BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

*** * * * ***

IN THE MATTER OF THE APPLICATION OF	**)**	
PUBLIC SERVICE COMPANY OF COLORADO	**)**	
FOR APPROVAL OF THE 600 MW RUSH	**)**	
CREEK WIND PROJECT PURSUANT TO RULE	**)**	
3660(H), A CERTIFICATE OF PUBLIC	**)**	
CONVENIENCE AND NECESSITY FOR THE	**)**	
RUSH CREEK WIND FARM, AND A	**)**	**PROCEEDING NO. 16A-0117E**
CERTIFICATE OF PUBLIC CONVENIENCE	**)**	
AND NECESSITY FOR THE 345 KV RUSH	**)**	
CREEK TO MISSILE SITE GENERATION TIE	**)**	
TRANSMISSION LINE AND ASSOCIATED	**)**	
FINDINGS OF NOISE AND MAGNETIC FIELD	**)**	
REASONABLENESS.	**)**	

DIRECT TESTIMONY AND ATTACHMENTS OF TIMOTHY J. SHEESLEY

ON BEHALF OF

PUBLIC SERVICE COMPANY OF COLORADO

May 13, 2016

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO**

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REASONABLENESS.	**)**	

SUMMARY OF THE Error! Reference source not found.**DIRECT TESTIMONY OF TIMOTHY J. SHEESLEY**

Mr. Timothy J. Sheesley is Chief Economist of Xcel Energy Services Inc. He is responsible for strategic economic and financial consultation for Public Service Company of Colorado ("Public Service" or "Company").

Mr. Sheesley presents the results of the study conducted by the Business Research Division of the Leeds School of Business at the University of Colorado at Boulder (“Leeds”) on the economic development impacts of additional company-owned wind resources as compared to a base case resource plan. Leeds utilized the Regional Economic Models, Inc. (“REMI”) general computable equilibrium model of the Colorado

economy to help determine economic impacts. The study modeled increased spending and changes in electric rates on economic activity.

The Leeds analysis found positive net economic benefits of the Rush Creek Wind Project to the State of Colorado. The proposed 600 MW of wind generation additions resulted in 7,136 more job years over the 25-year analysis period as compared to the base case resource plan, which equates to an additional 285 jobs per year on average. Job growth was greatest during the first five years (which includes the construction period of the Project), with an additional 1,012 jobs per year on average. Lower spending on O&M, fuel and capital partially offset the positive impacts of lower electricity rates, with fewer job gains over the remainder of the 25-year period. The study also found that 600 MW of additional wind generation will produce a $45 million per year net gain in state gross domestic product ("GDP") output over the 25-year period, based on real 2015 dollars.

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DIRECT TESTIMONY AND ATTACHMENTS OF TIMOTHY J. SHEESLEY

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LIST OF ATTACHMENTS

Attachment TJS-1*	Economic Tradeoffs Between Additional Wind and the Current Resource Plan in Colorado

* To be produced in supplemental testimony

GLOSSARY OF ACRONYMS AND DEFINED TERMS

Acronym/Defined Term	Meaning
CPCN	Certificate of Public Convenience and Necessity
ERP	Electric Resource Plan
GDP	Gross Domestic Product
LEEDS	Business Research Division of the Leeds School of Business at the University of Colorado at Boulder
MW	Megawatt(s)
Public Service or Company	Public Service Company of Colorado
REMI	Regional Economic Models, Inc.
Xcel Energy	Xcel Energy Inc.
XES or Service Company	Xcel Energy Services Inc.

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 THE 600 MW RUSH CREEK WIND PROJECT PURSUANT TO RULE 3660(H), A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE RUSH CREEK WIND FARM, AND A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE 345 KV RUSH CREEK TO MISSILE SITE GENERATION TIE TRANSMISSION LINE AND ASSOCIATED FINDINGS OF NOISE AND MAGNETIC FIELD REASONABLENESS.	)	**PROCEEDING NO. 16A-0117E**

DIRECT TESTIMONY AND ATTACHMENTS OF TIMOTHY J. SHEESLEY

I. INTRODUCTION, QUALIFICATIONS, AND PURPOSE OF TESTIMONY

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Timothy J. Sheesley. My business address is 1800 Larimer, Suite 1300, Denver, CO 80202.

