BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

*****

RE: IN THE MATTER OF THE )
APPLICATION OF PUBLIC SERVICE )
COMPANY OF COLORADO FOR )
APPROVAL OF A NUMBER OF ) PROCEEDING NO. 17A-____EG
STRATEGIC ISSUES RELATING TO ITS )
ELECTRIC AND GAS DEMAND SIDE )
MANAGEMENT PLAN )

DIRECT TESTIMONY AND ATTACHMENTS OF SCOTT B. BROCKETT

ON

BEHALF OF

PUBLIC SERVICE COMPANY OF COLORADO

July 3, 2017
BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

* * * * *

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SUMMARY OF THE DIRECT TESTIMONY OF SCOTT B. BROCKETT

Mr. Scott Brockett is Director, Regulatory Administration, for Xcel Energy Services Inc. (“XES”). On an interim basis he is also serving as Regional Vice President, Rates and Regulatory Affairs. In these capacities he is responsible for providing leadership, direction, and technical expertise related to regulatory processes and functions for Public Service Company of Colorado (“Public Service" or the “Company”), one of four utility operating company subsidiaries of Xcel Energy.

The overarching purpose of Mr. Brockett’s testimony has four primary purposes. The is two-fold: first is to summarize the Company’s requested approvals and authorizations in this proceeding, as well as explaining the Company’s request to file supplemental direct testimony (Section I).

The second purpose is to introduce the other Company witnesses in this proceeding (Section II).
The third purpose is, to educate readers on the purpose and provide background information on what Demand Side Management ("DSM") is, the purpose of the Strategic Issues proceedings, the Company’s compliance in this filing with previous Commission requirements, the Company’s historical DSM achievements, the role of the utility in the provision of DSM services, and the cornerstones of a good DSM portfolio proceeding (Sections III-VIII). Second, Mr. Brockett also uses these sections to provide a context for the Company’s approach to developing DSM portfolios and the overall direction the Company is taking in this filing.

The fourth purpose is to provide presents the policy rationale for the Company’s requested proposals in four specific areas: financial incentives, the Interruptible Option Service Credit ("ISOC") program, avoided costs, and the gas DSM portfolio (supporting Public Service’s recommendations in this proceeding (Sections IX-XII)).

In his testimony, Mr. Brockett explains that low natural gas prices and the declining cost of renewable energy resources present opportunities and challenges for the Company. While there are many benefits to adding clean energy resources, persistent low or zero fuel costs diminish the benefits of energy efficiency programs. As a result, fewer energy efficiency programs will be cost-effective, making it more difficult to reduce energy bills and emissions through DSM. In its filing, the Company is proposing a path to address these evolving challenges and better serve customers through quality DSM programs, while maintaining top-tier system reliability. This approach will ensure that customers have the right tools to reduce their bills through DSM, while also reducing emissions from burning fossil fuels on the Company’s system.
Mr. Brockett explains the value Public Service brings to delivering DSM its programs. Public Service has been managing DSM programs for nearly 20 years, including a full portfolio of programs targeting the needs of residential and business customers. Though the utility plays a significant role in the DSM marketplace. As, as DSM evolves, so too must does the utility’s role in the marketplace. For example, the Company is proposing to step back from areas such as mass market lighting where costs have declined to competitive levels and awareness is high, and instead focus on where market failures are still occurring or where there are untapped markets.

Next, Mr. Brockett then explains that the traditional financial model under which the Company operates provides an insufficient financial incentive for the Company to pursue DSM. Since energy-efficiency programs are obviously geared towards reducing sales, they reduce the Company’s profitability. Thus, without some sort of compensation for this negative financial impact, investors will view DSM programs as initiatives that reduce utility earnings.

As Mr. Brockett explains, the Company experienced $6.5 million and $6.7 million in net losses attributable to DSM lost fixed cost recovery in 2015 and 2016, respectively. In light of these losses, he concludes that the current authorized Disincentive Offset and Performance Incentive mechanism are inconsistent with Colorado law, which allows an opportunity for a utility's investments in cost-effective DSM programs to be more profitable to the utility than any other utility investment that is not already subject to special incentives. Far from benefitting financially from its DSM initiatives, the Company
is not even being made whole. Moreover, the financial penalty actually increases as the
Company achieves savings beyond 100 percent of its goal.

Mr. Brockett explains that the Company would like to continue with its DSM
programs, but cannot do so if it does not have a reasonable opportunity to recover lost
net revenue. If the Commission is not inclined to address this problem, the Commission
ought to allow the Company to scale back its DSM efforts to meet only the statutory
minimums, in a way that is consistent with C.R.S. § 40-3.2-104(5). As a fundamental
principle, the Company believes the Disincentive Offset should be calibrated to
eliminate the utility’s financial disincentive to pursue DSM programs. The Performance
Incentive should then be designed to provide the utility with a positive financial incentive
for good performance.

For purposes of this filing, the Company is using a baseline that assumes the
Commission does not adopt any decoupling mechanism. Under this scenario, the
Company proposes a Disincentive Offset of $15 million, with $7.5 million to be awarded
when the Company meets or exceeds 50 percent of its energy efficiency goals, and the
remaining $7.5 million to be awarded on a pro rata basis until the Company achieves
100 percent of its energy efficiency goals.

Mr. Brockett then addresses the Company’s proposed modifications to its
Performance Incentive. The Company is proposing two DSM performance incentives –
one for energy efficiency and one for demand response. Currently, the Company only
receives a performance incentive for its energy efficiency programs. Unlike the current
mechanism, which is a single factor “all or nothing” approach, the Company is
proposing a multifactor incentive, called an energy efficiency “Scorecard.” The Scorecard will better align the Company’s actions with delivering the most value to customers, while also encouraging the Company to achieve an increasing amount of energy efficiency if the incremental demand response is cost-effective.

Next, Mr. Brockett introduces and explains the Company’s proposed revisions to its ISOC program. The Company proposes to grandfather its existing Within Ten-Minute program, to existing customers who commit to the program for an additional ten years. The Company also proposes a new credit value for new participants in the Within Ten-Minute program that is based on updated modeled generation. Finally, the Company proposes to eliminate its existing One-Hour program.

Next, Mr. Brockett explains how the Company proposes to include avoided energy and generation capacity costs in the Company’s cost-effectiveness screening. Because individual DSM measures have different energy savings patterns, the Company is proposing to use hourly energy data to better capture the hourly patterns of the energy savings produced by DSM measures. To accomplish this, the Company proposes to use hourly marginal energy price information from the PLEXOS® modelling software.

Finally, Mr. Brockett presents the Company’s proposal with respect to its natural gas DSM program. With low natural gas prices, it is becoming increasingly difficult to identify and implement cost-effective natural gas energy efficiency. The Company believes it is more prudent to delay any final decision on the spending and goals in future DSM plans until the cost-effectiveness of the programs can be determined.
Accordingly, the Company recommends addressing the natural gas energy efficiency portfolio through DSM plans.

Mr. Brockett provides the Company’s specific recommendations in this proceeding in the body of his direct testimony.
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DIRECT TESTIMONY AND ATTACHMENTS OF SCOTT B. BROCKETT

I. INTRODUCTION, QUALIFICATIONS, PURPOSE OF TESTIMONY,
RECOMMENDATIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Scott B. Brockett. My business address is 1800 Larimer, Suite 1400, Denver, Colorado 80202.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT POSITION?

A. I am employed by Xcel Energy Services Inc. (“XES”) as Director, Regulatory Administration. XES is a wholly owned subsidiary of Xcel Energy Inc. (“Xcel Energy”), and provides an array of support services to Public Service Company of Colorado (“Public Service” or the “Company”) and the other utility operating company subsidiaries of Xcel Energy on a coordinated basis.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THE PROCEEDING?

A. I am testifying on behalf of Public Service.
Q. PLEASE SUMMARIZE YOUR RESPONSIBILITIES AND QUALIFICATIONS.

I am Director, Regulatory Administration, for XES. On an interim basis, I am also serving as Regional Vice President, Rates and Regulatory Affairs. In these capacities I am responsible for providing leadership, direction, and technical expertise related to regulatory processes and functions for Public Service, one of four utility operating company subsidiaries of Xcel Energy.

A description of my qualifications, duties, and responsibilities is set forth after the conclusion of my Direct Testimony in my Statement of Qualifications.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. Later in this introductory section of my testimony, I will summarize the specific approvals and authorizations that the Company requests in this proceeding, as well as the compliance filings the Company anticipates providing in compliance with the Commission’s Decision in this proceeding. In the next section of my testimony, I will introduce the other Company witnesses providing direct testimony in this proceeding. In the following six sections I will provide background information on what DSM is, the purpose of Strategic Issues proceedings, the rules and statutes governing the utility provision of DSM programs in Colorado, the Company’s historical experience with DSM, the value of direct utility involvement with DSM programs, and the cornerstones of successful DSM programs. I provide this information both for educational purposes and to provide a context for the Company’s proposals in this proceeding.
In the final three sections of my testimony, I will provide support for the changes the Company requests in three specific areas: financial incentives, ISOC service and avoided costs.

Q. ARE YOU SPONSORING ANY ATTACHMENTS AS PART OF YOUR DIRECT TESTIMONY?

A. Yes, I am sponsoring Attachment SBB-1, which were prepared by me or under my direct supervision. Attachment SBB-1 is the Colorado Revised Statute governing electric utility demand-side management programs (C.R.S. 40-3.2-104)

Q. WHAT RECOMMENDATIONS IS THE COMPANY MAKING IN THIS APPLICATION?

A. The Company recommends that the Commission issue an order granting the following relief (this list includes the recommendations of all of the Company's witnesses in this proceeding):

• Approval of the Company’s proposed modifications to its electric energy efficiency goals for 2019 through 2023.

• Approval of the Company’s proposed modifications to its energy Efficiency Demand Reduction goals for 2019 through 2023.

• Approval of proposed dispatchable demand response goals for each of the years 2019 through 2023.

• Approval of a modified DSM disincentive offset (to be supplemented in supplemental direct testimony).

• Approval of a modified energy efficiency incentive mechanism based on a five-metric energy efficiency Scorecard (to be supplemented in supplemental direct testimony).
• Approval to use the hourly marginal energy price output from PLEXOS® software to evaluate the avoided energy cost of DSM programs.

