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June 7, 2005

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VIA ELECTRONIC FILING

PUC Filing Center
Public Utility Commission of Oregon
PO Box 2148
Salem, OR 97308-2148

**Re: Joint Testimony in Support of Stipulation on Partial Requirements and Economic Replacement Power Tariffs
Docket UE 170**

Enclosed for filing is an original and 5 copies of Joint Testimony in Support of Stipulation on Partial Requirements and Economic Replacement Power Tariffs in the above-referenced docket. A copy of this filing was served on all parties to this proceeding as indicated on the attached service list.

Very truly yours,

A handwritten signature in black ink, appearing to read "SJL", written over a horizontal line.

Sarah J. Adams Lien

SJL:knp
Enclosures
cc: Service List

BEFORE THE PUBLIC UTILITY COMMISSION
OF THE STATE OF OREGON

PACIFICORP – STAFF – ICNU

Joint Testimony

in Support of
Stipulation on Partial Requirements and Economic Replacement Power Tariffs

June 2005

I. INTRODUCTION AND SUMMARY

Q. Who is sponsoring this testimony?

A. This testimony is jointly sponsored by PacifiCorp (or the “Company”), Staff of the Public Utility Commission of Oregon (“OPUC Staff,” or “Staff”), and the Industrial Customers of Northwest Utilities (“ICNU”).

Q. Please state your name, organization and position.

A. My name is William R. Griffith on behalf of PacifiCorp. I am Director, Pricing & Cost of Service.

My name is Lisa Schwartz on behalf of OPUC Staff. I am a Senior Analyst in the Electric Rates and Planning Section.

My name is Kathryn E. Iverson on behalf of ICNU. I am a consultant in the field of public utility regulation, employed by the firm of Brubaker & Associates, Inc., regulatory and economic consultants with corporate headquarters in St. Louis, Missouri. Our qualifications are provided in Section III of this testimony.

Q. What is the purpose of your joint testimony?

A. The purpose of our joint testimony is to describe and support the Stipulation on partial requirements and economic replacement power tariffs agreed to by PacifiCorp, OPUC Staff, ICNU and Oregon Department of Energy (“Parties”) as part of Docket UE 170, PacifiCorp’s General Rate Case. The Stipulation describes the settlement and includes proposed rate schedules for which the Parties are seeking approval by the Commission. The Stipulation and our joint testimony do not address PacifiCorp’s revenue requirement.

Proposed Schedules 47/747 implement changes to the Company’s partial requirements tariffs that are similar to partial requirements tariffs approved by the

1 Commission in Docket UE 158 (Portland General Electric's standby service proceeding).
2 In July 2004, Staff sent a letter to PacifiCorp indicating its interest in the Company
3 revising its partial requirements tariffs. As a result of preliminary discussions with Staff,
4 the Company proposed revised partial requirements tariffs in this case. In addition, the
5 Company indicated in its direct testimony that it had been reviewing a program to offer
6 economic replacement power to partial requirements customers similar to one approved
7 in UE 158.

8 Workshops on the proposed partial requirements and economic replacement
9 power services commenced on January 20, 2005. Subsequently, workshop participants
10 determined that settlement of all or some of the issues related to partial requirements and
11 economic replacement power services could be achieved. Settlement conferences
12 commenced on March 15, 2005. The settlement conferences were open to all parties to
13 this proceeding.

14 The Partial Requirements schedules provide Consumers who have on-site
15 generation with a reasonable set of charges and options for utilizing the PacifiCorp
16 system. The Partial Requirements schedules also provide other Consumers on the
17 PacifiCorp system with reasonable assurance that the Partial Requirements Consumers
18 are not placing unjustified burdens and costs on the system. Finally, the Partial
19 Requirements schedules support an objective of the Commission to remove barriers to the
20 development of distributed generation.

21 We are seeking Commission approval of this Stipulation. With approval of the
22 Stipulation, at the time new rates are ordered in this docket, PacifiCorp will make a

1 compliance filing that will contain the appropriate tariff changes set out in the
2 Stipulation.

