

**EXHIBIT NO. ___(RG-1HCT)
DOCKET NO. UE-07 ___/UG-07 ___
2007 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-07 ___
Docket No. UG-07 ___**

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

**REDACTED
VERSION**

DECEMBER 3, 2007

PUGET SOUND ENERGY, INC.

**PREFILED DIRECT TESTIMONY (HIGHLY CONFIDENTIAL) OF
ROGER GARRATT**

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1 **PUGET SOUND ENERGY, INC.**

2 **PREFILED DIRECT TESTIMONY (HIGHLY CONFIDENTIAL) OF**
3 **ROGER GARRATT**

4 **I. INTRODUCTION**

5 **Q. Please state your name, business address, and position with Puget Sound**
6 **Energy, Inc.**

7 A. My name is Roger Garratt. My business address is 10885 N.E. Fourth Street
8 Bellevue, WA 98004. I am the Director of Resource Acquisition and Emerging
9 Technologies within the Energy Resource Group for Puget Sound Energy, Inc.
10 (“PSE” or “the Company”).

11 **Q. Have you prepared an exhibit describing your education, relevant**
12 **employment experience, and other professional qualifications?**

13 A. Yes, I have. It is Exhibit No. ___(RG-2).

14 **Q. What are your duties as Director of Resource Acquisition and Emerging**
15 **Technologies within the Energy Resource Group for PSE?**

16 A. My present responsibilities include oversight of: (i) the acquisition of electric
17 resources for the Company, commencing with the 2005 All Generation Sources
18 Request for Proposals (“RFP”) process and culminating in the execution and
19 closing of all of the definitive agreements necessary to acquire a resource;

1 (ii) contracts for long-term electric supply, and (iii) management of the
2 Company's Green Power Program, customer renewable energy programs, and
3 exploration of emerging generation technologies.

4 **Q. What is the nature of your testimony in this proceeding?**

5 A. My testimony presents PSE's resource acquisition activity and includes:

- 6 (i) PSE's evaluation of the proposals submitted in response to
7 its RFP.
- 8 (ii) The process in which evaluation of resource alternatives
9 led to the decision to acquire the following resources:
- 10 a) 20-year power purchase agreement ("PPA")
11 with Klondike Wind Power III, LLC's
12 Klondike III Wind Project for 50 MW;
- 13 b) 4-year winter on-peak PPA with [REDACTED]
14 [REDACTED] for 150 MW;
- 15 c) Lease buyout of Whitehorn Units 2 and 3
16 from Public Service Resources Corporation;
17 and
- 18 d) Infill project at PSE's Hopkins Ridge wind
19 farm adding 7.2 MW of additional wind
20 generating capacity.
- 21 (iii) The default by Sumas Cogeneration, L.P., under its power
22 purchase agreement with PSE, including PSE's acquisition
23 of replacement energy and the proposed negotiated
24 settlement expected to result in the acquisition of the
25 Sumas combined-cycle plant.
- 26 (iv) The extension of the Point Roberts power supply contract
27 with Powerex.
- 28 (v) The current status of the outage at the Goldendale
29 Generating Station.

1 (vi) The status of the Wild Horse Wind Project.

2 **II. PSE'S EVALUATION OF RESOURCE ALTERNATIVES**

3 **A. Overview**

4 **Q. How did the Company evaluate potential resources to meet its need?**

5 A. Ms. Harris' testimony describes the process and analysis leading up to the
6 Company's issuance of the RFP. The Company evaluated the proposals
7 submitted in response to the RFP in two phases based on criteria that were
8 designed to take into account qualitative and quantitative factors that the
9 Company believed should be considered in deciding whether to acquire a
10 potential resource. The quantitative analysis is described in more detail in the
11 testimony of Mr. James Elsea, Exhibit No. ___(WJE-1HCT). My testimony
12 focuses primarily on the qualitative analysis undertaken by the Company.

13 During Phase I of the RFP, PSE evaluated proposals based on each individual
14 proposal's cost and on specific qualitative criteria. This process was designed to
15 screen out proposals with high costs, unacceptable risks, or feasibility constraints
16 with the goal of creating a "Candidate Short List" for continued evaluation in
17 Phase II.

18 In Phase II, the Company performed more extensive due diligence on the
19 proposals on the Candidate Short List, including but not limited to data requests,
20 bidder presentations and site visits. The Company also evaluated a potential self-

1 build option. Additionally, PSE quantitatively tested each project on the
2 Candidate Short List in a variety of resource portfolios, scenarios and in Monte
3 Carlo analysis. *See generally* Exhibit No. ____ (WJE-1HCT) at pages 7-10. In
4 Phase II, the Company ultimately identified a “Short List” of projects that PSE
5 would seek to acquire by reaching definitive agreements through additional
6 negotiations and due diligence.

7 **Q. What processes did the Company put in place to organize and document its**
8 **efforts?**

9 A. Company staff responsible for this evaluation worked extensively on the
10 evaluation process from the time responses to the RFP were submitted in
11 January 2006 and continue to work on the evaluation process for those projects
12 still on the Short List.

13 Personnel involved in the evaluation met weekly to review and document
14 progress made as of that time and to discuss any issues or questions that had
15 arisen. In addition to its own staff, PSE used outside consulting firms to evaluate
16 the technical and environmental attributes of the proposals.

17 During the course of the evaluation process, Energy Resources staff regularly
18 updated the Company’s officers and the Commission Staff on the status of the
19 evaluation and any preliminary conclusions through presentations documented
20 primarily in Power Point slides. The Company’s management, in turn, regularly
21 apprised PSE’s Board of Directors of the status of the evaluation process.

1 The Company's evaluation process and conclusions, reached at various stages of
2 its analysis, are further explained below, and were documented in reports
3 prepared during the course of the evaluation.

4 **B. Phase I of the RFP Evaluation**

5 **1. The Proposals**

6 **Q. What proposals did the Company evaluate in Phase I?**

7 A. In response to the RFP, PSE received 48 unique proposals from 38 different
8 owners/developers. Please see Exhibit No. ___(RG-3HC) for PSE's 2005 All-
9 Source RFP Evaluation, Phase I, dated June 16, 2006. Many of the proposals
10 contained multiple options such as power purchase agreements, asset ownership,
11 and a combination of a power purchase agreement and partial ownership.
12 Considering all the options offered under each proposal, the Company evaluated
13 more than 120 different proposals. With respect to fuel source, 36% of the
14 proposals were for natural gas-fired facilities, 21% were for wind, 6% were for
15 hydro, 13% were for coal, 15% were power purchase agreements that did not
16 specify a fuel source (i.e., system power purchase agreements), and 9% were for
17 biomass, geothermal and other renewable resources. *See* Exhibit No. ___(RG-
18 3HC) at page 3.

19 ////

1 **Q. In addition to the proposals received from the RFP solicitation, did PSE**
2 **receive and review any other proposals during this process?**

3 A. Yes, PSE has an ongoing obligation to look at all proposals offered. For example,
4 the acquisition of the Goldendale Generating Station, which was presented to the
5 Commission in the Company's 2007 Power Cost Only Rate Case, ("PCORC"),
6 did not originate from the RFP solicitation.

7 **2. The Criteria**

8 **Q. What criteria did the Company apply during Phase I of the evaluation**
9 **process?**

10 A. During Phase I, PSE applied the following general criteria to the proposals:

- 11 • Compatibility with PSE Resource Need;
- 12 • Cost Minimization;
- 13 • Risk Management;
- 14 • Public Benefits; and
- 15 • Strategic and Financial.

