

EXHIBIT NO. _____ (MWD-1T)
DOCKET NO. UE-111048/UG-111049
2011 PUGET SOUND ENERGY, INC. GENERAL RATE CASE
WITNESS: MEGAN WALSETH DECKER

BEFORE THE WASHINGTON STATE
UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND)	DOCKET NOS. UE-111048
TRANSPORTATION COMMISSION,)	and UG-111049 (<i>Consolidated</i>)
)	
Complainant,)	
)	
vs.)	
)	
PUGET SOUND ENERGY, INC.,)	
)	
Respondent.)	
_____)	

PREFILED CROSS-ANSWERING TESTIMONY (NON-CONFIDENTIAL) OF
MEGAN WALSETH DECKER
ON BEHALF OF NW ENERGY COALITION

January 17, 2012

TABLE OF CONTENTS

I. INTRODUCTION AND QUALIFICATIONS 1

II. SUMMARY OF TESTIMONY 2

III. PSE’S RENEWABLE PORTFOLIO STANDARD (“RPS”) COMPLIANCE STRATEGY 3

IV. PSE’S ASSUMPTIONS REGARDING PRODUCTION TAX CREDIT (“PTC”) EXTENSION 11

V. PSE’S CARBON PRICE ASSUMPTIONS 16

VI. CONTINUED OPERATION OF COLSTRIP PLANT 20

VII. CONCLUSION 21

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

1 I. INTRODUCTION AND QUALIFICATIONS

2 **Q. Please state your name, title, and business address.**

3 A. My name is Megan Walseth Decker, and I am Senior Staff Counsel at Renewable
4 Northwest Project, located at 421 SW 6th Avenue, Suite 1125, Portland, Oregon 97204.

5 **Q. Please describe Renewable Northwest Project.**

6 A. Renewable Northwest Project (“RNP”) is a non-profit, regional advocacy
7 organization that seeks to build on the Pacific Northwest’s clean energy legacy by promoting the
8 expansion of new renewable resources. RNP’s coalition of members includes both public
9 interest groups and renewable energy businesses. RNP was founded in 1994.

10 **Q. On whose behalf are you appearing in this proceeding?**

11 A. I am appearing as a witness on behalf of the NW Energy Coalition.

12 **Q. Please summarize your relevant work experience and your educational
13 background.**

14 A. I have been employed by RNP as Senior Staff Counsel since May 2010. While
15 employed at RNP, I have managed RNP’s activities before state utility regulatory commissions
16 in the Pacific Northwest, particularly in the areas of utility resource planning and renewable
17 portfolio standard implementation. I also serve as RNP’s representative on the Green-e Energy
18 Board of Governance.

19 Before joining RNP, I practiced law at Ball Janik LLP from 2005 to 2010 and served as a
20 judicial clerk to the United States Court of Appeals for the Ninth Circuit from 2003 to 2005. I
21 hold a Bachelor of Arts from Stanford University and a Juris Doctor from the University of
22 Washington School of Law. During the summer of 2000, I was employed as a legal intern with
23 the Washington State Attorney General’s Office at the Washington Utilities and Transportation
24 Commission (“Commission”).

1 **Q. Have you previously testified before the Commission?**

2 A. No. However, I have participated in various Commission policy dockets and
3 workshops related to renewable energy. Other current and former staff of RNP have testified
4 before this Commission.

5 II. SUMMARY OF TESTIMONY

6 **Q. What is the primary purpose of your testimony?**

7 A. The primary purpose of my testimony is to address several of the policy
8 assumptions related to Puget Sound Energy's ("PSE's") analysis of the Lower Snake River
9 Phase I wind project ("LSR Phase I") acquisition—specifically, those that were challenged by
10 Public Counsel and the Industrial Customers of Northwest Utilities through the Prefiled Direct
11 Testimony of Scott Norwood.

12 **Q. Please summarize your testimony regarding the LSR Phase I acquisition.**

13 A. I will address Mr. Norwood's challenges to (1) PSE's strategy for compliance
14 with the renewable portfolio standard provisions of Washington's Energy Independence Act,
15 RCW 19.285; (2) PSE's assumptions regarding extension of the federal Production Tax Credit
16 for wind projects; and (3) PSE's carbon cost assumptions. I conclude that PSE's approach to
17 those issues represented, in the words of this Commission's prudence standard, "data and
18 methods that a reasonable management would have used at the time the decisions were made."¹

19 **Q. Does your testimony address any other topics?**

20 A. In Part VI of my testimony, I briefly address the Prefiled Direct Testimony of
21

22 ¹ *In the Matter of the Washington Utilities and Transportation Commission's Inquiry on*
23 *Regulatory Treatment for Renewable Resources*, Washington Utilities and Transportation
24 *Commission*, Docket No. UE-100849, "Report and Policy Statement Concerning Acquisition of
Renewable Resources By Investor-Owned Utilities" (Jan. 3, 2011) (hereafter, "*Renewable*
Resources Policy Statement"), at ¶ 27.

1 Ezra D. Hausman, Ph.D., submitted on behalf of the Sierra Club. I support Dr. Hausman's
2 recommendation that PSE be required to perform a comprehensive, forward-looking cost and
3 risk analysis of continued operation of the Colstrip plant.

4 **Q. In preparing your testimony, have you reviewed any confidential**
5 **information?**

6 A. No. I have not reviewed the confidential or highly confidential information in this
7 case. Because of RNP's diverse membership, RNP staff seeks where possible to avoid gaining
8 commercially sensitive, project-specific information. Consequently, my testimony will offer
9 RNP's expertise on regional and national renewable energy issues relevant to the policy-related
10 assumptions challenged by Mr. Norwood.

