BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

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IN THE MATTER OF THE APPLICATION OF PUBLIC SERVICE COMPANY OF COLORADO FOR APPROVAL OF ITS 2017 – 2019 RENEWABLE ENERGY COMPLIANCE PLAN	**)** **)** **)** **)** **)**	**PROCEEDING NO. 16A-XXXXE**

DIRECT TESTIMONY AND ATTACHMENTS OF SCOTT B. BROCKETT

ON

BEHALF OF

PUBLIC SERVICE COMPANY OF COLORADO

February 29, 2016

BEFORE THE PUBLIC UTILITIES COMMISSION
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SUMMARY OF THE DIRECT TESTIMONY OF SCOTT B. BROCKETT

Mr. Scott B. Brockett is Director, Regulatory Administration, for Xcel Energy Services Inc. In this capacity he provides strategic direction, oversees compliance with regulatory requirements, directs the preparation of filings and the subsequent processes related to these filings, and collaborates with external stakeholders in the regulatory process. He focuses primarily on Public Service Company of Colorado ("Public Service" or "Company"), one of four utility operating company subsidiaries of Xcel Energy Inc.

In his testimony Mr. Brockett presents the background on the proposed Recycled Energy Service ("Schedule RE"), identifies the Commission's requirements for Schedule RE, and explains some of the key provisions the Company proposes for Schedule RE in compliance with the Commission's most recently ordered requirements for such service.

Mr. Brockett recommends that the Commission approve the Company's proposed Schedule RE and the other tariff changes necessary to implement the new Schedule RE, which complies with the Commission's directives for the service.

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LIST OF ATTACHMENTS

Attachment SBB-1	Proposed Schedule RE
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GLOSSARY OF ACRONYMS AND DEFINED TERMS

Acronyms/Defined Term	**Meaning**
2017 RE Plan, RE Plan, Plan, or Compliance Plan	Public Service's 2017-2019 Renewable Energy Compliance Plan
CSG	Community Solar Garden
Daily Demand Charge	Demand Charge assessed on a daily basis
DG	Distributed Generation
DSM	Demand Side Management
DSMCA	Demand Side Management Cost Adjustment
ECA	Electric Commodity Adjustment
ERP	Electric Resource Plan
Retail DG	Retail Distributed Generation
G & T Fees	Generation and Transmission Standby Capacity Reservation Fees
kW	Kilowatt
kWh	Kilowatt-hour
Large Retail DG	Retail Distributed Generators > 1MW
MW	Megawatt
NDA	Non-Disclosure Agreement
No RES Plan	Company's Plan to acquire only non-renewable resources
Non-DG	Non Distributed Generation
O&M	Operations and Maintenance
PCCA	Purchased Capacity Cost Adjustment

Acronyms/Defined Term	**Meaning**
PTC	Production Tax Credit
Public Service or Company	Public Service Company of Colorado
PV	Photovoltaic
QRU	Qualified Retail Utility
R Rate	Standard Retail Rate
RD TOU Rate	Residential-Demand Time of Use Rate
RE	Renewable Energy
REC	Renewable Energy Credit
RES	Renewable Energy Standard
RES Plan	Renewable Energy Standard Plan
RESA	Renewable Energy Standard Adjustment
RFP	Request for Proposal
S&F	Service and Facilities
S*R®	Solar*Rewards®
Schedule RE	Recycled Energy Schedule
SRCS Tariff	Solar*Rewards® Community Service Tariff
TCA	Transmission Cost Adjustment
WECC	Western Electricity Coordinating Council
Wholesale DG	Wholesale Distributed Generation
WREGIS	Western Renewable Energy Generation Information System
Xcel Energy	Xcel Energy Inc.

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DIRECT TESTIMONY 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 Street, Suite 1400, Denver, Colorado 80202.