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

A. I am employed by Xcel Energy Services, Inc. ("XES" or Service Company") as Chief Economist. 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 THIS PROCEEDING?

A. I am testifying on behalf of Public Service.

Q. PLEASE SUMMARIZE YOUR RESPONSIBILITIES AND QUALIFICATIONS.

A. As the Chief Economist, I am responsible for strategic economic and financial consultation for Public Service Company of Colorado. My duties include coordinating with Public Service to provide expert economic, financial and regulatory advice. 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 testimony is to introduce a study conducted by the Business Research Division of the Leeds School of Business at the University of Colorado at Boulder ("Leeds") that assesses the economic development impacts of adding 600 MW of company-owned wind resources in Colorado.

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

A. Yes, I will be sponsoring Attachment TJS-1, which is a report on the economic impacts of the Rush Creek Wind Project conducted by Leeds. Leeds has provided to Public Service data results of their analysis, which I discuss in my testimony below. Leeds is still finalizing the report, which will be filed with supplemental testimony as Attachment TJS-1. I expect that the report will be completed by May 20.

II. ECONOMIC IMPACT OF THE RUSH CREEK WIND PROJECT

Q. WHAT HAS THE COMPANY DONE TO ANALYZE THE ECONOMIC IMPACTS OF ADDING 600 MW OF WIND RESOURCES?

A. The Company asked Leeds to conduct an economic impact analysis of the economic impacts on the Colorado economy of adding Company-owned wind resources, including the proposed 600 MW Rush Creek Wind Project that Public Service seeks approval of in this proceeding. The Leeds study analyzes the economic impact by comparing the impacts of this proposed resource addition to a base case resource plan (the baseline scenario from the 2011 Electric Resource Plan ("ERP"), which is the most recently approved ERP for the Company).

Q. WHY DID THE COMPANY REQUEST LEEDS TO UNDERTAKE THIS STUDY?

A. As discussed by Company witness Ms. Alice Jackson, Rule 3660(h)(II) sets forth in certain utility ownership application cases a required showing "that the proposed new eligible energy resource would provide significant economic development, employment, energy security, or other benefits to the state of Colorado." While that standard is not applicable to this proceeding, we thought that a quantitative evaluation of the economic benefits of the Rush Creek Wind Project would be helpful information to the Commission. Specifically, the Company is seeking a certificate of public convenience and necessity ("CPCN") for Rush Creek I and II, as well as a CPCN for the Rush Creek Gen-Tie, in this proceeding. The Leeds analysis is one of many factors

showing that both the generation and transmission components of the Rush Creek Wind Project are in the public interest.

Q. WHAT MODEL DID LEEDS USE TO CALCULATE ECONOMIC IMPACTS?

A. Leeds used the Regional Economic Models, Inc. ("REMI") general computable equilibrium model of the Colorado economy to conduct the economic impact analysis. According to REMI, "[t]he REMI model incorporates aspects of four major modeling approaches: Input-Output, General Equilibrium, Econometric, and Economic Geography. Each of these methodologies has distinct advantages as well as limitations when used alone. The REMI integrated modeling approach builds on the strengths of each of these approaches."[1]

Q. WHAT INPUTS WERE CONSIDERED BY LEEDS?

A. Leeds considered dollars spent and percent of local content to estimate total economic impact during the construction and operation phases of the Rush Creek Wind Project. Leeds also modeled the impact of the change in electric rates from the addition of wind resources.

Q. WHAT SCENARIOS DID THE LEEDS RUN WITH RESPECT TO ECONOMIC IMPACT OF THE DIFFERENT OPTIONS?

A. Leeds analyzed the economic impact of adding 600 MW of Company-owned wind generation. The 600 MW level of wind was compared to the baseline scenario from the 2011 ERP to determine economic impacts. As a 25-year economic impact study, these economic impacts were modeled out to 2040.

[1] See http://www.remi.com/the-remi-model for a more detailed description.

