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	**)**	**PROCEEDING NO. 16A-0396E**
APPROVAL OF ITS 2016 ELECTRIC	**)**	
RESOURCE PLAN	**)**	

DIRECT TESTIMONY OF JANNELL E. MARKS

ON

BEHALF OF

PUBLIC SERVICE COMPANY OF COLORADO

May 27, 2016

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 2016 ELECTRIC RESOURCE PLAN	**)** **)** **)** **)** **)**	**PROCEEDING NO. 16A-0396E**

SUMMARY OF THE DIRECT TESTIMONY OF JANNELL E. MARKS

Ms. Jannell Marks is Director, Sales, Energy and Demand Forecasting, of Xcel Energy Services Inc. ("XES")

In her testimony, Ms. Marks supports the sales and peak demand forecast filed in this proceeding. To forecast sales and peak demand, the Company uses a Statistically-Adjusted End-Use ("SAE") modeling approach, as well as regression models and trend analysis, which has been previously approved by the Commission. Ms. Marks explains that Public Service Company of Colorado's ("Public Service") Base Case native sales (retail and firm wholesale requirements) are projected to increase at a compounded annual rate of 1.5 percent through 2023. This compares to average annual decreases over the past five years of 1.1 percent. Public Service's Base Case native peak demand is expected to grow at a compounded annual rate of 1.6 percent through 2023. This compares to average annual growth over the past five years of 0.3 percent. The forecast of native sales and peak demand includes achievement of the 2017-2020 Demand-Side Management

("DSM") goals of 400 gigawatt-hours ("GWh") per year that the Commission ordered in Proceeding No. 13A-0686EG.

BEFORE THE PUBLIC UTILITIES COMMISSION

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DIRECT TESTIMONY OF JANNELL E. MARKS

INDEX

SECTION **PAGE**

GLOSSARY OF ACRONYMS AND DEFINED TERMS

Acronym/Defined Term	Meaning
2017 RE Plan	2017 Renewable Energy Plan
DSM	Demand-Side Management
ERP	2016 Electric Resource Plan
GSP	Gross State Product
GWh	Gigawatt hour
Public Service or Company	Public Service Company of Colorado
SAE	Statistically Adjusted End Use
Xcel Energy	Xcel Energy Inc
XES or Service Company	Xcel Energy Services Inc.

BEFORE THE PUBLIC UTILITIES COMMISSION

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IN THE MATTER OF THE APPLICATION OF PUBLIC SERVICE COMPANY OF COLORADO FOR APPROVAL OF ITS 2016 ELECTRIC RESOURCE PLAN	**)** **)** **)** **)** **)**	**PROCEEDING NO. 16A-0396E**

DIRECT TESTIMONY OF JANNELL E. MARKS

I. INTRODUCTION, QUALIFICATIONS, AND PURPOSE OF TESTIMONY

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Jannell Marks. My business address is 1800 Larimer Street, 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, Sales, Energy and Demand Forecasting. 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 "Company") and the other utility operating company subsidiaries of Xcel Energy on a coordinated basis.

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

A. I am testifying on behalf of Public Service Company of Colorado.

Q. HAVE YOU INCLUDED A DESCRIPTION OF YOUR QUALIFICATIONS, DUTIES, AND RESPONSIBILITIES?

A. Yes. A description of my qualifications, duties, and responsibilities is included at the end of my testimony.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of my testimony is to support the sales and peak demand forecast filed in Public Service's 2016 Electric Resource Plan ("ERP"). In addition, I will provide a brief description of the sales and peak demand forecast and the methodology used to develop the forecast.

II. SALES AND PEAK DEMAND FORECAST

Q. PLEASE DESCRIBE PUBLIC SERVICE'S SALES AND PEAK DEMAND FORECAST.

A. Public Service's Base Case native sales (retail and firm wholesale requirements) are projected to increase at a compounded annual rate of 1.5 percent through 2023. This compares to average annual decreases over the past five years of 1.1 percent. Public Service's Base Case native peak demand is expected to grow at a compounded annual rate of 1.6 percent through 2023. This compares to average annual growth over the past five years of 0.3 percent. The forecast of native sales and peak demand includes achievement of the 2017-2020 Demand-Side Management ("DSM") goals of 400 gigawatt-hours ("GWh") per year that the Commission ordered in Proceeding No. 13A-0686EG, Decision No. C14-0731. The low historical period growth rates are due primarily to the loss of wholesale customers and changing economic conditions.

Q. WHAT METHODOLOGY DOES PUBLIC SERVICE USE TO FORECAST SALES AND PEAK DEMAND?

A. Public Service uses monthly historical customer, sales and peak demand data by rate class, together with weather, economic, demographic, and price historical data and forecasts to develop its forecasts of sales and peak demand. The Company uses a Statistically-Adjusted End-Use ("SAE") modeling approach, as well as regression models and trend analysis.

Q. IS THIS THE SAME METHODOLOGY USED FOR THE COMPANY'S LAST ERP IN PROCEEDING NO. 11A-869E?

A. Yes. This methodology was approved by the Commision in Decision No. C13-0094, at Paragraph 203. In Proceeding No. 11A-869E, the Commission further directed Public Service to use this same methodology and "update its forecast based on current information for the calculation of the resource need for Phase II."