3 **II. DESCRIPTION OF THE PARTIAL REQUIREMENTS SCHEDULES**

4 **Q. Please summarize the rate schedules used to provide Partial Requirements Service.**

5 A. Six rate schedules (referred to collectively herein as the “Schedules”) are listed below
6 and attached to the Stipulation as Exhibits A through F. These rate schedules set out the
7 services and associated rates for large Consumers that have on-site generators rated at
8 1,000 kW or greater and that need standby electric service for 1,000 kW or greater. The
9 Schedules will be modified based on PacifiCorp’s revenue requirement as approved by
10 the Commission. The Schedules are:

- 11 1. Schedule 47, Partial Requirements – Delivery Service (Stipulation, Exhibit A);
- 12 2. Schedule 247, Partial Requirements – Supply Service (Stipulation, Exhibit B);
- 13 3. Schedule 747, Partial Requirements – Direct Access Delivery Service – Partial
14 Requirements (Stipulation, Exhibit C);
- 15 4. Schedule 76R, Partial Requirements Service – Economic Replacement Power
16 Rider – Delivery Service (Stipulation, Exhibit D);
- 17 5. Schedule 276R, Partial Requirements Service – Economic Replacement Power
18 Rider – Supply Service (Stipulation, Exhibit E); and
- 19 6. Schedule 776R, Partial Requirements Service – Economic Replacement Power
20 Rider – Direct Access Delivery Service (Stipulation, Exhibit F).

21 Schedules 47/247 and 76R/276R provide a package of services and options for
22 Consumers, including the power they need from the Company when their generator is

1 running, basic backup service for scheduled and unscheduled generator outages, and
2 economic replacement power based on market prices.

3 Schedules 747 and 776R apply to direct access Consumers. These schedules are
4 based on Schedules 47 and 76R and provide Partial Requirements Service associated with
5 the delivery of power from Energy Service Suppliers (“ESS”) to direct access Consumers
6 with on-site generation.

7 **Q. How many Consumers are currently on Schedule 47?**

8 A. Currently, seven Consumers are on Schedule 47.

9 **Q. How will backup service be provided for smaller Consumers who are not eligible for**
10 **service under the Stipulation’s proposed Schedule 47?**

11 A. With approval of the Stipulation, Consumers who need backup service for less than 1,000
12 kW will be transferred to the applicable full requirements schedules. Providing backup
13 service to smaller generators under the full requirements schedules will simplify bills and
14 should reduce administrative costs for these smaller loads.

15 **Q. What services do the Partial Requirements Schedules provide?**

16 A. The Schedules provide the following services for Self-Generating Consumers:

17 1. Baseline Energy is the energy normally supplied by PacifiCorp to the Consumer
18 when the Consumer’s generator is operating.

19 2. Replacement Energy is provided in the following three situations:

20 A. Unscheduled Energy replaces the Consumer’s generation during forced
21 outages. This will be provided on an instantaneous basis.

1 B. Scheduled Maintenance Energy is prescheduled 30 days before delivery to
2 serve the Consumer's load normally served by the Consumer's own
3 generation.

4 C. Economic Replacement Power is optional, interruptible energy
5 prescheduled to replace some, or all, of the Consumer's on-site generation
6 when the Consumer deems it more economically beneficial than self-
7 generating. Economic Replacement Power is provided under Schedule
8 76R/276R, riders to Schedules 47/247.

9 3. Delivery Service includes distribution, transmission and ancillary services.

10 4. Reserves for unplanned outages of generation serving load include the following:

- 11 A. Spinning Reserves are used to immediately replace generation in event of
12 an outage.
13 B. Supplemental Reserves are available within 10 minutes of an outage.

14 **Q. To whom will these Schedules apply?**

15 A. The Schedules will apply to large Nonresidential Consumers supplying all or some
16 portion of their load by self-generation operating on a regular basis, where the self-
17 generation has a total nameplate rating of 1,000 kW or greater and where standby electric
18 service is required for 1,000 kW or greater. The Consumer will take service under
19 Schedules 47/247 and, as an option, Schedules 76R/276R. If served by an ESS, the
20 Consumer will take service under Schedule 747 and, as an option, Schedule 776R.