11 III. PSE'S RENEWABLE PORTFOLIO STANDARD ("RPS")
12 COMPLIANCE STRATEGY

13 **Q. How would you characterize Mr. Norwood's principal challenges to PSE's**
14 **RPS compliance strategy?**

15 A. Mr. Norwood argues, first, that PSE should have based its compliance strategy on
16 the three-year renewable energy credit ("REC") carry-over provision of RCW 19.285.040(2)(e),
17 and that by failing to do so, PSE overstated its RPS need.² Second, Mr. Norwood suggests that
18 PSE should have evaluated, as a compliance strategy, meeting its RPS obligations with
19 unbundled REC purchases.³

20 **Q. Do you agree with Mr. Norwood that PSE should have based its compliance**
21 **strategy on the three-year REC carry-over provision?**

22 A. No. It was reasonable for PSE to focus its compliance strategy on the core

23 ² Exhibit No. ____ (SN-1T), pp. 5, 23-24.

24 ³ Exhibit No. ____ (SN-1T), pp. 6, 24, 30, 43.

1 mandate of the RPS: achieving physical compliance in each target year, by January 1 of that
2 year. From RNP’s perspective as one of the principal drafters of the RPS, its key requirement is
3 that contained in RCW 19.285.040(2)(a): “each utility shall use eligible renewable resources or
4 acquire equivalent renewable energy credits, or a combination of both, to meet the [] annual
5 targets[.]” Long-run physical compliance with annual targets was the goal of the RPS.

6 The flexibility that RCW 19.285.040(2)(e) gives utilities to carry over RECs from the
7 preceding and subsequent years was one of several tools intended to recognize the diverse
8 circumstances of investor-owned and public utilities subject to the law, particularly those that did
9 not have resource needs or significant load growth. The REC-carryover provision was not
10 intended to serve as a long-term surrogate for physical compliance with the core targets, nor to
11 allow utilities to delay compliance with them for as long as possible. Indeed, the law requires
12 sufficient generating resources or REC contracts to be in place as of January 1 of each target
13 year.⁴

14 Delaying compliance based on the REC-carryover provision could expose PSE to at least
15 two risks. First, planning to the limits of the REC-carryover provision would impair the utility’s
16 ability to use that provision as a hedge against unexpected construction delays or lower than
17 expected resource production. Second, waiting until the last minute could reduce the utility’s
18 range of compliance options as the “lowest hanging fruit” is picked, in terms of available
19 renewable resources in the Pacific Northwest. This Commission stated in its Renewable
20 Resources Policy Report: “As there are a finite number of reasonably economic wind sites in
21 Washington, the competition for the best sites can be fierce ... we encourage regulated utilities to

22 ⁴ RCW 19.285.040(2)(a); WAC 480-109-020; Docket No. UE-061895, *In the Matter of Adopting*
23 *Rules To Implement the Energy Independence Act, RCW 19.285, WAC 480-109, Relating to*
24 *Electric Companies Acquisition of Minimum Quantities of Conservation and Renewable Energy*,
General Order R-546 (Nov. 30, 2007), at ¶ 32.

1 seek out and develop the best sites because both the company and ratepayer will benefit from
2 such early movement in the wind marketplace.”⁵ An approach that relies on the REC-carryover
3 provision to delay acquisitions might expose a utility to the risk of paying higher prices for RECs
4 or renewable resources as the region’s most economical sites are secured by other market
5 participants.

6 For all of those reasons, I believe PSE has acted reasonably by acquiring eligible
7 renewable resources pursuant to a steady, measured acquisition strategy that keeps it ahead of
8 RPS targets.⁶ By doing so, PSE has met the core requirement of the law and acquired energy to
9 meet its customers’ needs, while avoiding the risks associated with a just-in-time approach to
10 RPS compliance.

11 **Q. Doesn’t Mr. Norwood’s Figure 5 demonstrate that PSE has acquired as**
12 **much as 6.8 times the renewable energy it needs for RPS compliance?**

13 A. At no time will PSE’s acquisition of LSR Phase I cause it to exceed the ultimate
14 requirement of the RPS: that it meet 15 percent of its annual load with eligible renewable
15 resources.⁷ After reviewing Mr. Norwood’s non-confidential workpapers,⁸ RNP believes that

17 ⁵ *Renewable Resources Policy Statement*, at ¶ 37.

18 ⁶ *See, e.g., Puget Sound Energy, 2009 Integrated Resource Plan*, at 8-15-8-16 (“[A] steady,
19 disciplined acquisition and development program . . . allows PSE to retain a team of experienced
20 wind acquisition and development professionals capable of taking advantage of opportunities as
21 they occur in the marketplace. The ‘just-in-time’ development of 600 MW of wind in 2020
proposed in the 2009 Trends Constrained portfolio exposes the company and its customers to the
risks and uncertainties of a boom-bust cycle that would create periodic scrambles to assemble
qualified personnel and development opportunities, just so that requirements could be met at the
last minute.”).

22 ⁷ *Puget Sound Energy, 2011 Integrated Resource Plan*, Chapter 5, p. 5-7, available at
23 <http://www.utc.wa.gov/docs/Pages/DocketLookup.aspx?FilingID=100961>.

24 ⁸ Exhibit No. ____ (MWD-2), Nonconfidential Workpapers of Scott Norwood, Fig5wLSR1
(Proposed LSR 1 Wind Addition vs. RPS Renewable Energy Requirements).

1 Mr. Norwood's Figure 5⁹ presents a somewhat misleading portrayal of the extent to which PSE's
2 generation from qualifying renewable resources may exceed the minimum targets over the first
3 decade of the RPS. This is because the column labeled "Projected Renewable GWh" (on which
4 the percentages in the column labeled "Projected % of Target" are based) includes current year
5 generation that must be used to meet the following year's compliance obligation. That same
6 generation is then included again as "Projected Renewable GWh" for the following year.
7 Although it is not inaccurate to say that the generation in question is available for compliance in
8 *either* the current year or the following year, counting it twice does lead to an impression that
9 PSE has acquired dramatically more renewable energy than the RPS will require.

