

**EXHIBIT NO. ___(RG-28CT)
DOCKET NOS. UE-111048/UG-111049
2011 PSE GENERAL RATE CASE
WITNESS: ROGER GARRATT**

**BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,**

Complainant,

v.

PUGET SOUND ENERGY, INC.,

Respondent.

**Docket No. UE-111048
Docket No. UG-111049**

**PREFILED REBUTTAL TESTIMONY (CONFIDENTIAL) OF
ROGER GARRATT
ON BEHALF OF PUGET SOUND ENERGY, INC.**

**REDACTED
VERSION**

JANUARY 17, 2012

1 **PUGET SOUND ENERGY, INC.**

2 **PREFILED REBUTTAL TESTIMONY (CONFIDENTIAL) OF**
3 **ROGER GARRATT**

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1 **PUGET SOUND ENERGY, INC.**

2 **PREFILED REBUTTAL TESTIMONY (CONFIDENTIAL) OF**
3 **ROGER GARRATT**

4 **I. INTRODUCTION**

5 **Q. Are you the same Roger Garratt who provided in this proceeding prefiled**
6 **direct testimony, Exhibit No. ___(RG-1HCT), on June 13, 2012, on behalf of**
7 **Puget Sound Energy, Inc.?**

8 A. Yes.

9 **Q. What is the purpose of your prefiled rebuttal testimony?**

10 A. This rebuttal testimony responds to the direct testimony of Mr. Scott Norwood,
11 Exhibit No. SN-1HCT, witness for the Public Counsel section of the Washington
12 State Attorney General's Office ("Public Counsel") and the Industrial Customers
13 of Northwest Utilities ("ICNU"), with respect to the quantitative analysis
14 performed by Puget Sound Energy, Inc. ("PSE") that was used to support the
15 decision to construct Phase 1 of the Lower Snake River Wind Project
16 ("LSR Phase 1"). Specifically, this rebuttal testimony demonstrates the
17 following:

- 18 • PSE acted prudently in its decision to construct LSR
19 Phase 1, and the project should therefore be allowed into
20 PSE's general rates.

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- Omissions or updates proposed in Mr. Norwood’s testimony do not fundamentally change PSE’s need or the decision to construct LSR Phase 1 early.
- PSE conducted myriad quantitative and qualitative analyses that supported the decision to build wind generation early and a reasonable management decision was to authorize the construction of LSR Phase 1.
- The availability of substantial Federal and state incentives made waiting to fulfill Washington State renewable portfolio standard (“RPS”) obligations – as Public Counsel and ICNU propose -- a risky proposition.
- PSE was mindful of economic conditions and led legislative efforts to eliminate normalization requirements for the Section 1603 Treasury Grant, thereby improving the economics of LSR Phase 1 and the Wild Horse Expansion Project.

II. THE ASSERTION THAT PSE’S DECISION TO CONSTRUCT LSR PHASE I WAS IMPRUDENT OR UNNECESSARY LACKS MERIT

A. Prudence and “Used and Useful” Standards Applicable to the Acquisition of LSR Phase 1 in Advance of PSE’s RPS Needs

Q. What is PSE’s understanding of the Commission’s prudence standard?

A. In PSE’s 2003 Power Cost Only Rate Case proceeding, Docket No. UE-031725, the Commission reaffirmed the standard it applies in reviewing the prudence of power generation asset acquisitions:

The test the Commission applies to measure prudence is what a reasonable board of directors and company management would have decided given what they knew or reasonably should have known to be true at the time they made a decision. This test

1 applies both to the question of need and to the appropriateness of
2 the expenditures. The company must establish that it adequately
3 studied the question of whether to purchase these resources and
4 made a reasonable decision, using the data and methods that a
5 reasonable management would have used at the time the decisions
6 were made.

7 *WUTC v. Puget Sound Energy, Inc.*, Docket No. UE-031725, Order No. 12 at ¶
8 19.

9 In addition to this reasonableness standard, the Commission has cited several
10 specific factors that inform the question of whether a utility's decision to acquire
11 a new resource was prudent. These factors include the following:

- 12 • First, the utility must determine whether new resources are
13 necessary. *See e.g.*, *WUTC v. Puget Sound Power & Light*
14 *Co.*, Docket No. UE-921262, et al., Nineteenth
15 Supplemental Order (September 27, 1994) (“Prudence
16 Order”) at 11.
- 17 • Once a need has been identified, the utility must determine
18 how to fill that need in a cost-effective manner. When a
19 utility is considering the purchase of a resource, it must
20 evaluate that resource against the standards of what other
21 purchases are available, and against the standard of what it
22 would cost to build the resource itself. *Id.* at 11.
- 23 • The utility must analyze the resource alternatives using
24 current information that adjusts for such factors as end
25 effects, capital costs, impact on the utility's credit quality,
26 dispatchability, transmission costs, and whatever other
27 factors need specific analysis at the time of a purchase
28 decision. *Id.* at 2, 33-37, 46-47.
- 29 • The utility should inform its board of directors about the
30 purchase decision and its costs. The utility should also
31 involve the board in the decision process. *Id.* at 37, 46.