16 These criteria are described in greater detail below, as well as in Exhibit
17 No. ___(RG-3HC) at pages 6-7.

18 ////

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1 **Q. What considerations were included under the “Compatibility with Need”**
2 **criteria?**

3 A. This criterion focused on the Company’s interest in meeting its long-term energy
4 need while reducing the risk of excess capacity. The Company was interested in
5 projects that would come on-line sooner rather than later because of its ongoing
6 exposure to wholesale market risks. Because the Company’s loads are much
7 higher in winter than in summer months, the Company was very interested in
8 resources that were or could be shaped to balance the seasonality of its loads. The
9 Company also considered its need to diversify its portfolio, pursuant to the
10 conclusions of its 2005 Least Cost Plan.

11 **Q. What considerations were included under the “Cost Minimization”**
12 **criteria?**

13 A. The Company sought to identify the lowest cost alternatives that would meet its
14 energy and capacity needs, looking not only at prices that might be stated in
15 proposals but at other factors that would ultimately affect the cost of the resource.
16 Examples of such costs include the costs of transmission, emission costs, fuel
17 transportation and energy firming.

18 **Q. What considerations were included under the “Risk Management” criteria?**

19 A. The Company considered many risks, particularly those that could threaten the
20 feasibility of a project or the timing of completion. Such risks included

1 environmental and permitting risks. The Company also evaluated risks associated
2 with whether a potential counterparty would actually be able to perform its
3 obligations related to a project proposal. Other considerations included the
4 desirability of long-term flexibility in order to better respond to future changes in
5 the industry or PSE's portfolio.

6 **Q. What considerations were included under the "Public Benefits" criterion?**

7 A. The Company considered whether projects would contribute to regional energy
8 adequacy and contribute to environmental and efficiency interests such as
9 reducing portfolio emission levels. Community impacts were also considered.

10 **Q. What considerations were included under the "Strategic and Financial"**
11 **criterion?**

12 A. These considerations included potential exposure to future environmental
13 regulations and future state wholesale market restructuring. They also included
14 balance sheet impacts and potential degradation of the Company's credit quality
15 or ability to fund ongoing operations due to factors such as credit support
16 requirements and imputed debt.

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1 **3. PSE's Initial Screening and Application of the Criteria**

2 **Q. How did the Company apply these criteria?**

3 A. The Company first screened the 120 proposals to identify any that appeared
4 clearly unsatisfactory because the project lacked viability. Several proposals
5 were identified as clearly not feasible for a variety of reasons.

6 In addition, PSE sent 18 projects that involved short-term opportunities to the
7 Energy Risk Management Department for consideration. Mr. Elsea discusses the
8 analysis of these short-term projects in his prefiled direct testimony, Exhibit
9 No. ___(WJE-1HCT).

10 The Company then performed quantitative analysis using the Company's
11 Portfolio Screening Model, to develop a cost ranking for each individual resource
12 proposal. These results are presented as Exhibit No. ___(WJE-3HC), appendix F.
13 For further description of the quantitative process, please see generally the
14 testimony of Mr. Elsea, Exhibit No. ___(WJE-1HCT).

15 **Q. Did the Company do anything in addition to this initial Portfolio Screening**
16 **Model analysis?**

17 A. The Company also conducted an extensive evaluation of qualitative factors
18 related to its evaluation criteria. Such factors included availability and potential
19 problems regarding fuel supply and transmission. The Company also evaluated
20 whether the bidders' projections regarding their proposal appeared to be realistic,

1 as the Company had concerns regarding the likely ability of bidders to actually
2 deliver what they proposed. Subject matter experts within the Company were
3 assigned to closely review various project proposals or aspects of proposals with
4 which they were familiar. After each team performed their evaluations, positive
5 and negative comments were documented. Then, through the weekly evaluation
6 meetings, the teams summarized their evaluations by assigning a qualitative
7 evaluation rating for each of the proposals using a rating system of “Low,”
8 “Medium,” and “High,” with “High” being considered more favorable and “Low”
9 being considered less favorable. This qualitative rating system was applied in
10 order to identify the most favorable proposals. Please see Exhibit No. ___(RG-
11 4HC) for PSE’s Phase I qualitative evaluations of the proposed projects.

12 **Q. Please describe the evaluation teams.**

13 A. In both Phase I and Phase II of the evaluations, subject matter experts within the
14 Company were assigned to review project proposals and perform due diligence in
15 order to assess the proposals or aspects of proposals within their specialized area.
16 PSE’s RFP evaluation process was a cooperative effort involving 40 to 50
17 individuals across the Company that were grouped in the following 16 teams:
18 (i) Business / Commercial Issues; (ii) Fuel Supply; (iii) Transmission;
19 (iv) Technology; (v) Quantitative; (vi) Environmental; (vii) Real Estate;
20 (viii) Community Relations; (ix) Operations; (x) Credit/Finance/Tax/Accounting;
21 (xi) Regulatory; (xii) Insurance; (xiii) Legal; (xiv) Human Resources;

1 (xv) Government Relations (Federal); and (xvi) Government Relations (State).

2 See Exhibit No. ___(RG-3HC) at page 173 for the subject matter teams.

3 **Q. Would you please provide some examples of the teams' evaluation process**
4 **and analysis?**

5 A. Some examples of the work, process and results of the evaluation teams are:

- 6 • The community affairs team visited the local community where a
7 proposed project was located or potentially would be located. The
8 team talked with community stakeholders and assessed local
9 support. Information was gathered from public, local, state and
10 federal government entities and Native American nations. The
11 team collected local newspaper editorials and letters to the editor
12 that discussed project proposals. This allowed PSE to understand
13 and address the concerns of the local community regarding a
14 potential project and helped position PSE for further development
15 of the project.
- 16 • The real estate team engaged in extensive review of the site control
17 documents presented in the proposals. As additional information
18 was needed, particularly in the Phase II evaluations, the real estate
19 team visited project proposal sites, walked or drove the sites, and
20 "ground truthed" the representations contained in the proposals.
21 This helped PSE identify potential issues that were not described
22 in the proposal documents.
- 23 • The environmental team researched the web sites of local, state,
24 and federal agencies in order to determine whether there were any
25 environmentally sensitive issues and to uncover any assessment
26 documents that had been produced. This allowed PSE to more
27 fully evaluate environmentally sensitive issues that needed to be
28 addressed within the proposals.
- 29 • On the permitting side of the environmental team, local, state, and
30 federal permitting processes were outlined in order to ascertain the
31 status of the project proposals' permits. An evaluation of the
32 process and risks of acquiring such permits were also address by
33 the team's efforts.

1 **Q. Would you please explain how the Company applied these qualitative**
2 **factors?**

3 A. Yes. As described above, Company personnel with real estate experience
4 reviewed the proposals with an eye toward the status and documentation of real
5 estate rights related to a project. Projects at the earliest stages of real estate
6 execution or with no real estate documentation provided for review received a
7 “low” ranking with respect to this factor; proposals containing plans and/or
8 discussion of real estate rights but with incomplete or insufficient documentation
9 received a “medium” ranking; and those with fee ownership and/or signed real
10 estate documentation (or where a plant was operational and assumed to have valid
11 operating rights) received a “high” ranking.

12 As for transmission issues, Company personnel evaluated the location of
13 proposed projects in relation to PSE’s system as well as transmission paths and
14 known transmission constraints. Proposals that were not to be interconnected
15 directly to PSE’s system were reviewed to determine whether the developer had
16 already submitted a request for transmission rights and the status of that request in
17 the transmission provider’s queue.

18 Company engineers also evaluated the technologies proposed to be used for each
19 project. They noted positive attributes such as the reliability or efficiency of a
20 type of turbine as well as negative attributes such as lack of information on the

1 type of equipment proposed to be used for a project, and ultimately assigned high,
2 medium or low ratings to each project with respect to the technology evaluation.