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

A. I am employed by Xcel Energy Services Inc., a wholly owned subsidiary of Xcel Energy Inc. ("Xcel Energy"), the parent company of Public Service Company of Colorado ("Public Service" or "Company"). My job title is Director, Regulatory Administration. I provide an array of support services to Public Service 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.

A. As Director, Regulatory Administration, I am responsible for the preparation of most of the Company's regulatory filings. In this capacity I provide strategic direction; oversee compliance with regulatory requirements; direct the preparation of filings and the subsequent processes related to these filings; and collaborate with external stakeholders in the regulatory process. A description of my qualifications, duties, and responsibilities is set forth after the conclusion of my testimony in my Statement of Qualifications.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of my Direct Testimony is to explain and sponsor the Company's proposed Recycled Energy Service ("Schedule RE"), which governs the terms, conditions and rates for standby service to customers with on-site recycled energy facilities. Specifically, I will provide the background for the service, explain some of its key provisions, and explain the bases for the Company's proposed rates in this proceeding – with a focus on the reduced Reservation Fees and Daily Demand Charges.

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

A. Yes. I am sponsoring Attachments SBB-1, SBB-2 and SBB-3, which were prepared by me or under my direct supervision. Attachment SBB-1 is the proposed Schedule RE. Attachment SBB-2 provides the other changes to

the Company's Electric Tariff required to implement the service. Attachment SBB-3 provides the derivation of several of the proposed rates for Schedule RE.

Q. WHAT RECOMMENDATIONS ARE YOU MAKING IN YOUR TESTIMONY?

A. I recommend that the Commission approve the Company's proposed Schedule RE and the other tariff changes that are required to recognize the new Schedule RE.

II. PROCEDURAL BACKGROUND

Q. PLEASE SUMMARIZE WHY THE COMPANY IS PROPOSING SCHEDULE RE AS PART OF THE RENEWABLE ENERGY PLAN FILING?

A. The Commission approved a recycled energy program in Proceeding No. 13A-0836E. The program is currently limited to 20 Megawatts ("MW") in 2016, and no single facility can be greater than 10 MW.

In Decision No. C14-1505 in Proceeding No. 13A-0836E, the Commission ordered the Company to file a service schedule to accommodate recycled energy applications. The Company filed for approval of this service on February 23, 2015, in Proceeding No. 15AL-0118E. The Company proposed to apply the same rates to recycled energy customers as it applies to standby customers. Based on the recommendations of interveners and the Recommended Decision of the Administrative Law Judge, the Commission rejected this recommendation. The Commission also approved and denied several other aspects of the filing and ordered the Company to file a revised Recycle Energy Service incorporating the Commission's directives as part of its 2017 – 2019 Renewable Energy Compliance Plan (the instant proceeding).

Commission also directed the Company, as part of the revised Recycled Energy Service filing, to use internal resources to estimate the number of customers, under 500 kW and between 3 MW and 5 MW, who may be eligible to take service under the revised Schedule RE.

Attachment RLK-01 to Company witness Robin L. Kittel's Direct Testimony describes the number of customers who may be eligible to take service under the revised Schedule RE.

Q. PLEASE IDENTIFY THE SPECIFIC REQUIREMENTS THE COMMISSION OUTLINED FOR THE RECYCLED ENERGY SERVICE?

A. The Commission in Proceeding No. 15AL-0118E required the following for the Recycled Energy Service:

Recycled Energy Program Capacity

- Individual recycled energy generators may be sized to a maximum of ten (10) MW
- Total program capacity is twenty (20) MW, annually
- Energy generated by recycled energy facilities above 100 percent of the Customer's load is owned by the Customer
- Interconnection processes will include discussions between the Customer and Public Service

Standby Rates - General

- Standby Rates for recycled energy Customers are contained in Schedule RE
- Recycled energy Customers with generators under 500 kW in size are allowed standby service at their option
- Recycled energy Customers with generators between 500 kW and 10 MW must take standby service
- Standby charges are assessed on the Customer's actual load as measured by the Company

