Q. Please state your name, business address and position in the Company.

A. My name is Barry G. Cunningham. My business address is 1407 West North Temple, Suite 320, Salt Lake City, Utah. My position is Senior Vice President of Generation.

Qualifications

Q. Please describe your education and business experience.

A. I have a Bachelor of Arts degree in Physical Science. During my career with PacifiCorp, I have served as a Trainer, Training Manager, Assistant Operations Superintendent, a Maintenance Superintendent, a Plant Manager and the Director of Technical Support with responsibility for all of PacifiCorp's small plants. I became Assistant Vice President of Generation in 1998, Vice President of Generation in 1999, and Senior Vice President in 2002 with responsibility for all thermal and hydro generation assets, hydro relicensing activities and the construction of new resources.

Summary of Testimony

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to explain the reason for and prudence of the increased generation related overhaul and maintenance expenses for the 12-month period ended September 30, 2007 (Test Period) relative to the 12-month period ended September 30, 2005 (Base Period). I will discuss how these increases contribute to the overall revenue requirement request supported by the testimony of Mr. Ted Weston. My testimony explains these increases and the circumstances

that are driving them. My testimony will also demonstrate the prudence of constructing a flue gas de-sulfurization system (scrubber) for Huntington Unit 2.

Q. Please explain the types of generation-related adjustments discussed in your testimony.

A. My testimony discusses three adjustments that are applied to the generation operation and maintenance expenses for the Test Period. First, I discuss the Generation Overhaul Normalization that adjusts for increased annual overhaul expenditures. This adjustment addresses changes in the number, duration, and magnitude of generating unit overhauls. Second, my testimony will explain the adjustment for New Plant Incremental costs. This adjustment adds operating and maintenance expenses for new plants that are in service during the Test Period. Third, my testimony will address the Generation Operation and Maintenance ("O&M") Normalization Adjustment that adjusts for increased expenditures in contracts, materials, and special maintenance.

Finally, my testimony discusses the prudence of the capital expenditures for the Huntington Unit 2 Flue Gas De-sulfurization project (scrubber).

Adjustments to Generation Related Expenditures

Q. Why is generation related maintenance expense increasing at a rate greater than inflation?

A. The primary drivers to the increases in maintenance expenses are aging of the existing fleet of generating units, the addition of new generating units, increased hydro expenses caused by hydro relicensing settlements, and the addition of new equipment to existing plant.

The PacifiCorp Generation fleet is aging. As generating units age over time, new and more comprehensive maintenance is necessary to maintain the capacity and reliability of the generating units. Like any physical asset that is subject to aging, the cost to maintain performance and reliability increases over time. The fleet ranges from the oldest unit, Gadsby Unit 1, with an age of 55 years to the newest resource, Currant Creek, with an age of one year. The average age of the generating units is 29 years. As major components age, the magnitude and scope of repairs tend to increase and maintenance expenditures increase in order to maintain the capacity and reliability of the generating units. Maintenance expenditure levels for these aging units will be greater than maintenance expenditures for younger units.

New generating units are being added to the fleet to supply increasing customer load. The Lakeside plant and the second phase of the Current Creek plant have been added to PacifiCorp's fleet. The operating and maintenance expenses associated with these new resources have been included in this rate case.

New hydro operation and maintenance expenses are being incurred as a result of requirements imposed by the relicensing settlement process.

New equipment is being installed at thermal generating plants to improve reliability and meet environmental requirements. The addition of this equipment increases operation and maintenance expenses.

Q. Has PacifiCorp been able to maintain its generation fleet in a way that benefits plant performance?

A. Yes. PacifiCorp has been able to maintain the fleet such that the system 5-year average equivalent availability and average capacity factor are higher than the industry average for an equivalent system.

Q. What is the benefit to customers of increasing generation related maintenance expenditures?

A. The increased maintenance expenditures enable PacifiCorp to maintain overall reliability of the aging fleet. As a result, PacifiCorp plants produce energy at a lower cost than the market, enabling the Company to serve its customers at some of the lowest retail electric prices in the western United States. Continued reliability of existing generating units requires increased maintenance and capital spending.