10 Again, LSR Phase I will not enable PSE to generate more than 15 percent of its annual
11 load from eligible renewable resources in any year.¹⁰ However, it will cause PSE to meet the
12 interim nine percent target ahead of schedule, and thus will contribute to PSE producing more
13 RECs than are minimally required to comply with the RPS. This minimum REC need over the
14 first eight compliance years is Mr. Norwood's focus.

15 But Mr. Norwood's workpapers themselves offer a more useful way of describing this
16 issue. Mr. Norwood's workpapers for Figure 5 calculate the total number of RECs by which
17 PSE's early acquisition will cause it to exceed the total number of RECs estimated for
18 compliance between 2012 and 2020. (To reach this figure, Mr. Norwood sums the total energy
19 expected to be produced by PSE's eligible renewable resources, including LSR Phase I, from
20 2011 through 2020; he then sums each compliance year's minimum REC requirement for 2012
21 through 2020; he then compares those two cumulative estimates.) Mr. Norwood's workpapers
22 conclude that, between 2011 and 2020, PSE may generate 52% more energy from eligible

23 ⁹ Exhibit No. ____ (SN-1T), p. 25.

24 ¹⁰ See *supra* note 7, Puget Sound Energy, *2011 Integrated Resource Plan*.

1 renewable resources than is needed to precisely match the total number of RECs required to be
2 retired from 2012 through 2020.

3 This percentage is substantially less than the excess percentages reflected in the
4 “Projected % of Target” column in Mr. Norwood’s Figure 5. It provides perhaps a more
5 instructive expression of Mr. Norwood’s estimate of the result of PSE’s renewable acquisitions
6 to date (in relation only to minimum RPS requirements): PSE will have generated half again as
7 many RECs as it needed over the first eight RPS compliance years. Particularly given that a
8 utility should allow some margin for error above the precise number of RECs required for
9 compliance, this cumulative figure leaves a substantially different impression than the excess
10 percentages in Mr. Norwood’s Figure 5.

11 Yet, even this figure tells us little about the wisdom of PSE’s LSR Phase I acquisition.
12 The RPS is a continuing obligation that PSE must plan to meet over the long term. A strategy
13 whose sole objective is to minimize costs in the short term could have long-term consequences
14 that Mr. Norwood’s 2011-2020 lens does not capture. Moreover, RPS compliance is not the only
15 reason to acquire renewable resources. The benefits of early acquisition of renewable resources
16 go beyond compliance with the RPS and include meeting load growth needs, obtaining revenue
17 from REC sales and off-system power sales, avoiding future spikes in the price of renewable
18 resources, hedging fuel prices, and reducing regulatory risk. At the very minimum,
19 Mr. Norwood’s estimates of PSE’s REC surplus should be offset by REC sales that were known
20 or likely at the time of PSE’s acquisition decision.

21 **Q. Do you agree with Mr. Norwood’s suggestion that unbundled REC purchases**
22 **would have been a more prudent RPS compliance strategy for PSE?**

23 A. Unbundled REC procurement would not have been a more prudent strategy for
24

1 PSE. Markets for unbundled RECs are frequently characterized as illiquid and lacking
2 transparency, with transactions occurring mainly through bilateral, short-term contracts. In fact,
3 this Commission made that characterization in its *Renewable Resources Policy Statement* on
4 December 30, 2010, more than a year after the conclusion of PSE’s IRP and early acquisition
5 analysis. “While we can foresee the development of a more vibrant and liquid market for RECs,
6 that market does not exist today. Should one develop in the future, it may provide an option for
7 a utility seeking to avoid investment in an evolving renewable market.”¹¹ Even where market
8 conditions can make unbundled RECs a cost-competitive RPS compliance strategy, it should be
9 noted that bundled renewable resource acquisitions provide the added benefit of a long-term,
10 stable-priced energy resource to meet customers’ load needs.

11 Moreover, in the time frame in which PSE was evaluating early acquisition and LSR
12 Phase I, it was reasonable to expect that market prices for western RECs could increase
13 significantly. A November 13, 2009 decision by the Oregon Public Utility Commission
14 (“OPUC”) reflects contemporaneous expectations for the western REC market.¹² Before the
15 OPUC’s decision in November 2009, Oregon investor-owned utilities were required to source
16 RECs for their voluntary green power programs solely from the Western Electricity Coordinating
17 Council (“WECC”).¹³ Utilities and regulators expected a substantial increase in prices for RECs
18 from the WECC, which would unacceptably raise the cost of participation in green power
19
20

21 ¹¹ *Renewable Resources Policy Statement*, ¶ 48.

22 ¹² *In the Matter of Portfolio Options Committee Approval of the Portfolio Option Design for*
23 *Renewable Resource Programs*, Oregon Public Utility Commission, Docket No. UM 1020,
24 Order No. 09-459 (Nov. 13, 2009), available at <http://apps.puc.state.or.us/orders/2009ords/09-459.pdf>.

¹³ *Id.* at 1.

1 programs.¹⁴ On the basis of those market expectations, the OPUC granted the utilities' request to
2 allow a blend of national and WECC RECs to the extent necessary to keep green power program
3 participation costs down while maintaining a majority of WECC RECs.¹⁵ In this environment,
4 PSE could not have been expected to be able to rely upon meeting its RPS needs cost-
5 competitively with unbundled RECs from projects located in the Pacific Northwest.