• Approval of a demand response performance incentive.

• Approval to use an incremental savings method instead of an average savings method to calculate behavioral energy efficiency savings.

• Approval of the Company’s proposed methodology to determine avoided emissions.

• Confirmation that Commission Rule 4750 does not preclude the Company from claiming secondary site savings in its energy, demand, and net benefit calculations.

• Approval of modifications to the Company’s ISOC program, which include eliminating the One-Hour Notice program.

• Authorization of the grandfathering of existing Within Ten Minute Notice customers.

• Approval to implement a new Within Ten Minute program based on a modified foundational credit.

• Approval of the Company’s proposed guidelines concerning methodology, implementation, and evaluation for DSM geo-targeting.

• Authorization for the Company to incent geo-targeted customers with greater DSM rebates than non-targeted customers.

• Approval of the proposed methodology to categorize a portion of its vendor incentives as rebate spend not administrative cost.

• Approval to update the source of the inputs from the Company's 2011 ERP to the most recently approved 2016 ERP.

• Approval to utilize the capacity value from the most recently approved ERP.
• Approval of the Company’s existing natural gas energy efficiency portfolio and a finding that any changes be addressed through the Company’s next DSM plan.

• Authorization for the Company to file a compliance advice letter within 90 days of the effective date of its final order, but on not less than ten days’ notice, with revised ISOC Tariff sheets reflecting all changes to the Company’s ISOC Tariff that are approved as a result of this proceeding; and

• Authorization for the Company to file a compliance advice letter within 90 days of the effective date of its final order, but on not less than ten days’ notice, with revised electric Demand Side Management Cost Adjustment (“DSMCA”) Tariff sheets reflecting all changes to the Company’s DSMCA Tariff that are approved as a result of this filing.

Q. IS THE COMPANY REQUESTING THE COMMISSION APPROVE ANY TARIFF REVISIONS IN THIS PROCEEDING?

A. No. The Company anticipates that it will need to revise its ISOC and DSMCA tariffs to incorporate the approvals regarding the ISOC program and financial incentive in this proceeding. The Company is therefore requesting that the Commission authorize us to file a compliance advice letter within 90 days of the effective date of its final order, but on not less than ten days’ notice, with revised ISOC tariff sheets and revised electric DSMCA tariff sheets that are approved as a result of this filing. This compliance filing is included in the list of requested approvals and authorizations above.

Q. IS THE COMPANY FILING ANY MOTIONS WITH ITS APPLICATION?

A. Yes. With this Application Public Service is filing a concurrent Motion for Leave to File Supplemental Direct Testimony Thirty Days After Final Commission Decision in Decoupling Proceeding (“Motion”). As explained in this Motion, the Company’s
proposed Disincentive Offset and Performance Incentive are calibrated to a scenario of no revenue decoupling. Based on the Commission's final Decision in the Company's ongoing decoupling proceeding (Proceeding No. 16A-0546E), both the Disincentive Offset and Performance Incentive may need to be recalibrated. Consequently, the Company proposes to file supplemental direct testimony within 30 days of the Commission's final decision in the decoupling proceeding to incorporate this recalibration. The supplemental testimony would be limited to the one issue of recalibrating the Disincentive Offset and Performance Incentive. As noted in the Motion, the Company is prepared to waive the 210-day statutory timeline regarding this Application in recognition of our request to file supplemental direct testimony.
II. INTRODUCTION OF WITNESSES

Q. WHAT WITNESSES ARE TESTIFYING FOR PUBLIC SERVICE IN THIS PROCEEDING?

A. The following table provides a summary of each witness and his or her testimony:

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<td>Mr. Shawn M. White, Manager, Demand-Side Management (“DSM”) Strategy &amp; Planning of Xcel Energy Services Inc.</td>
<td>Mr. White explains how the Company measures and reports energy savings and designs its energy efficiency portfolio. He introduces the Company’s 2016 Potential Study. Mr. White proposes a number of changes to the Company’s DSM goals and program structure to better align the Company’s DSM programs with current trends in resource planning, renewable integration, and DSM. Mr. White provides the Company’s proposed DSM goals for 2019-2023. Finally, Mr. White discusses several policy issues, including secondary site savings, commercial and industrial behavioral savings, and the avoided transmission and distribution study.</td>
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<tr>
<td>Mr. Steve W. Wishart, Manager of Pricing and Planning of Xcel Energy Services Inc.</td>
<td>Mr. Wishart explains that Public Service has been experiencing significant net losses due lost fixed cost recovery associated with its DSM programs. To remedy the issue, Mr. Wishart recommends modifications to the Company’s current DSM Disincentive Offset. Additionally, Mr. Wishart proposes changes to the existing DSM incentive mechanism, recommending approval of an energy efficiency Scorecard intended to incentivize the Company for its performance across a range of objective measures. Mr. Wishart additionally proposes a new demand response performance incentive.</td>
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<tr>
<td>Mr. Brian G. Doyle, Team Lead, Strategic Segment of Xcel Energy Services Inc.</td>
<td>Mr. Doyle presents an overview of the Company’s existing Demand Response portfolio. In particular, the Company has reevaluated its Interruptible Service Option Credit (“ISOC”) program and Mr. Doyle explains the modifications the Company is proposing to its ISOC program based on that</td>
</tr>
<tr>
<td>Ms. Donna Beaman, Consumer and Commercial Energy Efficiency Marketing Manager of Xcel Energy Services Inc.</td>
<td>Ms. Beaman discusses several of the modifications the Company plans to implement in its energy efficiency portfolio, including treatment of non-cost-effective measures and the Company’s role in mass market lighting products. Next, Ms. Beaman presents the Company’s proposal to use geo-targeting as a tool to strategically target DSM programs to areas with system constraints. Next, Ms. Beaman explains that between 2019 and 2023, the Company expects to see changes in commercial and residential codes and standards, with changes to the lighting measures having the greatest impact on the Company’s energy efficiency savings.</td>
</tr>
<tr>
<td>Mr. David G. Horneck, Manager, Generation Modeling Services at Xcel Energy Services Inc.</td>
<td>Mr. Horneck presents the computer model that the Company proposes to use to forecast energy supply costs, called PLEXOS®. He also discusses hourly marginal energy pricing, which is an output of the software, and why it is an appropriate parameter to use for determining the avoided energy value of demand side management programs.</td>
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III. PURPOSE OF THE DSM STRATEGIC ISSUES PROCEEDING

Q. PLEASE EXPLAIN WHAT DEMAND-SIDE MANAGEMENT IS AND WHAT TYPES OF PROGRAMS IT INCLUDES.

A. Demand-Side Management is the modification of customer demand for energy through tools such as financial incentives and education. The usual goal of DSM is to encourage customers to use less energy, especially during peak hours, or to move their energy use to off-peak periods such as nights and weekends. Peak demand management does not necessarily decrease total energy consumption, but can reduce or defer the need for investments in generation, transmission and distribution resources. Generally, DSM can be separated into the following two categories:

- **Energy Efficiency**: Refers to a customer using less energy to perform the same task or shifting energy use to off-peak times when the cost of service is less.

- **Demand Response**: Refers to any reactive or preventative method to reduce system peak demand. Demand Response includes dispatchable and non-dispatchable methods to alter the timing or level of end use customers’ demand for electricity.
Q. WHAT IS THE DIFFERENCE BETWEEN DISPATCHABLE AND NON-DISPATCHABLE DEMAND RESPONSE INITIATIVES?

A. Dispatchable demand response refers to retail customers’ ability to reduce directly their electric demand during a specific time of day through direct control or signaling from the utility that is not persistent.¹ For example, customers with Saver’s Switch installed agree to have their air conditioning usage curtailed during constrained peak periods. In turn, this reduces customer demand during peak periods, though it does not reduce demand during any other period. Dispatchable demand response also includes load management techniques, which are the temporary shifting of load from constrained periods to unconstrained periods.

Non-Dispatchable demand response refers to indirect or non-physical control of a retail customer’s electric demand by a utility, which persists from the period of implementation through the lifetime of the measure or action. For example, installation of a new, high efficiency air conditioner reduces peak demand compared to a late model unit. The demand reduction occurs whenever the air conditioner is running, regardless of peak conditions or active influence by the utility.

¹ “Persistence” in the context of DSM means the period of time during which an energy efficiency or demand response measure will be in service, or its lifetime (or life expectancy). For example, a new highly efficient air conditioner is expected to have a useful life of 15 years. This provides benefits for the entire life and therefore longer lifetimes provide more benefits to the utility and customers.
Q. WHAT IS A STRATEGIC ISSUES PROCEEDING?

A. A DSM Strategic Issues filing addresses the Company’s goals, budgets, policies, and procedures that will inform future DSM plans. The first Strategic Issues proceeding was Proceeding No. 07A-0420E, and the next two were Proceeding Nos. 10A-0554EG and 13A-0686EG. This will be the fourth proceeding in which the Commission, Company, and interested parties have the opportunity to examine the larger policy issues that will help shape the Company’s next DSM Plan.

Q. HOW DOES A DSM PLAN PROCEEDING DIFFER FROM A STRATEGIC ISSUES PROCEEDING?

A. A DSM Plan establishes the Company’s forecasted energy savings and budgets for each of the Company’s energy efficiency and demand response programs, products, and pilots offered during a specific timeframe. The DSM Plan is also the vehicle for implementing the policies and regulatory requirements that result from the Strategic Issues proceeding. The DSM plan includes forecasts of the savings attributable to and the cost-effectiveness of each proposed product. Finally, DSM Plans also include administrative protocols, such as the means of evaluating, measuring and verifying the forecasted savings.

Public Service typically submits combined gas and electric DSM Plans on a biennial basis; however, the Company is not limited to biennial filings and may propose alternatives, such as single- or three-year plans. The Company has also extended existing biennial plans into a third year due to the timing of Strategic
Issues or DSM Plan filings. The Company’s last DSM Plan was filed on July 1, 2016, and approved by the Commission in Proceeding No. 16A-0512EG.²

Q. WHAT IS INCLUDED IN A DSM PLAN?

A. A DSM Plan comprises programs, products or pilots, and measures. These components are defined as follows:

- **Program**: a collection of similar products targeted to a specific customer segment. Current programs in DSM Plans include Business, Residential, Low-Income, and Indirect programs.³

- **Products and Pilots**: a collection of similar measures marketed individually or holistically to end-use residential, business, or low-income customers. Pilots target a specific type of product, and often seek to evaluate and demonstrate the benefits of a measure or collection of measures for a period prior to full-scale deployment.