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- The utility must keep adequate contemporaneous records that will allow the Commission to evaluate its actions with respect to the decision process. The Commission should be able to follow the utility’s decision process; understand the elements that the utility used; and determine the manner in which the utility valued these elements. *Id.* at 2, 37, 46.

Q. What standard does Mr. Norwood purport to apply in his evaluation of PSE’s decision to construct LSR Phase 1?

A. Mr. Norwood purports to have applied the criteria described by the Commission in the Renewable Resource Policy Report entitled *In the Matter of the Washington Utilities and Transportation Commission Inquiry on Regulatory Treatment for Renewable Energy Resources*, Report and Policy Statement Concerning Acquisition of Renewable Resources by Investor-Owned Utilities, Docket No. UE-100849 (Jan. 3, 2011) (the “Renewable Resource Policy Report”). *See* Exhibit No. ___(SN-1CT) at page 12, lines 17-18.

Mr. Norwood notes that the Renewable Resource Policy Report acknowledges that the Commission must determine whether the resource acquisition is prudent and whether the resource is used and useful:

In the Renewable Resource Policy Report, the Commission notes that it must make two basic determinations when evaluating applications for approval of utility resource acquisitions: first, whether the acquisition was “prudent,” and second, whether the resource was "used and useful" as required by RCW 80.04.250.

Exhibit No. ___(SN-1CT) at page 12, line 18, through page 13, line 3 (citing to paragraph 26 of the Renewable Resource Policy Report).

1 Mr. Norwood further states that he applied the criteria from the Renewable
2 Resource Policy Report applicable to renewable resources “acquired by utilities in
3 advance of the RPS deadlines established under the EIA, or . . . that supply
4 renewable energy at levels that exceed the established RPS targets” in assessing
5 the prudence and the used and usefulness of LSR Phase 1. Exhibit No. ____ (SN-
6 1CT) at page 14, line 27, through page 15, line 2 (citing to paragraphs 51 through
7 64 of the Renewable Resource Policy Report); see also Exhibit No. ____ (SN-1CT)
8 at page 15, line 3-5.

9 **Q. What criteria from the Renewable Resource Policy Report are applicable to**
10 **LSR Phase 1?**

11 A. The criteria relied upon by Mr. Norwood during his review and assessment of
12 LSR Phase 1 are inconsistent with the Renewable Resource Policy Report.
13 Specifically, the criteria from the Renewable Resource Policy Report applicable
14 to LSR Phase 1 are those applicable to renewable resource acquisitions to meet
15 the RPS but in advance of the actual RPS deadline. *See* Renewable Resource
16 Policy Report at paragraphs 51-57.

17 Mr. Norwood’s reliance on the Renewable Resource Policy Report is inconsistent
18 with statements made by the Commission in such report because he relied, in part,
19 on standards applicable to renewable resources that supply renewable energy at
20 levels that exceed the established RPS targets. LSR Phase 1 does not supply
21 energy at levels that exceed the established RPS targets (i.e., renewable energy

1 greater than fifteen percent of load). Therefore, the criteria applicable to
2 renewable resources that supply renewable energy at levels that exceed the
3 established RPS targets are inapplicable.

4 **Q. What does the Renewable Resource Policy Report state with respect to the**
5 **prudence of the acquisition of renewable resources in advance of RPS**
6 **deadlines?**

7 A. The Renewable Resource Policy Report states that the Commission would
8 consider the acquisition of renewable resources in advance of RPS deadlines to be
9 prudent if the early acquisition could be cost-justified:

10 While the EIA does not, by itself, determine whether such an
11 acquisition before the RPS deadline is prudent, it points to such a
12 decision. To give the utilities sufficient incentive and flexibility to
13 achieve the EIA's goals, we would support the acquisition of
14 renewable resources in advance of RPS deadlines if the early
15 acquisition can be cost-justified.

16 Renewable Resource Policy Report at paragraph 52. The Renewable Resource
17 Policy Report lists the following factors for consideration of whether an early
18 acquisition is cost-justified:

19 Among the factors to be considered are the relative cost of
20 acquiring the resource earlier rather than later, the risk of a higher
21 price if the resource is acquired nearer the RPS deadline, the
22 anticipated ability of the utility to use or sell the power generated,
23 the potential for sales of RECs until the output of the facility is
24 needed to meet the RPS, whether there are federal or state tax
25 benefits that are available in the near term, and the length of time
26 between acquisition and the RPS deadline. In addition, because
27 the productivity of renewable facilities can depend in substantial
28 part on the location of the facility, acquiring a renewable facility

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earlier may secure a more productive (and therefore more cost-effective) facility.

Id. at paragraph 53 (footnotes omitted).

The Renewable Resource Policy Report further states that “[t]he utility should evaluate alternatives and conduct the necessary technical and economic analyses in the same manner it does when considering alternatives to meet RPS

Id. at paragraph 54.

