

1 include developing strategies to address risks related to PSE's electric and gas
2 portfolios as well as the continuous operation that monitors, operates, and controls
3 transmission switching, generation dispatch, control area load balancing, and real-
4 time transmission scheduling for PSE and its customers. I was responsible for the
5 oversight of the development of the 2011 Integrated Resource Plan
6 (the "2011 IRP") which has been provided as the Second Exhibit to the Prefiled
7 Direct Testimony of Mr. Roger Garratt, Exhibit No. ____ (RG-3).

8 **Q. What has prompted PSE to file a power cost only rate case (the "PCORC")**
9 **at this time?**

10 A. PSE continues to have a need to acquire additional generation resources to serve
11 its electric customers and has been pursuing various opportunities to fill this need.
12 The acquisition of the Ferndale Generating Station was a key factor enabling PSE
13 to meet this demand. In addition, PSE is investing in existing resources to meet
14 customers' needs as is evident from the new 30-megawatt powerhouse at the
15 Baker River Hydroelectric Project (the "Baker Project") and the redevelopment
16 and upgrades of the Snoqualmie Falls Hydroelectric Project (the "Snoqualmie
17 Falls Project"). These new and upgraded resources will provide benefits to
18 customers for many years to come and have prompted the need to seek recovery
19 of the capital and operating costs of the production plants.

20 PSE will be filing for Commission approval to sell the Electron Hydroelectric
21 Project (the "Electron Project"). In this PCORC proceeding, PSE requests
22 recovery of the remaining costs of the Electron Project and a prudence

1 determination for the purchase power agreement for the output of the Electron
2 Project (the “Electron PPA”).

3 **Q. What is the nature of your prefiled direct testimony in this proceeding?**

4 A. This prefiled direct testimony addresses the following issues relevant to both the
5 PCORC and power costs for this proceeding’s rate year November 2013 through
6 October 2014 (the “rate year”):

- 7 (i) PSE’s requested rate relief;
- 8 (ii) PSE’s power portfolio¹ risks;
- 9 (iii) PSE’s structures and policies to manage these risks,
10 including, but not limited to, hedging strategies;
- 11 (iv) the impact of the Bonneville Power Administration’s
12 (“BPA”) current rate proceeding and renewal of BPA
13 transmission contracts;
- 14 (v) PSE’s plan to meet peak load requirements;
- 15 (vi) PSE’s projected rate year power costs for this proceeding,
16 including new resources and changes in resources available
17 to PSE to meet customer demand;
- 18 (vii) a comparison of PSE’s projected rate year power costs for
19 this proceeding to those currently in rates; and
- 20 (viii) an introduction to the other witnesses in the case and the
21 topics they will address in their prefiled direct testimony.

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¹ The electric “portfolio” consists of resources available to PSE to serve its customers. The electric portfolio includes generation facilities, purchased power and transmission capacity. Please see Appendix D of the 2011 IRP, a copy of which is provided as Exhibit No. ___(RG-3), for a discussion of PSE’s electric resources.

1 for this case: November 1, 2013 through October 31, 2014. These changes are
2 discussed in my testimony below and in the testimonies of several witnesses I will
3 introduce in my testimony.

4 **Q. Is PSE requesting any other determination in this proceeding?**

5 A. Yes. PSE seeks a prudence² determination in this proceeding with respect to:

- 6 (i) the acquisition of the Ferndale Generating Station and the
7 costs associated with this project;
- 8 (ii) the twenty year power purchase agreement with Electron
9 Hydro, LLC for the purchase of all generation from the
10 Electron Project;
- 11 (iii) the renovation and upgrades at Snoqualmie Falls Project to
12 implement the Federal Energy Regulatory Commission
13 (“FERC”) license;
- 14 (iv) the addition of a fourth generator unit and a floating surface
15 collector at the Baker Project to implement the FERC
16 license; and
- 17 (v) PSE’s transmission contracts with BPA.

18 PSE is also requesting approval to recover the remaining costs of the Electron
19 Project and the amounts deferred under the Revised Code of Washington
20 80.80.060 for the Snoqualmie and Baker Projects and the Ferndale Generating
21 Station. Additionally, PSE is requesting the Commission determine the
22 incremental electricity from the Snoqualmie and Baker Projects qualify as
23 renewable resources under the Energy Independence Act.

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² For a discussion of the prudence standard, please see the Prefiled Direct Testimony of Mr. Roger Garratt, Exhibit No. ___(RG-1CT).