- **Measure**: a technology, service, or device that enables end-use customers to reduce their electric energy use and peak demands. Examples include water-heater blankets within the Home Energy Squad product and ground source heat pumps within the High Efficiency Air Conditioning product.

The Company’s DSM plan also defines whether the programs and products have a direct or indirect impact. Direct impact programs and products are those that

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² Decision No. R17-0028, Recommended Decision Approving Without Modification, Unopposed Comprehensive Settlement Agreement; Granting Application as Modified by Settlement Agreement; and Ordering Compliance Filings (Jan. 12, 2017), which went into effect by operation of law pursuant to § 40-6-114, C.R.S.
lead to measurable energy or demand savings such as the Home Energy Squad\textsuperscript{4} or Recommissioning\textsuperscript{5} products. Indirect impact programs and products do not directly result in measured energy or demand savings. Instead, indirect programs and products provide customers information to help them decide what types of direct impact programs and products to participate in, or inform them about general energy efficiency and demand response actions to consider. Examples include the Consumer Education\textsuperscript{6} and Business Energy Analysis\textsuperscript{7} products.

Q. **WHY IS THE STRATEGIC ISSUES PROCEEDING ITS OWN PROCEEDING SEPARATE FROM THE COMPANY’S DSM PLAN PROCEEDING?**

A. The DSM Strategic Issues and DSM plan proceedings could be combined, but there are also good reasons for separate proceedings. For example, the DSM Strategic Issues proceeding identifies the methodologies used in cost-effectiveness testing. Without the approval of these methodologies, it is difficult to determine accurately the future cost-effectiveness of DSM programs. Separate DSM Plans also allow for the flexibility to adjust to changing market conditions. Strategic Issues proceedings do not offer this flexibility because they occur less

\textsuperscript{3} Indirect Programs include products and services that support planning, analysis, administration, and evaluation of products with direct savings impacts as well as development and implementation of the Plan.

\textsuperscript{4} Home Energy Squad is a residential energy efficiency product where Company representatives engage directly with customers to reduce barriers to participation. This includes helping customers identify the right measures for their situation and the direct installation of low-cost measures.

\textsuperscript{5} Building recommissioning is the process of reviewing existing equipment and systems within a building to ensure that they are working as efficiently as possible and operating as intended.

\textsuperscript{6} Consumer education is the Company’s mass-market education and outreach product supporting the DSM portfolio.
frequently. The Company’s Enhanced DSM Application, Proceeding No. 07A-420E, expanded the Company’s proposed program savings beyond the savings contemplated in HB 07-1037. The Company has thereafter filed combined gas and electric biennial DSM plans consistent with Decision No. C08-0560 in 07A-420E.8

In 2010, in Proceeding No. 10A-554EG, the Commission revisited a number of the strategic issues first decided in Proceeding No. 07A-420E, including the Company’s energy savings goals and incentives. As a result, the Commission ordered higher electric energy savings goals.9

In 2013, in Proceeding No. 13A-0686EG, the Commission revisited ongoing strategic issues from prior filings and approved still higher electric energy savings goals for the Company.10

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7 The Business Energy Analysis product identifies how commercial and industrial customers use energy, can save energy, and reduce operating costs in the future.
8 Decision No. C08-0560, Page 54, Para. 2.
9 See ordering paragraphs 16-28 in Decision No. C11-0442.
10 See ordering paragraphs 7-19 and 56-61 in Decision No. C14-0731.
IV. GOALS OF APPLICATION AND REQUIRED COMPLIANCE ITEMS

Q. WHAT ISSUES IS THE COMPANY PROPOSING TO ADDRESS IN THIS DSM STRATEGIC ISSUES FILING?

A. As with all DSM Strategic Issues applications, the Commission has the opportunity to review and evaluate new strategic issues and re-examine past decisions on strategic issues associated with its DSM activities, including the appropriate energy savings and demand reduction goals and incentives. The foundational elements affecting DSM evolve over time, and it is important to adjust DSM policy and leverage new opportunities to better serve customers.

Additionally, as I will show later in my testimony, the Company has performed well over the past few years. This success is due, at least in part, to our administering a large and dynamic portfolio of products and programs that has proven to be cost-effective, and by partnering and collaborating with a wide range of trade partners, vendors, and businesses in Colorado.

Q. WHAT ARE THE COMPANY’S GOALS IN FILING THIS APPLICATION?

A. The Company’s goals in this Strategic Issues docket are to better align its DSM portfolio with the realities of the DSM market and the evolving DSM landscape. Through this Application, we seek to:

• enhance the Company’s ability to administer and manage its DSM programs;

• ensure the Company is made whole for its DSM initiatives;
• ensure the Company is sufficiently incentivized to cost-effectively achieve DSM savings above and beyond the statutory goals;

• implement a method that objectively evaluates and tracks the value delivered to customers from the Company’s DSM programs;

• objectively evaluate and track the Company’s performance in achieving and exceeding its minimum goals;

• account for DSM efforts that are occurring outside the Company, such as improvements to energy efficient lighting and appliances; and,

• ensure the Company’s DSM programs are structured in a way that creates a sustainable and cost-effective future for DSM.

Q. WHAT DO YOU MEAN BY THE EVOLVING DSM LANDSCAPE?

A. Low natural gas prices and the declining cost of renewable energy resources present opportunities and challenges for the Company. These low prices have made it economically advantageous for the Company to invest heavily in renewable energy generation. However, as these resources become a larger portion of the system’s energy and capacity resources, the energy savings created by the DSM programs will increasingly coincide with significant amounts of renewable resources. While there are many benefits to adding clean energy resources, persistently low or zero fuel costs diminish the benefits of energy efficiency programs. As a result, fewer energy efficiency programs will be cost-effective, making it more difficult to reduce energy bills and emissions through DSM.
In this filing the Company is proposing a path to address these evolving challenges and better serve customers through quality DSM Programs, while maintaining top-tier system reliability. This approach will ensure that customers have the right tools to reduce their bills through DSM, while also reducing emissions from burning fossil fuels on the Company's system.

In addition to the fundamental shift in the Company's generation portfolio to incorporate more renewable resources, DSM must also adapt to evolving external influences such as increasing energy efficiency standards and building codes that increase customers' energy savings through initiatives other than DSM programs. These changes are beneficial because they reduce customer bills and system impacts, but they simultaneously reduce the potential future energy savings and effectiveness of the Company's DSM portfolio. Furthermore, even though Colorado's economy continues to exhibit strong growth, the Company has not experienced a corresponding increase in electricity sales that would otherwise make more DSM technologies cost-effective. These factors, combined with others, reduce the impact of traditional utility-sponsored DSM programs on energy usage and demand.

The Company is engaged in a number of proceedings and initiatives that are poised to fundamentally impact the Company's DSM programs, including the Advanced Grid Intelligence and Security ("AGIS") proceeding (Proceeding No. 16A-0588E), the Revenue Decoupling proceeding (Proceeding No. 16A-0546E), and the upcoming Phase I rate case. Each of these has the potential to influence
the direction of DSM, both financially and operationally. The Company recognizes that the Commission is being asked to address several interrelated issues through separate proceedings, which creates the need for regulatory flexibility. We have attempted to highlight some of these areas in our filing and propose flexible pathways forward.

This confluence of challenges and opportunities makes the timing ripe for the Company, the Commission, and stakeholders to fundamentally redesign the Company’s DSM framework to maximize value. Our proposal will drive continued and improved choices for customers to control energy costs, reduce emissions, enhance system reliability, and lower customers’ aggregate bills.
V. APPLICABLE STANDARDS

Q. WHAT PERTINENT STATUTES AND RULES APPLY TO THIS APPLICATION?

A. First, for the Company’s electric DSM programs, C.R.S. § 40-3.2-104 states that “the commission shall establish energy savings and peak demand reduction goals to be achieved by an investor-owned utility….” See Attachment SBB-1. The same statutory section states that the goals for energy savings reduction should be five percent of the utility’s retail energy sales measured in Megawatt-hours (“MWh”) in the 2006 base year. The passage of HB 17-1227 this year extends this five percent goal from 2018 to 2028. HB 17-1277 maintains a similar energy savings trajectory as we have today, but changes the base year from 2006 to 2018. In addition, C.R.S. § 40-3.2-104(5) states that “[t]he commission shall allow an opportunity for a utility’s investments in cost-effective DSM programs to be more profitable to the utility than any other utility investment that is not already subject to special incentives.”

For the Company’s natural gas DSM programs, the Company follows Commission Rules 4750 through 4760 that were the result of a rulemaking based on HB 07-1037 and C.R.S. § 40-3.2-103. The minimum program expenditure target for gas DSM programs is set forth in Commission Rule 4753(h)(I). Specifically, the target is “two percent of the natural gas utility’s base rate revenues (exclusive of commodity costs) from the utility’s sales customers in the 12-month calendar period prior to setting the targets.”
Q. HAS THE COMPANY QUANTIFIED THE ANNUAL SAVINGS AMOUNTS AS A RESULT OF THE PASSAGE OF HB 17-1227?

A. Based on recent forecasts, the Company estimates its statutory requirement is to achieve approximately 1,540 GWh in retail savings from 2019 through 2028 using a 2018 baseline.\(^{11}\) The Company estimates its statutory retail peak demand savings goal to be approximately 294 MW during the same period.\(^{12}\)

\(^{11}\) The Company's Retail Sales Forecast for 2018 is 28,688 GWh at the customer meter. Five percent of this value amounts to approximately 1,540 GWh at the generator.

\(^{12}\) The forecasted retail annual peak in 2018 is 5,985 MW at the generator.
VI. BACKGROUND ON DEMAND SIDE MANAGEMENT

A. DSM Strategic Issues’ Interrelationship with Other Proceedings

Q. WHAT OTHER PROCEEDINGS HAVE AFFECTED THE COMPANY’S ELECTRIC DSM PROGRAMS AND GOALS?

A. The following Table SBBSBB-D-1 lists these proceedings and summarizes how they have affected the Company’s DSM programs and goals.