21 **Q. Please describe Schedule 47/247 Partial Requirements Service.**

22 A. Schedules 47/247 provide basic Partial Requirements Service for applicable Consumers
23 where PacifiCorp supplies energy. The schedules are similar to Schedules 48/200, but

1 incorporate changes to rates and additional elements to provide the needed back-up
2 service. Schedules 48/200 are for full requirements Consumers.

3 **Q. Please explain the Facilities Charge in Schedule 47.**

4 A. The Facilities Charge covers the cost of local delivery facilities that are in place solely to
5 serve a specific Consumer and are not covered in the Basic Charge. Except for
6 transmission customers, the Facilities Charge also covers the costs of shared distribution
7 facilities closest to end-users, which generally include the low-voltage lines and
8 utilization transformers. The Facilities Charges are equivalent to those in Schedule 48,
9 because both capture Consumer-specific costs for dedicated facilities and facilities whose
10 freed-up capacity cannot be counted on to be available to other customers.

11 **Q. Please explain the monthly On-Peak Demand portion of the Distribution charge in**
12 **Schedule 47.**

13 A. The monthly On-Peak Demand portion of the Distribution charge in Schedule 47 covers
14 the costs associated with distribution substations as well as transmission costs not
15 included in the Company's OATT. The On-Peak Demand Charge is based solely on
16 demand in the billing month during on-peak hours, defined as 6 a.m. to 10 p.m., Monday
17 through Saturday. Generally, it is demand on the distribution system during peak hours
18 that requires the utility to invest in distribution capacity additions. The charge is identical
19 to the On-Peak Demand Charge for full requirements Schedule 48 because Schedule 47
20 and Schedule 48 customers with similar characteristics impose similar costs on the
21 distribution system.

1 **Q. Please explain the Transmission & Ancillary Services Charge in Schedule 47.**

2 A. The Transmission & Ancillary Services Charge covers the direct costs of PacifiCorp's
3 transmission system and associated ancillary services. Schedule 47's Transmission &
4 Ancillary Services Charge plus Schedule 47 Reserves Charges match the total
5 Transmission & Ancillary Services Charge in Schedule 48. Reserves Charges have been
6 unbundled from Transmission & Ancillary Services Charges in Schedule 47 in order to
7 avoid double counting, as well as to appropriately credit Consumers who Self-Supply
8 Reserves or follow a Company-approved Load Reduction Plan to reduce reserve
9 requirements. The Transmission & Ancillary Services Charge is based solely on demand
10 in the billing month during on-peak hours.

11 **Q. Please explain Reserves charges and the process for determining reserve capacity.**

12 A. Reserves charges cover the Company's cost for maintaining capability to serve loads
13 during generator outages. The Western Electricity Coordinating Council ("WECC")
14 requires 7% reserves for thermal resources and 5% reserves for hydro resources, half of
15 which must be spinning reserves. The utility, as control area operator, is responsible for
16 reserves for its own generating facilities as well as reserves for generation owned by
17 others, including generation at customer sites. Reserves charges for Partial Requirements
18 Consumers account for reserves for utility resources that provide backup service for the
19 Consumer's own generating resources.

20 Contingency Reserves charges are based on FERC-approved rates in PacifiCorp's
21 Open Access Transmission Tariff ("OATT"). The Reserves Charges will be billed on the
22 monthly Facility Capacity which is typically the average of the two greatest non-zero
23 monthly demands established during the last 12 months and not less than the Consumer's

1 Baseline Demand. During the first three months of service for new Partial Requirements
2 Consumers, the Facility Capacity will be equal to the Consumer's Baseline Demand—the
3 load the Company normally would supply when the Consumer's generator is operating.
4 During discussion of this issue in the workshops and settlement discussions, the parties
5 generally agreed that this approach, which relies on meter reading data, simplifies the
6 administration of this charge while registering the appropriate level of reserve capacity
7 needed.

8 Partial Requirements Consumers may provide a Load Reduction Plan that
9 demonstrates their ability to reduce load within 10 minutes of their generator failing. If
10 the plan is approved by the Company and adhered to by the Consumer, the kW reduction
11 specified in the plan will be credited monthly on the Consumer's bill. Eligible Partial
12 Requirements Consumers also may self-supply reserves.