3 **Q. Did the Company do all of the Phase I evaluation in-house?**

4 A. No. The Company retained Global Energy Concepts to perform an in-depth
5 evaluation of the wind proposals that PSE received in the RFP. Please see
6 Exhibit No. ___(RG-5HC) for the report prepared by Global Energy Concepts.
7 Additionally, PSE hired Altera Energy to assist in the RFP process.

8 **Q. Why did the Company hire Global Energy Concepts?**

9 A. The Company sought external assistance in evaluating wind projects because of
10 its lack of technical experience with wind energy, especially meteorological
11 expertise. Global Energy Concepts is recognized internationally as a leading
12 authority on all aspects of wind energy. Global Energy Concepts has acted as
13 project engineer on behalf of lenders, insurers and owners on numerous projects.
14 As part of this work, it has performed due diligence with respect to wind turbine
15 technology and wind resource assessment, and it has consulted with respect to
16 various aspects of project design and construction including economic modeling.
17 Global Energy Concepts maintains its independence by taking no equity stake in
18 any development or technology and works purely on a consultancy basis.

19 ////

1 **Q. What did Global Energy Concepts do?**

2 A. Global Energy Concepts undertook its own evaluation of the wind projects. It
3 applied PSE's Phase I criteria to the projects based on its knowledge of the wind
4 generation industry. Its most significant contribution to the evaluation process
5 was to look at each proposed project from the perspective of an independent
6 engineer. By providing PSE feedback on the engineering and financial viability
7 of the proposal (i.e., determining whether the information presented in the
8 proposal was sufficient for a lender or equity investor to proceed), Global Energy
9 Concepts provided PSE with expert advice to supplement the Company's own
10 judgment. Global Energy Concepts also employed its proprietary software for
11 analyzing topographic and wind turbine wake effects on project output.

12 Additional detail regarding the Company's analysis of issues specific to the wind
13 power proposals is discussed below.

14 **Q. Why did the Company hire Altera Energy?**

15 A. Altera Energy was retained to assist the PSE resource evaluation team with the
16 review and evaluation of the business and commercial issues of the proposals.

17 **Q. What did Altera Energy do?**

18 A. Altera participated in evaluation meetings to discuss key findings, provide data
19 analysis support in the evaluation of the proposals and help document the process.
20 In addition, they provided an outside and fresh perspective on the RFP process

1 and evaluation. For example, Altera suggested that PSE use a new quantitative
2 metric--the Portfolio Benefit Ratio--to better provide parity among projects of all
3 sizes. Please see the prefiled direct testimony of Mr. W. James Elsea, Exhibit
4 No. ___(WJE-1HCT), for a description of the Portfolio Benefit Ratio.

5 **4. The “Most Favorable Proposals” List and Ultimate Phase I**
6 **“Candidate Short List”**

7 **Q. How did the Company then proceed?**

8 A. The qualitative evaluation and rating, combined with the Portfolio Screening
9 Model ranking, eliminated certain proposals with high costs, unacceptable risks,
10 and/or feasibility constraints and showed others as favorable. PSE then selected
11 sixteen proposals for a Candidate Short List.

12 **Q. How did the Company proceed with respect to the Candidate Short List?**

13 A. The sixteen proposals on the Candidate Short List appeared to offer the lowest
14 cost and lowest acceptable risk for obtaining additional electric supply. The
15 proposals selected for the Candidate Short List included a diverse mix of
16 ownership types and fuel sources, specifically: Five natural gas-fired projects,
17 four wind projects, three system power purchase agreements, two coal projects,
18 one geothermal project and one hydropower facility. The proposals on the
19 Candidate Short List and their ratings under the Phase I evaluation criteria are
20 provided in Exhibit No. ___(RG-3HC) at pages 220-231. The Company
21 presented the Phase I analyses and the Candidate Short List to Commission Staff.

1 Please see Exhibit No. ___(RG-6HC) for the Company's presentation to
2 Commission Staff, dated July 20, 2006.

3 **C. Phase II of the RFP Evaluation**

4 **1. The Criteria**

5 **Q. Did the projects evaluated in Phase II differ from the original Candidate**
6 **Short List?**

7 A. Yes. Early in Phase II, PSE was notified by three of the respondents whose
8 projects had been selected for the Candidate Short List that their project
9 conditions had changed. The first respondent indicated that the project was being
10 sold to another entity. The second respondent withdrew its proposal due to
11 redeployment of turbines originally earmarked for the project proposed to PSE.
12 The third respondent indicated a delay until 2008 due to recent permitting
13 challenges, which imposed significant cost and Production Tax Credit risk on the
14 proposal. To ensure strong comparative analysis, the next best projects were
15 added to the Candidate Short List and evaluated in Phase II.

16 **Q. What criteria did the Company apply during Phase II of the evaluation**
17 **process?**

18 A. During Phase II, PSE continued to apply the Phase I evaluation criteria and placed
19 further emphasis on the following qualitative factors:

- 1 • Transmission and Integration Alternatives;
- 2 • Comparison of power purchase agreements and Ownership Alternatives;
- 3 • Ability to Deliver;
- 4 • Experience of Developers;
- 5 • Guarantees and Security; and
- 6 • Environmental and Public Benefit.

7 Please see Exhibit No. ___(RG-7HC) for PSE’s 2005 All-Source RFP Evaluation,
8 Phase II, dated September 29, 2006, which includes a discussion of the criteria
9 listed above.

10 **Q. How did the Company apply these criteria?**

11 A. The Company reevaluated the proposals on the Candidate Short List against each
12 other by combining quantitative cost rankings with extensive evaluation of
13 qualitative criteria, which were again summarized in “High,” “Medium,” and
14 “Low” qualitative ratings. The Company based this evaluation on information
15 that had been provided in the initial proposals as well as on responses to
16 information requests that PSE sent to the owners and developers of the projects
17 on the Candidate Short List. The Company also considered information
18 discovered through its due diligence efforts.

19 **Q. What additional information did the Company request?**

20 A. PSE requested information such as copies of existing permits or applications for
21 permits, a list of agreements contemplated between PSE and the developer,

1 information about contingency plans in the event certain assumptions did not
2 materialize, and preliminary information about the commercial agreements and
3 terms the bidder anticipated requesting of PSE. PSE also inquired as to certain
4 projects whether the bidder would be willing to agree to terms such as price
5 guarantees or date certainty to the extent such terms were not addressed in the
6 original proposal.

7 **2. PSE's Quantitative Evaluation of the Proposals**

8 **Q. Did the Company quantitatively evaluate proposals on the Candidate Short**
9 **List during Phase II?**

10 A. Yes. Please see the prefiled direct testimony of Mr. W. James Elsea, Exhibit
11 No. ___(WJE-1HCT), for a description of the quantitative evaluation process
12 utilized by the Company in Phase II.

13 **3. PSE's Qualitative Evaluation of Proposals**

14 **Q. What qualitative evaluation did the Company undertake in Phase II?**

15 A. The Company's qualitative evaluation included continuing efforts such as those
16 described above for Phase I. Please see Exhibit No. ___(RG-8HC) for PSE's
17 Phase II qualitative evaluations from of the projects on the Candidate Short List.
18 In addition, the Company conducted the due diligence described below and
19 considered information regarding qualitative factors that resulted from those
20 investigations. The Company also evaluated the creditworthiness of the bidders

1 as potential counterparties to long-term transactions, for the reasons described
2 below.