Standby Rates - Grace Energy and Monthly Reservation Fee

- Recycled energy Customers have six (6) weeks (1,008 hours) of annual grace energy hours
- The Monthly Reservation Fee is based on six (6) weeks (1,008 hours) of grace energy hours and accounts for the high capacity factor of recycled energy facilities

Standby Rates - Demand Charge

- The Daily Demand Charge will be set at an appropriate level and supporting evidence will be provided for the derivation methodology

Standby Rates - Excess Energy

- Customers will be paid a rate of 4.3 cents per KWh for energy in excess of 100 percent of the Customer's load

Schedule RE Calculation of Costs - Additional Requirements

- The methodology used to calculate the tariff includes the assumptions and conditions specified by the Commission decision; is transparent; and allows the Commission and interested parties to readily understand
- The Company will provide its analysis and supporting calculations, demonstrating whether the result of all changes ordered to the tariff as a whole result in an additional incentive to recycled energy above the $500 per KWh incentive adopted in Decision No. C14-1505

III. SUMMARY OF PROPOSED SCHEDULE RE AND RELATED TARIFF CHANGES

Q. ARE YOU SPONSORING A NEW SERVICE SCHEDULE AND RELATED TARIFF CHANGES IN COMPLIANCE WITH THE COMMISSION'S REQUIREMENTS?

A. Yes. Attachment SBB-1 is the Company's proposed Schedule RE. Redlined versions of the related modifications to the Company's Electric Tariff in addition to Schedule RE are provided as Attachment SBB-2.

Q. DOES THE PROPOSED SCHEDULE RE REFLECT THE COMMISSION'S REQUIRED PARAMETERS FOR THE SERVICE?

A. Yes. The service reflects all of the required terms and conditions of service. Moreover, as explained below, the proposed rates reflect the Commission's direction from Proceeding No. 15AL-0118E.

Q. WHAT IS THE BASIS FOR THE PROPOSED RATE DESIGN?

A. The rate design is identical to the rate design the Company currently offers to traditional standby customers, with the exception that the Demand Charge component of the Monthly Usage Charge in the standby schedules is replaced with a Demand Charge assessed on a daily basis in Schedule RE ("Daily Demand Charge"). As noted above, this revision is consistent with the Commission's directive.

Q. ARE THE RATE LEVELS PROPOSED FOR SCHEDULE RE IDENTICAL TO THE CHARGES ASSESSED ON STANDBY CUSTOMERS?

A. Some are the same, while others are different. The proposed Distribution Standby Capacity Fees and Energy Charges by service voltage are identical to the fees and charges in the corresponding standby services. The assumption that recycled energy facilities have a higher rate of availability does not affect the Company's cost of providing adequate distribution capacity or proving energy when the facilities are down. Consequently, there is no basis for different charges.

The Generation and Transmission Standby Capacity Reservation Fees by service voltage ("G&T Reservation Fees" or "G&T Fees") proposed for Schedule RE are below the G&T Fees assessed in the corresponding standby schedules. The proposed Daily Demand Charges by service voltage for Schedule RE are significantly lower than the Demand Charge components of the Monthly Usage Charge, since the two charges are assessed on different bases.

Q. IS THE COMPANY PROPOSING TO APPLY THE SAME RIDERS OR ADJUSTMENT CLAUSES TO RE CUSTOMERS AS STANDBY CUSTOMERS?

A. Yes. The Company proposes to apply the Electric Cost Adjustment ("ECA"), Clean Air Clean Jobs Act Rider ("CACJA"), Purchased Capacity Cost Adjustment ("PCCA"), Transmission Cost Adjustment ("TCA"), Demand Side Management Cost Adjustment ("DSMCA") and Renewable

Energy Standard Adjustment ("RESA") to Schedule RE customers. The proposed tariff changes are provided in Attachment SBB-2.