13 **Q. What is the Self-Supplied Reserves option?**

14 A. Schedule 47 provides an optional method for a Consumer to meet the reserve capacity
15 requirements by self-supplying Contingency Reserves if the Consumer's generation has a
16 nameplate capacity of at least 15 MW. In order to self-supply these reserves, the
17 Consumer and PacifiCorp must have an agreement in place that allows PacifiCorp to call
18 upon the Consumer to provide reserves to the PacifiCorp system at the request of
19 PacifiCorp. By doing so, PacifiCorp does not need to provide reserves for the
20 Consumer's generation from other sources, thus avoiding those costs. The 15 MW
21 minimum capacity requirement translates to 1 MW of reserves that PacifiCorp can call on
22 (15 MW x 7% WECC reserve requirement = 1 MW).

1 **Q. Please explain the grace period for setting the Facility Capacity.**

2 A. Facility Capacity is used to determine distribution charges associated with local delivery
3 facilities as well as Contingency Reserves charges. For a new Consumer's first three
4 months of service under Schedule 47, the Facility Capacity will be equal to the
5 Consumer's Baseline Demand.

6 The three-month grace period gives self-generating Consumers an opportunity to
7 become familiar with the operation of their generating equipment, test load-shedding
8 equipment, and make equipment or operational changes to fix problems identified in
9 startup, such as those associated with events on PacifiCorp's system that interact with
10 Consumer facilities.

11 **Q. How will the Baseline Energy charge be determined?**

12 A. Under Schedule 47, the Consumer's Baseline Energy is defined as the amount of energy
13 that PacifiCorp normally is expected to supply while the Consumer's generator is
14 regularly operating as planned by the Consumer. All energy usage up to and including
15 the Baseline Demand will be considered Baseline Energy. As indicated in Supply
16 Service Schedule 247, Baseline Energy is charged under either Cost-Based Supply
17 Service (Schedule 200) or Standard Offer Service (Schedule 220). Existing Consumers
18 will select their Baseline Demand based on the Consumer's past loads and past generator
19 operations, adjusted for planned generator operations and planned loads. The Consumer
20 may select a Baseline Demand that will capture their normal load variations so that these
21 normal load variations will be charged under either Cost-Based Supply Service (Schedule
22 200) or Standard Offer Service (Schedule 220).

1 The Schedules allow the Baseline Demand to be modified prior to the end of the
2 term of the service agreement. The Baseline Demand may be modified if a Consumer
3 takes a significant amount of Unscheduled Energy during more than 1,000 hours in a
4 calendar year. The Consumer's Baseline Demand may be modified by the Company if
5 the Company determines that the Consumer's Baseline Demand does not reflect load
6 adjusted for the actual Consumer generation. The Consumer may also modify its
7 Baseline Demand upon the addition of permanent energy efficiency measures, load
8 shedding, or the addition or removal of equipment, or permanent or long-term changes in
9 loads or generator operations.

10 **Q. Please explain Scheduled Maintenance Energy.**

11 A. Scheduled Maintenance Energy offers the Consumer the opportunity to pre-schedule
12 replacement energy 30 days in advance for periods when a Consumer's generator is taken
13 down for scheduled maintenance, up to 31 days per calendar year. Scheduled
14 Maintenance Energy supplies the power that the Consumer's generator normally
15 produces. Scheduled Maintenance Energy will be priced according to either Cost-Based
16 Supply Service (Schedule 200) or Standard Offer Service (Schedule 220), depending on
17 the supply service option under which the customer is receiving Baseline Energy service.

18 **Q. Please explain Unscheduled Energy.**

19 A. Unscheduled Energy is usage on an hourly basis above the Baseline Demand that has not
20 been scheduled for delivery by PacifiCorp (*i.e.*, any electricity that does not qualify as
21 Baseline Energy, Scheduled Maintenance Energy or Economic Replacement Power shall
22 be considered Unscheduled Energy). Unscheduled Energy is priced at the PowerDex

1 Mid-Columbia Hourly Electricity Price Index, plus 0.14 cents per kWh, plus an
2 adjustment for losses.

3 Hourly index pricing is the closest approximation to the expected cost that
4 PacifiCorp will incur in obtaining the needed energy. The index price is a weighted
5 average of prices reported for a particular hour. The actual price PacifiCorp pays for
6 Unscheduled Energy will vary from the indexed price. The 0.14 cents per kWh adder
7 reflects a premium to help cover risk where the actual price for energy that PacifiCorp
8 obtained in that hour may be higher than the index price.