PSE’s acquisition of LSR Phase 1 in advance of PSE’s RPS need satisfies the prudence criteria set forth in the Renewable Resource Policy Report discussed above.

Q. What does the Renewable Resource Policy Report state with respect to the used and usefulness of renewable resources acquired in advance of RPS deadlines?

A. The Renewable Resource Policy Report states that the Commission would consider the acquisition of renewable resources in advance of RPS deadlines to be used and useful if such resources (i) meet RPS needs at some point in the future and (ii) produce benefits that offset the costs of early acquisition:

Early acquisition of a renewable resource is “useful” in that it will meet the RPS at some point in the future. It also needs to be “used.” Therefore, the utility must show that the resource produces benefits that offset the cost of early acquisition. This could include sale of energy generated from the plant, sale of RECs from the plant, or other value to the company attributable to the acquisition.

1 *Id.* at paragraph 56 (footnotes omitted).

2 PSE's acquisition of LSR Phase 1 in advance of PSE's RPS need satisfies the
3 used and guidance set forth in the Renewable Resource Policy Report discussed
4 above.

5 **B. PSE's Decision to Construct LSR Phase 1 Was Prudent**

6 **1. Economic Climate and Rate Impacts**

7 **Q. Did PSE take into consideration the challenging economic climate and the**
8 **potential effect that adding new resources may have on PSE's customers?**

9 A. Yes. PSE conducted extensive analyses to support the acquisition of early wind
10 and more still in determining that LSR Phase 1 was the lowest reasonable cost
11 resource available. However, PSE recognizes that models are useful tools, but
12 also have limitations. As discussed in the Prefiled Rebuttal Testimony of
13 Ms. Aliza Seelig, Exhibit No. ___ (AS-4HC), the overwhelming majority of PSE's
14 analytical models suggested building wind resources in advance of 2016 need was
15 cost justified. In fact, PSE's models indicated that even more wind than what is
16 currently under construction could be cost-justified. PSE management, however,
17 sought to balance the quantitative benefits of adding wind early with other
18 qualitative considerations, one of which was the local economy. For this reason
19 and for other practical reasons (e.g., permitting, engineering, and the qualifying

1 deadline for the Treasury Grant), PSE scaled back the scope of work planned at
2 LSR Phase 1 from 500 MWs to 342.7 MWs, prior to the 2010 RFP evaluation.

3 **Q. Did PSE undertake any additional activity to help minimize the rate impact**
4 **of fulfilling PSE's RPS requirement after LSR Phase 1 was authorized to**
5 **begin construction?**

6 A. Yes. As stated in the materials presented to PSE's Board of Directors at the time
7 construction was authorized, "PSE is working with Congress on a legislative fix
8 to eliminate the normalization requirement, which would further benefit Project
9 economics for customers." Exhibit No. ___(RG-13HC) at page 564. These
10 efforts were led by PSE's Federal Government Relations group which had been
11 working in Washington D.C. for over thirty-three months to change the
12 normalization requirements applicable to the Section 1603 Treasury Grant.
13 Recently, the group's efforts led to the passage of provisions that eliminate the
14 requirement for regulated utilities to normalize the Section 1603 Treasury Grant
15 benefit. PSE sought this legislative action solely for the benefit of PSE's
16 customers. Please see the Prefiled Rebuttal Testimony of Mr. Matthew Marcellia,
17 Exhibit No. ___(MRM-14T), for further details of this legislation and the
18 extensive efforts undertaken by PSE to have it passed.

19 **Q. What is the magnitude of the economic impact on customers of this change?**

20 A. As discussed later in my testimony, the present value amount of the Treasury
21 Grant is in excess of \$200 million with the normalization requirement. PSE's

1 preliminary estimate of the impact that eliminating normalization will have on
2 customer rates is that it will serve to further reduce them by over \$80 million, on
3 a net present value basis starting in 2012, over the life of the project. The source
4 of the savings is the reduction in return on rate base due PSE from customers
5 because unpaid Section 1603 Treasury Grant funds can now be used to offset rate
6 base balances.

7 **Q. Do you agree with Mr. Norwood when he states on page 46 of his prefiled**
8 **response testimony that “major changes which have occurred since PSE**
9 **completed its analysis of the benefits of early wind additions would reduce**
10 **the benefits of early wind”?**

11 A. No. Mr. Norwood is mistaken. He makes this claim citing that “the revenue
12 requirement of LSR 1 requested in this case is \$22.8 million per year higher than
13 the level assumed in PSE’s economic analyses of the project in comparison to
14 competing bids in its 2010 RFP.” Exhibit No. ___(SN-1CT) at page 46, lines 15-
15 18.

16 PSE provided Mr. Norwood with a reconciliation of the difference between the
17 revenue requirement and the pro forma for LSR Phase 1 in PSE’s Response to
18 Public Counsel Data Request No. 279 to clarify this differential. Please see
19 Exhibit No. ___(RG-29C) for a copy of PSE’s Response to Public Counsel Data
20 Request No. 279. The \$22.9 million identified in reconciliation in this response is
21 comprised of the difference between a general rate filing and the LSR pro forma.

