Q. Please state your name, business address, and present position with PacifiCorp dba Rocky Mountain Power ("the Company").

A. My name is Dana M. Ralston. My business address is 1407 West North Temple, Suite 320, Salt Lake City, Utah 84116. My present position is Vice President of Thermal Generation. I am responsible for the coal, gas, and geothermal resources owned by the Company.

Qualifications

Q. Please describe your education and business experience.

A. I have a Bachelor of Science Degree in Electrical Engineering from South Dakota State University. I have been the Vice President of Thermal Generation for PacifiCorp Energy since January 2010. Prior to that, I held a number of positions of increasing responsibility with MidAmerican Energy Company for 28 years within the generation organization including the plant manager position at the Neal Energy Center, a 1600 megawatt generating complex. In my current role, I am responsible for operation and maintenance of the thermal generation fleet.

Purpose and Overview of Testimony

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to explain and support the level of operating and maintenance ("O&M") costs included in this rate case. The Company is experiencing increasing costs necessary to operate and maintain the Company's thermal generation resources as follows;

(1) Increased sulfur content of the fuel as stated in Company witness Ms. Cindy A. Crane testimony,

(2) increased chemical usage due to the additional approved environmental control projects that were presented in the 2011 Utah rate case,

(3) environmental permit changes that the Company must comply with,

(4) increased utilization of the plants, and

(5) general inflationary cost impacts across our generation fleet.

Q. Please summarize your testimony.

A. The Company's thermal generation fleet non-labor,[1] non-overhaul O&M expenses are projected to be approximately $184.2 million for the test period ending May 31, 2013 ("Test Period"), as compared to the historical base period expense ending June 30, 2011 ("Base Period"), of $174.0 million. As detailed in Company witness Mr. Steven R. McDougal's Exhibit RMP___(SRM-3), Tab 4, page 4.9.1, the escalation of costs from the Base Period to the Test Period is largely explained by the inflation adjustment included in the case for non-overhaul generation O&M costs of $9.2 million. However, upon careful review of plant level operating conditions the Company believes that an overall increase in non-labor, non-overhaul O&M costs of $10.1 million (over the Base Period) is essential to maintain the plants. This is an increase of $0.9 million over the level of inflation.

Within the overall increase in costs, a major driver is related to the O&M impacts associated with environmental compliance activities. With the installation of environmental control equipment approved in the 2011 Utah rate case, the Company's operating costs are increasing due to chemicals and reagents that are

[1]O&M costs for the joint-owned, partner-operated plants on Mr. McDougal's Exhibit RMP___(SRM-3), Tab 4, page 4.9.1 include labor costs, while the Company operated plants treat labor costs in a separate adjustment.

required to operate the equipment. Additionally, operating costs are increasing due to coal quality issues addressed by Ms. Crane. Furthermore, the Company anticipates increased costs due to (i) coal mill maintenance and the addition of a scale inhibitor at Cholla, and (ii) the imposition of costs related to jointly owned, partner-operated generation stations by the other owners of such stations. These specific activities underlie the need for a higher level of generation O&M costs in rates.

Environmental Cost Increases

Q. Please explain the impact of the increase in the use of scrubber reagents and chemicals on operating costs.

A. A number of the Company's coal-fired power plants have been the subject of emission control permit changes which generally reduce the allowable emissions from the plants. In order to accomplish the emission reductions, new capital investments are scheduled to be, or have already been, installed and completed. The successful operation of the environmental control equipment is dependent upon chemicals to perform the emission reductions. In addition, two of our coal-fired power plants are subject to increased levels of sulfur in the fuel which also adds to the reagent needed to reduce emissions to meet new permit levels.

Q. Which plants' operating costs are impacted by environmental permit changes?

A. The Company's thermal generation resources at Dave Johnston Unit 4, the Wyodak Plant, and Naughton Units 1 and 2 are impacted by environmental permit changes related to emissions. The following are the impacts:

- Dave Johnston Unit 4 – The previously permitted SO_2 emission rate was 0.50 lbs per million Btu and the new permit lowers the rate to 0.15 lbs per million Btu. This decrease in permitted emission rate causes the plant to use more lime in the scrubber to achieve the new permit level emissions rate which will increase forecasted costs approximately $0.65 million.
- Wyodak Plant – The new permit added a 30 operating day limit of 0.16 lbs per million Btu for SO_2, which will increase forecasted costs approximately $0.5 million.
- Naughton Units 1 and 2 – For each of these units, the permitted emission rate was lowered from 1.20 lbs per million Btu to 0.15 pounds per million Btu. This decrease in permitted emission rate required the Company to install scrubbers on both units and add the associated reagent and O&M costs to operate these scrubbers. The increased operations and maintenance costs at Naughton Units 1 and 2 are forecast to be approximately $3.3 million.