Table SBBSBB-D-1 – Prior Proceedings that affect the Company’s DSM Programs and Goals

<table>
<thead>
<tr>
<th>Proceeding</th>
<th>Proceeding No.</th>
<th>Decision No.</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999 Integrated Resource Plan</td>
<td>00A-008E</td>
<td>C00-1057</td>
<td>• 124 MW (~21 MW) of DSM resources</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• $75 million</td>
</tr>
<tr>
<td>2003 Least Cost Resource Plan</td>
<td>04A-214E</td>
<td>C05-0049</td>
<td>• 320 MW (Avg. of 40 MW per year)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• 800 GWh (Avg. of 100 GWh per year)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• $196 million</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• 2006 – 2013</td>
</tr>
<tr>
<td>2008 CPCN at Fort St. Vrain Generation Station</td>
<td>07A-469E</td>
<td>C08-0369</td>
<td>• Expansion of ISOC and Saver’s Switch programs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Initiation of Third-Party Demand Response Program</td>
</tr>
<tr>
<td>2011 Electric Resource Plan</td>
<td>11A-869E</td>
<td>C13-0094 &amp; C13-0323</td>
<td>• Informed the methodologies and values for avoided costs</td>
</tr>
</tbody>
</table>

Q. DID THE COMPANY’S 2017/2018 DSM PLAN ESTABLISH ANY COMPLIANCE REQUIREMENTS FOR THIS PROCEEDING?

A. Yes. As part of the settlement agreement in Proceeding No. 16A-0512EG, the Company agreed to address five issues in this Strategic Issues proceeding.
Below is a summary of each requirement and where it is addressed in our Strategic Issues filing.

- **Potential Study**: By Decision No. C14-0731 in the Company’s last DSM Strategic Issues Proceeding, the Commission directed Public Service to “complete a new [potential] study prior to the filing of its next DSM strategic issues proceeding.” Mr. White presents and explains the 2016 Potential Study (Attachment SMW-2), which was performed for Public Service by Navigant Consulting, Inc.

- **Behavioral Savings**: As part of the Settlement Agreement in the Company’s 2017/2018 DSM Plan, the Company agreed to “make a reasonable attempt, in collaboration with interested stakeholders, to develop an alternative methodology to claim behavioral savings which will be presented in the Company’s 2017 Strategic Issues filing.” Mr. Shawn White addresses this requirement in Section VII of his direct testimony.

- **Outside DSM Consultants**: In its Settlement Agreement, the Company agreed to address the use of outside DSM consultants and providers, including why those entities are needed, the provision of incentives to entities other than customers, including the amounts involved, why such

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14 Proceeding No. 16A-0512EG, In the Matter of the Application of Public Service Company of Colorado for Approval of (1) Its Electric and Natural Gas Demand-Side Management (DSM) Plan for Calendar Years 2017 and 2018, (2) Revisions to its Electric and Gas DSM Cost Adjustment (DSMCA) Tariffs,
incentives are needed, and whether those incentives flow through to customers.\footnote{Id. at pp. 22-23.} Company witness Ms. Donna Beaman addresses this in Section VI of her Direct Testimony.

- **Demand Response Dispatch Procedures:** The Company agreed to sponsor testimony in the Strategic Issues docket including: how and why each demand response product in the DSM portfolio is dispatched, incremental dispatch cost assumptions, any proposed changes to dispatch procedures, the number and type of events called for each demand response product during prior years.\footnote{Id. at p. 25.} Company witness Mr. Brian Doyle discusses these issues in Section VIII of his Direct Testimony.

- **Vendor Incentives:** As part of the Settlement Agreement, the Company agreed to provide available data and propose a methodology to determine whether and to what measurable extent upstream incentive costs are passed on to customers. The Company also agreed to evaluate as part of its midstream product evaluations non-energy and market transformation benefits of providing vendor incentives versus direct rebates.\footnote{Id. at pp. 26-27.} Ms. Beaman discusses these requirements in Section VI of her direct testimony.

**B. Commission Orders Setting DSM Goals and Public Service’s Historical DSM Performance**

Including Rates Effective January 1, 2017, and (3) Approval of the Peak Partner Rewards Tariff, Unopposed Comprehensive Settlement Agreement, at pp. 14-15 (Nov. 4, 2016)
Q. PLEASE BRIEFLY EXPLAIN WHEN THE COMPANY STARTED OFFERING ELECTRIC ENERGY EFFICIENCY AND DEMAND RESPONSE TO CUSTOMERS.

A. Public Service’s electric energy efficiency offerings date back to 1992. However, the most significant increases in achievements from energy efficiency programs have occurred since 2004, when the Company agreed to expand its efforts as part of its 2003 electric resource plan settlement. In 2004 the Company proposed to restructure its interruptible tariff to provide a means of controlling peak demand as part of its Phase II electric rate case in Proceeding No. 04S-164E. The ISOC tariff was modified in Proceeding No. 07S-521E to expand eligibility and provide greater options for eligible customers to participate in demand response programs. Given the nature of the load served under the ISOC tariff, this program results in some of the Company's most cost-effective DSM reductions. I discuss the ISOC program in Section X of my testimony, and Company witness Mr. Brian Doyle discusses the program in more detail in Section IV through VII of his testimony.

Q. WHY DID THE COMPANY EXPAND ITS DSM EFFORTS IN 2007?

A. In 2007 the Colorado legislature enacted House Bill 07-1037, codified in relevant part at C.R.S. § 40-1-102(5) – (11) and 40-3.2-101 and 104, to encourage investor-owned utilities to obtain greater levels of energy reductions. In addition to expanding electric energy efficiency and demand response goals, the law also
authorized gas DSM programs for the first time -- other than the Low-Income Energy Savings Partners Program that Public Service was currently offering.

In response to the 2007 legislation, in October 2007 the Company filed its Application for Authorization to Implement an Enhanced Electric Demand Side Management (DSM) Program and to Revise its Demand Side Management Cost Adjustment Mechanism to Include Current Cost Recovery and Incentives (“Initial Application”), Proceeding No. 07A-420E. As part of Decision No. C08-0560 in that proceeding, the Commission established electric energy savings and associated demand reduction goals for the period 2009 to 2020. The Commission also approved: 1) concurrent recovery of the Company’s electric DSM expenditures through its electric DSMCA; 2) an electric DSM incentive mechanism, including a disincentive offset and a performance incentive; and 3) specific DSM filing and reporting requirements.

Q. WHAT DSM GOALS HAVE BEEN SET BY THE COMMISSION IN ITS PRIOR ORDERS?

A. The following figure provides the annual Commission-approved goals, color coded by the proceeding in which the goal was approved, compared to the Company’s annual achievements.¹⁹

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¹⁰ The Company’s current interruptible tariff is Sheet 110, Interruptible Service Option Credit. This is the successor to the interruptible tariff referenced.
C. Public Service’s Current DSM Goals and Historical Performance

Q. WHAT WAS THE COMMISSION’S GUIDENCE FOR DSM BUDGETS PER THE LAST DSM STRATEGIC ISSUES CASE, PROCEEDING NO. 13A-0686EG?

A. The Commission did not set annual budgets for energy efficiency in this proceeding. Per Decision No. C14-0731 in Proceeding No. 13A-0686EG, the Commission ordered a budget cap of $84.3 million for electric energy efficiency. The Commission did not approve a budget for the Company’s demand response programs.

Q. WHAT IS THE MOST RECENTLY ORDERED LEVEL OF DSM ACHIEVEMENT?

A. In the same Decision No. C14-0731, the Commission ordered that Public Service achieve the DSM reductions listed in table SBB-D-2 below.
1. Table SBB-D-2: DSM Reduction Timeline

<table>
<thead>
<tr>
<th>Year</th>
<th>GWh (annual)</th>
<th>MW (Cumulative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>400</td>
<td>593</td>
</tr>
<tr>
<td>2016</td>
<td>400</td>
<td>602</td>
</tr>
<tr>
<td>2017</td>
<td>400</td>
<td>620</td>
</tr>
<tr>
<td>2018</td>
<td>400</td>
<td>640</td>
</tr>
<tr>
<td>2019</td>
<td>400</td>
<td>663</td>
</tr>
<tr>
<td>2020</td>
<td>400</td>
<td>688</td>
</tr>
</tbody>
</table>

2. Q. PLEASE SUMMARIZE THE COMPANY’S HISTORICAL ENERGY AND DEMAND SAVINGS.

3. A. The following figure displays the Company’s energy savings from energy efficiency programs since 2001.
Figure SBB-D-2: Historical Electric Energy Efficiency - Energy Savings

Achieved\textsuperscript{20}

Residential Total = 1310 GWh | Business Total = 2012 GWh

\textsuperscript{20} Graphs 2 through 4 reflect energy and demand savings at the generator level.
The following figure displays the Company’s demand savings from energy efficiency programs since 2001.

**Figure SBB-D-3: Historical Electric Energy Efficiency - Demand Savings Achieved**

Cumulative DSM EE MW Achievement = 818 MW
The following figure displays the Company’s *cumulative demand* savings from demand response programs since 2005.\(^{21}\)

**Figure SBB-D-4: Historical Cumulative Demand Response - Demand Savings Achieved**

Cumulative Demand Response thru 2016 = 492 MW

\(^{21}\) Cumulative demand response savings begin in 2005 to reflect the implementation of the ISOC service.
VII. VALUE OF UTILITY INVOLVEMENT IN DSM, PUBLIC SERVICE’S COMMITMENT TO DSM AND MARKET TRANSFORMATION

A. The Utility’s Role and Value

Q. WHY IS IT IMPORTANT TO OFFER DSM PROGRAMS TO CUSTOMERS?

A. As discussed in the Direct Testimony of Mr. White, customer satisfaction increases when DSM programs are offered, and they are increasingly satisfied when they participate in DSM programs.

Q. WHY IS PUBLIC SERVICE BEST SUITED TO OFFER DSM PROGRAMS TO ITS CUSTOMERS?

A. Public Service has been managing DSM programs for nearly 20 years, including a full portfolio of programs targeting the needs of residential and business customers. Few third-party providers can rival the Company in the scope and scale of its DSM experience.