1 Major line items on this reconciliation include the Section 1603 Treasury Grant,
2 REC revenues, effect on power costs due to reduced market purchases, and minor
3 items due to the difference between a 2013 calendar year in the pro forma and the
4 rate year from the general rate proceeding. This reconciliation shows that there
5 are no major changes that reduce the benefits of early wind.

6 **Q. Why is this Section 1603 Treasury Grant contributing to the revenue**
7 **requirement differential?**

8 A. The Section 1603 Treasury Grant is contributing to this differential because it is
9 not included in the revenue deficiency in this proceeding. PSE passes through the
10 benefit of the Treasury Grant to customers on Schedule 95A, “Federal Incentive
11 Tracker” and not in general rates. PSE explained this pass-through mechanism in
12 PSE’s Response to ICNU Data Request No. 02.33, a copy of which is provided as
13 Exhibit No. ___(RG-30). Once PSE receives the Section 1603 Treasury Grant
14 from the U.S. Treasury, it will update Schedule 95A as required under the terms
15 of such schedule.

16 **Q. What are PSE’s motivations for building LSR Phase 1 when it did?**

17 A. Mr. Norwood characterizes PSE’s motivation for building LSR Phase 1 as being
18 motivated by Federal tax incentives. *See* Exhibit No. ___(SN-1CT) at page 10,
19 line 16, through page 11, line 2. This characterization is only partially correct. In
20 addition to the Section 1603 Treasury Grant (in excess of \$200 million on a
21 present value basis), LSR Phase 1 has benefited from the Washington State sales

1 tax exemption. All other assumptions held constant, the Washington State
2 exemption for systems generating power with renewable technologies will have
3 saved customers an estimated \$45,737,000 nominal savings, inclusive of taxes
4 and AFUDC. *See* Exhibit No. ___(RG-1HCT) at page 25, lines 9-10. PSE was
5 able to exempt approximately two-thirds of total project costs from state sales tax
6 and estimates an effective rate of 0.54% for the project versus the 7.5% rate in
7 effect in Garfield County.

8 **2. Need for LSR Phase 1**

9 **Q. What need did PSE intend to fill when it decided to construct LSR Phase 1?**

10 A. PSE decided to construct LSR Phase 1 to meet the voter passed Washington State
11 RPS requirement that PSE serve at least nine percent of its electric load with
12 renewable resources by January 1, 2016, and each year thereafter through
13 December 31, 2019. Although the projected in-service date (now mid-February
14 2012) is ahead of the 2016 requirement, the construction of LSR Phase 1 now
15 allows PSE to realize savings due to: (i) significant Federal grant funds that
16 require qualifying projects to be in commercial operation by December 31, 2012;
17 (ii) important state sales tax exemptions through June 30, 2011, for systems
18 generating power with renewable technologies; and (iii) a depressed resource
19 development market that has created downward price pressure on wind turbine
20 generators. This confluence of events has allowed PSE to be opportunistic in its

1 development of a necessary resource that will immediately serve energy needs of
2 PSE's customers upon completion and meet PSE's RPS needs beginning in 2016.

3 **Q What level of new renewable resources did the 2009 IRP identify as**
4 **necessary to meet PSE's RPS requirements?**

5 A. The 2009 IRP did not identify a minimum renewable resource need to meet PSE's
6 RPS requirements. Instead, the 2009 IRP denoted that, given the near-term
7 government incentives mentioned above, the least cost portfolio was achieved by
8 a resource acquisition strategy that would capture these incentives by adding
9 600 MW of new wind additions by 2016 (the addition of 300 MW of wind by
10 2012 and the addition of another 300 MW of wind by 2016). *See* Exhibit
11 No. ___(RG-3) at 10.

12 Therefore, any assertion in the testimony of Mr. Scott Norwood that the 2009 IRP
13 identified a level of new renewable necessary to meet PSE's RPS requirements is
14 misleading. *See, e.g.*, Exhibit No. ___(SN-1HCT) at page 22, lines 8-12. Indeed,
15 the 2009 IRP expressly acknowledged that the results of the 2009 IRP analysis
16 "demonstrate that it is cost effective to accelerate acquisition of wind resources
17 relative to minimums established by the RPS". Exhibit No. ___(RG-3) at 11.

1 **Q What is your response to the numerous critiques of PSE's need analyses by**
2 **Mr. Scott Norwood?**

3 A. PSE appreciates Mr. Norwood's role in this proceeding. New generating
4 resources are generally capital intensive, and PSE does not take its
5 responsibilities lightly, as demonstrated by the voluminous analyses provided in
6 this proceeding. Mr. Norwood was very thorough in his review and uncovered
7 revisions to some of the PSE analyses that required correction. While regrettable,
8 these revisions are minor in impact and have no discerning impact on PSE's need.
9 Please see the Prefiled Rebuttal Testimony of Ms. Aliza Seelig, Exhibit
10 No. ___(AS-4HCT), for a discussion of these issues.

