

1 Q. Please state your name, business address and position with PacifiCorp dba Utah
2 Power & Light Company (the Company).

3 A. My name is David L. Taylor. My business address is 825 N. E. Multnomah, Suite
4 800, Portland, Oregon, where I am employed as the Cost of Service Manager.

5 **Qualifications**

6 Q. Please briefly describe your education and business experience.

7 A. I received a BS in Accounting from Weber State College in 1979 and an MBA from
8 Brigham Young University in 1986. I have been employed by PacifiCorp since the
9 merger with Utah Power in 1989. Prior to the merger I was employed by Utah Power,
10 beginning in 1979. In my more than 19 years with the Company I have worked two
11 years in Accounting, three years as a Budget Coordinator in one of the Company's
12 Region Offices, and over 14 years in the Pricing and Regulatory areas. From 1987 to
13 the present I have held several supervision and management positions in Pricing and
14 Regulation.

15 Q. Have you appeared as a witness in previous regulatory proceedings?

16 A. Yes. I have testified on numerous occasions in California, Idaho, Montana, Oregon,
17 Utah, and Wyoming.

18 **Purpose of Testimony**

19 Q. What is the purpose of your testimony?

20 A. I will present the functionalization of PacifiCorp's 1998 Results of Operations and the
21 Class Cost of Service Study.

22 Q. Please identify Exhibit __.1 (DLT-1) and explain what it shows.

1 A. Exhibit __.1 (DLT-1) is the summary from PacifiCorp's 1998 Functionalized Results
2 of Operations for the State of Utah. It separates the results of operations into five
3 primary functions of the Company: Production, Transmission, Distribution, Retail
4 Services, and Miscellaneous.

5 Q. Please identify Exhibit UP&L __.2 (DLT-2) and explain what it shows.

6 A. Exhibit UP&L __.2 (DLT-2) is the summary table from PacifiCorp's 1998 Class Cost
7 of Service Study for the State of Utah. It summarizes, both by customer group and by
8 function, the results of the 1998 cost study. Page 1 presents results at the Company's
9 1998 Earned Rate of Return. Page 2 presents results at the target rate of return.

10 Q. Please identify Exhibit UP&L __.3 (DLT-3) and explain what it shows.

11 A. Exhibit UP&L __.3 (DLT-3) shows the cost of service results in more detail by class
12 and by function. Page 1 summarizes the total cost of service summary by class and
13 pages 2 through 6 contain a summary by class for each major function.

14 Q. Please explain how the Cost of Service Study was developed.

15 A. The Class COS Study is based on PacifiCorp's 1998 annual results of operations for
16 the State of Utah filed by Jeffrey K. Larsen. The study employs a three-step process
17 generally referred to as functionalization, classification, and allocation. These three
18 steps recognize the way a utility provides electrical service and assigns cost
19 responsibility to the groups of customers for whom those costs were incurred.

20 Q. Please describe functionalization and how it is employed in the Cost of Service Study.

21 A. Functionalization is the process of separating expenses and rate base items according
22 to utility function. The production function consists of the costs associated with
23 power generation, including coal mining, and wholesale purchases. The transmission

1 function includes the costs associated with the high voltage system utilized for the
2 bulk transmission of power from the generation source and interconnected utilities to
3 the load centers. The distribution function includes the costs associated with all the
4 facilities that are necessary to connect individual customers to the transmission
5 system. This includes distribution substations, poles and wires, line transformers,
6 service drops and meters. The retail services function includes the costs of meter
7 reading, billing, collections and customer service. The miscellaneous function
8 includes costs associated with Demand Side Management, franchise taxes, regulatory
9 expenses, and other miscellaneous expenses.

10 Q. Why have you divided the Company in to five functions where previous studies only
11 used three?

12 A. In the final order in Docket 97-035-01 the Utah Commission established an
13 Allocation Task Force to study a number of the technical cost allocation issues that
14 arose in the docket. One of those issues was functional unbundling. In the 1997
15 study the retail services and miscellaneous functions were included with the
16 distribution function. Most members of the allocation taskforce expressed a desire to
17 show a distinction between retail services and the poles and wires business.