9 In the Stipulation, ICNU indicated that, although it did not agree to join in or
10 provide testimony supporting the use of PowerDex Hourly as the market index for this
11 purpose, it supports the Commission's approval of this settlement as presented. To
12 facilitate this, ICNU agreed that it will not file testimony or take any other action in this
13 proceeding to oppose the use of PowerDex Hourly as the market index to determine
14 Unscheduled Energy charges.

15 **Q. Why does PacifiCorp require a written agreement for service under these**
16 **Schedules?**

17 **A.** This is consistent with current practice for Schedule 47 Consumers. Partial Requirements
18 Service is a specialized service, which makes it necessary to incorporate Consumer-
19 specific information in a written agreement. In addition, a separate agreement will be
20 required for Consumers who choose to self-supply reserves or provide a Load Reduction
21 Plan to reduce the amount of supplemental reserves required from the Company. The
22 Schedule requires that the terms and conditions in the written agreement are consistent
23 with the tariff provisions and may be modified as a result of changes in WECC, NERC

1 and FERC guidelines. All existing partial requirements Consumers qualifying for service
2 under these Schedules will be required to enter into new service agreements with the
3 Company that will conform with the Schedules approved by the Commission. Line
4 extension agreements will not be affected by the new partial requirements service
5 agreements. All existing partial requirements service agreements will terminate upon
6 execution of a new service agreement under the new Schedules.

7 **Q. What is the term for the new partial requirements service agreements?**

8 A. The term for all partial requirements service agreements shall be one year, unless the
9 Company and the Consumer have mutually agreed upon a longer term.

10 **Q. How are credits for Consumer exports of power under the OATT applied under**
11 **Schedule 47?**

12 A. Special Condition 5 in Schedule 47 provides a credit mechanism for certain charges,
13 which recognizes that Consumers may be using OATT services for sales of power from
14 their on-site generation. The mechanism addresses potential double charging for
15 transmission service. PacifiCorp will credit Consumers who pay for transmission service
16 under both the OATT and Schedule 47 in a billing month. When a Consumer pays
17 PacifiCorp for transmission services under both tariffs, charges incurred under Schedule
18 47 will be offset by charges incurred under the OATT by the Consumer. The credit will
19 not be greater than the lesser of the applicable monthly demand under Schedule 47 or the
20 corresponding monthly demand under the OATT at the appropriate OATT rate.

1 **Q. What is the purpose of Schedule 76R/276R, Partial Requirements, Economic**
2 **Replacement Power Rider?**

3 A. Schedule 76R/276R is a rider to Schedule 47/247 that allows Consumers taking service
4 under Schedule 47/247 the opportunity to purchase Economic Replacement Power
5 (“ERP”) when it is mutually beneficial to both the Consumer and PacifiCorp. This
6 applies to energy usage above the Consumer’s Baseline Demand and is subject to
7 interruption due to transmission constraints. The Company can choose to supply all or a
8 part of the ERP request.

9 **Q. Does Schedule 76R/276R relieve PacifiCorp of its obligation to serve a Consumer’s**
10 **load?**

11 A. No. Schedule 76R/276R does not release PacifiCorp from its obligation to serve a
12 Consumer’s load. Consumers may take energy even if PacifiCorp has denied their
13 request for ERP. However, Consumers whose ERP request is not accepted by
14 PacifiCorp, or who take energy without scheduling, will be charged under the applicable
15 Schedule 47/247 charges.

16 **Q. Please explain the basis for setting Schedule 76R and 776R Transmission and**
17 **Distribution demand charges on a daily rate.**

18 A. For ERP, both the Transmission and Distribution demand charges are based on daily
19 demands. This allows the Consumer an opportunity to purchase power from the
20 Company when it is economically advantageous and optimize the use of on-site
21 generation—shutting it down when it is cheaper to buy power from PacifiCorp.
22 PacifiCorp also benefits from the ability to interrupt ERP service should there be
23 constraints on the transmission system.