6 Ultimately, the expected increases in western REC prices did not materialize.¹⁶ Yet, even
7 as low costs have caused regulatory interest in unbundled REC compliance strategies to increase,
8 Northwest utilities have continued to describe the unbundled REC market as an unpredictable
9 source on which to rely for RPS compliance.¹⁷ Against this backdrop, PSE's decision not to
10 pursue an unbundled REC compliance strategy in late 2009-early 2010 cannot be described as
11 outside the bounds of reasonable utility management. Moreover, PSE did receive and evaluate
12 two unbundled REC proposals in response to its 2010 request for proposals; PSE declined the
13 REC-only proposals because of the results of optimization modeling, the absence of additional
14 benefits, the higher risk profile, and the number of RECs offered relative to PSE's identified

16 ¹⁴ *Id.* at App. A, p. 5.

17 ¹⁵ *Id.* at 2.

18 ¹⁶ See Jenny Heeter and Lori Bird, *Status and Trends in U.S. Compliance and Voluntary*
Renewable Energy Certificate Markets (2010 Data) (Oct. 2011), p. 33 (Fig. 16), available at
19 <http://www.nrel.gov/docs/fy12osti/52925.pdf>.

20 ¹⁷ See, e.g., Portland General Electric, *2011 Integrated Resource Plan Update* (Nov. 23, 2011),
p. 50 (“In addition, unbundled RECs currently exhibit problems related to product definition and
21 fungibility, as well as market fragmentation, lack of price transparency, and illiquidity.”),
available at <http://edocs.puc.state.or.us/efdocs/HAD/lc48had152312.pdf>; *In the Matter of*
PacifiCorp, dba Pacific Power, Application for Policy Determination for Sale of Renewable
22 *Energy Credits*, Oregon Public Utility Commission, Docket No. UP 266, Order No. 11-512
(Dec. 20, 2011), p. 3 (“The market has limited depth with little to no price transparency. . . . In
23 other words, the company explains, the market is risky, volatile, lacks market depth, and offers
only limited and burdensome opportunities to make sales.”), available at
24 <http://apps.puc.state.or.us/orders/2011ords/11-512.pdf>.

1 need.¹⁸

2 **Q. What advantages unrelated to the RPS would PSE forego by pursuing an**
3 **unbundled REC compliance strategy?**

4 A. Particularly for a utility that relies significantly on market purchases and coal
5 generation,¹⁹ acquiring renewable resources has two additional benefits that would not be
6 realized with an unbundled REC strategy: reducing exposure to market and gas price volatility,
7 and hedging regulatory risk. By securing physical compliance with the RPS, PSE meets its load
8 needs with a more diversified generating portfolio and reduces exposure to unexpected volatility
9 in gas or market electricity prices.²⁰ Moreover, environmental regulation presents a significant
10 risk to PSE because of its heavy reliance on coal generation from Colstrip;²¹ diversification
11 through early acquisition of renewable resources is particularly sensible for utilities with
12 significant coal exposure. Indeed, I agree with the statement in Dr. Hausman's Direct Testimony
13 that a stricter regulatory regime for coal-fired plants favors PSE acquiring even more renewable
14 resources early.²²

16 ¹⁸ Exhibit No. ____ (AS-1T), pp. 32-33, 38-39.

17 ¹⁹ According to PSE's 2010 Electricity Fuel Mix bill insert, *available at*
18 http://pse.com/accountsandservices/YourAccount/Documents/4297_fuel_mix.pdf, coal
comprises 36% of PSE's fuel mix and natural gas 33%.

19 ²⁰ *See In the Matter of Commission Consideration of Public Service Company of Colorado Plan*
20 *in Compliance with House Bill 10-1365, "Clean Air - Clean Jobs Act,"* Colorado Public Utilities
21 Commission, Docket No. 10M-245E, Response Testimony and Exhibits of Carl E. Hunt, Ph.D.,
on Behalf of InterWest Energy Alliance (Sept. 2010), ln. 121-123 ("The analysis in the report
22 indicates that the best hedge against natural gas price volatility is to diversify the generation mix
to include firm long-term contracts with wind energy producers other renewable energy
resources."), *available at* [https://www.dora.state.co.us/pls/efi/EFI.Show_Filing?p_session_id=
&p_fil=G_56850](https://www.dora.state.co.us/pls/efi/EFI.Show_Filing?p_session_id=&p_fil=G_56850).

23 ²¹ *See generally* Exhibit No. ____ (EDH-1T), pp. 6-23.

24 ²² Exhibit No. ____ (EDH-1T), p. 24.

1 IV. PSE'S ASSUMPTIONS REGARDING PRODUCTION
2 TAX CREDIT ("PTC") EXTENSION

3 **Q. How would you characterize Mr. Norwood's contention that it was**
4 **unreasonable for PSE to assume that the PTC would expire in 2013?**

5 A. Mr. Norwood gives three primary reasons for his position: (1) the PTC had
6 "almost continuously been in effect since 1992";²³ (2) PSE's previous integrated resource plans
7 ("IRPs") had assumed continuation of the PTC;²⁴ and (3) PSE's PTC assumption was
8 inconsistent with its carbon assumption.²⁵ He also suggests that the "difficult economic climate
9 that existed at the time" made PSE's PTC assumption unreasonable.²⁶

10 **Q. Do you agree that the PTC assumptions in PSE's 2009 IRP represented a**
11 **departure from its PTC assumptions in prior IRPs?**

12 A. No. In its three plans preceding the 2009 IRP, PSE displayed progressively
13 declining confidence in the long-term availability of the PTC. PSE's 2003 Least Cost Plan
14 acknowledged uncertainty but nonetheless assumed availability of the PTC throughout the
15 planning period because of promising signs from Congress that the tax credit would be
16 extended.²⁷ In 2005, however, PSE's declining confidence was reflected by reducing the size of
17 the PTC over the planning horizon.²⁸ In 2007, PSE went a step further, reducing the size of the
18 PTC in 2010 and 2011 to represent a possible two-year extension, but eliminating the credit

19 ²³ Exhibit No. _____ (SN-1T), pp. 4, 36.