The total increase in O&M costs due to permit changes for SO_2 for the PacifiCorp Energy thermal generation fleet in the Test Period is forecasted to be approximately $4.45 million.

Q. Please explain which plants will experience an increase in the sulfur content of the fuel used.

A. Hunter Units 1, 2, and 3 will experience an increase in the sulfur content of the coal from 0.54 percent sulfur during the base year to 0.73 percent sulfur during the test year as explained in the testimony of Ms. Crane.[2] This increase in sulfur

[2] Ms. Crane's testimony identifies the sulfur content related to specific sources. The numbers herein are sulfur content based on the overall blended coal supply at the plants.

will require an increase in the use of lime and increase forecasted costs approximately $1.71 million.

Huntington Units 1 and 2 will also experience a similar increase in the sulfur content of the coal from 0.54 percent sulfur during the Base Period to 0.70 percent sulfur during the Test Period as described by Ms. Crane. The increase in sulfur content of the fuel at the Huntington units will require increased use of lime to meet SO_2 emission permit levels which is forecast to increase costs approximately $1.7 million.

The total increased O&M costs due to rising sulfur content of the coal is forecasted to be approximately $3.41 million.

Coal Mill Maintenance

Q. Please explain what coal mill maintenance is and why this cost is increasing.

A. Once the coal is mined and delivered to a power plant it needs to be ground to a fine powder before it is injected into the boiler. The previous mine that provided a long-term coal supply to Cholla Unit 4 closed, and the last coal from this source was used in September 2010. The new coal supply at Cholla Unit 4 is harder to grind and as a result, is causing increased wear on the grinding elements in the mill. This increase in wear is forecast to increase costs by approximately $0.7 million.

Scale Inhibitor at Cholla

Q. Why is a scale inhibitor at Cholla Unit 4 needed?

A. Cholla Unit 4 has experienced a buildup of scale in the scrubber to the point that it was necessary to take the unit offline for maintenance. The plant operator

determined that the addition of dolomitic lime will reduce scale buildup. Prior to the use of dolomitic lime the scrubber needed to be operated in such a way to ensure compliance with existing permits even though scale was being formed during operation. The addition of dolomitic lime allows the scrubber to be operated within permit limits, but helps prevent the formation of scale. Dolomitic lime was added to the scrubber operations in December 2011 and will continue to be added to the Cholla Unit 4 operations going forward, including during the Test Period. The increased cost attributed to the use of dolomitic lime is approximately $0.33 million.

Jointly-Owned, Partner-Operated Generation Plant O&M Costs

Q. Which plants are partially owned by PacifiCorp, but operated by others?

A. The plants that the Company has a joint-ownership interest in, but which are operated by a partner include Camas, Cholla, Colstrip, Craig, Hayden and Hermiston. The operating companies of these plants establish the operating budgets necessary to maintain and operate the plants and the Company, as a joint owner, is obligated to pay its share of these costs.

Q. What is the forecasted increase in expense related to these plants?

A. The Company is forecasting an increase of $7.8 million in O&M costs associated with these jointly-owned plants, or an increase of $4.9 million over the general inflation included in the case of $2.8 million (Mr. McDougal Exhibit RMP___(SRM-3) page 4.9.1). Generally, the operators at these plants are facing the same types of operating issues and costs that the Company is facing. The Company works with the operating companies to review and comment on the

costs forecasted and incurred by these plants, but is obligated to pay its share of the costs incurred. The cost increases at the Cholla plant are driven by increase reagent use due to increased utilization and the items described previously. At the Craig plant the increases are driven by increases in large O&M projects in the areas of coal mill maintenance, baghouse bag replacements, ductwork lagging repairs, scrubber booster fan repairs. At the Hermiston plant, the Company is expecting an increase in costs due to the timing of repairs and the cost of spare parts. During the Base Period, no repair charges were incurred. During the Test Period, however, it is forecast that repair costs will be necessary and the estimated costs are approximately $2.0 million.

Summary and Conclusion

Q. Please summarize your testimony.

A. PacifiCorp Energy is experiencing a changing environment with respect to the permitted emission levels allowed by state and federal regulations, the quality of fuel that is used to generate electricity, and the utilization of the plants. The impacts from these items are causing PacifiCorp Energy to incur higher O&M costs. In addition, changing operating conditions and increased costs at partner-operated generation stations, warrant a higher level of O&M expense in the future. The Company is forecasting that a non-labor (except for partner-operated plants), non-overhaul level of O&M expense of $184.2 million (total Company) is crucial to properly maintain and operate the plants. This level of expense should be approved by this Commission and Utah's share of these costs should be included in rates through this case.

Q. Does this conclude your direct testimony?

A. Yes.