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 ACQUISITION OF THE )
BRUSH 1, 3, and 4 GENERATION FACILITIES )
AND, IN CONNECTION THEREWITH, THE GRANT )
OF CERTIFICATES OF PUBLIC CONVENIENCE )
AND NECESSITY IF REQUIRED AND THE )
APPROVAL OF COST RECOVERY THROUGH A )
GENERAL RATE SCHEDULE ADJUSTMENT )

DOCKET NO. 12A-____E

DIRECT TESTIMONY AND EXHIBITS OF GEORGE E. HESS
ON
BEHALF OF
PUBLIC SERVICE COMPANY OF COLORADO

July 5, 2012
# LIST OF EXHIBITS

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DIRECT TESTIMONY AND EXHIBITS OF GEORGE E. HESS

I. INTRODUCTION AND PURPOSE

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is George E. Hess. My business address is 9500 Interstate 76, 
Henderson, CO 80640.

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

A. I am employed by Public Service Company of Colorado ("Public Service" or 
the “Company”), as General Manager, Power Generation Colorado. Public Service is a wholly-owned, public utility subsidiary of Xcel Energy Inc.

Q. ON Whose BEHALF ARE YOU TESTIFYING IN THE PROCEEDING?
A. I am testifying on behalf of Public Service Company of Colorado (“Public Service” or the “Company”).

Q. PLEASE BRIEFLY EXPLAIN YOUR DUTIES AND RESPONSIBILITIES.

A. I am responsible for the direction and management of the power generation group for Public Service Company of Colorado. I oversee the overall performance and improvement of generation activities in Colorado. My organization is responsible for the development and execution of the generation Operations and Maintenance budget and I have oversight for Capital expenditures for the Energy Supply Business Area. I am responsible for maintaining consistent plant performance that supports the Energy Supply Business Area business plan objectives.

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

A. Yes. A description of my qualifications, duties and responsibilities is included as Attachment A.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of my testimony is to support the Company’s application for approval of the acquisition of the Brush 1, 3 and 4 Units. My testimony provides descriptions of the facilities and technology at each plant and major equipment included in the plants, the operating characteristics of the plants, and their existing operating condition. In addition, I support the operation and maintenance costs used in modeling the ownership costs of a company project that was used in evaluating whether to acquire the facilities. My
testimony will also address how the Energy Supply Business Area plans to operate the Brush assets.

II. OVERVIEW

Q. WHAT ARE THE BRUSH UNITS?

A. The Brush Units consists of Brush 1 with one combustion turbine, one heat recovery steam generator and one steam turbine in a combined cycle configuration, Brush 3 with one combustion turbine, and Brush 4 with two combustion turbines, two heat recovery steam generators and one steam turbine in a combined cycle configuration. Together, these generation units provide 237 MW of installed capacity, representing 211 MWs of generation capacity (net summer season), with Brush 1 and 3 achieving a collective summer rating of 78 MW and Brush 4 achieving a summer rating of 133 MW. The Brush Units are located in Fort Morgan County near the town of Brush, Colorado. The Brush Units use four Siemens-Westinghouse 251AA combustion turbines, three Vogt-NEM Heat Recovery Steam Generators (HRSGs), and two General Electric steam turbines.

Q. WILL THE BRUSH UNITS REQUIRE SYSTEM UPGRADES TO ENSURE CONTINUED OPERATIONS?

A. No. The facility has been maintained in accordance with the manufacturer’s recommendations and is in good operating condition. The plant has primarily operated as a peaking facility with a low number of operating hours. The next planned major maintenance is dependant on the number of starts and run time on the units.
Q. WHAT DUE DILIGENCE HAS PUBLIC SERVICE UNDERTAKEN RELATED TO THE BRUSH ASSETS?

A. Team Members from Public Service’s Energy Supply and Xcel Energy Services business units and outside legal counsel have been involved in evaluating this acquisition. Representatives have reviewed relevant documents and visited the site to inspect the equipment and facilities. The due diligence effort included reviews of the following areas: Finance, Tax, Regulatory, Environmental, Legal/Litigation, Operations, Risk Management/Insurance, and Real Estate.

Q. DID DUE DILIGENCE IDENTIFY ANY SIGNIFICANT ISSUES?

A. A team of people consisting of Public Service and Xcel Energy Services employees, and outside counsel reviewed relevant documentation and records. Several team members visited the facility, visually inspected the site and the equipment, and discussed historical and current operation of the facility with the existing operations and maintenance personnel. The due diligence did not identify any issues that would interfere with the acquisition.