As part of its experience running programs for decades, the Company has developed expertise in understanding what strategies and tactics work to motivate customers to participate in DSM programs. Correspondingly, Public Service has built the infrastructure to support this undertaking. The Company has a wealth of knowledge about customer usage patterns, the types of choices customers seek from DSM, the impacts of DSM on customers’ bills and rates, and customer satisfaction with DSM offerings. The Company has also cultivated strong relationships with the DSM community and has supported local trade partners in their delivery of DSM programs.
Furthermore, based on its unique experience, the Company understands the incremental value of DSM and how best to allocate and deploy resources to achieve that value for customers. Identifying this value becomes increasingly important as the Company transforms from traditional fossil fuel fired generation to more renewable generation. Mr. White discusses this transformation further in his direct testimony.

Finally, the Company is committed to ensuring that its rates are affordable for customers. Consequently, we have an incentive that a third-party may not share – the incentive to minimize spending on DSM programs in order to maximize program benefits to stakeholders.

Q. **WHO ARE THE STAKEHOLDERS YOU ARE REFERRING TO AND HOW ARE THEY AFFECTED BY UTILITY DSM PROGRAMS?**

A. There are a number of stakeholders who engage in DSM, including retail customers, shareholders, and interest groups, such as environmental, trade, and consumer organizations. But the primary stakeholder groups are:

- customers who participate in the utility’s DSM programs (participants);
- customers who do not participate in the DSM programs (nonparticipants);
- society as a whole, including individuals and businesses that are not utility customers; and
- utility shareholders.
Participating customers are retail customers who engage with a DSM product to reduce energy consumption, help lessen the burden on electrical system resources, help avoid emissions from fossil fuels, and, in turn, reduce their energy costs.

Non-participating customers are retail customers that do not engage with a DSM product. Non-participants are affected by DSM programs through their impact on utility rates.

Society as a whole comprises not only the utility’s customers, but also those households, businesses or agencies who are not utility customers. The latter group is affected by DSM programs’ impact on environmental quality (reduction of emissions), economic development (support for local business or reduction to the costs of statewide energy services), or other societal interests (support for low-income customers).

Utility shareholders finance the utility’s operations and have a direct interest in DSM programs because these programs can impact earnings. As I will discuss further in my testimony, DSM programs currently have a negative impact on the Company’s shareholders.

The various analyses that the Company conducts when developing a portfolio of DSM programs help us evaluate the impacts on these various stakeholders. For example, as I will explain later, the main reason for conducting multiple cost-effectiveness tests is that they help identify impacts on each of these affected stakeholder groups. Similarly, the purpose of DSM financial
incentives is to appropriately the earnings impacts of DSM programs to the
utility's performance in administering and delivering them.

Q. **DO COLORADO STATUTES RECOGNIZE THE INTERESTS OF UTILITY
SHAREHOLDERS IN THE DELIVERY OF DSM PROGRAMS?**

A. Yes. The Colorado General Assembly included consideration of shareholders in
DSM through its statutory language in C.R.S. § 40-3.2-104(5), which states:

> The commission shall allow an opportunity for a utility's investments in cost-effective DSM programs to be more profitable to the utility than any other utility investment that is not already subject to special incentives. In complying with this subsection (5), the commission shall consider, without limitation, the following incentive mechanisms, which shall take into consideration the performance of the DSM program:

(a) An incentive to allow a rate of return on DSM investments that is higher than the utility's rate of return on other investments;
(b) An incentive to allow the utility to accelerate the depreciation or amortization period for DSM investments;
(c) An incentive to allow the utility to retain a portion of the net economic benefits associated with a DSM program for its shareholders;
(d) An incentive to allow the utility to collect the costs of DSM programs through a cost adjustment clause;
(e) Other incentive mechanisms that the commission deems appropriate.

Q. **CAN DSM PROGRAMS BENEFIT ALL OF THESE DIFFERENT
STAKEHOLDERS?**

A. Well-designed programs can benefit most major stakeholders. Participants can reduce their costs of energy services. Stakeholders who are not utility customers can benefit from reduced emissions and the development of a strong DSM
market in Colorado. Environmental organizations are particularly interested in reduced emissions. The local and regional businesses with whom the Company partners in the implementation of DSM programs are particularly interested in the economic development impacts. Shareholders can benefit if the utility can realize higher earnings from DSM programs.

However, as both Mr. White and I discuss later, it is difficult to ensure cost-effectiveness from the perspective of non-participating customers. Even DSM programs that are very cost-effective from a societal perspective can raise rates and bills to nonparticipating customers. Nonetheless, as I mentioned previously, the Company is very sensitive to bill impacts and considers these impacts when developing a DSM portfolio.

Of course, the main litmus test of the effectiveness of DSM programs in Colorado is the Modified Total Resource Cost (“MTRC”) Test, which estimates impacts on society as a whole. The Company recognizes the wisdom of emphasizing the societal perspective when evaluating DSM programs. Nonetheless, the Company believes that by considering other cost-effectiveness tests, which are described later in my testimony, we can increase the effectiveness of our programs consistent with good public policy.
B. Market Transformation and Lessons Learned

Q. IS IT IMPORTANT FOR THE UTILITY TO CONTINUALLY ADAPT ITS APPROACH TO OFFERING DSM OPTIONS AS MARKET CONDITIONS CHANGE?

A. Yes. The utility plays a significant role in the DSM marketplace and is critical to advancing this marketplace. However, as DSM evolves, so too does the utility’s role in the marketplace. Company witnesses Mr. White discusses in Sections II and IV of his direct testimony, and Ms. Beaman discuss this issue in Section V of her direct testimony. Generally speaking though, the Company is proposing to step back from areas such as mass market lighting where costs have come down to competitive levels and awareness is high, and instead focus on areas where market failures are still occurring or where there are untapped markets. These market failures may occur because the potential margins to contractors are too low to entice them to serve this market, e.g., load management and system optimization for small business customers. While some DSM contractors are engaged in these areas, the historic focus has been on reducing energy usage rather than reducing peak demand and shifting load to low, off peak hours. There is also a need to change business behaviors in the supply chain to focus on stocking and promoting high efficiency measures in lieu of cheaper but less efficient baseline efficiency measures.
Q. WHAT METRICS TELL US WHEN UTILITY PROGRAM RESOURCES SHOULD BE REDIRECTED AS A RESULT OF A TRANSFORMED MARKET?

A. There is no single metric that determines whether a market is transformed or whether the utility is adding value. Instead, a number of metrics should be considered. For one, the level of free ridership is often an indicator of whether customers and the marketplace still need utility support. Simply described, free ridership refers to instances where customers would have taken the same or similar actions without the utility encouraging them to do so through financial incentives or education. Other factors to consider are the incremental cost to the customer, cost-effectiveness, and payback time for the customer. Mr. White addresses these factors and how the Company is responding to them in his direct testimony.

Q. WHAT LESSONS HAS THE UTILITY LEARNED OVER THE LAST DECADE OF DSM IMPLEMENTATION?

A. Lessons learned include the need to have ongoing education for customers from a trusted source and the need to simplify the application and rebating process for customers. Education is an important factor because customers often struggle to identify and understand the correct energy efficiency choices for their unique situations, and thus require assistance in making those decisions. The Company has worked to expand customers’ access to resources such as customer care and account management in order to provide this assistance, and has offered energy efficiency “tips and tricks” through regular communications. Simplification
is also important because cumbersome and lengthy application and rebating processes discourage customers from participating in programs. Simplifying the process, as the Company has done through its digital application process, helps reduce application and rebate processing time so that customers spend less time applying for benefits and receive their payments faster.

The Company has also found that, in some cases, influencing market participants other than customers can be effective. Historically, DSM programs have been focused on end-use customers and incentivizing them to take action. However, as discussed earlier, it can be more important to focus on the higher levels in the supply chain, e.g., distributors and manufacturers, since they can more directly affect the availability of energy efficiency measures in the marketplace. The level of rebate provided to customers can be insufficient if manufacturers are not manufacturing, and distributors are not stocking, high efficiency technologies.

Finally, the Company has helped transform markets and is specifically addressing how it intends to step out of the lighting market in future DSM plans. Ms. Beaman discusses this in more detail in her Direct Testimony.
VIII. CORNERSTONES OF A SUCCESSFUL DSM PORTFOLIO

A. Overview

Q. WHAT ARE THE CORNERSTONES OF A WELL-DESIGNED DSM PROGRAM?

A. The primary cornerstone should be cost-effectiveness, i.e., providing maximum value to customers. A second cornerstone is market assessments – such as potential studies, program evaluations, analyses of historical achievements, and assessments of system needs. These assessments help us in evaluating and determining the right mix of DSM services. A third cornerstone is the proper alignment of financial incentives with the provision of DSM programs, which I address in Section IX below. Only if all three cornerstones are properly designed and effectuated is the DSM program “well designed.”

Q. HOW DOES THE COMPANY ATTEMPT TO ENSURE THAT ITS DSM PROGRAMS OPTIMIZE BENEFITS TO ALL STAKEHOLDERS?

A. Public Service considers several criteria for its DSM programs, including the following:

- **Ensure value to all stakeholders** – Offer products that provide benefits to participants and the community at large while not harming the Company’s shareholders.

- **Provide options to all customer segments to participate** – Develop a broad portfolio of offerings so all customers have an opportunity to participate and benefit.
• **Control costs and customer rate impacts** – Act prudently on behalf of customers by ensuring that energy efficiency and demand response costs are appropriate and managed in order to maximize customer value.

• **Balance energy savings and demand savings** – Offer a blend of products that collectively deliver proven energy savings and demand savings.

**B. Cost-Effectiveness**

**Q. HOW IS COST-EFFECTIVENESS DETERMINED IN THE CONTEXT OF DSM?**

**A.** Four different cost-effectiveness tests are used to determine if stakeholders are benefiting from DSM initiatives. Each test evaluates cost-effectiveness from a different perspective. These tests are the MTRC Test, I discussed previously the Rate Impact Measure (“RIM”) Test, the Utility Cost Test (“UCT”), and the Participant Test. All four tests are generally well accepted across the utility industry.

**Q. WHAT IS THE PURPOSE OF EACH OF THE TESTS?**

**A.** As I mentioned previously, the MTRC Test is the principal test used in Colorado to determine whether individual electric and natural gas DSM products are cost-effective, and whether our overall DSM portfolios are cost-effective. Although the MTRC nomenclature is not consistent across states, many states use some form of a total resource cost test or societal test, which is similar to Colorado’s MTRC. The MTRC includes a 10 percent non-energy benefits adder (25 percent for low-income programs) that accounts for hard-to-quantify benefits such as avoided
emissions or reduced bad debt expenses. A DSM product is considered cost-effective if its MTRC ratio is greater than 1.0.