20 ²⁴ *Id.* at 36-38.

21 ²⁵ *Id.* at 37-38.

22 ²⁶ *Id.* at 38.

23 ²⁷ Docket No. UE-030594, Puget Sound Energy, *2003 Least Cost Plan* (Apr. 2003), Chapter X,
24 pp. 31-32, and Appendix L, pp. 4-5.

²⁸ Docket No. UE-050664, Puget Sound Energy, *2005 Least Cost Plan* (Apr. 2005), Chapter X,
pp. 8, 19.

1 beginning in 2012.²⁹ For the 2009 IRP, PSE assumed that the PTC would expire no later than
2 2013 for all but its “Green World” scenario (where the PTC was extended until 2016).³⁰ In
3 context, the assumptions used in the 2009 IRP are consistent with prior plans. I note that PSE’s
4 attitude toward PTC extension persists in its 2011 IRP, where PSE assumed no PTC extension
5 for all scenarios; in the 2011 IRP, PSE did run several PTC-extension sensitivities.³¹

6 **Q. Are you aware of any authoritative source that places odds on PTC**
7 **extension?**

8 A. No. The best context I can offer for the reasonableness of PSE’s assumptions is
9 the assumptions used in other utility IRPs.

10 **Q. How do PSE’s assumptions about PTC extension compare with those of**
11 **other utilities in the region?**

12 A. Utility IRPs have taken a wide range of approaches to the uncertainty surrounding
13 continuation of the PTC. Like PSE, other utilities in the region have demonstrated declining
14 confidence in the likelihood of long-term PTC availability. I reviewed the two most recent IRPs
15 for each of five other investor-owned utilities in the Northwest. Three utilities assumed no PTC
16 extension beyond 2012 in any IRPs (Avista 2009, Avista 2011, NorthWestern 2011, Idaho Power
17 2009, Idaho Power 2011).³² PacifiCorp’s expectations have diminished over its last two IRPs: its

18
19 ²⁹ Docket No. UE-071063, Puget Sound Energy, *2007 Integrated Resource Plan*, pp. 3-6, 3-11.

20 ³⁰ Exhibit No. ____ (RG-3), pp. 33-40 (Puget Sound Energy, *2009 Integrated Resource Plan*, pp.
21 3-4 to 3-11).

22 ³¹ *Supra* note 7, Puget Sound Energy, *2011 Integrated Resource Plan*, pp. I-22 to I-23 and 5-39
23 to 5-40.

24 ³² *Avista Utilities 2009 IRP*, pp. 4-2, 8-8, and 8-23, available at <http://www.avistautilities.com/inside/resources/irp/electric/Documents/Avista%202009%20IRP.pdf>; *Avista Utilities 2011 IRP*, pp. 4-7, available at <http://www.avistautilities.com/inside/resources/irp/electric/Documents/2011%20Electric%20IRP.pdf>; *NorthWestern Energy, Electricity Supply Resource Procurement Plan* (Dec. 2011), pp. 169-70, available at <http://www.northwesternenergy.com/>

1 2008 IRP assumed PTC availability throughout the planning period, with a sensitivity examining
2 2013 expiration; in 2011, however, PacifiCorp’s IRP and business plan made the PTC available
3 only through 2014 (*i.e.*, with one additional two-year extension).³³ Portland General Electric’s
4 2009 IRP assumed PTC availability throughout the planning period (with sensitivities
5 eliminating the PTC and reducing it by half).³⁴ However, PGE has signaled in its recent 2009
6 IRP update that a “materially higher” risk of reduced federal benefits for renewables may lead it
7 to reexamine PTC expectations in its upcoming 2012 IRP.³⁵ In short, while utilities have taken
8 different approaches to modeling the PTC, the context does not suggest that PSE’s assumptions
9 were unreasonable. Certainly, although RNP continues to believe strongly that bipartisan
10 support will lead to extension of the PTC—a policy that promotes economic development and
11 energy diversity—PSE’s pattern of declining confidence in PTC extension is shared by other
12 Northwest utilities.

13 **Q. Does this context have any bearing on Mr. Norwood’s contention that the**
14 **history of PTC extensions made PSE’s assumption unreasonable?**

15 A. Yes, it shows that the history of “almost continuous[.]” availability of the PTC
16

17 display.aspx?Page=2011_Electric_Supply_Plan#1. Idaho Power Company’s 2009 and 2011
18 IRPs do not clearly state their PTC assumptions, but I have confirmed with Idaho Power IRP
staff that no PTC extension was modeled.

19 ³³ PacifiCorp 2008 IRP, pp. 136, 147, 183, *available at* http://www.pacificorp.com/content/dam/pacificorp/doc/Environment/Environmental_Concerns/Integrated_Resource_Planning_3.pdf;
20 PacifiCorp’s 2011 IRP, pp. 156, 167, 208, *available at* http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Integrated_Resource_Plan/2011IRP/2011IRP-MainDocFinal_Vol1-FINAL.pdf.

21 ³⁴ Portland General Electric 2009 IRP, pp. 158, 234, 236, *available at*
22 http://www.portlandgeneral.com/our_company/news_issues/current_issues/energy_strategy/docs/irp_nov2009.pdf.

23 ³⁵ Portland General Electric 2009 IRP Update (Nov. 23, 2011), pp. 34, 53, 61, *available at*
24 <http://edocs.puc.state.or.us/efdocs/HAD/lc48had152312.pdf>.