1 Further, the combination of a monthly demand charge in Schedule 47 for On-Peak
2 Demand, and a daily demand charge in Schedule 76R for ERP, provides appropriate cost
3 recovery for PacifiCorp, minimizes cost shifts to other ratepayers, and allows Consumers
4 to maximize the economic efficiency of their on-site generation.

5 **Q. How does the combination of Schedules 47 and 76R address demand charges?**

6 A. Consumers are billed for On-Peak demands under Schedule 47, which cover the Baseline
7 Demand together with demand associated with Scheduled Maintenance Energy and
8 Unscheduled Energy, while Schedule 76R covers ERP demand. Service taken under
9 Schedule 76R will not affect the monthly readings for the Facility Capacity, the On-Peak
10 Demand Charge, or the Transmission & Ancillary Services Charge utilized for rendering
11 the monthly billing for Schedule 47, nor will it affect charges under Schedule 247.

12 **Q. Please explain the Energy Needs Forecast.**

13 A. The Consumer provides an Energy Needs Forecast (“ENF”) to the Company. It specifies
14 the total prescheduled amount of energy per hour that the Company is requested to serve
15 over a daily, monthly or quarterly period. After the Consumer submits the forecast,
16 PacifiCorp will accept it in full or in part, or reject the forecast. If PacifiCorp modifies
17 the forecast, the Consumer will accept or reject the change. Once a forecast is finalized,
18 PacifiCorp will attempt to procure and schedule the energy for the Consumer.

19 A \$75.00 fee per accepted forecast is required to defray some of the
20 administrative costs associated with procuring ERP.

1 **Q. Please explain the Economic Replacement Power Agreement.**

2 A. Upon acceptance of the ENF, an Economic Replacement Power Agreement (“ERPA”)
3 specifies the electricity supplied by PacifiCorp and agreed to by the Consumer to meet, in
4 whole or in part, the ENF. An ERPA is required for transactions covered by an ENF.

5 A \$100 processing fee is required for each Daily ERPA and will not exceed \$400
6 per calendar month for multiple Daily ERPAs. A \$400 processing fee will be required
7 for each monthly or quarterly ERPA. The processing fees cover administrative costs
8 including, but not limited to, transaction processing, credit, information technology,
9 trader activity, scheduling, mid-office and back-office activity related to the transaction.
10 These charges assure that the additional administrative costs of ERP are paid by
11 Consumers causing these costs to be incurred, rather than by PacifiCorp’s other
12 Consumers.

13 **Q. Please explain pricing of ERP.**

14 A. ERP is priced on a daily, monthly and quarterly basis. Each is based on Mid-Columbia
15 market prices. Daily ERP charges are based on the settled Dow Jones Mid-Columbia on-
16 peak and off-peak prices. Monthly and quarterly ERP pricing is based on a price quote
17 from a brokering house or trading platform that the Company is using on a given day.
18 The price quote is specified in the monthly or quarterly ERPA.

19 Pricing is take or pay. If the Consumer takes less than the quantities of MW per
20 hour agreed to in the ERPA, the Consumer will remain obligated to pay for the quantities
21 of MW per hour agreed to in the ERPA. As a result of take-or-pay pricing, no imbalance
22 charges are proposed. Pricing includes a 0.14 cents per kWh adder which helps defray
23 supply and price risks for these transactions—transactions that would not occur but for

1 ERP. The written agreement between PacifiCorp and the Consumer shall address the
2 terms and conditions of service, including the mitigation of damages when a Consumer is
3 unable to take the power.

4 In addition, pricing varies based on service taken at 25 MW standard blocks, or
5 non-standard blocks, which are blocks of energy that are not in multiples of 25 MW.
6 Non-standard block pricing incurs a five percent adder to recognize the additional cost of
7 these “odd lots.” A Consumer that takes ERP service in a non-standard block will only
8 incur the five percent adder on the block of energy that is not in a multiple of 25 MW.
9 For example, a Consumer that takes 35 MW of ERP service will pay the non-standard
10 block five percent adder on only 10 MW.