11 PSE conducted multiple, independent analyses and the majority of the different
12 scenarios run through these models pointed to the same conclusion: it is
13 economically beneficial for PSE customers if RPS requirements are fulfilled
14 earlier than need dictates due to the opportunity to capture government incentives.
15 The analyses conducted as part of the 2009 IRP, the testing of Section 1603
16 Treasury Grant benefits, the 2010 RFP, and even these rate case proceedings,
17 based on Mr. Norwood's proposed revisions, overwhelmingly suggest that the
18 LSR Phase 1 project was economically superior today under a range of need
19 scenarios as opposed to deferring this decision into the future. I continue to
20 believe now what I believed at the time LSR Phase 1 was presented to the PSE
21 Board of Directors for approval: LSR Phase 1 is the most prudent means of
22 meeting PSE's long-term RPS obligations.

1 **Q. Does Mr. Norwood’s need analysis adequately reflect the number of RECs**
2 **that PSE projected would be available for banking at the time of the decision**
3 **by the PSE Board of Directors to construct LSR Phase 1 in May 2010?**

4 A. No. At the time that the PSE Board of Directors authorized the construction of
5 LSR Phase 1, many of the RECs that Mr. Norwood suggests that PSE bank in the
6 2011-2015 period were committed for sale to California utilities. Therefore, it
7 would have been inappropriate, at that time, for PSE to rely on the banking
8 provisions of those RECs to meet its RPS obligation in 2016.

9 **Q. Please describe the REC sales to California utilities.**

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10 A. PSE first contracted to sell RECs to Southern California Edison (“SCE”) and
11 Pacific Gas & Electric (“PG&E”) in [REDACTED] and [REDACTED],
12 respectively. Both of these contracts were contingent upon the satisfaction of
13 several conditions, but most importantly, the execution by all parties thereto of a
14 Settlement and Release of Claims Agreement in regards to claims arising from
15 events in the California and Western Energy Markets during the period January 1,
16 2000 to June 20, 2001. The California Public Utilities Commission approved the
17 settlement and the purchase by SCE of RPS-eligible electric energy from PSE on
18 June 18, 2009. The Federal Energy Regulatory Commission approved the
19 settlement on July 1, 2009.

20 Under the agreement with SCE, PSE contracted to sell 2,000,000 RECs beginning
21 in [REDACTED]. Under the agreement with PG&E, PSE contracted to sell

1 1,000,000 RECs, [REDACTED]

2 [REDACTED].

3 The final order issued by this Commission in PSE's REC accounting petition,
4 determined that the majority of the REC proceeds be credited back to PSE
5 customers.

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6 The second contract with SCE was finalized in [REDACTED]. Under the terms of
7 this agreement, PSE was obligated to deliver to SCE 2,560,000 RECs over the
8 years 2012 to 2015. [REDACTED]

9 [REDACTED] but instead required the standard
10 CPUC approval. After finalizing the contract, SCE promptly requested CPUC
11 approval of the contract.

12 The approval of PSE's second contract with SCE was substantially delayed for a
13 variety of reasons. CPUC Commissioners went back-and-forth with the Tradable
14 REC ("TREC") decision and the related Petitions for Modification. At the end of
15 2010, Governor Schwarzenegger's term expired without the successful passage of
16 a 33% by 2020 RPS bill. Governor Brown assumed office in January 2011,
17 promptly appointing new CPUC Commissioner's; the CPUC approved the long-
18 debated TREC decision in January 2011, and Governor Brown signed the 33% by
19 2020 RPS bill in April 2011 (which became effective in December 2011). (The
20 latter, placing additional hurdles for out-of-state facilities to qualify for the "in-
21 state" portfolio content category.)

1 In December 2011, despite PSE and SCE’s persistent efforts, the CPUC officially
2 rejected the PSE/SCE contract.

3 **C. LSR Phase 1 Will be “Used and Useful” Upon Commencement of**
4 **Operations in February 2012**

5 **Q. What guidance does the Commission provide on the “used and useful”**
6 **standard with respect to renewable resources acquired or constructed to**
7 **meet the RPS, but in advance of the RPS deadline?**

8 A. In the Renewable Resource Policy Report the Commission provided further
9 guidance on the used and useful standard in the context of the acquisition or
10 construction of renewable resources to meet the RPS, but in advance of the RPS
11 deadlines:

12 We are convinced that the “used and useful” statute does not
13 prevent acquisition of a renewable resource in advance of the RPS
14 deadline. Indeed, in the context of conventional resources, we
15 have allowed resources into rate base before they were needed to
16 meet load.

17 This conclusion is not driven entirely by the [Energy Independence
18 Act]. However, like the determination of prudence, the enactment
19 of the [Energy Independence Act] assists us in reaching this
20 conclusion. Early acquisition of a renewable resource is “useful”
21 in that it will meet the RPS at some point in the future. It also
22 needs to be “used.” Therefore, the utility must show that the
23 resource produces benefits that offset the cost of early acquisition.
24 This could include sale of energy generated from the plant, sale of
25 RECs from the plant, or other value to the company attributable to
26 the acquisition.