The Participant Test measures the net benefits of DSM programs to participants. Since program participation is voluntary, the programs are generally cost-effective from the participant’s perspective. But this test is important for evaluating the extent to which customers benefit from their participation.

The RIM Test measures the impact on customer rates, which is a direct measure of the impact of DSM programs on nonparticipating customers. This test captures the net impacts of avoided costs, program costs and reduced sales.

The Utility Cost Test captures the utility bill impacts on customers as a whole. Specifically, this test is based on a comparison of DSM program costs with avoided revenue requirements (avoided costs). It is important to note that this test does not account for the costs to participants of the DSM measures or the lost recovery of fixed costs attributable to DSM programs.

Q. WHY IS COST-EFFECTIVENESS FROM AN MTRC PERSPECTIVE SO IMPORTANT WHEN EVALUATING A DSM PORTFOLIO?

A. If a DSM portfolio is not cost-effective based on the MTRC Test, the avoided supply-side costs are not great enough to outweigh the costs incurred by the utility and the customer to implement the DSM portfolio. In other words, it would be less expensive for the utility to instead invest in supply-side resources such as new generation, transmission, and distribution resources in order to meet its resource planning needs.
Historically, the Company’s DSM programs have been cost-effective under the MTRC, often returning benefits over the life of the program well in excess of $1.50 for every dollar spent by the utility or its customers. Notwithstanding that avoided costs have continued to decrease, the Company has maintained high levels of cost-effectiveness. Public Service is proposing to increase the cost-effectiveness of its DSM portfolio in the future by realigning its implementation to target the kWh reductions that offer the most value to the system. Mr. White and I discuss this evolution further in our direct testimonies.

Nonetheless, the Company believes it is important to consider also both the RIM and Utility Cost Tests. DSM programs are often cost-effective from a societal perspective, but not from the nonparticipants’ perspective because the program costs and reduced recovery of fixed costs exceed the avoided costs. These impacts to nonparticipating customers should be estimated and considered when developing and administering DSM programs.

Q. DOES THE COMPANY CONSIDER THESE OTHER ESTIMATES OF COST EFFECTIVENESS IN ITS DSM PLANS?
A. Yes.

C. Market Assessments

Q. WHAT IS A POTENTIAL STUDY AND WHAT VALUE DOES IT PROVIDE IN DSM PLANNING?
A. Potential studies are one tool for evaluating the appropriate level of DSM achievement. As part of this proceeding, the Company has conducted a Potential
Study\textsuperscript{22} that identifies what the market may be able to achieve using general assumptions of the types of measures seen in Colorado and other states, and the technical assumptions used to estimate the possible savings these measures could deliver. What a potential study does \textit{not} do is explain how to deliver DSM and determine whether the appropriate policies and market actors are in place to fully realize DSM potential. Mr. White presents and discusses the Company’s Potential Study in his direct testimony.

Q. **HOW ARE PROGRAM EVALUATIONS USED TO INFORM DSM PLANNING?**

A. The Company conducts regular program evaluations to assess how the market is responding to the Company’s DSM portfolio, whether existing value streams are exhausted, and whether new value streams have been identified. Typically, these evaluations occur at least once every three to four years, and are used to update existing DSM programs and design future DSM plans.

In this proceeding the Company has considered these evaluations in developing our proposed goals. Specifically, we have identified instances where the Potential Study does not accurately reflect market conditions. For example, the Potential Study does not account for the changing building codes in much of the Company’s service territory, nor the rapid adoption and phasing out of compact fluorescent bulbs. Both of these examples reflect the inherent shortcomings of broad-based market potential studies.

\textsuperscript{22} The Potential Study is included as Attachment SMW-2 to the Direct Testimony of Shawn M. White.
Q. IF POTENTIAL STUDIES CANNOT REFLECT “ON THE GROUND” CONDITIONS, SHOULD THEY CONTINUE TO BE USED?

A. Yes. Potential studies should be conducted and considered when evaluating a cost-effective DSM portfolio; they provide a general understanding of the potential for achievement under certain assumptions by an independent third party. However, they are only one input and their general assumptions should be reviewed carefully and refined to reflect the specific assumptions and policies in a utility’s service territory.

D. Aligning Utility Financial Incentives With Effective Provision of DSM

Q. WHAT ARE THE UTILITY’S FINANCIAL INCENTIVES FOR DSM?

A. The traditional financial model under which the Company operates provides no financial incentive for the Company to pursue DSM. The Company’s ability to earn a compensatory return on equity are predicated in large part upon our ability to sell energy to customers. Consequently, the Company is financially motivated to sell more energy. Since energy-efficiency programs are obviously geared towards reducing sales, they reduce the Company’s profitability. Thus, without some sort of compensation for this negative financial impact, investors will view DSM programs as initiatives that reduce utility earnings. I will discuss the importance of providing the Company with the correct financial incentives in the next section of my testimony.
IX. ALIGNING SHAREHOLDER INTERESTS WITH THE PUBLIC INTEREST

A. Overview

Q. HOW CAN THE DISCONNECTION BETWEEN ACHIEVING PUBLIC POLICY GOALS AND THE UTILITY’S FINANCIAL INCENTIVES BE RESOLVED?

A. Well-designed incentive mechanisms can reduce the utility’s natural disinclination to promote DSM. In some cases, these mechanisms can actively encourage the utility to pursue DSM by making it financially attractive for the utility to avoid supply-side investments.

Fortunately, estimating the impact of DSM programs on shareholders is a relatively straightforward exercise. The three main factors are the recovery of program costs, the lost fixed cost recovery, and the financial incentives provided to the utility. Currently, the costs of the Company’s DSM programs are expensed and recovered on a current basis. This approach means that the collection of DSM costs has no impact on earnings. The earnings impact can then be reduced to a simple formula:

Earnings Impact = Financial Incentives – Lost Fixed Cost Recovery

The upshot is the Company can profit from offering DSM programs if we receive a financial incentive that more than compensates us for our reduced net revenue.

Q. DO THE COMPANY’S CURRENT ELECTRIC DSM FINANCIAL INCENTIVES ALLOW YOU TO PROFIT FROM OFFERING DSM PROGRAMS?

A. No. The Company’s electric DSM financial incentives are currently provided through two mechanisms – a Disincentive Offset and a Performance Incentive.
Recently, the sum of these two incentives has been less than our foregone recovery of fixed costs (or reduction to net revenue).

As noted by Mr. Wishart, Public Service experienced $17.6 million in lost fixed cost recovery in 2015 and approximately $18.1 million in lost fixed cost recovery in 2016. The Disincentive Offset and Performance Incentive were insufficient in comparison to these financial losses. The Company experienced a net loss of $6.5 million (-7.5 percent) on its DSM programs in 2015 and a net loss of $6.7 million (-7.9 percent) in 2016.

In the Company’s view, the current authorized mechanisms are not designed consistent with the Colorado General Assembly’s intent to allow an opportunity for DSM programs to be more profitable to the utility than any other utility investment that is not already subject to special incentives. Far from benefitting financially from our DSM initiatives, the Company is not even being made whole. Moreover, the financial penalty actually increases as we achieve savings in excess of 100 percent of our goal. This result would appear to be problematic from a public-policy perspective.

Q. ARE YOU SUGGESTING THAT THE COMPANY BE GUARANTEED A POSITIVE EARNINGS IMPACT FROM ITS DSM PROGRAMS?

A. No. If the Company does not perform well, then we should not profit. But if we do perform well, then we should benefit financially. In other words, our earnings from

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23 C.R.S. § 40-3.2-104(5).
DSM programs should vary with our effectiveness in developing and administering DSM programs.

Q. GIVEN THE PARAMETERS YOU DESCRIBE ABOVE, HOW SHOULD THE DISINCENTIVE OFFSET AND PERFORMANCE INCENTIVE BE DEVELOPED?

A. Theoretically, the Disincentive Offset would vary with the dollar amount of the lost fixed cost recovery. The Performance Incentive would then provide a positive increment to earnings based on the utility’s performance in developing and administering the programs. But the Commission has historically been reluctant to explicitly tie the Disincentive Offset to the actual amount of foregone fixed cost recovery. Instead, the Commission has approved a fixed amount of Disincentive Offset that we can realize after reaching a certain level of energy savings.

Consequently, as I will explain below, the Company is proposing another approach that will accomplish the fundamental goals of DSM financial incentives.

Q. IF THE COMMISSION IS NOT INCLINED TO REMEDY THE PROBLEMS WITH THE CURRENT AUTHORIZED INCENTIVES FOR DSM, WHAT DOES THE COMPANY RECOMMEND?

A. As noted above, Public Service has a proven track record of designing and implementing DSM programs that have resulted in energy efficiency savings well in excess of the statutory minimums. The Company would like to continue with these programs, but cannot if we do not have a reasonable opportunity to recover lost net revenue. If the Commission is not inclined to address this
problem because it is concerned about the program budgets or some other reason, then the Commission should allow the Company to scale back its DSM efforts to meet only the statutory minimums, in a way that is consistent with C.R.S. § 40-3.2-104(5).

Q. HAS THE COMMISSION RECOGNIZED THAT EFFECTIVE DSM PROGRAMS MAY LEAD TO REVENUE REDUCTIONS FOR WHICH A UTILITY MAY SEEK RECOVERY?

A. Yes. The Commission has adopted a DSM rule for natural gas utilities. Rule 4754 authorizes gas utilities not only to seek recovery for reduced revenues associated with a DSM program, but also a bonus. Rule 4754(g)(I) states in relevant part the following:

The primary objective of the bonus is to encourage cost-effective energy savings. The amount of bonus earned, if any, will correlate with the utility’s performance relative to the approved savings target (dekatherms saved per dollar expended) and the energy target. Assuming all other factors that affect consumption remain unchanged, effective DSM programs will reduce per customer commodity consumption which may lead to revenue reductions for the utility. Separate from any bonus determined by the Commission, the Commission may authorize a utility to recover a calculated amount of revenue that acknowledges that an effective DSM program reduced the utility’s revenue.