11 **Q. How are the direct access versions of the Partial Requirements Tariffs (Schedules**
12 **747 and 776R) different from Schedules 47 and 76R?**

13 A. Schedules 747 and 776R are for Consumers with on-site generation who purchase backup
14 energy from an ESS. The Schedules provide for recovery of costs relating primarily to
15 distribution services. These schedules do not include energy charges, tracking with the
16 differences between Schedules 48 and 748. Schedule 48 is the schedule for full
17 requirements Consumers who buy energy from PacifiCorp; Schedule 748 is the schedule
18 for those who buy energy from an ESS. The charges in the direct access Partial
19 Requirements tariffs are equivalent to those in Schedule 748.

III. QUALIFICATIONS OF WITNESSES

William R. Griffith

Q. What is your education background and experience?

A. I hold a B.A. degree with High Honors and distinction in Political Science and Economics from San Diego State University and an M.A. in Political Science from that same institution; I was subsequently employed on the faculty for one year. I also attended the University of Oregon and completed all course work towards a Ph.D. in Political Science. I joined the Company in the Pricing & Regulatory Affairs Department in December 1983. In June 1989, I became Manager, Pricing in the Regulation Department. In February 2001, I assumed my present responsibilities.

Q. What are your responsibilities at PacifiCorp?

A. Among other responsibilities, I am responsible for the development of retail prices in the six states the Company serves.

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

A. Yes. I have testified on behalf of the Company in regulatory proceedings in the states of Oregon, Utah, Wyoming, Washington, Idaho, and California.

Lisa Schwartz

Q. What is your education background and experience?

A. I graduated from George Washington University in 1980 with a Bachelor of Science degree in Environmental Studies. I received a Master of Science degree in Land Resources from the University of Wisconsin-Madison in 1982.

I was a research assistant at the Wisconsin Water Resources Center from 1980 to 1982.

Subsequently, I held research and analyst positions at the Oregon State University ("OSU")

1 College of Engineering, an Oregon economics consulting firm, and a Washington, D.C., law
2 firm.

3 I began my employment as a researcher and assistant administrator for the OSU
4 Extension Energy Program in 1987. I joined the Oregon Department of Energy in 1995, where
5 responsibilities included analysis of energy usage and savings data, state and utility programs,
6 rate design and policy options. I began my employment with the OPUC in 2002.

7 **Q. What are your responsibilities at the OPUC?**

8 A. My responsibilities include providing expert analysis of issues related to distributed generation,
9 demand response, pricing options, renewable resources, and resource planning and acquisition.

10 **Kathryn E. Iverson**

11 **Q. What is your education background and experience?**

12 A. I have a Bachelor of Science Degree in Agricultural Sciences and a Master of Science
13 Degree in Economics from Colorado State University. I have been a consultant in field of
14 public utility regulation since 1984, with experience in utility resource matters, cost
15 allocation and rate design. I was employed by Browne, Bortz and Coddington as a Rate
16 Analyst from 1984 to 1986. Subsequently, I held positions with Applied Economics
17 Group and ERG International Consultants, Inc., both with offices in Colorado. In
18 November 1994, I accepted a position with Drazen-Brubaker & Associates, Inc. of St.
19 Louis, Missouri, and continued my employment with Brubaker & Associates when the
20 latter firm was formed in April 1995.

21 **Q. What are your responsibilities at BAI?**

1 A. My responsibilities include analyses of integrated resource plans, examination of cost of
2 service studies and rate design, fuel cost recovery proceedings, as well as estimates of
3 transition costs and restructuring plans.

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

5 A. Yes. I have testified before the regulatory commissions in Colorado, Georgia, Idaho,
6 Michigan, Montana, Texas and Wyoming.

7 Q. Does this conclude your testimony?

8 A. Yes.

CERTIFICATE OF SERVICE

I hereby certify that I served a true and correct copy of the foregoing document in Docket UE 170 on the following named person(s) on the date indicated below by email and first-class mail addressed to said person(s) at his or her last-known address(es) indicated below.

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