 2017 budget filed with the Commission on October 18, 2016 in Docket No. 16-057-15. This projected decrease is mainly attributable to the proposed \$50 decrease in rebate amount for smart thermostats, 95% AFUE, 95% AFUE with ECM, and the 98% AFUE furnaces with ECM. The 2018 budget is reflective of the 2017 nine (9) month (January-September) actual participation numbers; insights from retailers,

distributors and other trade allies; and the market knowledge of the Company's contractor, 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.

30. The Company projects that administrative or non-incentive costs will shrink by about 5% from 2017 (\$6.97 million) to 2018 (\$6.65 million). This decrease results from the Company's decision in early 2017 to shift work from a long-time third-party contractor to greater reliance on internal employees. The most recently published American Gas Association (AGA) study of natural gas efficiency programs (*Natural Gas Efficiency Programs Brief – Investment and Savings Impacts 2015 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 sixth in terms of lowest non-incentive costs as a percentage of overall expenditures. DEU Energy Efficiency Exhibit 1.7 provides greater detail on the results of the 2015 AGA study.

31. **ThermWise® Appliance Rebates.** The Company expects participation in this program to increase in 2018 by 17%. The Company also expects the 2018 program budget to decrease by 12% (DEU Energy Efficiency Exhibit 1.10, column I, line 14) and the related gas savings to decrease by 16% (DEU Energy Efficiency Exhibit 1.10, column I, line 17). These changes are largely the result of higher expected participation in the

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<sup>1</sup> [https://www.aga.org/sites/default/files/natural\\_gas\\_efficiency\\_programs\\_2015\\_program\\_year\\_-\\_report\\_appendices\\_0.pdf](https://www.aga.org/sites/default/files/natural_gas_efficiency_programs_2015_program_year_-_report_appendices_0.pdf)

smart thermostat measure coupled with decreased rebate amounts and natural gas savings estimates for some measures.

32. **ThermWise® Builder Rebates.** For 2018 the Company is projecting a 4% decrease in program participants from 2017. The Company also projects the 2018 program budget to decrease by 15% (DEU Energy Efficiency Exhibit 1.10, column G, line 14) and the related natural gas savings to decrease by 9% (DEU Energy Efficiency Exhibit 1.10, column G, line 17). These changes are largely the result of lower expected participation, reduced administrative costs, \$50 reductions to the rebate amount for selected furnaces and the smart thermostat, and decreased natural gas savings estimates for some measures.

33. **ThermWise® Business Rebates.** The Company projects that the 2018 program budget will increase by 23% (DEU Energy Efficiency Exhibit 1.10, column K, line 14) above the 2017 budget and that natural gas savings will increase by 4% (DEU Energy Efficiency Exhibit 1.10, column K, line 17). The Company also projects that 2018 program participation will decrease by 15%. The projected increases in program budget and natural gas savings coupled with decreasing participation is a reflection of greater expected participation in high savings measures such as infrared heaters and high efficiency boilers than were rebated in 2017.

34. **ThermWise® Home Energy Plan.** The Company projects 2,800 home energy plans will be performed in 2018. This projection is the same (DEU Energy Efficiency Exhibit 1.10, column c, line 15) as the 2017 home energy plan participation forecast. While this projection is the same, the Company expects the overall cost for the program to decrease by 10% in 2018 (DEU Energy Efficiency Exhibit 1.10, column C, line 14).

35. **ThermWise® Weatherization Rebates.** The Company projects that participation will increase by 35% and that natural gas savings will increase by 8% (DEU Energy Efficiency Exhibit 1.10, column E, line 17) in comparison to the 2017 budget. The Company mainly attributes the increase in participation to market changes that have taken place with the R-5 window rebate measure in 2017. Incremental costs came down significantly over the past year, causing customer interest and participation to increase. The Company is expecting that trend to continue into 2018 and beyond. The addition of the pipe insulation measure and the Pilot Multifamily Program are also contributors to the rise in projected participation. The Company expects the overall costs for the program in 2018 to increase by 4% in comparison to 2017 (DEU Energy Efficiency Exhibit 1.10, column E, line 14). This change in program costs is directly attributable to greater expected rebates to be paid in 2018.

