Docket No. 09-_____
Exhibit No. PPL/700
Witness: Robert M. Meredith

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

PACIFICORP

Direct Testimony of Robert M. Meredith

Cost of Service

November 2009

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

A. My name is Robert M. Meredith. My business address is 825 N.E. Multnomah, Suite 2000, Portland, Oregon 97232. I am currently employed as a Cost of Service and Pricing Analyst in the Regulation Department.

Qualifications

Q. Please briefly describe your education and business experience.

A. I graduated magna cum laude from Oregon State University in 2004 with a Bachelor of Science degree in Business Administration and a minor in Economics. In addition to my formal education, I have attended various industry-related seminars. Since 2004, I have had experience working for the Company in Customer Service, Finance, Large Account Management, and Regulation. I have been in my present position since 2007.

Q. What are your current responsibilities?

A. My primary responsibilities are to prepare and perform class cost-of-service analyses and to present their results.

Purpose of Testimony

Q. What is the purpose of your testimony?

A. I will present the development of PacifiCorp's functionalized class revenue requirement and supporting marginal cost-of-service study for the forecast twelve months ending December 31, 2011.

Q. Please explain Exhibit PPL/701, Table 1.

A. Exhibit PPL/701, Table 1 shows PacifiCorp's functionalized class revenue

requirement results based on the proposed revenue requirement change. Line 1 provides normalized present revenues by function for the forecasted twelve-months ending December 31, 2011. Line 2 shows the proposed revenues for each of the functionalized service categories: Production (also referred to as Generation), FERC Transmission, State Transmission and Distribution. Line 3 shows the proposed revenue changes by function.

Q. Please describe Exhibit PPL/701, Table 2.

A. Exhibit PPL/701, Table 2 is the summary page from PacifiCorp's December 2011 Revised Protocol Beginning/Ending Average Results of Operations Summary for the state of California. It is the basis for the functionalized revenue requirement in Exhibit PPL/701, Table 1.

Q. Please describe how functionalization is employed in the Results of Operations.

A. Functionalization is the process of separating expenses and rate base items according to utility function. The production or generation function consists of the costs associated with power generation, including mining and wholesale purchases. The transmission function includes the costs associated with the high voltage system utilized for the bulk transmission of power from the generation source and interconnected utilities to the load centers. The distribution function includes the radial distribution system that connects customers to the transmission system. This includes distribution substations, poles and wires, line transformers, service drops and meters. Also included in the distribution function are the costs of metering, meter reading, billing, collections and customer service.

Q. How was the revenue requirement for each of the unbundled categories determined?

A. Traditional revenue requirement methodology, recovery of costs plus a return on rate base, is used to determine state and functionalized category revenue requirement. Costs and rate base assets are from PacifiCorp's forecasted twelve-months ending December 31, 2011 Results of Operations for the state of California filed by Company witness Mr. R. Bryce Dalley. The application of PacifiCorp's proposed rate increase, as shown on Exhibit PPL/701, Table 1, is consistent with Mr. Dalley's Exhibit PPL/501.

Q. Please describe Exhibit PPL/701, Table 3.

A. Exhibit PPL/701, Table 3 contains the normalized forecast revenues and functional class revenue requirements for the twelve-months ending December 31, 2011. Columns C–H, lines 1-12 provide the functionalized forecast revenues by class. Lines 13-24 are based on the results of both PacifiCorp's Functionalized Results of Operations and Marginal Cost Study. For example, the total generation revenue requirement shown in Column (C), line 24 is based on Column (A), line 2 of Exhibit PPL/701, Table 1. The total generation revenue is then allocated to the various classes of customers based on the percentages shown in Exhibit PPL/701, Table 6, Column (B).

Q. Please describe Exhibit PPL/701, Table 4.

Exhibit PPL/701, Table 4 reflects the results of Exhibit PPL/701, Table 3 in cents per kilowatt hour ("kWh").

Q. Please identify Exhibit PPL/701, Tables 5 and 6.

A. Exhibit PPL/701, Tables 5 and 6 contain summaries from PacifiCorp's State of California 2011 Marginal Cost Study. Lines 32-34 of Exhibit PPL/701, Table 5 provide full functionalized marginal cost for each customer class, and lines 37 – 41 show each class's percent contribution of the total functionalized marginal cost. For example, Column (B), line 38 shows that the residential class is responsible for 48.55 percent of the total Generation marginal costs. Exhibit PPL/701, Table 6 summarizes lines 37 – 41 of Exhibit PPL/701, Table 5.