3 **4. Due Diligence**

4 **Q. Please explain what is meant by “due diligence”?**

5 A. Due diligence is the process by which a party investigates and evaluates a
6 potential investment. This often involves the examination of business operations,
7 engineering design, equipment performance, environmental conditions, permit
8 status, real estate and other necessary property rights status, and the verification
9 of other material facts. Due diligence may also assess factors that affect the
10 future operation of a potential acquisition and the prospects that the acquisition
11 will perform as expected.

12 **Q. What due diligence did the Company perform with respect to the potential
13 projects?**

14 A. The Company conducted due diligence with respect to environmental issues and
15 concerns, permitting status and conditions, real estate matters, counterparty credit,
16 the wind resource projections made by project developers, legal agreements and
17 technical matters associated with the engineering, construction and operation of
18 potential projects that were asset based.

19 ////

1 **Q. How did the Company go about performing this due diligence?**

2 A. PSE conducted much of this review in-house, through personnel experienced in
3 legal, environmental and real estate matters, but also relied upon outside expertise
4 on environmental and permitting matters, real estate issues, and technical matters.
5 With respect to wind projections, wind project feasibility, and technical
6 compatibility, the Company continued to work with Global Energy Concepts, as
7 described above.

8 The Company's due diligence efforts began during the Phase I evaluation process
9 and continued thereafter as to projects that ultimately were selected to the
10 Phase II Candidate Short List, as well as projects on the continuing evaluation
11 list.

12 **Q. What were some of the results of these due diligence efforts?**

13 A. These efforts caused PSE to decide not to pursue certain projects on the
14 Candidate Short List and also confirmed the attractiveness of certain projects.
15 For example, based on the Phase II analysis, PSE determined that there was too
16 much uncertainty and risk around the complexity of a transmission solution for a
17 storage hydroelectric project located in Southeast Alaska.

18 ///

19 ////

1 **5. Credit and Balance Sheet Issues With Respect to Power**
2 **Purchase Agreements**

3 **Q. Do you have additional comments on other factors considered in the**
4 **Company's evaluation?**

5 A. Yes. Creditworthiness, credit support and credit quality issues continue to be of
6 importance in evaluating power purchase agreements as compared to ownership
7 options.

8 **Q. What were the Company's concerns about creditworthiness and credit**
9 **support?**

10 A. The Company's concerns regarding the financial condition of potential
11 counterparties and the credit required to support long-term, fixed price power
12 contracts were extensively documented in the Company's prior rate proceedings.

13 It is very common for companies to include in power purchase agreements a
14 requirement that credit assurances be provided to better protect a party from the
15 risk that the other will not perform its obligations under the contract. Credit
16 provisions are generally reciprocal, that is, the counterparty or PSE would provide
17 to the other contractual access to immediately available funds in the form of a
18 letter of credit or cash to cover the daily market-to-market exposure (above a
19 certain threshold level).

1 **Q. Did bidders of power purchase agreements request such credit support from**
2 **PSE?**

3 A. Yes. Among various proposed terms and conditions, bidders of power purchase
4 agreements requested that the Company post credit support to secure its
5 obligations to pay for purchased power under the long-term power purchase
6 agreements. Potential counterparties requested credit support from PSE in the
7 form of a demand letter of credit or cash.

8 **Q. Did the Company have concerns about the creditworthiness of any**
9 **counterparties?**

10 A. Yes, the Company had creditworthiness concerns with entities not financially
11 rated or of speculative grade. Further, project companies held as a special
12 purpose entity, such as a limited liability company, wherein the project is the only
13 asset, were of particular concern. In those cases, the Company requested credit
14 support, generally in the form of a parental guarantee.

15 **Q. Did the Company seek to address these concerns without rejecting the**
16 **resource proposal?**

17 A. Yes. Proposals are selected based on their ability to meet the established criteria
18 that PSE has outlined in its RFP solicitation, and that are offered at the lowest
19 reasonable cost with the lowest reasonable risk. In Phase I, no project was
20 eliminated based on credit. Once the selection of the Candidate Short List is

1 identified at the conclusion of Phase I, credit becomes significant to the analysis
2 and evaluation of the proposal.

3 **Q. Did the Company have other concerns about power purchase agreements?**

4 A. Yes. Credit rating agencies view electric utility power purchase agreements as
5 debt-like in nature and, in their analysis of the Company's financial strength and
6 risk factors, treat a portion of the Company's obligation under such contracts as
7 debt. This "imputed debt" is a significant concern for the Company because of its
8 impact on the Company's credit quality. Moreover, the Commission's 1994
9 prudence order expressly instructed the Company to consider "rating agencies'
10 views of purchased power" and "to quantify the impact of future resource
11 acquisitions on capital cost and capital structure."¹

12 **Q. Did the Company consider the impact of imputed debt when comparing**
13 **power purchase agreements to ownership options?**

14 A. Yes. The Company's quantitative analysis of the competing resource proposals
15 took into account costs related to debt that would be imputed to the Company if it
16 entered into various proposed power purchase agreements, as described in the
17 prefiled direct testimony of Mr. W. James Elsea, Exhibit No. ___(WJE-1HCT).

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¹ *WUTC v. Puget Sound Power & Light Co.*, Docket No. UE-921262, *et al.*, Nineteenth Supplemental Order (September 27, 1994) at 35-36.

1 **D. PSE Also Considered a Self-Build Option**

2 **Q. Did the Company analyze a self-build option in addition to the projects**
3 **proposed in response to the RFP?**

4 A. Yes. The responses to PSE's 2005 All-Source RFP included several self-build
5 alternatives. The self-build proposals can be divided into two types—each
6 requiring different levels of PSE involvement in both the development activities
7 and the construction build-out. The two types of proposals offered are those in
8 which:

- 9 i) PSE plays a key role in the remaining development activities and
10 funds the cost of completing the project with the developer; or
11 ii) PSE purchases the existing development assets from the developer
12 and PSE completes the project on its own.

13 Both types of self-build proposals result in PSE ownership of the project. In some
14 cases project ownership is transferred to PSE early in the development stage and
15 in other cases the ownership transfer occurs at the completion of the project.

16 **Q. Please describe the self-build analysis that was performed.**

17 A. As defined by the RFP evaluation criteria, the self-build proposals were evaluated
18 in the same manner as all other proposals. However, greater diligence was
19 observed when analyzing the costs of the remaining development activities and
20 construction build-out. PSE relied on costs supplied by the developer. Where
21 costs were not defined, PSE solicited pricing from the original equipment

1 manufacturers. Where feasible, PSE used costs based on its existing operational
2 experience from recent asset purchases including a half interest in EPCOR's
3 combined cycle gas plant, Frederickson I, and more recently, PSE's acquisition of
4 two wind farms. Also, additional costs that PSE would be required to fund in
5 order to self-build the project were added to the project economics during the
6 quantitative evaluation.

7 Of the thirteen projects that were included on the Candidate Short List, nine of the
8 projects could be considered self-build.

9 **E. Results of the Phase II Evaluation**

10 **Q. What did the Company do with the qualitative, quantitative, and due**
11 **diligence analyses discussed in your preceding testimony?**

12 A. Combining the qualitative, quantitative, and due diligence analyses led PSE to
13 develop a Short List of proposals that combined low projected levelized costs (as
14 compared to other proposals) with acceptable evaluations of qualitative factors.

15 **Q. What did the Company conclude as a result of the Phase II evaluation?**

16 A. PSE ultimately selected the following resources for inclusion on the Short List of
17 potential acquisition opportunities.