III. OPERATIONS AND MAINTENANCE PROJECTIONS

Q. HAS THE COMPANY PROJECTED THE COSTS OF OPERATING THE BRUSH UNITS?

A. Yes, the Company has developed cost estimates for operating the Brush units. These were developed by reviewing the current owner’s previous 5 years of O&M and capital expenditures and the current owner’s projection for the next 5 year budget for O&M and capital expenditures. The cost estimates
were further adjusted from these projections based on expected capital improvements as well as expected changes to the operating structure for this facility. The cost estimates for operating the Brush Units are expected to be sufficient to operate the facility through its identified remaining useful life as identified in Lisa Perkett’s testimony.

Q. HAS THE COMPANY IDENTIFIED FACTORS THAT COULD HAVE AN IMPACT ON THE PROJECTED O&M COSTS FOR THE TWO FACILITIES?

A. Yes. There are a number of factors that will have a long term impact on the O&M costs for the Brush Units. The primary drivers are the number of starts per year and the total number of operating hours. Secondary factors will be the staffing and labor requirements for the facility.

Starts and operating hours are utilized to define the timing for the major equipment inspections and overhauls. The manufacturer’s standard recommendations for those inspections and overhauls as well as industry accepted maintenance intervals will be followed. Starts and operating hours on ancillary equipment also have an impact on the maintenance performed on this equipment. The frequency of dispatch of the units to serve the system load will determine how frequently major work on the Brush Units and work on the ancillary equipment will need to be done. The next planned overhaul maintenance on Brush 1 & 3 is currently planned for 2018. The next planned overhaul maintenance on Brush 4 is currently planned for 2016. I provide in Exhibit No. GEH-1 a 15 Year O&M and Capital projection based on the current contract capacity factors of 1.38% (Brush 1&3) and 3.67% (Brush 4D).
IV. OPERATIONS PLAN

Q. HOW WILL THE COMPANY OPERATE THE BRUSH UNITS?

A. The facility will be operated by Public Service employees. The Brush Units are located near Public Service’s Pawnee Generation Station. Pawnee Generating Station plant management will be responsible for directing the operation and maintenance of the facility. Initially, we will add eight employees to the current Pawnee Generating Station staffing. All mechanical, electrical and instrument support for maintenance of these units will be supplied by the labor pool currently employed and stationed at Pawnee Generating Station. During the third year of operation we expect to be able to reduce the additional staffing needed to operate the Brush Units from eight to six employees.

Q. DO THE BRUSH 1, 3 AND 4 UNITS HAVE FACILITIES IN COMMON WITH BRUSH 2?

A. Yes.

Q. HOW WILL THE FACILITIES SHARED WITH THE OWNER OF BRUSH 2 BE OPERATED AFTER THE COMPANY’S PURCHASE OF BRUSH 1, 3, AND 4?

A. We currently have experience with operating shared facilities at our Hayden and Comanche Generating Stations. We are also a co-owner of a facility that is not operated by Public Service, the Craig Generating Station. In the case of Brush, we intend to explore the possibility of being the operating company for all of the Brush units including unit 2 with its current owner Brush
Cogeneration Partners a Colorado General Partnership. If we cannot reach an agreement with Brush Cogeneration Partners a Colorado General Partnership and both companies feel that there is a need to divide the shared assets from unit to unit, Public Service has reviewed with the current operating company what this would entail and the modifications are expected to be relatively minor in cost and scope. Some of the modifications include separation of the chemical feed systems, separation of some office areas, adding a division wall in the control room, and potentially adding some fencing and paving. Upon transfer of ownership to Public Service, the Brush 1, 3, and 4 units can be operated without impact from the shared equipment ownership issues.

Q. DID YOU COMPARE THE PURCHASE PRICE OF THE BRUSH UNITS TO THE COST TO BUILD COMPARABLE UNITS?

A. Yes. The estimated cost to construct a similar plant, with a summer capacity rating of 211MW, is between $829/kW and $1076/kW. The kW value was developed by the Company’s Engineering and Construction department based on review of the 2012 Gas Turbine World Handbook for comparable facility pricing which indicate comparable costs for the construction of combine cycle’s turbines and simple cycle turbines. See Exhibit No. GEH-2 for additional information in support of the price calculation.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.
Attachment A

George E. Hess

Statement of Qualifications

I have a total of 21 years of public utility experience, 11 years at Southwestern Public Service Company (SPS) and 10 years at Public Service Company of Colorado. I have held positions as a Plant Engineer (Harrington Station) and Project Engineer (Jones Station) with SPS. I have held positions as Manager Maintenance (Cherokee Station), Manager Operations (Cherokee Station), and Plant Director (Cherokee Station) with Public Service. I am currently the General Manager, Colorado Power Generation.

I possess a Bachelor of Science degree in Mechanical Engineering from Kansas State University and a Masters in Business Administration from Texas Tech University.