California Marginal Cost Study

Q. Please describe PacifiCorp's Marginal Cost Study that accompanies this filing.

A. PacifiCorp's 2011 Marginal Cost Study for the state of California is provided as Confidential Exhibit PPL/702. Although some tables containing confidential data have been redacted, all of the summary tables described in my testimony are included in the public version of this exhibit. This study shows, by customer class, PacifiCorp's marginal cost of resources required to produce one additional unit of electricity or to add one additional customer. One- and ten-year marginal costs are calculated in order to show the range of costs over different time periods. Ten-year marginal costs are the primary tool used in setting retail tariff prices. Confidential Exhibit PPL/702 contains a table of contents, ten summary tables, and fifteen sections of supporting data.

Q. How was this study prepared?

A. The Marginal Cost Study was prepared in a similar manner to the study filed in

PacifiCorp's most recent California general rate case, Application ("A.") 05-11-022 ("2005 Rate Case") and in prior cases. Generation at full marginal cost is based on ten years of generation costs, as specified in the Settlement Agreement between PacifiCorp and Division of Ratepayer Advocates ("DRA") ("Settlement Agreement"), reached in PacifiCorp's 1992 general rate case, A.92-12-006. Also as part of the Settlement Agreement, PacifiCorp agreed not to classify transformer costs as demand-related in subsequent marginal cost studies. Therefore, 100 percent of transformer costs contained in this study continue to be classified as commitment costs. Additionally, poles and conductors continue to be classified entirely to demand and a nominal levelized carrying charge is used as directed in Decision ("D.") 93-12-016, which approved the Settlement Agreement.

Q. Does this marginal cost study employ the New Customer Only ("NCO") method for determining marginal transformer, meter, and service costs?

A. Yes. Consistent with the Company's 2005 Rate Case and with the preferences of the California Public Utilities Commission and DRA, the Company continues to utilize the NCO method for determining marginal transformer, meter, and service costs in this case.

Q. Are there any differences between this marginal cost study and the previously filed study?

A. Yes. The calculation of customer class loads has been revised. In previous rate proceedings, class loads at the generator level were derived using class load factors. The class load factor method was used for a number of years before data necessary to develop specific class loads was available. In this filing, specific

class loads were developed using load research methodology and directly adjusted for demand-related losses, which is more accurate than the previous method.

Marginal Cost Calculation

Q. In the marginal cost-of-service study, how are one-year and ten-year marginal costs calculated?

A. One-year marginal costs include only changes in operating costs, while ten-year marginal costs also include the cost of expanding facilities. The cost of added facilities results in long-run costs, which are higher than short-run costs. Short-run costs include only one year of generation energy costs and some billing costs. Long-run costs include ten years of generation plus transmission and distribution costs.

Q. Please explain the marginal cost summary tables in Confidential Exhibit PPL/702.

A. Tables 1 and 2 of Confidential Exhibit PPL/702 summarize the one- and ten-year marginal costs by customer class and load size group and are shown in mills/kWh. Marginal commitment costs and billing expenses, which are referred to as customer costs, are shown in dollars per customer per month for both the one-year and ten-year time periods.

Confidential Exhibit PPL/702, Table 3 summarizes the unit costs based on the results of the ten-year marginal cost study. Unit costs are shown for generation, transmission, distribution and various customer service functional categories. This table also includes energy usage, loads and number of customers by customer class for the forecast test year and is used to calculate the annual

class long-run marginal costs shown on Confidential Exhibit PPL/702, Table 4.

Q. Please explain how marginal generation costs are calculated.

A. Marginal generation costs in this study are based on the Company's most recent avoided cost calculations. These new resource costs are based on the fixed and variable costs of a combined cycle combustion turbine ("CCCT"), which operates as a base load unit. This recognizes that base load generation produces the dual products of capacity and energy. The cost of the CCCT is split into capacity and energy components. The fixed cost of a simple cycle combustion turbine ("SCCT") defines the fixed costs of the CCCT that are assigned to capacity. CCCT fixed costs which are in excess of SCCT fixed costs are assigned to energy and are added to the variable costs of the CCCT to determine total avoided energy costs. Capacity and energy costs are brought to their present value, summed and an annual charge is applied to the total.

The marginal capacity cost is the same all year since capacity is important each month for meeting peak loads, load following, thermal maintenance and special sales. Marginal generation costs are summarized in Confidential Exhibit PPL/702, Table 5.