Project Name Owner/Developer	Size (MW)	Fuel	Proposal Type
██████████ Geothermal Project	16	Geothermal	PPA
Klondike III Wind Project	247.5	Wind	Ownership
██████████ 15-year Tolling Agreement	260	Gas	PPA
Goldendale CCCT	277	Gas	Ownership
██████████ ██████████ ██████████	8	Gas	Ownership
██████████ Winter On Peak PPA	150	System Power	PPA
██████████ Annual On Peak PPA	150-300	System Power	PPA

2

Q. Please describe why the Company determined that it should pursue these resources?

3

4

A. PSE determined that it should pursue the resources included in the Short List based upon the full range of analysis conducted in Phase I and Phase II.

5

6

Favorable aspects of each project on the Short List are briefly described below:

7

1. ██████████ Geothermal Project – The ██████████ Geothermal Project is among the very few geothermal projects in the Pacific Northwest with a transmission solution and a proven resource. It is a baseload renewable

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1 resource that would help PSE meet the renewable energy targets set forth
2 in the Energy Independence Act² and diversifies PSE's fuel supply.

- 3 2. Klondike III Wind Project – The Klondike III Wind Project is an
4 attractively priced wind project with a proven wind resource and an
5 established developer. It would add wind diversity to PSE's wind
6 generation resources.
- 7 3. [REDACTED] 15-year Tolling Agreement – The [REDACTED] 15-
8 year Tolling Agreement is a tolling power purchase agreement with
9 [REDACTED] for power from the
10 [REDACTED] Cogeneration Station. The [REDACTED] 15-year
11 Tolling Agreement proposal was among the most quantitatively attractive
12 resources to emerge from the Phase I analysis, with a proprietary gas
13 pipeline to the Sumas trading hub. As a Westside resource, it also
14 provides reliability.
- 15 4. Goldendale Generating Station – The Goldendale Generating Station is
16 among the most efficient plants in the Pacific Northwest, has transmission
17 and gas transportation solutions, and could be purchased at a steep
18 discount.
- 19 5. [REDACTED]
20 [REDACTED] has 8 MW of small peaking units
21 located in PSE's service territory that have significant operational
22 flexibility.
- 23 6. [REDACTED] Winter On Peak PPA – The [REDACTED] Winter On Peak PPA has
24 the highest benefit ratio of all of the short-listed projects examined in the
25 RFP. It is a reasonably priced, as a winter on-peak power purchase
26 agreement that is delivered to [REDACTED]
- 27 7. [REDACTED] Annual On Peak PPA – The [REDACTED] Annual On Peak PPA
28 is an annual on-peak, firm delivery agreement and the original proposal
29 was reasonably priced.

30 The Company presented the Phase II Analyses and the Short List to Commission
31 Staff. Please see Exhibit No. ___(RG-9HC) for the Company's presentation to

² The Energy Independence Act, RCW 19.285 requires electric utilities with more than 25,000 customers to use new renewable energy, such as wind and solar power, to serve at least 15 percent of their customers' needs by 2020, with benchmarks in 2012 and 2016 to demonstrate progress.

1 Commission Staff, dated September 11, 2006 and Exhibit No. ____ (RG-10HC) for
2 the Company's presentation to Commission Staff, dated October 13, 2006.

3 **Q. Did the Company reject those proposals that were not placed on the Short**
4 **List?**

5 A. No. PSE determined that promising proposals that did not make the Short List
6 should be placed on a "continuing investigation" list so that PSE could continue
7 to monitor their status and potentially reconsider whether any of these proposals
8 should be pursued.

9 **F. PSE's Efforts to Finalize Contracts**

10 **Q. What is the status of the potential acquisitions that made the Phase II Short**
11 **List?**

12 A. PSE sought and received approval from the WUTC on the acquisition of the 277
13 MW Goldendale Generating Station. The status of the other six short-listed
14 projects is briefly outlined below.

- 15 1. [REDACTED] Geothermal Project – PSE is currently in negotiations with
16 [REDACTED] for the entire output of [REDACTED] of the [REDACTED]
17 Geothermal Project (approximately 16 MW). The output is offered as a
18 year round baseload resource or as a seasonal baseload product. To
19 receive the power, PSE must rely on an exchange agreement with BPA,
20 due to transmission constraints between the plant site in [REDACTED] and PSE's
21 load in western Washington. PSE is currently reviewing a prototype
22 Exchange Agreement with BPA.
- 23 2. Klondike III Wind Project PPA – PSE executed a 20-year PPA, dated as
24 of July 11, 2007, with Klondike Wind Power III, LLC (a wholly owned

1 subsidiary of PPM Energy, Inc.), to purchase 50 MW of power from the
2 223.6-MW Klondike III Wind Project.

3 3. [REDACTED] 15-year Tolling Agreement – PSE has suspended further
4 discussions with [REDACTED] on a long-term tolling arrangement for power
5 from the [REDACTED]. During post-proposal
6 negotiations, [REDACTED] informed PSE that it was no longer willing to accept
7 the environmental risk (specifically the greenhouse gas (“GHG”) risk)
8 associated with the [REDACTED]. Further,
9 [REDACTED] proposed a limited shared liability for certain potential GHG risk,
10 pursuant to which PSE and [REDACTED] would equally share the first
11 \$1 million in potential GHG risk and PSE would bear any GHG risk in
12 excess of \$1 million. The resulting economic analysis no longer rendered
13 the [REDACTED] 15-year Tolling Agreement an attractive option.

14 4. Goldendale Generating Station – As discussed above, PSE purchased the
15 Goldendale Generating Station in February 2007.

16 5. [REDACTED]
17 [REDACTED] – PSE has terminated discussions with [REDACTED]
18 for the sale of their natural gas reciprocating turbine/generator sets.
19 [REDACTED] proposed a sales price for the equipment of
20 approximately \$3.3 million. PSE’s Phase I due diligence, however,
21 revealed market data that indicated the salvage value for similar vintage
22 units to be approximately \$1 million dollars or less. In its Phase I
23 quantitative analysis, PSE adjusted the capital cost to reflect the lower
24 market values, and the proposal was selected for the Candidate Short List
25 based on this revised capital cost. In post-proposal negotiations, PSE
26 notified [REDACTED] that the market data suggested that the
27 value of the units was substantially less than that offered. At that time,
28 [REDACTED] indicated that it would pursue other
29 opportunities.

30 6. [REDACTED] Winter On Peak PPA – PSE executed a 4-year winter on peak
31 PPA with [REDACTED] in May 2007 for 150 MW.

32 7. [REDACTED] Annual On Peak PPA – PSE has terminated discussions with
33 [REDACTED] regarding the [REDACTED] Annual On Peak PPA. During post-
34 proposal negotiations, PSE requested that [REDACTED] refresh its fixed
35 price offer on at least three occasions during March, April and June of
36 2007, during which period the market power prices steadily increased. On
37 all three occasions, the [REDACTED] Annual On Peak PPA offers were not
38 compelling when compared with alternatives.

1 **Q. Does the Company anticipate that it will acquire any of the Short List**
2 **proposals other than the Goldendale Generating Station, the 20-year**
3 **Klondike III Wind Project PPA, and the 4-year [REDACTED] Winter On Peak**
4 **PPA?**

5 A. The only remaining Short List proposal with which PSE is currently negotiating is
6 the above-described potential PPA with [REDACTED] for the entire output of
7 [REDACTED] Geothermal Project (approximately 16 MW). If these
8 negotiations prove successful, it is possible that PSE will acquire this resource
9 during the pendency of this general rate case.

10 In addition to the RFP Short List proposals, PSE is also actively pursuing a
11 number of wind power opportunities, and if those negotiations prove successful, it
12 is possible that PSE will acquire these resources during the pendency of this
13 general rate case.