36. **Low-Income Efficiency Program.** The 2018 proposed budget for this program is \$.83 million or 4% lower (DEU Energy Efficiency Exhibit 1.10, column Q, lines 13 & 14) than the 2017 budget. The projected budget decrease is due to lower expected weatherization measure participants and the proposed \$50 decrease in the rebate amount for 95% AFUE, 95% AFUE with ECM, and 98% AFUE with ECM furnaces. Funding for furnace replacements is proposed to remain at \$500,000 in 2018.

37. **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 2018 proposed budget for Market Transformation includes \$800,000 in advertising and media purchases; \$300,000 for marketing contracts and promotions; \$80,000 for special marketing events,

trade/consumer shows and special event sponsorships; and \$50,000 for ThermWise® management and administration. The budget also includes \$10,000 for program design, and \$80,000 for State of Utah codes training. The projected budget for Market Transformation is 1% lower (DEU Energy Efficiency Exhibit 1.10, column M, line 14) than 2017. The decrease in budget is due to the lower expected costs for special marketing events in 2018. A comprehensive discussion of the Market Transformation Initiative is included as DEU Exhibit 1.7.

38. **ThermWise® Energy Comparison Report.** The Company proposes to increase the budget for the ThermWise® Energy Comparison Report by 25% (DEU Energy Efficiency Exhibit 1.10, column O, line 14) in the fourth 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 2018. Natural gas savings are projected to increase by 50% (DEU Energy Efficiency Exhibit 1.10, column O, line 17) in 2018. The reason for the increase in savings has to do with greater Comparison Report distribution and realization study conducted by the Company in 2017. The 2017 study focused analysis on both third and fourth-year participants (Groups C & D) and showed usage reductions per participant of 1.22 Dth/year. As a result, the natural gas savings number has been updated in the 2018 Model to reflect the results of the most recent realization study.

39. The majority of the Comparison Report budget (87%) 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.

40. **Total Budget.** The total 2018 budget is proposed to be \$24.5 million (DEU Energy Efficiency Exhibit 1.10, column T, line 13). This budget is a decrease of \$0.54 million (DEU Energy Efficiency Exhibit 1.10, column V, line 13) or 2% below the total 2017 budget. Total savings are projected to be 1,145,562 Dth/year (DEU Energy Efficiency Exhibit 1.10, column T, line 16) or 8% above projected 2017 natural gas savings estimates. The primary reason for the expected increase in 2018 natural gas savings is due to the Energy Comparison report. The 2018 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

41. A summary of the cost effectiveness for each program is attached as DEU 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 9, column C of DEU 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 1.10. And as

shown on line 9, column G, the Utility Cost test (UCT) for all programs is 1.29. Additionally, as shown on line 9, column E, the overall benefit-cost ratio for the Participant Cost test passes at 3.15, and as shown on line 9 column I, the Ratepayer Impact Measure test (RIM) for all programs equals .76. A detailed benefit-cost analysis of each program by measure has been included in pages 2-10 of DEU 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 2018 market conditions and to be consistent with the gas costs projected in Dominion Energy's most recent IRP. 42. 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 1.26, UCT result was 1.47, Participant Cost test was 3.45, and the RIM test result was .82.

43. 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<sup>®</sup> programs.

44. 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 ThermWise<sup>®</sup> Advisory Group and has been used by other utilities in the nation in program implementation and cost-effectiveness analysis.

45. The Company has relied on specific market reports, industry studies, and the expertise of Nexant to arrive at the savings levels, measure life and incremental customer cost for each measure of each program. DEU 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.

46. Dominion Energy 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 2018 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**

47. Based on the foregoing, Dominion Energy respectfully requests that the Commission issue an order: 1) approving the application for the 2018 budget for the Energy Efficiency Programs and continuation of Dominion Energy's Market Transformation Initiative for implementation on January 1, 2018; and 2) approving the proposed Tariff sheets effecting the improvements in the EE programs described herein.

DATED this 17<sup>th</sup> day of October, 2017.

Respectfully submitted,

DOMINION ENERGY

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**CERTIFICATE OF SERVICE**

I, Michael Orton, certify that a true and correct copy of the foregoing

Application was served upon the following by electronic mail on October 17, 2017:

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