Q. WOULD THE BASE RATES AND RIDERS YOU PROPOSE FOR SCHEDULE RE NEED TO BE UPDATED TO REFLECT THE RESULTS OF THE COMMISSION'S DECISION IN THE COMPANY'S CURRENT PHASE II ELECTRIC RATE CASE (PROCEEDING NO. 16AL-0048E).

A. Yes. The rates the Commission ultimately approves for standby service in the current Phase II rate case will affect the Schedule RE rates – since the two sets of rates are linked. The Company proposes to update the recycled energy rates to be consistent with the Commission's final Decision in Proceeding No. 16AL-0048E.

IV. DERIVATION OF SCHEDULE RE G&T RESERVATION FEES

Q. HOW DID THE COMPANY DERIVE ITS PROPOSED G&T FEES?

A. The Commission ordered the Company to reduce the G&T Fees below the corresponding standby levels to reflect the fewer grace energy hours (1,008 hours) available to Schedule RE customers and the expected higher capacity factors. Moreover, these 1,008 hours must comprise the hours attributable to both unscheduled outages and scheduled maintenance. In the current standby tariffs, grace energy hours are limited to unscheduled maintenance hours. Consequently, the definition of grace energy hours is broadened for purposes of Schedule RE.

To derive this discount the Company compared the probability that the generating units of current standby customers will be down during peak periods with the probability that the generators of Schedule RE customers will be down during peak periods. Current standby customers are allocated 1,050 hours of grace energy annually for unscheduled outages, plus another six weeks of scheduled maintenance hours during non-peak periods. Since this scheduled maintenance is required to occur outside of peak periods, it does not count against the customer's allotment of grace energy. Consequently, a standby customer is allowed to experience unscheduled outages during about 12 percent of the hours in a year (1,050 / 8,760) without incurring a usage charge.

Schedule RE customers are allowed 1,008 hours of outage before being subjected to a usage charge. But any comparison with current

standby service is difficult, because these 1,008 hours comprise both hours for scheduled maintenance and unscheduled outages. It is impossible to know whether in any given year – or more importantly over the course of a few years – the hours of scheduled and unscheduled outages per year. In this respect Schedule RE is more difficult to address from a pricing perspective than the more transparent standby service.

Q. HOW DID THE COMPANY ADDRESS THIS UNCERTAINTY?

A. From a system planning perspective the Company cannot plan on all of the potentially 1,008 hours of annual outage being earmarked for scheduled maintenance. In fact, to ensure reliable service we would probably need to assume the bulk of the hours are for unscheduled outages and the timing of these outages is random. Even the customer's scheduled maintenance hours could occur during peak periods, since recycled energy customers can potentially use any grace hours to cover outages during peak periods.

The Company believes a reasonable approach is to assume that 75 percent of the outages are unscheduled – or scheduled during peak periods. Applying this percentage to the total annual allowance of 1,008 hours yields 756 hours. This amount is about 72 percent of the 1,050 hours of unscheduled outage currently allowed under the traditional standby services. Based on this approach, the Company proposes to set the G&T Fees for Schedule RE customers at 72 percent of the corresponding fee for standby service.

Q. DOES THE COMPANY HAVE ANY WAY TO ENSURE THAT SCHEDULED MAINTENANCE EMBEDDED IN THE 1,008 HOURS OCCURS DURING OFF-PEAK PERIODS?

A. Not directly. But the Company is proposing a provision in Schedule RE to encourage recycled energy customers to schedule maintenance during months when system demand is low.

Q. CAN YOU PROVIDE THE SPECIFIC DERIVATIONS OF THE G&T RESERVATION FEES FOR RE CUSTOMERS BY SERVICE VOLTAGE BASED ON THE APPROACH YOU OUTLINE ABOVE?

A. Yes. I provide these derivations in Attachment SBB-3. The resulting G&T Fees in the summer are $1.17 per kW for secondary voltage customers, $1.11 per kW for primary voltage customers, and $1.02 per kW for transmission voltage customers. The corresponding fees in the winter are $0.57, $0.53 per kW, and $0.48 per kW.