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**III. RESOURCES ACQUIRED THROUGH
PSE'S RFP PROCESS**

3 **A. The Klondike III Wind Project PPA**

4 **1. The Klondike III Wind Project Proposal**

5 **Q. Did the Klondike III Wind Project proposal rank high in the Company's**
6 **Phase I quantitative and qualitative criteria?**

7 A. Yes. PPM Energy, Inc. initially proposed the Klondike III Wind Project to PSE
8 as a 247.5 MW turnkey project that PSE would own and operate. During Phase I
9 of the RFP evaluation, the Klondike III Wind Project turnkey proposal ranked
10 high in both quantitative and qualitative criteria, and the Company placed the
11 proposal on the Candidate Short List. See Exhibit No. ___(RG-3HC) at page 222
12 and Exhibit No. ___(WJE-10HC).

13 **Q. Did the Klondike III Wind Project proposal rank high in the Company's**
14 **Phase II quantitative and qualitative criteria?**

15 A. Yes. During Phase II of the evaluation, however, PPM Energy, Inc. amended its
16 proposal to offer PSE an approximate 50% ownership interest (120 MW) in the
17 project due, in part, to the increasing competition for renewable facilities.
18 Despite the amended ownership structure, the Klondike III Wind Project partial
19 ownership proposal continued to rank high in both quantitative and qualitative

1 criteria, and the Company placed the proposal on the Short List. See Exhibit
2 No. ___(RG-8HC) at page 12 and Exhibit No. ___(WJE-3HC) at Appendix P.

3 **Q. When did Klondike III Wind Project proposal convert to a PPA?**

4 A. Subsequent to the Phase II evaluation, PPM Energy, Inc. amended its proposal
5 (i) to a PPA and (ii) reduced PSE's share from 120 MW to 50 MW. Increased
6 demand and market pressures continued to play a part in the structure of the
7 Klondike III Wind Project proposal. During negotiations, PPM Energy, Inc.
8 announced a PPA with the Eugene Water & Electric Board for a portion (25 MW)
9 of the Klondike III Wind Project.

10 **Q. Did the Company reevaluate the proposal as a PPA?**

11 A. Yes. PSE reevaluated the Klondike III Wind Project PPA proposal, and the
12 proposal continued to rank high in the Company's quantitative criteria. As
13 described in the prefiled direct testimony of Mr. W. James Elsea, Exhibit
14 No. ___(WJE-1HCT), the portfolio benefit was approximately \$22 million
15 present value over the 20-year study horizon. Please see Exhibit No. ___(WJE-
16 12HC) for the Company's reevaluation of the ranking of the Klondike III Wind
17 Project PPA proposal. Even though the acquisition structure was modified during
18 negotiations, PPM never changed the PPA price after its first price proposal.

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1 **Q. Did the Company keep senior management and the Board of Directors**
2 **apprised of the Klondike III Wind Project PPA?**

3 A. Yes. The PSE Energy Management Committee (“EMC”) reviewed several
4 presentations regarding the Klondike III Wind Project PPA. This transaction was
5 approved by the EMC at its April 30, 2007 meeting. Please see Exhibit
6 No. ___(RG-11HC) for (i) the Klondike III Wind Project PPA presentation
7 provided at the EMC meeting of March 15, 2007, (ii) the Klondike III Wind
8 Project PPA presentation provided at the EMC meeting of April 30, 2007, and
9 (iii) the minutes from the EMC meeting of April 30, 2007.

10 Additionally, the Company Staff made a presentation to the Board of Directors
11 reviewed a presentation regarding the Klondike III Wind Project PPA on July 13,
12 2007. Please see Exhibit No. ___(RG-12HC) for the Klondike III Wind Project
13 PPA presentation provided at the Board of Directors meeting of July 13, 2007.

14 **2. The Klondike III Wind Project PPA Structure**

15 **Q. Please describe the power purchase agreement with Klondike Wind**
16 **Power III, LLC.**

17 A. PSE entered into a 20-year PPA, dated as of July 11, 2007, with Klondike Wind
18 Power III, LLC (a wholly-owned subsidiary of PPM Energy, Inc.) for a share of
19 the output of the Klondike III Wind Project. Please see Exhibit No. ___(RG-

1 13HC) for the 20-year PPA, dated as of July 11, 2007, between PSE and Klondike
2 Wind Power III, LLC.

3 The Klondike III Wind Project is expected to have a capacity of 223.6 MW when
4 completed and will consist of 44 Siemens 2.3 MW wind turbines and 80 General
5 Electric International, Inc. (“GE”) 1.5 MW wind turbines and 1 Mitsubishi 2.5
6 MW wind turbines. PSE’s 50 MW of power represents an approximate 22.36%
7 share of the output of the Klondike III Wind Project. Klondike III Wind Project
8 is the third phase of PPM Energy, Inc.’s Klondike Wind Project development near
9 Wasco in Sherman County, Oregon. Klondike I Wind Project and Klondike II
10 Wind Project were completed in 2001 and 2005 and generate 24 MW and
11 75 MW, respectively.

12 **Q. How much power is PSE purchasing from the Klondike III Wind Project?**

13 A. Under the PPA, Klondike Wind Power III, LLC, will sell 50 MW of wind power
14 (and the environmental attributes related to the generation of such 50 MW of
15 wind power) to PSE from the Klondike III Wind Project on an “as produced”
16 basis. *See* Exhibit No. ___(RG-13HC) at 21-22. The power sale includes
17 generation imbalance services and costs. *See id.* at 28. Thus, the power will be
18 scheduled and delivered to PSE on an “hourly firm” basis. The expected annual
19 average power from PSE’s percent of the project output is [REDACTED] MWh.

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1 **Q. When does PSE expect power deliveries from the Klondike III Wind Project**
2 **to begin?**

3 A. PSE expects power deliveries from the Klondike III Wind Project to commence
4 on the expected commercial operation date of December 1, 2007, and to continue
5 until midnight on the twentieth anniversary of the Commercial Operation Date.
6 *See Exhibit No. ___(RG-13HC) at 11, 21-22.*

7 **Q. Does the PPA protect the Company in the event that the Klondike III Wind**
8 **Project failed to achieve a commercial operation date of December 1, 2007?**

9 A. Yes. If the Klondike III Wind Project failed to achieve a commercial operation
10 date of or before December 1, 2007, then PSE could have elected to terminate the
11 PPA. *See Exhibit No. ___(RG-13HC) at 23.* Within thirty days of receipt of
12 PSE's election to terminate the PPA, Klondike Wind Power III, LLC could have
13 provided notice to PSE that it elected to cure the failure to achieve a commercial
14 operation date of December 1, 2007, and thereby suspend PSE's exercise of its
15 termination right. *See id.* If Klondike Wind Power III, LLC elected to cure such
16 termination, it shall have continued construction of the Klondike III Wind Project
17 and paid delay damages to PSE equal to approximately [REDACTED] per day. *See id.*
18 at 23-24.

19 However, the Klondike III Wind Project achieved commercial operation on
20 December 1, 2007. Accordingly, PSE did not need to exercise its contractual
21 remedies.

1 **Q. Does PSE have security that Klondike Wind Power III, LLC can pay PSE**
2 **damages until the Klondike III Wind Project achieves a commercial**
3 **operation date of December 1, 2007?**

4 A. Yes. PPM Energy, Inc., the parent company of Klondike Wind Power III, LLC, is
5 providing a parent guarantee of [REDACTED] to secure its obligations under the
6 PPA. Please see Exhibit No. ___(RG-13HC), pages 112-120, for a copy of the
7 parent guaranty of Scottish Power Finance (US) Inc.