18 Q. How have you assigned the various cost elements to these five functions?

19 A. In the study, all assets and expenses that are identified as directly supporting one of
20 the major functions are assigned to that function. Other assets and expenses are
21 separated between functions through detailed analyses. A more detailed description
22 of PacifiCorp's functionalization procedures and the supporting calculations for the
23 functionalization factors are contained in my workpapers.

1 Q. Describe classification and explain how PacifiCorp uses it in the cost of service study.

2 A. Classification identifies the component of utility service being provided. The
3 Company provides, and customers purchase, service that includes at least three
4 different components; demand-related, energy-related, and customer-related.

5 Demand-related costs are incurred by the Company to meet the maximum demand
6 imposed on generating units, transmission lines, and distribution facilities. Energy-
7 related costs vary with the output of a kWh of electricity. Customer-related costs are
8 driven by the number of customers served.

9 Q. How does PacifiCorp determine cost responsibility between customer groups?

10 A. After the costs have been functionalized and classified, the next step is to allocate
11 them among the customer classes. This is achieved by the use of allocation factors
12 which specify each class' share of a particular cost driver such as system peak
13 demand, energy consumed, or number of customers. The appropriate allocation factor
14 is then applied to the respective cost element to determine each class' share of cost.
15 A detailed description of PacifiCorp's classification and allocation procedures and the
16 supporting calculations for the allocation factors are contained in my workpapers.

17 Q. How are generation and transmission costs apportioned among customer classes?

18 A. Production and transmission plant and non-fuel related expenses are classified as 75%
19 demand related and 25% energy-related. The demand-related portion is allocated
20 using 12 monthly peaks coincident with the PacifiCorp system firm peak. The energy
21 portion is allocated using class MWhs adjusted for losses to generation level.

22 Q. Are distribution costs determined using the same methodology?

23 A. No. Distribution costs are classified as either demand related or customer related. In

1 this study only meters and services are considered as customer related with all other
2 costs considered demand related. Distribution substations and primary lines are
3 allocated using the weighted monthly coincident distribution peaks. Distribution line
4 transformers and secondary lines are allocated using the weighted NCP method.
5 Services costs are allocated to secondary voltage delivery customers only. The
6 allocation factor is developed using the installed cost of new services for different
7 types of customers. Meter costs are allocated to all customers. The meter allocation
8 factor is developed using the installed costs of new metering equipment for different
9 types of customers.

10 Q. Please explain how customer accounting, customer service, and sales expenses are
11 allocated.

12 A. Customer accounting expenses are allocated to classes using weighted customer
13 factors. The weightings reflect the resources required to perform such activities as
14 meter reading, billing, and collections for different types of customers. Customer
15 service expenses are split between Demand Side Management (DSM) expenditures
16 and other customer service expenses. The DSM expenditures are allocated based on
17 50% demand and 50% energy. The other customer service expenses are allocated on
18 the number of customers in each class. Sales expenses are direct assigned to the
19 residential, commercial and industrial revenue classes and then allocated to rate
20 schedules within the revenue class according to revenue.

21 Q. How are administrative & general expenses, general plant and intangible plant
22 allocated by PacifiCorp?

23 A. Most General plant, intangible plant, and administrative and general expenses are

1 functionalized and allocated to classes based on generation, transmission, and
2 distribution plant. Employee Pensions and Benefits costs as well as the net cost
3 savings from the recent early retirement have been assigned to functions and classes
4 on the basis of labor. Costs that have been identified as supporting customer systems
5 are considered part of the retail services function and have been allocated using
6 customer factors.

7 Q. Are costs and revenues associated with wholesale and non-tariff contracts included in
8 the cost of service study?

9 A. No costs are assigned to wholesale and system allocated retail contracts. The revenues
10 from these transactions are treated as revenue credits and are allocated to customer
11 groups using appropriate allocation factors. Other electric revenues are also treated as
12 revenue credits. Revenue credits reduce the revenue requirement that is to be
13 collected from firm retail customers.

14 Q. Have you incorporated the cost of service procedures ordered by the Utah
15 Commission in Docket 97-035-01?

16 A. Yes. In accordance with that order, the following procedures have been incorporated:
17 1) A&G expenses, except Employee Pensions and Benefits, have been functionalized
18 and allocated on the basis of plant, 2) the allocation of Sales for Resale revenues has
19 been aligned with the allocation of Purchased Power, 3) the results of a new, more
20 detailed, study on customer weighting factors for Meter Reading (Account 902) and
21 Customer Records and Collections (Account 903) have been used. In addition, as a
22 result of further investigation, no service drop costs have been allocated to the
23 irrigation class.