Q. DO YOU BELIEVE THESE PROPOSED CHARGES ACCURATELY REFLECT THE COSTS OF PROVIDING SERVICE?

A. Yes – assuming the recycled generators operate as reliably as assumed in the development of the service – such that our system planners could actually count on that high reliability. Of course, as I explained above, it is difficult to pinpoint the cost of providing service to recycled energy customers given that the grace energy hours apply both to unscheduled and scheduled outages. However, I believe the Company's proposed fees reflect costs reasonably accurately. The resulting G&T Reservation Fees

for customers at secondary, primary and transmission service voltage range from 7.1 percent to 11.0 percent of the corresponding G&T Demand Charges for Secondary General, Primary General and Transmission General customers, respectively. This very large discount complies with the Commission's directive to recognize the expected higher capacity factor of recycled energy facilities and the assumed much lower probability of outages occurring during peak periods.

To provide some perspective, the Company's planning reserve margin is 16.3 percent. Although this reserve margin captures load uncertainties as well as the potential for unit outages, it is clear that the proposed G&T Fees rates are set with the *expectation* that recycled energy facilities will be significantly more reliable than the Company's own generation fleet.

Q. IF THE GRACE ENERGY HOURS WERE SPLIT INTO SCHEDULED MAINTENANCE AND UNSCEDULED OUTAGES, WOULD THE COMPANY RECOMMEND ANY REVISIONS TO THE G&T FEE?

A. No. The Company would certainly prefer a provision for scheduled maintenance similar to the provisions in the standard standby tariffs, as encouraging customers to schedule maintenance during our off-peak periods would seem to be a beneficial feature of standby service. But the split cannot be manipulated to embody an unreasonably low expectation of forced outages as a basis for slashing the G&T Fee. Under the constraint of 1,008 annual hours of total grace energy, the Company

would suggest two weeks of scheduled maintenance. The G&T Fee would then be based on the same four weeks of unforced outages explained above.

Q. DOES THIS APPROACH OVERCHARGE RECYCLED ENERGY CUSTOMERS WHO EXPERIENCE NO UNSCHEDULED OUTAGES DURING A GIVEN YEAR?

A. No. A common misconception about standby service is that the utility incurs a cost only when the standby customer's generation goes down. This assumption is simply untrue. Utilities must plan their systems based on expectations; while utilities can optimize their existing fleet of generation resources to meet changes in customer loads, they cannot in real time eliminate and add generating capacity. By extension, the cost of serving the standby customer is a function of expectations. A utility planner must formulate some reasonable expectations about the system capacity needed to serve standby customers. Assuming a critical mass of customers, the expected forced outage rate can provide a rough basis for that expectation. Whether the customer's generator is down for fewer or more hours in a year has no impact on that expectation – unless a long-term pattern is established that justifies a departure from the original expectation.

In fact, if we really believe that standby customers only impose costs when their generators are down, then there would be no need for standby service. The Company could simply provide standby service

under our traditional services – such as Secondary General, Primary General, Transmission General – and bill standby customers based on the billing determinants they establish under those services. But the reason standby services are common through the utility industry is that utilities and regulatory commissions understood the need to apply different rate designs and rates to standby customers. In other words, they understood that the price signals and cost recovery provided by full-service tariffs would break down when applied to standby service. That is why expectations are so critical in designing good standby rates. Costs driven by expectations are best recovered through capacity charges based on contractually established demands – not charges assessed on the random outages and maintenance of the customers' generators.

Based on these facts, the Company believes that the G&T Fee assessed on standby customers, whether recycled energy customers or other standby customers, must be based on expectations.

V. DERIVATION OF SCHEDULE RE DAILY DEMAND CHARGE

Q. HOW DID YOU DERIVE THE DEMAND COMPONENT OF THE DAILY USAGE CHARGE?

A. As I explained earlier, the usage fees in standby tariffs are not designed to collect the long-term capacity costs imposed by standby customers. These costs are based on expectations of outage and are more appropriately collected through reservation fees. Instead, usage charges are designed to ensure that customers operate their generators roughly in accordance with these expectations, and pay for any variable costs associate with providing them energy.