Q. Please explain the Generation Overhaul Normalization adjustment.

A. The Generation Overhaul Normalization adjustment increases the escalated Base Period overhaul expenses to the level of expenditures that are forecasted for the Test Period. The Generation Overhaul Normalization is $17.3 million. Calculation of this adjustment is detailed in Mr. Weston's Exhibit UP&L___(JTW-1), Tab 4.11. This adjustment is related to changes in the level of overhaul expenditures for contract, material, and other expenses between the Base Period and the Test Period. The increase in expenditures results primarily from changes in the scope of the overhaul work. Some change is also due to the number of units and the size of the units being overhauled. The case better

reflects the forecast Test Period by adjusting the Base Period overhaul expense to the sustainable level forecast in the Test Period.

Q. What are the key drivers of the increases in the annual overhaul expenditures?

A. The key drivers are the age of plant equipment and, to a lesser extent, the addition of more generating units to the fleet. Many of the large components in these generating units need major refurbishment or replacement due to age and hours of service. These large components can only be maintained or replaced during planned overhauls. These components are being overhauled or replaced to maintain the capacity and reliability of the plants. The magnitude of the maintenance on these large components is greater than has occurred in past overhauls due to the age and high capacity factors of the generating units. The overhaul expenditures for the Test Period are representative of the level of overhaul maintenance expenditures that are forecast for the foreseeable future.

Q. Why are the escalated Base Period overhaul costs not representative of the future overhaul costs?

A. The escalated historic overhaul expenditure levels do not reflect the forecast expenditure levels that will be required to maintain the generation fleet and provide reliable service. Generally speaking, there are several factors that explain why using escalated historic costs do not provide a realistic calculation of future overhaul costs. First, the number of generating units in the fleet is increasing. For example, the first overhaul of Currant Creek, at an adjusted cost of $2.5 million, is included in the Test Period. Second, total overhaul costs reflect the

number of units that are off line during any given year and that number is determined by examining the condition, the performance, and the potential risk to reliability and safety for each unit. As a result, the number of units off line in any given year will vary. Third, overhaul costs reflect the size of the units that are off line. A large unit will require a larger contractor workforce and more materials than a smaller unit. Finally, overhaul costs also reflect the amount of work required to complete the necessary maintenance on the units. The increasing age of plant equipment is increasing the amount of work required to maintain reliability. For these reasons, historical overhaul expenses alone are not sufficient to forecast future overhaul expenditures.

Q. Are the higher overhaul costs in the Test Period a result of deferring overhaul work in the Base Period?

A. No, while it is possible to shift overhaul schedules and scope of overhaul work on a limited basis, it is not practical to defer overhaul related work several years. Some examples of shifting overhaul schedules would be moving an overhaul a few months from one fiscal year to another fiscal year, or shifting an overhaul from a spring outage to a fall outage. However, while these minor shifts are possible, it is not practical to shift a planned unit overhaul more than one year. Our coal fired unit boilers are scheduled on four and five year major overhaul cycles and cannot be operated reliably for longer intervals without maintenance that requires a planned major overhaul. The combustion turbine overhaul schedules are dictated by the number of starts and number of operating hours and

cannot be arbitrarily deferred. No planned overhauls for the Base Period were moved into the Test Period.

Q. How does PacifiCorp determine the schedule for overhauling generating units?

A. The time interval between overhauls and duration of overhauls dictate the overhaul schedule and are driven by the aging condition of each generating unit. The length of the interval between major planned maintenance outages is based on the equipment's design, condition and age, as well as PacifiCorp's specific experience operating and maintaining the equipment, and PacifiCorp's knowledge of current and past industry experience with similar equipment. Planning and scheduling of unit overhauls is a continuous and detailed process. The overall objective is to maintain high equivalent availability. A second objective is to schedule the unit overhauls in a manner such that resources are available to meet the load requirements. The length of intervals between overhauls for each unit is based on the factors discussed above, as well as the condition of the generating unit, performance of the generating unit, system requirements, and PacifiCorp's experience with similar units. The overhaul schedule is revised from time to time as new information on the condition of units and resource needs is available.