8 **Q. How will the power from the Klondike III Wind Project be delivered to PSE?**

9 A. The Klondike III Wind Project will interconnect with the Bonneville Power
10 Administration (“BPA”) transmission system at the point where the Klondike
11 230 kV Schoolhouse Substation (the “Project Substation”) connects to BPA’s last
12 dead-end structure for the Schoolhouse-John Day 230 kV circuit outside the
13 Schoolhouse Substation. *See* Exhibit No. ___(RG-13HC) at page 144.

14 Transmission under the Klondike III Wind Project PPA is divided into two
15 periods:

- 16 (i) Period 1 is the period commencing on the Expected
17 Commercial Operation Date (December 1, 2007) through
18 and including June 30, 2011, and
- 19 (ii) Period 2 is the period commencing on July 1, 2011,
20 through and including the end of the term of the PPA.

21 *See* Exhibit No. ___(RG-13HC) at pages 27-28.

1 During Period 1, Klondike Wind Power III, LLC will deliver PSE’s power to the
2 high side of the busbar at BPA’s Covington 230 KV Substation located in Kent,
3 Washington (the “Covington Substation”). *See* Exhibit No. ____ (RG-13HC) at 27-
4 28. Klondike Wind Power III, LLC will arrange for transmission of the power
5 from the Project Substation to the Covington Substation across Klondike Wind
6 Power III, LLC’s firm point-to-point transmissions rights on BPA’s transmission
7 system. *See id.* at 29 and 33-34. PSE will reimburse Klondike Wind Power III,
8 LLC for transmission expenses incurred for the transmission of the power from
9 the Project Substation to the Covington Substation. *See id.* at 34-35.

10 During Period 2, Klondike Wind Power III, LLC will deliver PSE’s power to the
11 high side of the step-up transformer located at the Project Substation. *See id.* at
12 28. PSE will arrange for transmission of the power from the Project Substation to
13 the Covington Substation across the firm point-to-point transmissions rights on
14 BPA’s transmission system that Klondike Wind Power III, LLC will assign to
15 PSE on or before the commencement of Period 2. *See id.* at 33-34. PSE will be
16 directly responsible to BPA for costs associated with the transmission of the
17 power from the Project Substation to the Covington Substation. *See id.*

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3. The Klondike III Wind Project PPA Contract Price

Q. What is the contract price for PSE’s 50 MW of wind power and corresponding environmental attributes under the Klondike III Wind Project PPA?

A. The starting contract price for PSE’s 50 MW of wind power and corresponding environmental attributes under the Klondike III Wind Project PPA is [REDACTED], fixed through December 31, 2007. See Exhibit No. ___(RG-13HC) at 72. This [REDACTED] amount is subject to annual escalation beginning as of January 1, 2008, in accordance with the following formula:

[REDACTED]

See id. As used in the Klondike III Wind PPA, “CPI” means the Consumer Price Index for All Urban Consumers (CPI-U) All Items, as published by the Bureau of Labor Statistics of the United States Department of Labor. *See id.*

4. The Projected Benefits of the Klondike III Wind Project PPA

Q. Why is the Klondike III Wind Project PPA attractive to PSE?

A. There are a variety of reasons why the Klondike III Wind Project PPA is attractive to PSE, including but not limited to the following:

- (i) PSE’s quantitative analysis demonstrated that the contract prices associated with the Klondike III Wind Project PPA has one of the best levelized costs of power of the proposals received by PSE in

1 its RFP and provides over \$20 million of benefit to the PSE
2 portfolio. See Exhibit No. ___(WJE-12HC).

3 (ii) The Klondike III Wind Project was among the highest ranked wind
4 resource based on the analysis performed by Global Energy
5 Concepts. See Exhibit No. ___(RG-5HC) at 38. Additionally, the
6 Klondike III Wind Project PPA provides diversity to PSE's
7 existing wind power portfolio.

8 (iii) PPM Energy, Inc., the parent company of Klondike Wind Power
9 III, LLC, is a financially strong counterparty and an experienced
10 and proven developer and operator.

11 (iv) PPM Energy, Inc. had secured its wind turbines for the
12 Klondike III Wind Project, which provided an important advantage
13 given the tight supply constraints associated with wind turbines.

14 (v) The Klondike III Wind Project received local support.

15 (vi) The Klondike III Wind Project could be on-line before the
16 expiration of the current Production Tax Credit at the end of 2008.

17 (vii) The output of the Klondike III Wind Project will integrate with
18 BPA's transmission system and have firm transmission to PSE's
19 system.

20 (viii) The Klondike III Wind Project PPA supports PSE's compliance
21 with the requirements of RCW 19.285 (the Energy Independence
22 Act) and helps meet PSE's internal corporate goal of 10%
23 renewable power by 2013.

24 **B. The [REDACTED] Winter On-Peak PPA**

25 **1. The [REDACTED] Winter On-Peak PPA Proposal**

26 **Q. Did the [REDACTED] Winter On-Peak PPA proposal rank high in the Company's**
27 **Phase I quantitative and qualitative criteria?**

28 **A. Yes. During Phase I of the RFP evaluation, the [REDACTED] Winter On-Peak PPA**
29 **proposal ranked high in both quantitative and qualitative criteria, and the**

1 Company placed the proposal on the Candidate Short List. *See* Exhibit
2 No. ___(RG-3HC) at page 222 and Exhibit No. ___(WJE-10HC). This high
3 ranking resulted primarily from (i) the on-peak shape of the power deliveries and
4 (ii) the delivery of the power to [REDACTED].

5 **Q. Did the [REDACTED] Winter On-Peak PPA proposal rank high in the Company's**
6 **Phase II quantitative and qualitative criteria?**

7 A. Yes. During Phase II of the evaluation, the [REDACTED] Winter On-Peak PPA
8 proposal continued to rank high in both quantitative and qualitative criteria, and
9 the Company placed the proposal on the Short List. *See* Exhibit No. ___(RG-
10 7HC) at page 12 and Exhibit No. ___(WJE-3HC) at Appendix P.

11 **2. The [REDACTED] Winter On-Peak PPA Structure**

12 **Q. Please describe the power purchase agreement with [REDACTED].**

13 A. PSE entered into a four-year PPA, dated as of May 1, 2007, with [REDACTED] for
14 150 MW of power pursuant to Schedule C of the pro forma Western System
15 Power Pool ("WSPP") Agreement (the "WSPP Agreement"). Please see each of
16 the following:

- 17 (i) Exhibit No. ___(RG-14), which is a copy of the then-current pro
18 forma WSPP Agreement;
- 19 (ii) Exhibit No. ___(RG-15HC), which is a copy of the Master
20 Confirmation Agreement to the WSPP Agreement, dated as of
21 May 1, 2007, between PSE and [REDACTED] (the "Master
22 Confirmation Agreement"); and

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(iii) Exhibit No. ___(RG-16HC), which is a copy of the Confirmation Agreement Under the WSPP Agreement, dated as of May 1, 2007, between PSE and [REDACTED] (the "Confirmation Agreement").

Together, the WSPP Agreement, the Master Confirmation Agreement, and the Confirmation Agreement comprise the [REDACTED] Winter On-Peak PPA. Pursuant to this PPA, [REDACTED] will provide power during the months of December, January and February during on-peak hours of 6 a.m. to 10 p.m. Monday through Saturday. See Exhibit No. ___(RG-16HC) at 1. The total contract generation is 727,200 MWh. See *id.*

Q. What is the term of the [REDACTED] Winter On-Peak PPA Structure?

A. The PPA is for four winter periods commencing on December 1, 2008 and terminating February 29, 2012. See Exhibit No. ___(RG-16HC) at 1.

Q. Does the [REDACTED] Winter On-Peak PPA protect the Company in the event that the [REDACTED] cannot deliver power under such PPA?