Q. How are transmission costs calculated?

A. Transmission costs in this study are based on five years (2011-2015) of forecasted investment to meet the anticipated transmission system load increases. Expenditures identified as growth-related are used to develop marginal transmission costs. All of these growth-related transmission investments, except bulk power lines, are classified entirely to demand. Bulk power lines are

classified both to demand and energy in the same proportions as the long-run marginal cost of generation resources. Marginal transmission costs are summarized in Confidential Exhibit PPL/702, Table 6.

Q. Please explain Confidential Exhibit PPL/702, Table 7.

A. Confidential Exhibit PPL/702, Table 7 provides a unit cost summary of marginal distribution and billing costs by class and load size. Distribution costs are classified into three components: demand-related, shown in dollars per kilowatt ("kW")/year; commitment-related, shown in dollars per customer/year; and billing-related, also shown in dollars per customer/year.

Q. How are distribution line transformer, meter, and service marginal costs calculated?

A. Derivation of marginal transformer, meter, and service costs are illustrated in Confidential Exhibit PPL/702, Table 8. Calculating costs per customer using the NCO method requires the development of 1) investment costs, 2) hookup and replacement values based on total and incremental customer counts, and 3) a present value revenue requirement ("PVRR") for California distribution assets.

First, transformer costs are calculated using a least squares regression analysis of the current installed cost versus size of the Company's commonly installed transformers. The fixed and load-size components are separated by the nature of this statistical technique. The regression provides an intercept term, which represents the fixed component, and a slope, which represents the load size cost per kW. On page 28 of Attachment A of the previously mentioned Settlement Agreement, PacifiCorp agreed not to classify transformer costs as

demand-related in subsequent marginal cost studies. Therefore, both the fixed and load-size transformer costs have been classified as commitment costs in this study. Service costs include the costs of new service drop investment plus associated operations and maintenance ("O&M") expense. Average service drop investments are determined for each customer load size by analyzing service requirements, such as single or three-phase service and voltage level. Service drop O&M is based on the average of ten years of historical expenditures. Metering costs include the cost of metering equipment with associated O&M. Average meter investments are determined for each customer load size by also analyzing service requirements similar to those for service drops. Meter O&M is based on historical expenditures.

Second, for each customer group, the difference between December 2011 forecasted customers included in this case and December 2007 forecasted customers filed in the 2005 Rate Case was used to develop average new hookups, and a plant replacement percentage of 1.5 percent was applied to December 2011 customer counts to calculate a plant replacement value.

Finally, a current PVRR value for California distribution assets of 125.4 percent was used to derive the transformer, service, and meter costs for each rate schedule. The PVRR value, which was prepared by the Company's Finance department, employs several state-specific assumptions, including a discount rate of 8.69 percent, which is the Company's proposed rate of return.

Q. Please describe how the marginal costs of distribution poles and conductor are calculated.

A. The marginal cost of distribution poles and conductor are calculated using the Company's distribution circuit model. The circuit model focuses on several key characteristics that influence distribution cost of service. Among these are customer density, customer size and usage characteristics, and customer location on the circuit. The hypothetical circuit is constructed with seven branches of equal length using composite line statistics and current cost estimates for PacifiCorp's California service territory. The unit cost of each branch of the circuit is calculated by dividing the total cost of the branch by the branch peak kW (circuit kW peak of all customers located on or served downstream from that branch).

The circuit model complies with Attachment A, page 28 of the previously-mentioned Settlement Agreement, wherein PacifiCorp agreed to classify pole and conductor costs as 100 percent demand-related in subsequent marginal cost studies.

Q. How are substation marginal costs calculated?

A. Marginal substation costs are determined using the per-kW cost of recent and planned substation additions. The cost per kW is determined by dividing growth-related distribution substation investment by the related increase in substation capacity. Substation marginal costs are classified entirely to demand and are allocated to customer classes based on the distribution peak load for each class.

Q. What is included in the customer accounting, service, and information category?

A. This category includes the costs of billing, payment processing, debt recovery, meter reading expense, customer accounting, and customer service activities. Meter reading expense is based on the historical experience of costs and typical meter reading times for each customer class. Customer accounting and customer service expense are based on historical expenditures and are assigned to each customer class based on the various resources required to perform billing, collections, and customer service activities for different types of customers.

Q. Does this conclude your testimony?

A. Yes.