The Company believes that the usage charges for recycled energy customers should be linked to the charges applied to our current standby customers – as there is little basis for differentiating these charges. The challenge in this particular case is that the current standby is assessed on a monthly basis, while the usage demand charge for recycled energy customers is assessed on a daily basis.

Q. IS THERE A WAY TO SET THE DAILY DEMAND CHARGE TO BE CONSISTENT WITH THE MONTHLY DEMAND CHARGE?

A. I believe so. The probability of a single customer outage coinciding with a system peak period is not easy to pinpoint. However, we do know that outages on weekends would not contribute to the system peak. Assuming stochastic outages, 30 days in a typical month and 8 weekend days, 22 out of 30 outages would fall during a weekday and potentially span a

critical afternoon period. To recognize this probability the Company proposes to establish the Daily Demand Charge at 4.5 percent (1/22) of the corresponding monthly charge in the current standby tariffs. In other words, a customer who is out each of the 22 days during the month when peak loads could be experienced would pay about the same amount as a customer who generation is down every day of the month under the current standby tariff.

Q. ARE YOU PROVIDING THE DERIVATION OF THESE CHARGES?

A. Yes. I derive the charges, based on the approach explained above, in Attachment SBB-3.

Q. DO YOU BELIEVE THESE CHARGES ACCURATELY REFLECT THE COSTS IMPOSED?

A. Yes. It is important to remember that the main vehicles for recovering the direct costs of standby service are the reservation fees and the variable usage charges. I have explained why the reservation fees accurately reflect the costs the Company incurs to provide the system capacity that standby customers require. Similarly, the direct variable costs of providing energy during generator outages will be recovered through the applicable usage charges -- which are the same in the current standby tariffs and proposed Schedule RE. These variable charges reflect with high accuracy the costs imposed by the standby customer's use of the system. There is no reason to modify these charges. From the perspective of ensuring that the costs of service are recovered correctly, the reservation

fees and variable usage charges are more important than the usage demand charges.

This is not to diminish the need for a usage demand charge, but only to emphasize that it serves a different purpose. The main purpose of this charge is to signal to standby customers that, if they do not operate as expected, the Company may not have adequate generation capacity or may need to plan for more capacity in the future. The Company has historically provided that signal by assessing a monthly usage demand charge equal to the monthly demand charge the Company would pay under the corresponding full-service tariff. The basis for this approach is that a standby customer whose unit does not perform up to expectations is essentially requiring full service from the Company. The G&T capacity costs the Company incurs to provide full service to large customers are recovered through the G&T Demand Charges assessed on SG, PG and TG customers.

One important ramification is that the standby customer can and should pay for the cost of providing standby service without ever being assessed any Usage Demand Charge. As long as the customer operates its generator in accordance with expectations, the Company can recover the costs the customer imposes without ever assessing this charge.

The proposed Recycled Energy Usage Demand Charges are based on a similar premise; they are simply assessed on each day of outage, rather than on a monthly basis.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

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 I 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 was promoted to Director, Regulatory Administration and Compliance in 2008. I assumed my current position in 2014. During my tenure with Xcel Energy I have testified on pricing issues in six general rate cases (Docket Nos. 05S-264G, 06S-656G, 08S-146G, 09AL-299E, 10AL-963G, 11AL-947E, 12AL-1268G, 12AL-1269ST and also in Proceeding Nos. 14AL-0660E and 15AL-135G), on policy issues in proceedings involving electric interruptible rates, customer service, electric Demand Side Management cost recovery and incentives, and steam

service, and on cost recovery issues involving the implementation of the Clean Air - Clean Jobs Act, the acquisition of various generating units, and distributed generation.