Q. How accurate is the forecast of overhaul expenses for the Test Period?

A. The forecast for the Test Period is a weighted average of FY2007 and FY2008 expenditure forecasts. Both FY2007 and FY2008 forecast overhaul expenditures are based on plant budgets that are detailed to a project level. Plant personnel base these forecast expenditures on operating experience, original equipment

manufacturer recommendations, actual equipment inspections, equipment performance, and equipment operating history. Plant management teams and generation management review and update the overhaul plans and budgets annually as part of the overall planning and budgeting process. Accordingly, the forecast overhaul expenses used in this rate case are based on the scope of work that is planned for each scheduled overhaul that results from this deliberate process.

Q. Please explain the New Plant Incremental Cost adjustment.

A. The New Plant Incremental Cost adjustment adds the operation and maintenance expenses for generating units that were not in service during the Base Period but are in service during the Test Period ending September 2007. The operation and maintenance expenses include labor, material, contracts and other expenditures. The Currant Creek combined cycle unit will be in commercial service at the beginning of the Test Period. The Lakeside Unit will be in commercial operation in May 2007. This adjustment adds the budgeted operation and maintenance expenses for the Currant Creek and Lakeside units that were not included in the Base Period. Total new operation and maintenance expenses included in the Test Period are $5.1 million. Calculation of this adjustment is detailed in Mr. Weston's Exhibit UP&L___(JTW-1), Tab 4.12. This adjustment is necessary to accurately capture the impact of adding new generation for the Test Period.

Q. Please explain Generation Operation and Maintenance (O&M) Normalization adjustment.

A. The Generation O&M Normalization adjusts the escalated Base Period generation contracts, materials, and special maintenance expenditures to the level forecast for the Test Period. This adjustment is $16.7 million. Calculation of this adjustment is detailed in Mr. Weston's Exhibit UP&L___(JTW-1), Tab 4.13. This adjustment is distinct from the Generation Overhaul Normalization adjustment in that it does not include labor and does not include overhaul expenditures. The O&M Normalization adjustment can be sub-divided into the following categories:

Special Maintenance	54%
Contracts	29%
Materials	16%

In general, these increases can be attributed to:

- Aging equipment
- Addition to and upgrades of environmental equipment
- Increased operation and maintenance expenditures resulting from hydro relicensing settlements

Q. Please explain the increased expenditures related to special maintenance projects.

A. As discussed previously in my testimony, plant equipment is aging and additional maintenance expense is required to maintain a high level of reliability. As with overhaul expenditures, the number and size of special maintenance projects increases as generating units age. The special maintenance category contains expenditures for large, identifiable projects. Some typical examples are

rebuilding large equipment, dredging of ponds and waterways, and arc-flash program related maintenance. The special maintenance category also includes increased hydro operation and maintenance expenditures resulting from hydro relicensing settlements.

Q. Please explain the increased expenditures related to contracts.

A. The increase in contract costs is due to increased material freight costs, increased expenditures for environmental compliance and resource development, and increased contract costs for jointly owned generating units that are not operated by PacifiCorp. These joint-owned plant contract expenditures include expenses for labor, materials and contracts. In general, many of the joint-owned units are similar in design and age to PacifiCorp plants and are faced with the similar problems of aging equipment and increasing regulatory requirements. Consequently, the O&M expenses for joint-owned plants are projected to increase in a manner similar to PacifiCorp plants.

Q. Please explain the increased material expenditures.

A. Increases in material costs are caused primarily by increased chemical consumption and the increased price of required chemicals. The increased consumption of chemicals is due to the installation of the Huntington Unit 2 scrubber, which is described in detail below.

Q. What is the trend in operation and maintenance expenditures?

A. The following table shows the trend in total non-labor operation and maintenance expenses, excluding thermal unit labor and overhaul expenses.