1 since 1992³⁶ has not resulted in uniform utility assumptions that the PTC will continue
2 indefinitely. Mr. Norwood’s suggestion that the history of continuation alone made PSE’s
3 assumption unreasonable is at odds with the practice of other utilities, whose assumptions have
4 not merely continued history, but rather have varied based on subjective judgments of the
5 political circumstances present during preparation of their resource plans.

6 **Q. Do you agree with Mr. Norwood that it was unreasonable for PSE to assume**
7 **expiration of the PTC along with imposition of a carbon price?**

8 A. No. A carbon tax has the same economic impact as a renewable energy tax
9 credit—both close the price gap between fossil fueled generation and renewable energy.
10 Therefore, it is unlikely that a national carbon tax policy and the PTC would exist together.³⁷
11 One significant academic study of carbon tax design suggests that “the appropriate policy would
12 be to eliminate PTCs if a carbon tax were enacted.”³⁸ In light of the legislative momentum that
13 existed around carbon regulation at the time of PSE’s analysis, modeling a carbon price and not
14 the PTC was reasonable. From 2008 to early 2010, the chances were as high as they have ever
15 been that Congress would enact comprehensive federal climate legislation. It was not until mid-
16 to late-summer 2010 that climate legislation efforts had thoroughly stalled.³⁹ And it was not
17 until the November 2010 elections that further near-term progress toward comprehensive climate
18 legislation became less likely.

19 **Q. Would it, in fact, be reasonable utility practice to model a carbon price as a**
20

21 ³⁶ See Exhibit No. ____ (SN-1T), pp. 4, 5, 41.

22 ³⁷ See, e.g., Gilbert E. Metcalf & David Weisbach, *The Design of a Carbon Tax*, 33 HARV.
ENVTL. L. REV. 499, 500 (2009).

23 ³⁸ *Id.* at 553.

24 ³⁹ Carl Hulse and David M. Herszenhorn, *Democrats Call Off Climate Bill Effort*, N.Y. TIMES,
July 23, 2010, at A15.

1 **proxy for the PTC or other government policy favorable to clean energy?**

2 A. Yes. Utilities have modeled carbon prices as a proxy for diverse forms of
3 regulation and government policy that favor renewable energy over fossil fuel resources. I am
4 aware of an IRP stakeholder meeting in which participants agreed that Congress would likely
5 adopt either carbon regulation or a PTC extension, but not both; given this agreement, the utility
6 chose to model only a carbon price rather than a PTC extension.⁴⁰ Another recent utility plan
7 retained the carbon price assumptions from a prior plan, despite reduced likelihood of federal
8 carbon regulation, because the carbon price is seen to serve as a proxy for EPA regulation of
9 greenhouse gases and other pollutants.⁴¹ In short, I do not agree with Mr. Norwood that
10 continuing to model a carbon price demonstrates that PSE's assumptions regarding PTC
11 extension were unreasonable.

12 **Q. Do you agree with Mr. Norwood that “the difficult economic climate” made**
13 **it unreasonable for PSE to assume expiration of the PTC?**

14 A. No. In fact, while RNP is hopeful that Congress ultimately will recognize that the
15 PTC stimulates private investments that can power the American economy during difficult times,
16 a difficult economic climate also generates more competing claims on constrained budgets.
17 Budget deficit dynamics have made the conversation about how to pay for tax incentives
18 particularly challenging. The context of other utility IRPs discussed above suggests that, far

19 _____
20 ⁴⁰ This understanding of Idaho Power's planning history and approach comes from my personal
communication with Idaho Power IRP staff.

21 ⁴¹ NorthWestern Energy, *Electricity Supply Resource Procurement Plan* (Dec. 2011), p. 87
22 (“NorthWestern uses the NWPCC carbon tax assumption to represent the cost of potential
federal carbon tax legislation and also as a proxy for the cost of complying with EPA GHG
23 regulations.”), available at [http://www.northwesternenergy.com/display.aspx?
Page=2011_Electric_Supply_Plan#1](http://www.northwesternenergy.com/display.aspx?Page=2011_Electric_Supply_Plan#1). For the record, RNP believes that utilities should
24 rigorously examine and estimate compliance costs associated with actual and potential EPA
regulations, rather than solely using a proxy carbon cost.

1 from making PSE's assumption unreasonable, the difficult economic climate has contributed to
2 an erosion of utility confidence in PTC extension. Ultimately, predicting the future of the PTC is
3 a difficult proposition for anyone. While I am hopeful that an extension will be adopted, I
4 cannot say that PSE acted unreasonably by modeling PTC expiration in 2013.

5 V. PSE'S CARBON PRICE ASSUMPTIONS

6 **Q. How would you characterize Mr. Norwood's challenge to PSE's carbon price**
7 **assumptions?**

8 A. Mr. Norwood argues that, when PSE "re-ran" its 2009 IRP models in September-
9 October 2009, it should have adjusted the carbon price assumptions from its 2009 Trends IRP
10 scenario downward to reflect a new, lower EPA analysis of carbon legislation published in
11 October 2009.⁴² Mr. Norwood's testimony does not directly challenge the reasonableness of the
12 "2009 Trends" carbon price assumptions that PSE used in its 2009 IRP, although he does refer to
13 them as "extraordinarily high."⁴³

14 **Q. Do you agree with Mr. Norwood that PSE's "2009 Trends" carbon price**
15 **assumptions were "extraordinarily high"?**

16 A. No. PSE's 2009 IRP, filed with this Commission on July 30, 2009, was
17 developed during an extremely dynamic time in federal activity on climate and carbon
18 legislation, and a time when expected carbon prices looked most costly. The carbon price
19 assumptions in PSE's 2009 Trends scenario appear to have been based on reputable estimates
20 that accurately tracked with the EPA's March 2008 analysis of the Lieberman-Warner bill

21
22
23 ⁴² Exhibit No. ____ (SN-1T), pp. 40-41.