27 Renewable Resource Policy Report at paragraphs 55 and 56.

1 **Q. How does Mr. Norwood apply this “used and useful” standard to LSR**
2 **Phase 1?**

3 A. Mr. Norwood argues that LSR Phase 1 cannot satisfy the above-described “used
4 and useful” status:

5 The LSR 1 project is not needed to meet RPS requirements until
6 2018 at the earliest, and . . . is not expected to benefit customers
7 when compared to the "No Early Wind" alternative for the next
8 twenty years.

9 Exhibit No. ____ (SN-1HCT) at page 50, lines 9-12. Both assertions fail to
10 consider the totality of the circumstances or the benefits that will accrue over the
11 life of the project. As demonstrated in detail in this proceeding, PSE constructed
12 LSR Phase 1 to satisfy the RPS requirements that commence in 2016, and PSE’s
13 analytical models demonstrate, without fail, that the construction of LSR Phase 1
14 will, over the life of the project, provide superior benefits to the “just in time”
15 approach advocated by Mr. Norwood.

16 **Q. Why does Mr. Norwood suggest that LSR Phase 1 will not be “used and**
17 **useful”?**

18 A. Mr. Norwood takes a very shortsighted view of the cost-effectiveness of LSR
19 Phase 1 by arguing, for example, “all early wind addition scenarios were
20 significantly more costly than the No Early Wind scenario over the next five to
21 ten years.” Exhibit No. ____ (SN-1HCT) at page 20, lines 17-18.

1 This standard, however, would preclude utilities from undertaking virtually any
2 long-term resource acquisitions because, generally speaking, no resource is cost-
3 effective when compared to the cost of market or REC purchases during the first
4 decade of the life of the project. Additionally, power plant capital costs would be
5 virtually impossible to economically justify over short time horizons because they
6 take years, often decades, to earn a return on and of capital. To satisfy its public
7 service obligations adequately, a utility must engage in long-term planning and be
8 able to acquire resources to meet identified long-term needs.

9 PSE identified a need to acquire resources to meet the RPS target requirements
10 that commence in 2016. PSE engaged in a thorough and detailed process to
11 analyze its needs and its alternatives over the course of about 18 months. PSE
12 identified LSR Phase 1 as the lowest reasonable cost resource to meet this need.
13 In short, PSE engaged in the long-term planning and thorough analysis that one
14 would expect of any utility, and Mr. Norwood's only complaint is that he would
15 have preferred that PSE construct LSR Phase 1 closer to 2016.

16 **Q. Would PSE have fulfilled its obligation to acquire the lowest reasonable cost**
17 **resources had it waited to closer to 2016 to construct LSR Phase 1?**

18 A. Unfortunately, the answer is no. PSE understood that its RPS need would not
19 exist until 2016 at earliest, but it could not ignore the significant and substantial
20 savings presented by the availability of the Section 1603 Treasury Grant and the
21 state sales tax exemption. Therefore, PSE engaged in extensive and rigorous

1 analytical exercises to check—and re-check—whether it would be more cost-
2 effective to construct now and take advantage of these significant savings or to
3 wait several years and potentially forego these savings.

4 PSE’s analysis repeatedly demonstrated that PSE’s customers would be better off,
5 over the life of the project, to act now and take advantage of the Section 1603
6 Treasury Grant and the state sales tax exemption than to gamble and hope that
7 similar benefits would exist in the future.

8 **Q. How much do you estimate the value of these government incentives to be?**

9 A. The present value of the LSR Phase 1 government incentives exceeds \$270
10 million; this includes the grossed-up Treasury Grant estimate as well as project
11 savings from avoided Washington State sales taxes. In addition to these
12 incentives, PSE estimates further customer savings exceeds \$80 million, on a
13 present value basis, due to the recent changes to Treasury Grant normalization
14 requirements. The magnitude of government incentives led PSE management to
15 conclude that acting to capture these benefits in the present while they were
16 known, measurable, and provided cost justification for acting early, was sound
17 rather than leaving the future to chance.

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2. LSR Phase 1 Budget

Q. What budget did PSE project for LSR Phase 1?

A. At the time of PSE Board of Director approval in May 2010, the all-in budget for LSR Phase 1 was projected to be \$848,041,000 for the period through commercial operation and final completion in 2012, which equates to \$2,475/kW installed. Table 1 on the following page shows the original LSR Phase 1 budget.

Q. What budget does PSE currently project for LSR Phase 1?

A. The all-in budget for LSR Phase 1 is currently estimated to be \$830,020,000, which includes actual expenditures through October 2011 and projections from November 2011 through February 2012. The current budget is approximately \$18,021,000 lower than the May 2010 budget. Table 2 below shows the current LSR Phase 1 budget.