The same revenue reductions attributable to an effective DSM program occur, and are occurring, on the Public Service electric system. To allow Public Service to continue offering DSM programs that provide substantial customer benefits and exceed the statutory minimums, a reasonable recovery and incentive structure should be implemented.
Below I discuss the changes the Company is proposing to the Disincentive Offset and Performance Incentives to remedy the incentive structure problem. I also discuss how the decoupling proceeding and the upcoming Phase I electric rate case may help address revenue losses.

B. Disincentive Offset

Q. WHAT MODIFICATIONS IS THE COMPANY PROPOSING TO ITS CURRENT DSM DISINCENTIVE OFFSET?

A. The Company should be rewarded for the benefits created by its DSM programs, not for its expenditures on these programs. We have developed our proposed Disincentive Offset and Performance Incentives to further this policy.

As a fundamental principle, the Company believes the Disincentive Offset should be calibrated to eliminate the utility’s financial disincentive to pursue DSM programs. The Performance Incentive should then be designed to provide the utility with a positive financial incentive for good performance. However, in this proceeding the Company proposes a Disincentive Offset to capture the foregone net revenue attributable to energy savings up to 100 percent of the energy savings goals. Any foregone net revenue attributable to additional energy savings would be captured in the proposed Performance Incentive.

The Company has calibrated its proposed Disincentive Offset and Performance Incentive assuming no revenue decoupling. The proposed Disincentive Offset is $15 million, with $7.5 million to be awarded when the Company meets or exceeds 50 percent of its energy efficiency goals, and the
remaining $7.5 million to be awarded on a pro rata basis until the Company achieves 100 percent of its energy efficiency goals. Fifty percent of the Company’s energy efficiency goals is approximately equal to the amount of savings the Company must achieve under Colorado statute.

C. DSM Performance Incentives

Q. WHAT IS THE COMPANY PROPOSING WITH RESPECT TO ITS DSM PERFORMANCE INCENTIVE?

A. The Company is proposing two distinct DSM performance incentives – one for energy efficiency and one for demand response. Currently, the Company only receives a performance incentive for its energy efficiency programs.

Both performance incentives are focused on sharing the benefits of DSM with customers, which is consistent with past practice. This sharing of benefits encourages the utility to act in the best interest of customers by keeping costs low, and delivering the greatest level of benefits to customers. I will briefly discuss these mechanisms. Mr. Wishart will explain the mechanisms in depth in his direct testimony, and Mr. White will discuss the operational impact of the mechanisms on the Company’s DSM programs in his direct testimony.

Q. PLEASE DESCRIBE THE PROPOSED ELECTRIC ENERGY EFFICIENCY PERFORMANCE INCENTIVE.

A. Unlike the current mechanism, which is a single factor “all or nothing” approach, the Company is proposing a multifactor incentive, called an energy efficiency “Scorecard.” The Scorecard will better align the Company’s actions with
delivering the most value to customers, while also encouraging the Company to achieve an increasing amount of energy efficiency if it is cost-effective. This approach appropriately aligns customer benefits with shareholder benefits.

The factors included in this mechanism are:

- Energy Savings (kWh),
- Energy Efficiency Demand Reductions (kW),
- Lifetime Energy Savings (kWh);
- Customer Bill Savings (Utility Cost Test ratio); and
- Low-Income Program Bill Savings (Participant Cost Test ratio).

Generally, the Company has chosen these factors because they reflect industry-standard benchmarks for energy efficiency (kWh, kW) and introduce better metrics for evaluating the value of energy efficiency to customers (i.e., cost-effectiveness and persistence of savings).

**Q. WHY WILL THE PROPOSED SCORECARD BE MORE EFFECTIVE THAN THE PERFORMANCE INCENTIVE CURRENTLY IN PLACE?**

**A.** At the outset, it is important to note that the proposed Scorecard alone does not resolve the Company’s lost fixed cost recovery for savings below 100 percent of goal or address the statutory DSM profitability requirement. A complementary disincentive mechanism is also required.

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24 C.R.S. § 40-3.2-104(5).
However, the proposed mechanism does address the three concerns listed above. First, it provides the Company the incentive to deliver the best portfolio possible, not just the most energy savings possible. This is accomplished by providing the Company the flexibility to forgo some investments – say, the addition of non-cost-effective energy savings – by instead focusing on and exceeding the goals for demand reductions or bill savings.

Second, the proposed Performance Incentive scales with achievement and encourages the Company to achieve incremental savings that are both cost-effective for customers and financially beneficial to the Company.

Third, because some factors start at achievement levels of less than 100 percent of goal, and other factors are achievable, the Company has no incentive to “do nothing” and pull back from its programs in order to minimize negative financial consequences.

Q. **PLEASE DESCRIBE THE DEMAND RESPONSE PERFORMANCE INCENTIVE.**

A. This mechanism features a sharing of benefits under which shareholders would receive 5 percent of the avoided capacity benefit. The avoided capacity benefit represents the benefit realized by using demand response resources to avoid investments in peaking units. Mr. Wishart discussed this mechanism in greater detail.
Q. WHY IS THE COMPANY PROPOSING A DEMAND RESPONSE PERFORMANCE INCENTIVE MECHANISM?

A. The Company is proposing this incentive to reflect (1) the removal of the net benefits of Saver’s Switch from the energy efficiency performance incentive; and (2) the goal of affording the Company’s demand response initiatives the same opportunity for earnings as energy-efficiency initiatives. This mechanism will provide the Company with an incentive to continue to pursue demand response resources.

D. Impact of Upcoming Phase I Rate Case on Disincentive Offset and Performance incentive

Q. COULD THE COMPANY’S FORTHCOMING ELECTRIC PHASE I RATE CASE FILING ALSO AFFECT ITS PROPOSED FINANCIAL INCENTIVES?

A. We do not currently know how the Company’s upcoming electric rate case filing will affect the financial impacts of DSM programs. Nonetheless, if the Commission were to approve a multi-year electric rate plan based on future test years that incorporate the net impacts of DSM programs on customer billing determinants, the need to compensate the Company for DSM revenue losses up to 100 percent of the savings goal would be effectively eliminated. Under this scenario, the Disincentive Offset might no longer be necessary. Given the inter-related nature of many of our cases before the Commission, it is important the Commission recognize the need for regulatory flexibility. Accordingly, if the Commission adopts a policy that affects the earnings impacts of our DSM
programs, such as a rate case, we may request that the Commission modify the financial incentives approved in this proceeding.
X. REVISIONS TO THE COMPANY’S ISOC TARIFF

Q. PLEASE DESCRIBE THE COMPANY’S ISOC PROGRAM.

A. The ISOC program allows customers with certain demand attributes to earn bill credits in return for allowing the Company to interrupt electric supply to the customer at certain times. This usually occurs when the Company’s system is encountering peak electric demand conditions. This program is an important part of the Company’s demand response program, because it can effectively defer or avoid the addition of expensive peaking resources.

Mr. Doyle discusses the ISOC program in detail in his testimony, but I will briefly discuss the Company’s proposed changes to the ISOC program, including the importance of grandfathering the Within Ten-Minute ISOC credit.

Although the Company is not seeking approval of an amended ISOC tariff in this proceeding, we are providing Attachment BGD-2 as an illustrative example of how the Company would propose to change its ISOC tariff if the Commission approves our proposals in this proceeding.

Q. WHY IS THE COMPANY PROPOSING TO REDESIGN ITS ISOC PROGRAM?

A. In Decision No. C15-0766, in Proceeding No. 13A-0686EG, the Commission found that the next DSM Strategic Issues filing was the proper proceeding in which to reevaluate ISOC goals and credit values.
Q. WHAT PROGRAM CHANGES IS THE COMPANY PROPOSING FOR ITS ISOC PROGRAM?

A. Due to a change in modeled generation technology that is a key input in the design of the program, the Company is eliminating the One Hour option. The Company is proposing a new credit value for new participants in the Within Ten-Minute program that is based on updated modeled generation. But the Company is proposing to grandfather existing customers on the Within Ten-Minute program under the current rates, but will require interested participants to commit to the program for an additional ten years.

Mr. Doyle provides greater detail on how the ISOC program has been redesigned and the updated assumptions supporting the program.

Q. WHY IS THE COMPANY PROPOSING TO GRANDFATHER ITS EXISTING WITHIN TEN-MINUTE PROGRAM?

A. It is important to recognize that these grandfathered customers allowed the Company to avoid or defer the costs of the generation assets that would have been in the Company’s generation resource portfolio back when the ISOC program was first initiated. This cost is the annual cost of an installed GE LMS100 CT. Further, this grandfathered credit is only offered in exchange for customers committing to ten years in the program.

Q. DOES THE COMPANY’S PROPOSED REDESIGN OF THE ISOC PROGRAM UNFAIRLY DISADVANTAGE ISOC CUSTOMERS OR NON-PARTICIPANTS?
A. No. The Company has redesigned the program to appropriately recognize the flexible resource that the program has provided and will continue to provide. In addition, as Mr. Doyle’s testimony details, there are a number of other demand response programs available to interested customers. Moreover, some of our largest customers and employers in Colorado have made investments and will continue to make investments in part based on the credits they receive through ISOC. These credits should not be removed or reduced lightly when there is a principled basis for the continuation of the credit for those customers who have historically helped displace large investments in peaking resources.

Finally, as shown in the Direct Testimony of Mr. Doyle, the redesigned ISOC program will have a *de minimis* impact on customers who do not participate in the ISOC program.
XI. AVOIDED COSTS

A. Overview

Q. HOW ARE AVOIDED COSTS USED IN THE DSM PORTFOLIO?

A. Avoided costs are one component of the cost-effectiveness analysis. C.R.S. § 40-1-102(5)(b) specifies cost-effectiveness of DSM programs as the following:

(5)(b) In calculating the benefit-cost ratio, the benefits shall include, but are not limited to, the following as applicable:
(I) The utility’s avoided generation, transmission, distribution, capacity and energy costs;
(II) The valuation of avoided emissions; and
(III) Nonenergy benefits as determined by the commission.

My testimony addresses the avoided energy and generation capacity costs to be included in the cost-effectiveness screening. Mr. White discusses avoided transmission and distribution costs, as well as avoided emissions, in his direct testimony.