24 ⁴³ Exhibit No. ____ (SN-1T), p. 39.

1 (S.2191).⁴⁴ Those estimates had risen substantially—more than 200 percent—from EPA’s July
2 2007 estimate based on an earlier bill.⁴⁵ In hindsight, PSE’s carbon prices look high; in context
3 of the time, they reflect widely shared expectations for the rising cost of carbon.

4 Review of the most contemporaneous IRPs by other regional utilities and the analysis of
5 the Northwest Power and Conservation Council demonstrates that PSE’s 2009 Trends carbon
6 assumptions, while higher than others, were not outliers. In Exhibit No. ____ (MWD-4), RNP
7 offers a visual comparison between PSE’s 2009 IRP “2009 Trends” carbon price assumptions
8 and the base/reference case assumptions by Avista (Aug. 31, 2009), NorthWestern Energy (June
9 2010), and the Northwest Power and Conservation Council’s Sixth Plan (Feb. 2010).

10 Incidentally, two of these three documents were published *after* the lower October 2009 EPA
11 analysis which PSE used to generate assumptions for its 2010 request for proposals (and to
12 which Mr. Norwood argues PSE should have shifted in its IRP “re-run”), but they nonetheless
13 retain higher carbon price assumptions.

14 **Q. Do you agree with Mr. Norwood that it was unreasonable for PSE to**
15 **maintain, for its September-October 2009 IRP “re-run,” the 2009 Trends carbon price**
16 **assumptions from its IRP?**

17 A. Given the extreme level of uncertainty that existed about climate and energy
18 legislation during the period in question, I cannot agree that PSE acted imprudently by retaining
19 the carbon cost assumptions that it had developed for the 2009 IRP. PSE identified three

20 ⁴⁴ See generally Exhibit No. ____ (MWD-3), PSE’s Response to Public Counsel Data Request
21 No. 284.

22 ⁴⁵ In July 2007, EPA estimated the 2030 carbon allowance costs of “The Climate Stewardship
23 and Innovation Act of 2007” (S.280, 110th Congress) at \$27-\$32/ton. Eight months later, EPA’s
24 estimate of 2030 carbon allowance costs in the newly proposed “Lieberman-Warner Climate
Security Act of 2008” (S.2191, 111th Congress) had risen to \$61-\$83/ton, a 225%-259%
increase. All of EPA’s economic analyses of proposed climate legislation are available at EPA’s
website, <http://www.epa.gov/climatechange/economics/economicanalyses.html#cleanenergy>.

1 material changes that led it to “re-run” the 2009 IRP models: the treasury grant, the extension of
2 the Washington sales tax exemption, and declines in turbine prices.⁴⁶ Those changes were
3 certain and relatively concrete by fall 2009.⁴⁷

4 By contrast, climate and energy legislation remained dynamic and uncertain. It is true
5 that, around the time that PSE re-ran its IRP models in September-October 2009, EPA had
6 released analyses of new legislation that contained lower projections of likely allowance costs.⁴⁸
7 These new EPA analyses reversed what had been a trend of rising allowance cost expectations.⁴⁹
8 It was not clear at that time, however, what would happen to the legislation on which those
9 updated EPA analyses were based. H.R. 2454 had passed the United States House of
10 Representatives, but the legislation on which the October 2009 EPA estimate was based (S.1733)
11 was not voted out of the relevant United States Senate committee until November 5, 2009.⁵⁰ The
12 situation was dynamic enough and new projections not certain enough to make it unreasonable
13 for PSE to retain its IRP carbon price scenarios for the limited IRP “re-run.”

14 PSE had vetted its carbon price assumptions and other key IRP assumptions during

15 ⁴⁶ Exhibit No. ____ (AS-1T), pp. 20, 24.

16 ⁴⁷ The American Recovery and Reinvestment Tax Act of 2009 (Public Law 111-5) was enacted
17 on February 17, 2009; the Treasury Department first provided guidance on the Section 1603
18 program in July 2009. *See* Database of State Incentives for Renewables & Efficiency (DSIRE),
19 “U.S. Department of Treasury – Renewable Energy Grants,” [http://www.dsireusa.org/
20 incentives/incentive.cfm?Incentive_Code=US53F](http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=US53F). The extension to the Washington State sales
21 tax exemption became effective July 2009. *See* Exhibit No. ____ (RG-1T), p. 19. A National
22 Renewable Energy Laboratory report confirms that declines in wind turbine prices were noted in
23 2009. NREL, *2009 Wind Technologies Market Report* (Aug. 2010), p. 48.

24 ⁴⁸ EPA’s June 2009 analysis of H.R. 2454 and its October 2009 analysis of S.1733 are available
at <http://www.epa.gov/climatechange/economics/economicanalyses.html#cleanenergy>.

⁴⁹ *See supra* note 45.

⁵⁰ Press Release, U.S. Senate Committee on Environment and Public Works, “Boxer Statement
on Committee Passage of S. 1733 – The Clean Energy Jobs and American Power Act” (Nov. 5,
2009), *available at* [http://epw.senate.gov/public/index.cfm?FuseAction=Majority.
PressReleases&ContentRecord_id=c512ac4d-802a-23ad-4884-2b95a8405efe](http://epw.senate.gov/public/index.cfm?FuseAction=Majority.PressReleases&ContentRecord_id=c512ac4d-802a-23ad-4884-2b95a8405efe).

1 discussion with IRP stakeholders from April 2008 to June 2009.⁵¹ For PSE to have revised its
2 carbon price assumptions downward significantly in its ultimate decisionmaking analysis,
3 without participation by IRP stakeholders, would have undermined the process for public
4 stakeholders. In short, the apparent purpose of the “re-run” was not to re-investigate all the
5 assumptions of the IRP; it was to account for three material changes that were certain and
6 relatively concrete. At the time, carbon prices were not in that category.

