BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

In the Matter of the Application of	**)**	
PacifiCorp dba Rocky Mountain	**)**	**CASE NO. PAC-E-10-09**
Power for Approval of Amendments to	**)**	
Revised Protocol Allocation	**)**	**Direct Testimony of Gregory N. Duvall**
Methodology	**)**	

ROCKY MOUNTAIN POWER

CASE NO. PAC-E-10-09

September 2010

Q. Please state your name, business address and present position with PacifiCorp (the Company).

A. My name is Gregory N. Duvall, my business address is 825 NE Multnomah Street, Suite 600, Portland, Oregon 97232. My present position is Director, Long-Range Planning and Net Power Costs.

Qualifications

Q. Briefly describe your educational and professional background.

A. I received a degree in Mathematics from University of Washington in 1976 and a Masters of Business Administration from University of Portland in 1979. I was first employed by PacifiCorp in 1976 and have held various positions in resource and transmission planning, regulation, resource acquisitions and trading. From 1997 through 2000 I lived in Australia where I managed the Energy Trading Department for Powercor, a PacifiCorp subsidiary at that time. After returning to Portland, I was involved in direct access issues in Oregon and was responsible for directing the analytical effort for the Multi-State Process (MSP). Currently, I direct the work of the integrated resource planning group, the load forecasting group, the net power cost group, and the renewable compliance area.

Purpose of Testimony

Q. What is the purpose of your testimony in this proceeding?

A. I present the net power cost (NPC) study used to support the 2010 Protocol revenue requirement analyses that is presented in the testimony of Mr. Steven R. McDougal. In addition, I present the NPC studies that were conducted to test the sensitivity of high and low market prices, the studies that were conducted to

estimate the increased NPC that the Company would incur if there were structural separation by balancing areas, and the study that was used to develop the NPC and resource changes associated with the load growth study. I also present an analysis estimating the increased generation-related costs the Company would incur if each jurisdiction were to go-it-alone. The structural separation study and the go-it-alone study were conducted to provide a rough estimate of cost savings that may arise from continuing to plan and operate as a single integrated system. Finally, I present the NPC results associated with the load growth study. All studies except the go-it-alone study were conducted using the Company's Generation and Regulation Initiative Decision Tool (GRID) model.

2010 Protocol NPC Study

Q. Why did the Company prepare the 2010 Protocol NPC study?

A. The Company prepared the 2010 Protocol NPC study (Base NPC Study) at the request of the Standing Committee. The purpose of the study was to compute a current projection of total company NPC to support revenue requirement analysis as presented in the testimony of Mr. McDougal. The Standing Committee requested that the Company update its NPC study to reflect the most recent information available at the time.

Q. What input data did the Company use to conduct the Base NPC Study?

A. The Company used the 2008 Integrated Resource Plan (IRP) preferred portfolio, along with (i) the Company's February 2009 load forecast, (ii) June 2009 Official Forward Price Curves, and (iii) updated information of new and existing contracts as of August 2009. Input assumptions for the Klamath River operations and dam

removal schedule were taken from the Klamath Hydroelectric Settlement Agreement (KHSA) dated February 18, 2010.

Market Price Sensitivity Studies

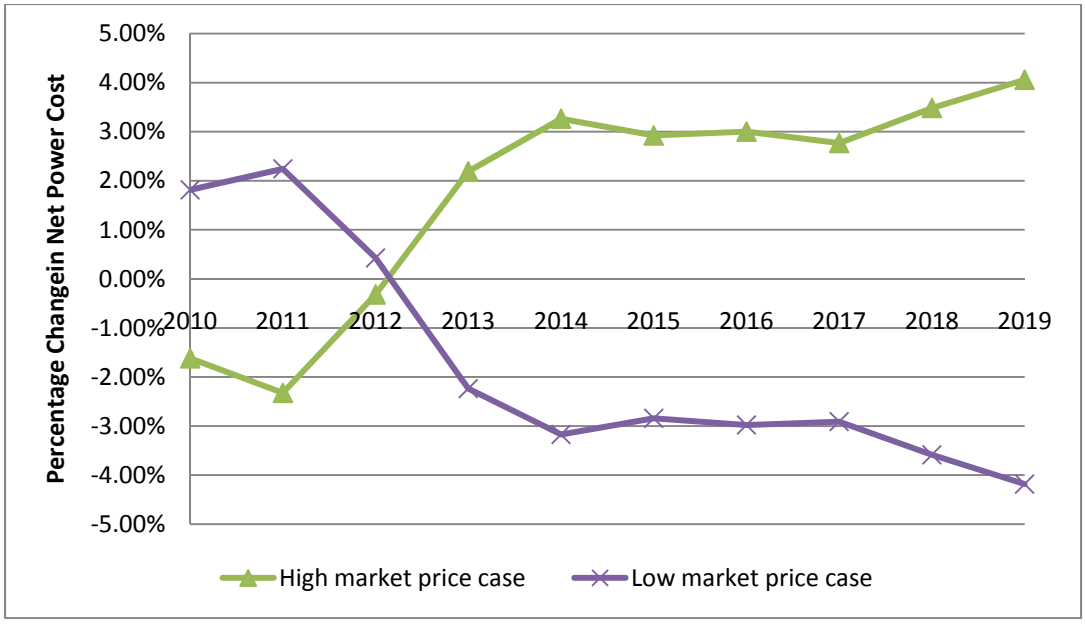
Q. Why did the Company perform market price sensitivity studies?