Q. WHAT DID LEEDS FIND WITH RESPECT TO ECONOMIC IMPACTS OF THE 600 MW OPTION?

A. Table 1 shows the results of adding 600 MW of Company-owned wind resources, as compared to the base case resource plan. Additional details will be provided in Attachment TJS-1 in a supplemental filing.

Wind additions resulted in 7,136 more job years over the 25-year analysis period compared to the base case resource plan. This equates to an additional 285 jobs per year on average. Job growth was greatest during the first five years (which includes the construction period), with an addition of 1,012 jobs per year on average.

Further, lower relative electricity rates resulted in job gains over the remainder of the 25-year period as compared to the base case resource plan alternative. However, job gains were fewer over this period due to lower spending on fuel, O&M, and capital.

Table TJS-1
Leeds Estimate of Net Impact of Additional Wind on Colorado Economy

Category	Units	Average					
		Year 1-5	Year 6-10	Year 11-15	Year 16-20	Year 21-25	2016-2040
Total Employment	Jobs	1,012	466	338	-258	-132	285
Private Non-Farm Employment	Jobs	964	384	219	-318	-170	216
Gross Domestic Product	Dollars (Real 2015, Thousands)	114,246	57,815	55,837	-11,489	6,440	44,570
Disposable Personal Income	Dollars (Real 2015, Thousands)	63,997	28,034	32,659	-20,344	-21,193	16,631

Q. WHAT DID THE LEEDS FIND WITH RESPECT TO THE ECONOMIC IMPACT ON GROSS DOMESTIC PRODUCT OF THE DIFFERENT OPTIONS?

A. The gain in GDP output from the wind addition was found to be greater than that of the base case resource plan alternative. Specifically, 600 MW of wind generation additions yielded a gain of $45 million per year GDP output over the 25-year period based on real 2015 dollars, as compared to the base case resource plan alternative.

Q. WHAT IS YOUR EXPERT OPINION OF THE LEEDS STUDY?

A. I believe the Leeds study is a valid and reliable economic analysis.

III. CONCLUSION

Q. WHAT CONCLUSIONS CAN ONE DRAW FROM THE LEEDS STUDY?

A. Additional Company-owned wind resources result in net job creations as compared to the base case resource plan. The job impacts resulted in 7,136 more jobs over the 25-year analysis, equating to an additional 285 jobs per year on average. Wind additions also result in net gains in gross domestic product (GDP) as compared to the base case resource plan. Wind additions showed a gain of $45 million per year over the 25-year period based on real 2015 dollars.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does

Statement of Qualifications

Timothy J. Sheesley

I received a Bachelor of Economics degree in 1987 and a Masters of Economics degree in 1989 both from the University of Colorado at Boulder, a Banking Certificate from the American Banking Association in 1992, and a Masters of Business Administration degree with academic honors in Accounting and Finance from Regis University in Denver in 2005. Before joining Public Service Company of Colorado in 1997, I worked as an economist for the Denver Regional Council of Governments and the Federal Reserve Bank of Kansas City and as a professional researcher at the Center for Economic Analysis at the University of Colorado.

I have numerous publications in energy, regional and agricultural economics and have been quoted by the Wall Street Journal, Bloomberg News Service, Business Week Magazine, Christian Science Monitor, Denver Post, Rocky Mountain News, Denver Business Journal and several other newspapers, radio and television media.

I have extensive experience running sophisticated multi-sector econometric and financial models. I have contributed to numerous Federal Open Market Committee briefings and taught “Managerial Economics” at the Colorado State University Executive MBA program and upper division "Money and Banking" at William Jewell College in Liberty, Missouri.

I serve on the Western Blue Chip Economic Forecast Panel, the University of Colorado Business Outlook Forum Steering Committee, the Colorado Council for

Economic Education Board of Directors, and am member of the Economic Club of Colorado.

I have also served as an economic advisor on the governor's Colorado Revenue Estimating Advisory Committee, Denver Regional Council of Governments Economics Advisory Task Force, the Colorado Transportation Commission Strategic Transportation Project, the Smart Growth Leadership Group, Metro Denver Network, the Pueblo Economic Development Economic Committee, and am a former participant in 50 for Colorado.