Generation Materials, Contracts, and Special Maintenance Expenditures, $000			
FY2005	FY2006	FY2007	FY2008
120,755	124,202	136,159	143,968

The values in the table demonstrate why historical operation and maintenance costs are not representative of the cost that the Company will incur while these new rates will be in effect. The Generation O&M Normalization adjustment brings escalated Base Period expenditures in-line with the Test Period budgeted expenditures. This level of expenditures is also reflective of forecast expenditures for the years following the Test Period.

Q. How accurate are the forecast operation and maintenance expenditures for the Test Period?

A. The forecast operation and maintenance expenditures for the Test Period are a weighted average of FY2007 and FY2008 forecasts. Both FY2007 and FY2008 forecast O&M expenditures are based on individual plant budgets. Plant personnel base the plant budget expenditures on operating experience, planned generation, and equipment performance. Plant management teams and generation management review and update these budgets annually as part of the overall planning and budgeting process. The forecast O&M expenditures used in this rate case are based on the generation and maintenance planned for each generating unit during the Test Period. Accordingly, the adjustment reflects the actual planned expenditures in the Test Period after this detailed review process.

Prudence of Huntington Scrubber Capital Expenditure

Q. Please describe the Huntington Unit 2 Flue Gas De-sulfurization (scrubber) project.

A. As outlined in PacifiCorp's 2004 Integrated Resource Plan, PacifiCorp approved an emission control project in July 2004 that will update and improve SO_2, particulate, and NO_X controls on its Huntington Unit 2. This unit is a 450-megawatt coal-fired power plant located in Emery County, Utah. The total capital cost for the project is forecast to be approximately $135 million. The SO2 scrubber is one part of this project and construction began in 2005 and the project will be operational December 2006.

Q. Please explain the emissions improvements expected from the project.

A. Emission improvements, once the upgrades are complete, include the following:

- A wet-lime scrubber will reduce sulfur dioxide emissions by approximately 95 percent, roughly 14,000 tons per year.
- A Pulse Jet Fabric Filter, commonly called a bag house, will replace the present electrostatic precipitator, and will reduce particulate emissions about 80 percent, or approximately 1,000 tons per year. The bag house will also remove 90-95 percent of the mercury emissions.
- Low-NO_X burners will reduce nitrogen oxides by about 40 percent, or approximately 2,500 tons per year.

Q. Why is PacifiCorp installing the Huntington Unit 2 scrubber at this time?

A. The Company chose to install the Huntington Unit 2 scrubber project at this time in response to a variety of existing and emerging emission reduction

requirements, such as ongoing air permitting issues, New Source Review requirements, ongoing compliance issues, visibility concerns and most significantly, regional haze issues. The decision to install the scrubber also considered the SO_2 emissions profile at this unit compared to all other similarly sized units in the state of Utah. Installation of the scrubber will enable ongoing compliance with existing and emerging emission reduction requirements for this unit and also represents a significant step for the PacifiCorp coal-fired fleet in meeting regional SO_2 reductions for Regional Haze requirements.

The addition of these emission controls is expected to reduce mercury emissions and allow Huntington Unit 2 to meet EPA's anticipated mercury regulations. This project, along with other future projects, will enable PacifiCorp to achieve the SO_2 reductions recommended by the Western Regional Air Partnership, approved by EPA and adopted by the State of Utah, to address visibility at scenic areas. The low NO_X burners are consistent with existing requirements for western plants.

Q. What is the benefit to customers of the installation of the Huntington 2 scrubber?

A. Customers not only benefit from the immediate environmental gains; they also benefit from the continued availability of low-cost generation, and by the installation of these necessary controls during a planned outage, as opposed to scheduling a separate outage for this work, which reduces replacement power costs. Postponement of the project to a later planned outage would increase the project costs due to vendor availability issues, the possible expiration of Utah's

pollution control sales tax exemption, and reduced SO_2 emissions allowance revenues.

This series of pollution control investments address risks associated with emissions at the Huntington 2 unit and does so in a cost-effective manner by allowing installation during a planned outage for the unit. Developing federal and state air quality regulations are expected to require similar controls on other coal generating units in the PacifiCorp fleet.

Q. Does this conclude your testimony?

A. Yes.