A. Wholesale power and gas market prices are volatile and unpredictable and have the potential to affect each jurisdiction differently under the Revised Protocol. To test this, the Company was requested by the Standing Committee to run a high and a low market price sensitivity study and report the results of those studies.

Q. What assumptions were used for the high and low market price studies?

A. For the NPC studies supporting the high and low market price sensitivity analyses, the Company increased or decreased market prices by 20 percent, respectively. An annual summary of the base, high and low market prices at California Oregon Border (COB) and Palo Verde (PV) for electricity and at Rocky Opal for natural gas are provided in Exhibit No. 10. Chart 1 below shows the impact of the high and low market prices on net power cost, presented as percentage changes in NPC from the Base NPC Study.

Chart 1
High and Low Price Studies Compared to Base NPC Study



Structural Separation Studies and Go-It-Alone Analysis

Q. Why did the Company perform the structural separation studies and the go-it-alone analysis?

A. The Company was requested to perform structural separation studies and the go-it-alone analysis by the Standing Committee as a means of estimating the cost savings that may arise from continuing to plan and operate as a single integrated system. These studies are highly assumption driven and should not be relied upon other than for the purpose they are used for in the MSP. The structural separation studies assume that Pacific Power and Rocky Mountain Power would become separate entities and operate on a balancing area basis, and the go-it-alone study assumes that each state jurisdiction would become a separate entity. In the case of structural separation, it was assumed that the current system-wide planning is sufficient to cover the resource needs of both balancing areas, rather than as a

single, integrated power system as is currently done. However, the balancing areas were assumed to operate on their own. In the case of the go-it-alone analysis, the jurisdictional entities would need to plan and operate on their own because the significant differences in the jurisdictional non-coincidental peaks as compared with the coincidental peaks of the system that are used in the Company's planning.

Q. What assumptions were made to perform the structural separation studies?

A. The Company currently operates in two balancing areas, east and west. The structural separation studies disconnect the transfer between the two balancing areas. Loads and resources were assigned to each balancing area based on their physical location. The Company has a small number of exchanges under which power is received by the Company in one balancing area and returned to the Company in the other balancing area. For purposes of the structural separation studies, the Company assumed these cross-balancing area exchanges would be terminated, and therefore they were not included in either balancing area. A list of major assumptions to NPC studies for the structural separation analysis is provided in Exhibit No. 11. The studies were performed on calendar years 2012, 2015 and 2017 based on changes in the Company's transmission additions that impact the modeling topologies.

Q. What are the limitations of the structural separation NPC study results?

A. As previously mentioned, the structural separation study results are a highly assumption-driven assessment of a balancing area structural separation model. The assignment of resources and the modeling of a balancing area structural

separation are based on one set of assumptions. It is not advocated by any party including the Company and is provided solely for informational purposes. The balancing area split of generation and transmission resources does not reflect the pre-1989 merger assignment of resources between Pacific Power and the former Utah Power. This study does not analyze the potential costs of refinancing, additional workforce and other costs associated with changing the operation of a single integrated system that serves each of California, Idaho, Oregon, Utah, Washington and Wyoming to a control area structural separated system. Neither does the analysis evaluate what resources changes might occur under a balancing area structurally separated system.

Q. What were the results of the structural separation studies?

A. The structural separation studies for calendar years 2012, 2015 and 2017 indicate that the total NPC for the combined east and west balancing areas would be higher than the Base NPC Study by about 3 percent as shown in Table 1 below. Assuming a level of NPC at $1.5 billion, the dollar increased ranged from $37 million to $45 million.

Table 1
Combined East and West Studies Compared to Base NPC Study

2012	2.50%
2015	3.68%
2017	3.02%

Q. Has the Company updated its structural separation studies to incorporate the KHSA?

A. Yes. The Company updated the studies that were previously provided to the Standing Committee. The results presented in Table 1 above are from the updated

studies, and are consistent with what the Company has previously provided, which indicated significant savings operating the system as a whole.

Q. Please describe the go-it-alone analysis.

A. The go-it-alone analysis quantifies the difference between the total amount of peak load that would need to be met on a state-by-state basis and the amount of peak load that would need to be met with the continuation of integrated system resource planning. The loss of diversity that would occur if each jurisdiction were to go-it-alone would directly translate into an increased need for generating resources, and therefore increased costs. For this analysis, the increased resource requirements were priced at the 2008 IRP costs of new combined cycle combustion turbines.