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Table 1. Original Total Development and Construction Budget

	\$000s	\$/kW	Percent of Total
DEVELOPMENT BUDGET			
Development Rights	██████	██████	██████
PSE Allocated Development Costs	██████	██████	██████
Interconnection Costs	██████	██████	██████
Prepaid Transmission Expense	██████	██████	██████
TOTAL DEVELOPMENT BUDGET	██████	██████	██████
CONSTRUCTION BUDGET			
Wind Turbine Generators	██████	██████	██████
TSA Contract Price	██████	██████	██████
Anticipated TSA Options	██████	██████	██████
Balance of Plant	██████	██████	██████
O&M Building	██████	██████	██████
Step-up Transformers	██████	██████	██████
RES Construction Contract Price	██████	██████	██████
PSE Project Management, Engineering, Construction Permitting, Third-Party Services, Community Relations, and Overhead	██████	██████	██████
Project Communications	██████	██████	██████
Start-up Costs	██████	██████	██████
Sales Tax	██████	██████	██████
Contingency	██████	██████	██████
TOTAL CONSTRUCTION BUDGET	██████	██████	██████
AFUDC	██████	██████	██████
TOTAL ALL-IN PROJECT COSTS	848,041	2,475	100.0%

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See Exhibit No. ___(RG-13HC) at 141.

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Table 2. Current Estimated Total Development and Construction Budget

	\$000's	\$/kW	Percent of Total
DEVELOPMENT BUDGET			
Development Rights			
PSE Allocated Development Costs			
Interconnection Costs			
Prepaid Transmission Expense			
TOTAL DEVELOPMENT BUDGET			
CONSTRUCTION BUDGET			
Wind Turbine Generators			
TSA Contract Price			
Anticipated TSA Options			
Balance Of Plant			
O&M Building			
Step-up Transformers			
RES Contract Price			
PSE Project Management, Engineering, Construction Permitting, Third-Party Services, Community Relations, and Overhead			
Project Communications			
Start-up Costs			
Sales Tax			
Contingency			
TOTAL CONSTRUCTION BUDGET			
AFUDC			
TOTAL ALL-IN CAPITAL COSTS	830,020	2,422	100.0%

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Q. What is the primary reason for the projected cost savings for LSR Phase 1?

A. The PSE project management team has worked tirelessly and performed admirably to expedite construction of the project. These efforts have resulted in an estimated commercial operation date of mid-February 2012, approximately two months ahead of the original schedule. Shortening the construction cycle has been the largest contributing item to the estimated project cost savings.

Q. Please describe any material changes to the LSR Phase 1 construction budget described in the sections above.

A. The approved LSR Phase 1 budget of \$830 million has dropped by \$18 million since May 2010. The changes are generally due to the following:

1) **Wind Turbine Generators:** [REDACTED]

2) **Balance of Plant:** [REDACTED]

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Start-up Costs: [REDACTED]

3) **AFUDC:** [REDACTED]

4) **Contingency:** [REDACTED]

Q. Does PSE anticipate completing the project at or below the approved budget?

A. Yes. In spite of the budget changes just detailed, PSE estimates the final project budget will meet or come in below the budget described above.

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1 **Q. Were any of the operating expense assumptions modified subsequent**
2 **to the project approval?**

3 A. Yes. As discussed in my original testimony, these changes are as follows:

4 (i) Fixed and Variable Transmission Charges: Transmission charges
5 were marginally lowered to reflect the most recent information on
6 the BPA's rate structure.

7 (ii) Land Royalties: The dollar per MWh paid to landowners was
8 marginally reduced to account for variances across lease
9 agreements.

10 (iii) Property Taxes: The Garfield County property tax levy rate was
11 reduced to reflect updated figures from the county.

12 **Q. Was the impact of these changes material?**

13 A. No. The levelized cost of the project was marginally reduced as a consequence of
14 these changes.

15 **4. Project Pro Forma**

16 **Q. Has PSE prepared an updated pro forma for LSR Phase 1?**

17 A. Yes. PSE prepared an updated pro forma for LSR Phase 1, which models the 25-
18 year project-specific revenue requirement to recover all capital investment made
19 during development and construction of LSR Phase 1 and the subsequent 25 years
20 of O&M expense required to operate the facility and transmit the energy to PSE's
21 territory. The 25-year levelized cost of LSR Phase 1 is \$[REDACTED]/MWh, which

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1 includes the development and construction budget. The updated project budget
2 equates to a levelized cost reduction versus the original project budget of
3 approximately \$[REDACTED]/MWh. This decrease in levelized cost does not taken into
4 account the recent Treasury Grant program requirement changes championed by
5 PSE, which are discussed below.