1 **Q. What forward market prices are used in determining the rate year power**
2 **costs?**

3 A. Consistent with prior proceedings, PSE used the forward electric market prices
4 generated by the AURORA hourly dispatch model. As discussed below, the
5 three-month average gas prices at March 5, 2013, for the rate year, are input to the
6 AURORA model.

7 **B. Power Cost Assumptions**

8 **1. Rate Year Power Supply Resources**

9 **Q. Is PSE's rate year power supply portfolio for this proceeding different from**
10 **the pro forma power cost portfolio approved in the 2011 GRC?**

11 A. Yes. A number of changes to PSE's portfolio have already occurred or will occur
12 by or during the rate year (November 1, 2013 through October 31, 2014) for this
13 case. Specifically, the underlying portfolio utilized in determining PSE's rate
14 year power costs for this proceeding:

15 (i) include the generation for PSE's newly acquired Ferndale
16 Generating Station that PSE purchased and placed in-
17 service mid-November 2012. Ferndale is a combined cycle
18 combustion turbine facility capable of providing 273 MWs
19 of capacity. The rate year includes 356,668 MWhs of
20 forecast power generation from this facility. Please refer to
21 the Prefiled Direct Testimony of Michael Mullally, Exhibit
22 No. ___(MM-1HCT), for a discussion of the Ferndale
23 Generating Station;

24 (ii) assume the Electron Project will be sold before the start of
25 the rate year. Accordingly, power costs reflect zero rate
26 year generation for PSE's owned Electron Project and

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reflect a decrease of 72,704 MWhs from those included in the 2011 GRC. Please refer to the Prefiled Direct Testimony of Mr. Paul K. Wetherbee, Exhibit No. ___(PKW-1CT) for a discussion of the Electron Project sale;

(iii) reflect the twenty year Electron PPA for all of the generation from the Electron Project. The rate year reflects \$4.2 million of costs under the Electron PPA in return for 72,300 MWhs of generation. Please see the Prefiled Direct Testimony of Mr. Michael Mullally, Exhibit No. ___(MM-1HCT) for a discussion of the Electron PPA;

(iv) reflect the completion of the redevelopment of the Snoqualmie Falls Project prior to the start of the rate year and 262,365 MWhs (30 average megawatts) of power for the rate year. Powerhouse #2 was placed back in service on April 17, 2013 and Powerhouse #1 is planned to be in-service July 2013. Please see the Prefiled Direct Testimonies of Mr. Paul K. Wetherbee, Exhibit No. ___(PKW-1CT) and Mr. Doug S. Loreen, Exhibit No. ___(DSL-1T) for a discussion of the redevelopment of the Snoqualmie Falls Project;

(v) reflect the completion of an additional 30 MW powerhouse at the Baker Project. The rate year power costs reflect 723,657 MWhs from the Baker Project. The Baker Project upgrades are discussed in more detail in the Prefiled Direct Testimonies of Mr. Paul K. Wetherbee, Exhibit No. ___(PKW-1CT) and Mr. Doug Loreen, Exhibit No. ___(DSL-1CT);

(vi) reflect an entire year of the twenty-year contract with the Chelan Public Utility District for which the Commission issued a prudence determination in PSE's 2006 general rate case, Docket Nos. UE-060266 & UG-060267 (consolidated) for 25 percent of the output of the Rock Island 1&2 Hydroelectric Project ("Rock Island Project") output effective July 1, 2012. This 25 percent share is a reduction from the 50 percent share contract which expired on June 7, 2012 and provides PSE approximately 156 MW of capacity (as compared to the previous contracted 312 MW) and approximately 92 average megawatts ("aMWs") of energy;

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1 pipeline quality gas produced by the Cedar Hills Regional
2 Landfill facility (“Cedar Hills biogas”) is included in the
3 “Not in Models” costs and is consistent with the treatment
4 approved in the 2011 GRC. The rate year mark to market
5 adjustment is \$2.2 million for the estimated rate year
6 production of 4,568 MMBtu per day. This adjustment,
7 however, is only a placeholder as PSE plans to file an
8 accounting petition that will request to defer the costs and
9 revenues related to biogas. PSE’s accounting petition will
10 propose to no longer include the costs of the physical
11 biogas in PSE’s baseline rate and instead to defer the cost
12 of the physical biogas along with all other biogas costs and
13 revenues associated with Cedar Hills’ biogas for future
14 return to customers. When the outcome of PSE’s
15 accounting petition is known prior to the resolution of this
16 PCORC filing, this adjustment will be modified
17 accordingly; and

18 (vii) Transmission costs include the renewed and additional
19 transmission contracts with BPA as well as BPA’s rate
20 increase effective October 1, 2013, as discussed in the
21 Prefiled Direct Testimony of Mr. Tom A. DeBoer, Exhibit
22 No. ___(TAD-1T).