7 **Q. Is there another reason why you disagree with Mr. Norwood’s assertion that**
8 **PSE’s carbon cost assumptions were unreasonably high?**

9 A. Yes. Carbon cost assumptions are not merely an exercise in predicting the exact
10 cost of compliance with a particular piece of legislation. They also can function as a proxy for
11 other types of government regulations and incentives that bear on the cost differential between
12 renewable and fossil fueled generation.⁵² As I stated earlier, modeling a carbon price can serve
13 as a proxy for federal tax benefits for renewable resources; modeling a higher carbon price may
14 have helped PSE hedge some of the uncertainty related to PTC extension.⁵³

15 Another important example is EPA regulation of coal-fired power plants. As federal
16 climate legislation became less likely in the near term, EPA’s approach to regulating greenhouse
17 gases and other pollutants has intensified (as has attention to state regulation and legal actions by
18 citizens). New and forthcoming EPA regulations pertinent to coal plants cover emission of
19 sulfur dioxide and nitrous oxides through the Clean Air Transport Rule, emission of mercury and
20 other air toxics through the Mercury and Air Toxics Rule, emission of greenhouse gases through

21 _____
22 ⁵¹ See Exhibit No. _____ (RG-3), pp. 274-80, Puget Sound Energy, *2009 Integrated Resource*
Plan, Appendix A (Public Participation) (Docket No. UE-080949).

23 ⁵² See *supra* note 42.

24 ⁵³ See *discussion, supra*, pp. 14-15.

1 the Endangerment Finding and the Tailoring Rule, coal wastewater discharge and cooling water
2 mechanisms through Clean Water Act rules, and coal combustion residuals.⁵⁴ With PSE's
3 significant exposure to regulatory risks associated with coal-fired generation, I consider it
4 reasonable for PSE's carbon cost assumptions to err toward the high side in a long-term planning
5 exercise.

6 VI. CONTINUED OPERATION OF COLSTRIP PLANT

7 **Q. Do you agree with Dr. Hausman's recommendations, filed on behalf of the**
8 **Sierra Club, regarding the need for PSE to conduct a comprehensive, forward-looking risk**
9 **and cost analysis for continued operation of Colstrip?**

10 A. Yes. I also note the consistency between Dr. Hausman's recommendations and
11 the Commission's letter acknowledging PSE's 2011 IRP. There, the Commission stated: "PSE
12 should conduct a broad examination of the cost of continuing the operation of Colstrip over the
13 20-year planning horizon, including a range of anticipated costs associated with federal EPA
14 regulations on coal-fired generation." In response to similar concerns from regulators and
15 stakeholders, at least two other regional utilities dependent upon coal power have agreed to
16 perform unit-by-unit environmental compliance analyses in the very near term.⁵⁵ Before the
17

18 ⁵⁴ See generally David Farnsworth, *Preparing for EPA Regulations: Working to Ensure Reliable*
19 *and Affordable Environmental Compliance* (July 2011), Regulatory Assistance Project, available
at <http://www.raponline.org/document/download/id/919>.

20 ⁵⁵ In recent IRP comments, Idaho Power agreed to conduct a unit-by-unit economic analysis of
21 its coal assets in 2012. See *Idaho Power Company's Reply Comments*, Idaho Public Utilities
Commission, Docket No. IPC-E-11-11 (Nov. 28, 2011), available at [http://www.puc.idaho.gov/](http://www.puc.idaho.gov/internet/cases/elec/IPC/IPCE1111/company/20111129REPLY%20COMMENTS.PDF)
22 [internet/cases/elec/IPC/IPCE1111/company/20111129REPLY%20COMMENTS.PDF](http://www.puc.idaho.gov/internet/cases/elec/IPC/IPCE1111/company/20111129REPLY%20COMMENTS.PDF); *Idaho*
Power Company's Reply Comments, Oregon Public Utility Commission, Docket No. LC 53
23 (Jan. 3, 2012), available at <http://edocs.puc.state.or.us/efdocs/HAC/lc53hac152750.pdf>. Also, in
response to concerns from stakeholders and regulatory staff, PacifiCorp has agreed to perform an
24 expanded, transparent, unit-by-unit coal plant analysis by February 17, 2012. *PacifiCorp's*
Revised 2011 Integrated Resource Plan Action Plan, Oregon Public Utility Commission, Docket

1 Commission approves any investment costs for continued operation of the Colstrip plant, PSE
2 should perform a comprehensive, transparent analysis of future regulatory risk associated with
3 Colstrip.

4 VII. CONCLUSION

5 **Q. Please summarize the conclusions of your testimony.**

6 A. I conclude that, in its RPS compliance strategy and its assumptions about PTC
7 extension and carbon prices, as related to acquisition of LSR Phase I, PSE relied on “data and
8 methods that a reasonable management would have used at the time the decisions were made.”⁵⁶
9 Specifically, I conclude that PSE acted reasonably by taking a steady, long-term-oriented
10 approach to physical compliance with the core RPS targets, by navigating an uncertain federal
11 policy environment by modeling 2013 PTC expiration, and by using contemporaneously
12 reasonable carbon cost estimates. I believe that PSE should continue its responsible approach by
13 committing to conduct a transparent, comprehensive economic analysis of continued operation of
14 Colstrip in light of more rigorous environmental regulation.

15 **Q. Does this conclude your testimony?**

16 A. Yes.

17
18
19
20
21
22
23 No. LC 52 (Jan. 9, 2012), *available at*
<http://edocs.puc.state.or.us/efdocs/HAS/lc52has113145.pdf>.

24 ⁵⁶ *Renewable Resources Policy Statement*, at ¶ 27.