Q. What are the limitations of the go-it-alone NPC study results?

A. Like the structural separation study, the go-it-alone study is a highly assumption driven assessment of a state separation model. It is not advocated by any party including the Company and is provided solely for informational purposes. This study does not analyze the potential costs of refinancing, additional workforce and other costs associated with changing the operation of a single integrated system that serves each of California, Idaho, Oregon, Utah, Washington and Wyoming to a six-state separated system. The study also does not evaluate the impact of the resource dispatching under a six-state separated system.

Q. What were the results of the go-it-alone analysis?

A. If each jurisdiction were required to plan to meet their own peak loads, the additional costs incurred to acquire the necessary additional resources could be

approximately $270 million each year. The results of the analysis are provided in Exhibit No. 12.

Q. Why was GRID not used to prepare the go-it-alone study?

A. Modeling each jurisdiction in GRID would require assumptions on resource and transmission assignment, as well as assumptions on each jurisdiction's access to wholesale markets. In the Company's view, creating a set of assumptions on these issues that would prove reasonably acceptable to all jurisdictions would be impractical at this time. The Company believes that the analysis performed reasonably captures the increased cost that would be incurred if each jurisdiction needed to plan for itself.

Load Growth Analysis

Q. Why did the Company perform the load growth analysis?

A. The Company was requested to perform load growth analysis by the Standing Committee as a means of evaluating whether the slower-growing states unfairly subsidize the faster-growing states.

Q. How is the NPC calculated for the load growth analysis?

A. The first step is to identify which states are growing relatively faster than the rest of the states, which are Utah and Wyoming in the current study. The growth rate of these two states during the study period from calendar year 2010 through calendar year 2019 was adjusted down to match the average growth rate of load in the rest of the states. Then the 2008 IRP resource portfolio was modified to remove resource additions that would no longer be needed due to the reduced system load.

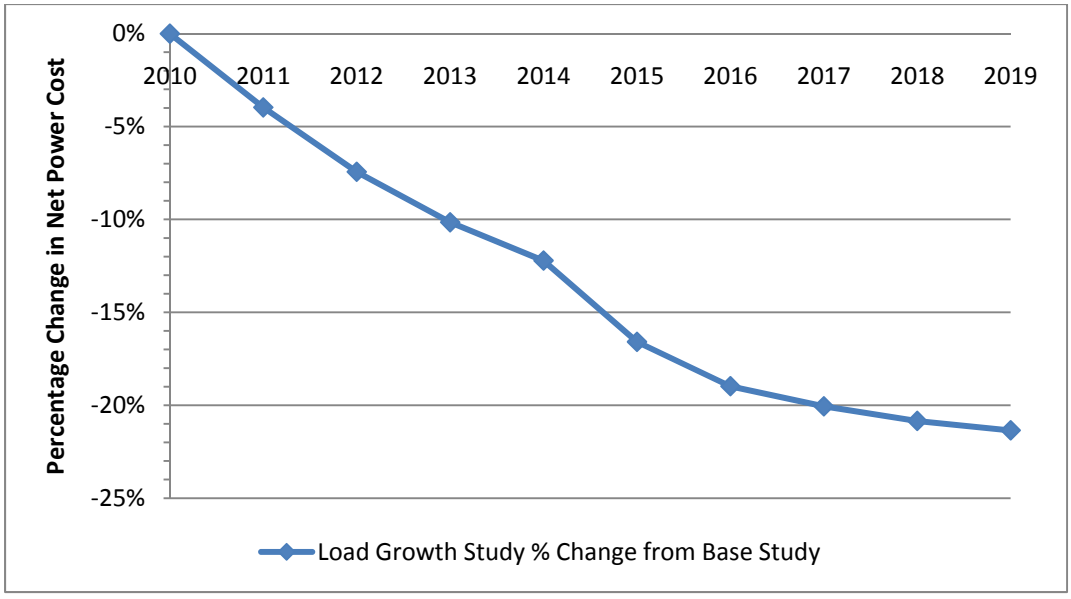
Q. How was the 2008 IRP resource portfolio modified as a result of the changes in load growth?

A. First, the load and resource balance was updated from the 2008 IRP to reflect the reduction in system peak load assumed for Utah and Wyoming. Next, the resource additions in the east balancing area were reduced to maintain a minimum of a 12 percent planning reserve margin. Several planned east resources included in the 2008 IRP were removed, including the East CCCT (CCCT F 2x1, Utah North), the East thermal PPA, the East Aero and the East Geothermal. Planned east wind resources and demand side management assumptions were not changed. Front office transactions in the load growth resource portfolio were reduced. Exhibit No. 13 illustrates the changes to the 2008 IRP preferred portfolio as a result of the reduction in Utah and Wyoming load.

Q. What is the impact of the reduced load?

A. By the end of the study period, through calendar year 2019, the total Company NPC decreases by approximately 21 percent as compared to the Base NPC Study. The results of the analysis are provided in Chart 2 below. The overall revenue requirement impact of the reduced load, including the change to NPC and the corresponding change fixed costs related to resource additions that would no longer be required, is reflected in the revenue requirement study that is addressed by Mr. McDougal.

Chart 2
Load Growth Study Compared to Base NPC Study



Q. Does this conclude your direct testimony?

A. Yes.