1 Additional issues in that docket were referred to the Allocation Task Force.
2 Any issues that are resolved by that task force prior to the completion of this case will
3 be incorporated and filed in a revised cost of service study.

4 Q. Do the results of the 1998 cost of service study differ from those in previous years?

5 A. Yes. Over the last few years the cost of service performance for the residential class
6 has deteriorated. Studies performed soon after the merger showed the residential
7 class above cost of service. In 1997 the results were close to cost of service. The
8 1998 study shows the residential class below cost of service.

9 Q. Can you identify the major reason for the change.

10 A. Yes. Cost of service for the state of Utah, and for the Utah residential class in
11 particular, has increased because of their increasing contribution to system peak. This
12 is a direct result of higher than average load growth in the state of Utah. Let me
13 explain.

14 In the years following the PacifiCorp/Utah Power merger the system peaks
15 during the winter generally occurred in the morning even though the stand-alone
16 peaks for the state of Utah occurred in the evening. With Utah growing faster than
17 the rest of the PacifiCorp system (From 1991 to 1998 firm MWH sales in Utah
18 increased 26% compared to 12% in Oregon and 10% system wide) the state is a more
19 significant driver of the system peak. The state's load growth over the last few years
20 has caused a shift in the system coincident peak during the months of January,
21 February, November, and December from morning to evening. (During the winters of
22 1991 to 1994 there was only one occasion where the monthly system peak occurred
23 during the evening hours. In 1995 & 1996 there was one evening winter peak each

1 year. In 1997 there were two winter evening peaks and in 1998 the peaks for all
2 winter months occurred in the evening.)

3 Q. Why does a shift in system peak affect cost of service?

4 A. When customers' heavy load periods occur at the same time as the system peak, those
5 customers are allocated a larger portion of generation and transmission capacity costs.
6 During the winter, the state of Utah, and more specifically the Utah residential class,
7 uses more power during the evening hours than during the morning hours. Let me use
8 an example to illustrate. In January of 1997, when the system peak occurred at 9:00
9 AM, the residential class contributed 31% toward Utah's portion of system peak (617
10 / 2,012 MW). In January 1998, when the system peak occurred at 7:00 PM, the
11 residential class contributed 42% of the peak (885 / 2,092 MW).

12 Q. Has a shift in cost responsibility like this happened before?

13 A. Yes. The reverse of what I just described happened at the time of the Utah
14 Power/PacifiCorp merger. Prior to the merger Utah Power's winter peaks generally
15 occurred in the evening. After the merger PacifiCorp's winter peaks occurred in the
16 morning. Because both the state of Utah and the Utah residential class used less
17 power in the morning, there was an immediate reduction in cost responsibility for the
18 Utah residential class.

19 Q. Please explain Exhibit UP&L __.4 (DLT-4)

20 A. Exhibit UP&L __.4 (DLT-4) was prepared to both show and mitigate the effects of
21 the change in hour of system peak. It shows the results of separate runs of the 1998
22 cost of service study using system peak load data from 1996 and 1997 as well as
23 1998. In the first run, the 12CP allocation factor (F10) was developed using 1996

1 coincident peak loads in the place of the 1998 data. To match current sales, the 1996
2 coincident loads for each class were adjusted to reflect that class' change in MWH
3 sales from 1996 to 1998. The same was done in the second run using 1997 load data.
4 The third run used actual 1998 data.

5 Mr. Griffith uses this exhibit in the development of the Company's rate spread
6 proposal.

7 Q. Please explain Exhibit UP&L __.5 (DLT-5)

8 A. Exhibit UP&L __.5 (DLT-5) contains a separate cost of service study for Street and
9 Area Lights. In this study, cost of service is calculated and compared to the current
10 tariff price for each lamp type.

11 Q. Have you included your workpapers?

12 A. Yes. Work papers showing the complete functionalized results of operations and class
13 cost of service detail are included as Exhibit UP&L __.6 (DLT-6). Also included in
14 the workpapers is a detailed narrative describing the Company's functionalization,
15 classification and allocation procedures.

16 Q. Does this conclude your testimony?

17 A. Yes it does.