Q. PLEASE DESCRIBE THE AVOIDED GENERATION CAPACITY AND ENERGY COSTS THAT ACCRUE FROM DSM PROGRAMS.

A. The avoided energy cost attributable to DSM programs is the value of the electrical energy (kWh) that is not consumed by end-users taking service from the electric utility due to their participation in DSM programs. The avoided generation capacity cost is the value of avoiding investment in the least-cost generation capacity resource, i.e., a natural gas combustion turbine. Consequently, the Company estimates the avoided generation capacity cost based on the carrying charges of a CT and the avoided energy cost based on the hourly marginal energy prices.
Q. WHAT METHODOLOGY DOES THE COMPANY PROPOSE TO USE FOR ESTIMATING THE AVOIDED ENERGY COST OF INDIVIDUAL DSM MEASURES?

A. The Company proposes to use hourly marginal energy price information from the PLEXOS® modelling software to estimate the avoided energy cost attributable to individual DSM Measures. Company witness Mr. Horneck discusses the PLEXOS® software further in his Direct Testimony.

Q. HOW IS THIS PROPOSED METHODOLOGY FOR ESTIMATING AVOIDED ENERGY COSTS DIFFERENT FROM THAT USED IN PRIOR STRATEGIC ISSUES PROCEEDINGS?

The two methods vary in the following two ways:

- The proposed method uses hourly data for estimating avoided energy costs, while the Strategist model previously relied on used annual data.
- The proposed method uses the PLEXOS® model to develop this hourly energy data.

Q. WHY IS THE COMPANY PROPOSING TO USE AN HOURLY AVOIDED ENERGY METHOD?

A. Individual DSM measures have different energy savings patterns – ranging from outdoor lighting that runs mostly during off-peak hours to residential cooling that runs mostly during on-peak hours. Using hourly energy data better captures the
true energy savings produced by different DSM measures. Mr. Horneck discusses this concept further in his direct testimony.

Q. PLEASE DEFINE MARGINAL ENERGY.

A. The term “marginal energy” as used in my testimony is the cost of energy from the last electric generation source that is dispatched to meet customer load. Marginal energy is an appropriate measure of the energy benefits resulting from DSM achievement because the electric generation source that is dispatched last is directly impacted by any change in customer load. Electric generation sources that are dispatched before the marginal energy source are typically not affected by changes in customer load associated with individual DSM measures.

C. Avoided Generation Capacity Cost

Q. HOW DID THE COMPANY CALCULATE THE AVOIDED COST OF GENERATION CAPACITY IN THE LAST STRATEGIC ISSUES PROCEEDING?

A. In the last Strategic Issues proceeding the Company used the monthly cost per kW of the generic Resource Acquisition Plan (“RAP”) CT from the 2011 ERP process.

Q. ARE YOU PROPOSING ANY CHANGES TO THIS METHODOLOGY?

A. The only change the Company is proposing is to update the source of the inputs from the 2011 ERP to the most recently approved ERP. Currently, that is the 2016 ERP.
Q. IS THE COMPANY PROPOSING THAT VALUES OF AVOIDED GENERATION CAPACITY BE APPROVED IN THIS FILING?

A. No. The Company’s proposal is limited to asking for approval to utilize the capacity value from the most recently approved ERP. Currently, the RAP CT, referred to as the Large CT in Proceeding No. 16A-0396E, still represents the most likely source of incremental peaking capacity the Company would install on its system.
XII. NATURAL GAS DSM

Q. WHAT IS THE COMPANY’S PROPOSAL WITH RESPECT TO ITS NATURAL GAS DSM PORTFOLIO?

A. The natural gas portfolio requirements are set by statute and, therefore, offer limited scope for significant changes. At this time, the Company’s recommendation is to address the natural gas energy efficiency portfolio through DSM Plans where the cost-effectiveness of individuals programs can be determined.

Q. IS THERE PRECEDENCE FOR NOT SETTING ENERGY SAVINGS GOALS IN STRATEGIC ISSUES PROCEEDINGS?


Q. DID PUBLIC SERVICE PROPOSE TO REDUCE ITS SPENDING LEVEL AS PART OF THE 2017/2018 DSM PLAN?

A. No. Public Service proposed to maintain spending consistent with its historic level in future years.

Q. WHY IS PUBLIC SERVICE NOT PROPOSING A SPENDING LEVEL IN THIS PROCEEDING?

A. With low natural gas prices, it is becoming increasingly difficult to identify and implement cost-effective natural gas energy efficiency. The Company believes it
is more prudent to delay any final decision on the spending and goals in future DSM plans until the cost-effectiveness of the programs can be determined.

Unlike the electric programs, the Commission's gas DSM rules require a minimum amount of spending by the Company that ensures the Company will offer some natural gas DSM programs. Therefore, it is less valuable to identify specific goals and spending levels in this proceeding. Instead, future DSM Plans offer the best opportunity to set specific targets; in those proceedings the cost-effectiveness of and landscape for specific DSM programs can be better identified.
XIII. CONCLUSION

Q. PLEASE SUMMARIZE THE AUTHORIZATIONS AND APPROVALS THE COMPANY SEEKS IN THIS PROCEEDING.

A. The Company recommends that the Commission issue an order granting the following relief (this list includes the recommendations of all of the Company's witnesses in this proceeding):

- Approval of the Company's proposed modifications to its electric energy efficiency goals for 2019 through 2023.

- Approval of the Company's proposed modifications to its energy Efficiency Demand Reduction goals for 2019 through 2023.

- Approval of proposed dispatchable demand response goals for each of the years 2019 through 2023.

- Approval of a modified DSM disincentive offset (to be supplemented in supplemental direct testimony).

- Approval of a modified energy efficiency incentive mechanism based on a five-metric energy efficiency Scorecard (to be supplemented in supplemental direct testimony).

- Approval to use the hourly marginal energy price output from PLEXOS® software to evaluate the avoided energy cost of DSM programs.

- Approval of a demand response performance incentive.

- Approval to use an incremental savings method instead of an average savings method to calculate behavioral energy efficiency savings.

- Approval of the Company's proposed methodology to determine avoided emissions.

- Confirmation that Commission Rule 4750 does not preclude the Company from claiming secondary site savings in its energy, demand, and net benefit calculations.
• Approval of modifications to the Company’s ISOC program, which include eliminating the One-Hour Notice program.

• Authorization of the grandfathering of existing Within Ten Minute Notice customers.

• Approval to implement a new Within Ten Minute program based on a modified foundational credit.

• Approval of the Company’s proposed guidelines concerning methodology, implementation, and evaluation for DSM geo-targeting.

• Authorization for the Company to incent geo-targeted customers with greater DSM rebates than non-targeted customers.

• Approval of the proposed methodology to categorize a portion of its vendor incentives as rebate spend not administrative cost.

• Approval to update the source of the inputs from the Company’s 2011 ERP to the most recently approved 2016 ERP.

• Approval to utilize the capacity value from the most recently approved ERP.

• Approval of the Company’s existing natural gas energy efficiency portfolio and a finding that any changes be addressed through the Company’s next DSM plan.

• Authorization for the Company to file a compliance advice letter within 90 days of the effective date of its final order, but on not less than ten days’ notice, with revised ISOC Tariff sheets reflecting all changes to the Company’s ISOC Tariff that are approved as a result of this proceeding; and

• Authorization for the Company to file a compliance advice letter within 90 days of the effective date of its final order, but on not less than ten days’ notice, with revised electric Demand Side Management Cost Adjustment (“DSMCA”) Tariff sheets reflecting all changes to the Company’s DSMCA Tariff that are approved as a result of this filing.
1 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

2 A. Yes.
Statement of Qualifications

Scott B. Brockett

I graduated from Otterbein College in 1980 with a Bachelor of Arts degree in English and Economics. I graduated from Miami University (Ohio) in 1981 with a Masters of Arts degree in Economics.

From August 1982 through February 1999 I was employed by the Minnesota Department of Public Service ("Department"), a state agency charged with developing energy policy and representing all customers in utility matters before the Minnesota Public Utilities Commission.

From August 1982 through May 1984 I was an analyst in the Computational Services Unit, where conducted economic analyses and reviewed telecommunications depreciation filings. From June 1984 through January 1991 I worked in the Energy Unit. My major areas of responsibility were buyback rates for Qualifying Facilities, rate design, embedded cost of service and marginal cost of service.

From January 1991 to August 1994 I held two similar supervisory positions. My primary responsibility was to oversee the Department Staff's advocacy in electric utility matters including general rate proceedings, integrated resource plans, demand-side management programs, and a wide variety of other regulatory issues.

In August 1994 I was promoted to Manager of Energy Planning and Advocacy. In this capacity the responsibilities I assumed as a supervisor were expanded to include natural gas advocacy, the development of state energy policy, and testifying on energy
matters before the Minnesota Legislature. In December 1998 I was appointed Acting
Assistant Commissioner of Energy. I held this position until February 1999.

From February 1999 to July 2004 I was employed by Consumers Energy
("Consumers"), an investor-owned utility providing natural-gas and electric service in
Michigan, as Supervisor of Pricing and Revenue Forecasting. My primary
responsibilities were developing prices for Consumers' electric and natural gas services,
conducting economic analyses of various service options, evaluating the impact of
Michigan's electric open-access program, estimating customer bills, and forecasting
natural gas and electric revenue. I also managed Consumers' voluntary Green Power
Pilot Program.

During my tenure with the Department I testified on demand-side management,
rate design, embedded cost of service, marginal cost of service, and the environmental
costs of electric generation. During my tenure with Consumers I testified on gas pricing
issues and electric stranded costs.

I joined Xcel Energy as Manager, Gas Pricing and Planning, in July 2004. I
assumed my current position in 2008. During my tenure with Xcel Energy I have
tested on pricing issues in many general rate cases (Proceeding Nos. 05S-264G, 06S-
656G, 08S-146G, 09AL-299E, 10AL-963G, 11AL-947E, 12AL-1268G, 12AL-1269ST,
14AL-0660E and 16AL-0048E). I have also testified on policy and technical issues in
proceedings involving electric interruptible rates, Demand Side Management cost
recovery and incentives, cost recovery issues involving the implementation of the Clean
Air - Clean Jobs Act, the acquisition of various generating units, distributed generation, and revenue decoupling.