6 **Q. What government incentives does PSE anticipate collecting and / or saving as**
7 **part of LSR Phase 1?**

8 A. PSE projects a Section 1603 Treasury Grant in the nominal amount of
9 \$314,032,000. This amount is the Treasury Grant of \$204,121,000 grossed-up for
10 federal income taxes that are included in the gross benefit to customers.
11 Additionally, PSE projects nominal savings of \$45,737,000, inclusive of taxes
12 and AFUDC, in exempted sales taxes. In total, these incentives nominally reduce
13 customer costs by about \$360 million. This benefit to customers has not taken
14 into account the recent Treasury Grant program requirement changes related to
15 normalization by utilities, which on a present value basis is estimated to be in
16 excess of \$80 million.

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1 **Q. What impact does the Treasury Grant normalization requirement change**
2 **have on the LSR Phase 1 project economics?**

3 A. The current pro forma 25-year levelized cost of LSR Phase 1 before accounting
4 for the Treasury Grant normalization change is \$█/MWh. Accounting for this
5 change reduces the 25-year levelized cost of LSR Phase 1 to \$█/MWh, a benefit
6 of \$8/MWh

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7 **Q. Had PSE contracted for a comparable PPA project to LSR Phase 1 and the**
8 **Treasury Grant normalization legislative change then occurred, would PSE**
9 **ratepayers have benefited?**

10 A. No. Customers would have been obligated to pay the PPA price entered into at
11 the time of contract execution. PSE customers would have experienced no upside
12 benefit from such an event.

13 **5. Financial Pro Forma Operating Cost Assumptions Included in**
14 **the Power Costs for this Proceeding**

15 **Q. Are the financial pro forma operating cost assumptions reflected in the**
16 **power costs currently included in this proceeding?**

17 A. Yes. However, there are some minor differences, which are detailed below:

- 18 (i) **Fixed Transmission Expense**: PSE relies on information
19 from outside parties with respect to inflation expectations.
20 In this instance, PSE is relying on inflation data from
21 Global Insights, which is a respected provider of
22 macroeconomic data. In the LSR Phase 1 pro forma, the
23 current fixed transmission expense is escalated using

1 Global Insights' escalation projections, whereas the power
2 cost model does not escalate current rates.

3 (ii) **Variable Transmission Expense**: Variances in this
4 category are due primarily to LSR Phase 1 pro forma's
5 inclusion of estimated system losses and the accompanying
6 dollar amounts PSE would need to expend in order to
7 replace the power lost as it travels across BPA's
8 transmission system to PSE's service territory. The power
9 cost model does not include losses in the rate composition
10 calculations.

11 (iii) **Transmission Credits**: The power cost summary includes
12 the customer credit received from BPA to offset Point-to-
13 Point transmission expenses. The model depicts projected
14 credits from the entire Central Ferry prepayment, whereas
15 the LSR Phase 1 pro forma only includes the credits
16 allocated to LSR Phase 1. These credits serve as an offset
17 to a portion of the fixed transmission expense.

18 (iv) **Central Ferry Prepayment**: The LSR Phase 1 pro forma
19 includes provisions for PSE to earn a return on and return
20 of the capital invested in the Central Ferry substation. The
21 transmission credits received from BPA are calculated
22 based on a rate of return that is lower than that allowed by
23 the Commission. Furthermore, these credits serve to offset
24 a project expense. Therefore, PSE will flow the BPA
25 credits through to customers and then collect its allowed
26 rate of return on the prepaid transmission. Please see the
27 Prefiled Direct Testimony of Mr. John H. Story, Exhibit
28 No. ___(JHS-1T), for a discussion of these costs.

29 **B. Update Regarding the Klamath Peaker 5-Year PPA**

30 **Q. Are the financial pro forma operating cost assumptions reflected in the**
31 **power costs currently included in this proceeding?**

32 A. As stated in the Prefiled Supplemental Direct Testimony of Mr. David E. Mills,
33 Exhibit No. ___(DEM-8T), all contingencies associated with the Klamath Peakers

1 PPA were satisfied: (i) Iberdrola Renewables secured firm BPA network
2 transmission on a long-term basis; and (ii) PSE secured firm transmission from
3 the Klamath Facilities busbar to BPA's John Day substation on a long-term basis.

4 **Q. Has any party to this proceeding challenged PSE's decision to enter into the**
5 **Klamath Peakers PPA?**

6 A. No. No party to this proceeding has challenged PSE's decision to enter into the
7 Klamath Peakers PPA.

8 **IV. CONCLUSION**

9 **Q. Please summarize your testimony.**

10 A. The PSE Board of Directors authorized construction of LSR Phase 1 in May
11 2010, after approximately eighteen exhaustive months of quantitative analyses
12 and multiple, rigorous management reviews that tested the qualitative merits of
13 the project. The Commission outlined the criteria by which it will review the
14 prudence of acquisitions of renewable resources in its Renewable Resource Policy
15 Report. Throughout the course of this proceeding, PSE has demonstrated in
16 testimony, data requests, and now in rebuttal testimony that LSR Phase 1 has
17 satisfied the standards outlined by the Commission. As such, PSE respectfully
18 requests that the Commission deem PSE's construction of LSR Phase 1 and
19 PSE's decision to enter into the Klamath Peakers PPA to be consistent with the
20 prudence standard.