23 **Q. Please explain the adjustment for the Electron PPA that’s presented in the**
24 **“Not In Models” listing.**

25 A. The Electron PPA was in process of negotiations and discussion at the time PSE
26 was finalizing rate year power costs for this PCORC filing. To update power
27 costs to reflect the Electron PPA, PSE included an adjustment in “Not In Models”
28 for the effects to rate year power costs for the Electron PPA. PSE intends to
29 include the Electron PPA in the AURORA model in its updated power costs
30 provided during the course of this proceeding. Please note the Electron PPA is
31 discussed in the Prefiled Direct Testimony of Mr. Michael Mullally, Exhibit
32 No. ___(MM-1HCT).

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1 needs; challenges and opportunities that affect PSE's ability to acquire electric
2 resources; and an overview of PSE's prudency requests.

3 **Mr. Michael Mullally**, Senior Energy Resource Planning & Acquisition Analyst
4 for PSE, describes PSE's 2011 Request for Proposal process and the quantitative
5 and qualitative evaluation of the acquisition of the Ferndale Generating Station,
6 the sale of the Electron Project, and the execution of the Electron PPA.

7 **Mr. Tom DeBoer**, Director of Energy Supply Operations Policy, Planning and
8 Compliance for PSE, provides a summary of the BPA 2014 rate case and
9 prudence support for PSE's new and extended transmission contracts with BPA.

10 **Ms. Aliza Seelig**, Consulting Energy Resource Planning & Acquisition Analyst
11 for PSE, describes the quantitative analyses undertaken by PSE in considering
12 resource acquisition decisions and the new and renewed transmission contracts
13 with BPA.

14 **Mr. Matthew D. Rarity**, Manager of Power and Gas Supply Operations for PSE,
15 describes wind integration costs and provides details of data utilized to model and
16 the modeling of PSE's costs to integrate wind resources.

17 **Mr. L. Edward (Ed) Odom**, Director of Thermal Resources for PSE,
18 summarizes the rate year production O&M costs and provides details of the
19 production O&M for PSE's thermal generation fleet, including asset information
20 for the Ferndale Generating Station.

21 **Mr. Paul K. Wetherbee**, PSE Director of Hydroelectric and Wind Resources
22 Assets Management for PSE, describes the Baker and Snoqualmie Falls Project
23 license implementation, the sale of the Electron Project, and production O&M for
24 PSE's hydro and wind facilities.

25 **Mr. Doug Loreen**, Director of Project Delivery for PSE, describes the Baker and
26 Snoqualmie Falls Projects.

27 **Ms. Katherine Barnard**, Director of Revenue Requirements and Regulatory
28 Compliance for PSE, presents the electric results of operations and revenue
29 requirement and power cost baseline rate as well as the allocation of the net loss
30 associated with the Electron Project and the deferrals for the Snoqualmie and
31 Baker Projects and the Ferndale Generating Station.

32 **Mr. Jon Piliaris**, Manager of Pricing and Cost of Service for PSE, presents PSE's
33 electric cost of service, rate spread and rate design.

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1 **XI. CONCLUSION**

2 **Q. Please summarize your testimony.**

3 A. PSE's acquisition, rebuilding and sale of the resources identified in my testimony
4 has helped to provide the resources needed to serve electric customers and has
5 clearly met the Commission's standard for prudence. PSE's long-term electric
6 acquisition program continues to succeed in renewing PSE's resources and
7 bringing into PSE's portfolio acquisitions that have been thoroughly analyzed and
8 that meet customer load requirements at a reasonable price.

9 PSE actively manages the power and gas cost risks faced by its customers in order
10 to keep power costs as low as reasonably possible. PSE's \$738.6 million
11 projected rate year power costs for this proceeding are consistent with, and based
12 on, sound assumptions using methodologies approved by the Commission in
13 PSE's prior general and power cost only rate cases.

14 **Q. Does that conclude your prefiled direct testimony?**

15 A. Yes, it does.

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