Q. WHEN WAS PUBLIC SERVICE'S RETAIL ELECTRICITY SALES FORECAST DEVELOPED?

A. Public Service's sales and peak demand forecast submitted in this filing was finalized in December 2015. Decision No. C16-0127 ordered the same assumptions and input be used in this 2016 ERP that were used in the 2017 Renewable Energy Plan ("2017 RE Plan"), which was filed on February 29, 2016. The December 2015 sales and peak demand forecast was the most current forecast available when the Company was preparing the 2017 RE Plan.

Q. PLEASE PROVIDE AN OVERVIEW OF THE CURRENT AND PROJECTED ECONOMIC CONDITIONS.

A. Colorado's economy has recovered since the housing market and the financial sector crisis that started in 2008. This recovery is evidenced by gains in real personal income, real gross state product ("GSP"), non-farm employment, and home construction. In the five years ending in 2014, Colorado real GSP has averaged gains of 2.2 percent annually and real

personal income advanced 3.0 percent annually. Jobs gains since 2011 have resulted in an advancement of non-farm employment averaging 1.8 percent annually. Colorado population has increased 1.5 percent per year since 2009. During the same period, Public Service's residential sectors added 52,440 customers, an increase of 4.6 percent over the 2009 customer count. The Company relies on the economic forecast for the state of Colorado provided by IHS Global Insight. The forecast was obtained from IHS Global Insight in July 2015. The economic outlook for Public Service's service territory through the Resource Acquisition Period ending in 2023 indicates that Colorado will experience similar growth compared with the previous five years. Growth in Colorado real GSP and real personal income are expected to be 2.6 percent per year from 2016 to 2023. Non-farm employment should advance by 1.6 percent annually over the same period. Population growth will continue at its recent historical pace of 1.4 percent annually. Public Service residential customers are expected to increase by 126,381 over the next eight years with average gains of 1.4 percent per year through 2023.

Q. HAVE THE PROJECTED ECONOMIC CONDITIONS CHANGED MATERIALLY SINCE THIS FORECAST WAS DEVELOPED IN JULY 2015?

A. No. IHS Global Insight updates its long-term forecasts quarterly. The current forecast is not materially different than the forecast used to develop this sales and peak demand forecast, with annual growth rates generally being within 0.1 percent to 0.2 percent of the growth rates cited above. At this time, we do

not expect changes in the projected economic conditions to have a significant impact on the long-term sales and peak demand forecast.

Q. IS THE SALES FORECAST THAT WILL BE FILED IN THIS 2016 ERP PROCEEDING THE SAME FORECAST USED WITH REGARD TO THE COMPANY'S 2017 RENEWABLE ENERGY PLAN (PROCEEDING NO. 16A-0139E) AND RULE 3660(H) FILING (PROCEEDING NO. 16A-0117E)?

A. Yes.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

Jannell Marks

Statement of Qualifications

February 2007 – Present

Director, Sales, Energy and Demand Forecasting, Xcel Energy

Responsible for developing load analysis and energy sales forecasting policies, proposals, and strategies to meet corporate financial planning, budgeting, and internal earnings forecasting requirements as well as to support the company's regulatory objectives and comply with regulatory requirements. Also responsible for the development and presentation of load research and forecasted data for Xcel Energy's operating companies and reporting historical and statistical information to various regulatory agencies and others. Testified on forecasting issues before the Public Utility Commission of Texas, the Colorado Public Utilities Commission, the Minnesota Public Utilities Commission, the North Dakota Public Service Commission, the South Dakota Public Utilities Commission, the Public Service Commission of Wisconsin, and the New Mexico Public Regulation Commission.

August 2000 – February 2007

Manager, Energy Forecasting, Xcel Energy

Responsible for the development and presentation of forecasted data for Xcel Energy's operating companies and also for reporting historical and statistical information to various regulatory agencies and others. Testified on forecasting issues before the Public Utility Commission of Texas, the Colorado Public Utilities Commission, and the Minnesota Public Utilities Commission.

May 1997 – August 2000

Manager, Demand, Energy and Customer Forecasts, New Century Energies, Inc.

Responsible for developing demand, energy, and customer forecasts for New Century Energies, Inc.'s operating companies. Also directed the preparation of statistical reporting for regulatory agencies and others regarding historical and forecasted reports. Testified on forecasting issues before the Public Utility Commission of Texas and the Colorado Public Utilities Commission.

1991-1997

Senior Research Analyst, Public Service Company of Colorado

Responsible for developing the customer and sales forecasts for Public Service Company of Colorado and the economic, customer, sales and demand forecasts for Cheyenne Light, Fuel and Power Company.

1982-1991

Research Analyst, Public Service Company of Colorado

Education

Colorado State University – Bachelor of Science: Statistics 1982

Training and Professional Associations

I have attended the Institute for Professional Education's Economic Modeling and Forecasting Class; Itron's Forecasting Workshops; and the Electric Power Research Institute's REEPS (Residential End-Use Energy Planning System), COMMEND (Commercial End-Use Planning System), and INFORM (Industrial End-Use Forecasting Model) Training Classes and User Group Meetings.
I am a member of Itron's Energy Forecasting Group and the Edison Electric Institute's Load Forecasting Group.