A. Yes. [REDACTED] the parent company of [REDACTED], is providing a parent guarantee of [REDACTED]. Please see Exhibit No. ___(RG-17HC) for a copy of the parent guaranty of [REDACTED].

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1 **Q. How will the power under the [REDACTED] Winter On-Peak PPA be delivered to**
2 **PSE?**

3 A. As discussed above, the [REDACTED] Winter On-Peak PPA is a firm power purchase
4 under Schedule C of the WSPP Agreement, and the power under such PPA will
5 be delivered [REDACTED]
6 [REDACTED]. See Exhibit No. ___(RG-16HC) at 1.

7 **3. The [REDACTED] Winter On-Peak PPA Price**

8 **Q. What is the contract price for the [REDACTED] Winter On-Peak PPA?**

9 A. [REDACTED] initially proposed the [REDACTED] Winter On-Peak PPA at a contract price
10 of \$[REDACTED]/MWh. During negotiations, [REDACTED] increased the price of the PPA from
11 \$[REDACTED]/MWh to \$[REDACTED]/MWh. (This increase in price reflected higher market
12 prices during the negotiation period.) This levelized cost of \$[REDACTED]/MWh is not
13 subject to escalation during the term of the [REDACTED] Winter On-Peak PPA. See
14 Exhibit No. ___(RG-16HC) at 1.

15 **Q. Did the Company reevaluate the [REDACTED] Winter On-Peak PPA at the**
16 **amended price?**

17 A. Yes, PSE reevaluated the [REDACTED] Winter On-Peak PPA proposal at the amended
18 price. PSE solicited other bids and received offers from [REDACTED]
19 [REDACTED]. Please see Exhibit No. ___(RG-18HC) for
20 presentations to the EMC, dated April 20, 2007, April 30, 2007, and May 1, 2007,

1 for an overview of the Company's reevaluation of the [REDACTED] Winter On-Peak
2 PPA. The [REDACTED] Winter On-Peak PPA proposal at the amended price was
3 superior to these market alternatives.

4 **4. The Projected Benefits of the [REDACTED] Winter On-Peak PPA**

5 **Q. Why is the [REDACTED] Winter On-Peak PPA attractive to PSE?**

6 **A.** There are a variety of reasons why the [REDACTED] Winter On-Peak PPA is attractive
7 to PSE, including but not limited to the following:

- 8 (i) PSE's quantitative analysis demonstrates that the contract prices
9 associated with the [REDACTED] Winter On-Peak PPA has one of the
10 best levelized costs of power of the proposals received by PSE in
11 its RFP and provides over \$12 million of benefit to the PSE
12 portfolio. *See* Exhibit No. ___ (WJE-1HCT).
- 13 (ii) The [REDACTED] provides on-peak power to
14 PSE during the winter months, when PSE's resource need is
15 greatest.
- 16 (iii) [REDACTED] is a financially strong counterparty.
- 17 (iv) The power under the [REDACTED] will be
18 delivered directly to PSE's system.

19 **IV. THE HOPKINS RIDGE WIND INFILL PROJECT**

20 **A. Description of the Hopkins Ridge Wind Infill Project**

21 **Q. What is the Hopkins Ridge Wind Infill Project?**

22 **A.** The Hopkins Ridge Wind Infill Project is a 7.2 MW expansion of the existing
23 149.4 MW Hopkins Ridge Wind Project located in Dayton, Washington. Under

1 the infill project, PSE will install an additional four 1.8 MW Vestas V80 turbines
2 that were included in the original turbine layout of the Hopkins Ridge Wind
3 Project. These four turbines (T69 - T72) were relocated elsewhere on project
4 lands because, at the time of construction, the land lease agreement for the
5 turbines had not yet been finalized. The placement, permitting and environmental
6 assessments of these four turbines were included in the initial due diligence for
7 the 149.4 MW Hopkins Ridge Wind Project.

8 **Q. Why did the Company decide to undertake the Hopkins Ridge Wind Infill**
9 **Project?**

10 A. The Company began to evaluate the Hopkins Ridge Wind Infill Project during the
11 period PSE was negotiating with the proposals on its RFP Short List and soon
12 after the passage of Initiative 937 (codified as the Energy Independence Act,
13 RCW 19.285). The Company believed that the expansion of Hopkins Ridge
14 would be a cost-effective step towards meeting the Energy Independence Act.

15 **Q. When does the Company anticipate that the Hopkins Ridge Wind Infill**
16 **Project will be completed and begin to generate power?**

17 A. PSE expects substantial completion of the Hopkins Ridge Wind Infill Project and
18 power generation to occur by the end of June 2008, with final completion of the
19 project to occur by the end of August 2008.

1 **Q. Will the Hopkins Ridge Wind Infill Project cause any site infrastructure**
2 **modifications to the existing Hopkins Ridge Wind Project?**

3 A. Additional modifications to the existing Hopkins Ridge Wind Infill Project site
4 facilities will be minimal. The Hopkins Ridge Wind Infill Project will require
5 extension of existing roads for construction and ongoing access to the turbines.
6 The remaining Hopkins Ridge Wind Project infrastructure, including the
7 transformer and project substation, will be sufficient to incorporate the increased
8 generation resulting from the Hopkins Ridge Wind Infill Project.

9 **Q. How will the power from the Hopkins Ridge Wind Infill Project be delivered**
10 **to PSE's system?**

11 A. The existing Hopkins Ridge Wind Project has transmission capability of 150 MW
12 at the project switchyard and interconnects with the BPA transmission system at
13 the North Lewiston-Walla Walla 115 kV line. In June 2007, PSE made an
14 interconnection request to BPA for the 7.2 MW Infill Project, which PSE
15 anticipates that BPA will grant by the end of calendar year 2007.

16 Shortly after PSE submitted the interconnection request, PSE submitted a firm,
17 point-to-point transmission request to BPA for an additional 7.2 MW of
18 transmission service. PSE does not expect that BPA will grant the additional firm
19 transmission service until BPA completes the West of McNary System Upgrade
20 Project.

1 Until BPA grants the additional firm transmission capacity, PSE will manage the
2 Hopkins Ridge Wind Project to the 150 MW transmission capacity limitation.

3 **Q. Will the transmission line constraint of 150 MW affect the output of the**
4 **additional four turbines?**

5 A. Yes. The expected capacity factor of the four turbines for the Hopkins Ridge
6 Wind Infill Project is [REDACTED]. Taking into account line restrictions and the
7 frequency of project output exceeding 150 MW, PSE anticipates the actual
8 capacity factor will be approximately [REDACTED]. Please see Exhibit No. ___(WJE-
9 1HCT) at page 26 for a discussion of the projected capacity factor. This projected
10 capacity factor remains competitive with proposals received during PSE's 2005
11 RFP. *See id.* at 27.

12 **B. Additional Due Diligence**

13 **1. Additional Qualitative Due Diligence**

14 **Q. What additional qualitative due diligence did PSE conduct with respect to**
15 **the Hopkins Ridge Wind Infill Project?**

16 A. The Company conducted a full due diligence review of environmental, real estate
17 and technical matters during its acquisition of the existing Hopkins Ridge Wind
18 Project. As stated above, the four turbine locations and technology for the infill
19 project were considered in the original due diligence of the existing Hopkins

1 Ridge Wind Project. Therefore, PSE did not deem additional due diligence
2 necessary regarding environmental, real estate and technical matters.

3 **2. Additional Quantitative Due Diligence**

4 **Q. What additional quantitative due diligence did PSE conduct with respect to**
5 **the Hopkins Ridge Wind Infill Project?**

6 A. The Company updated its quantitative evaluation of the four additional turbines
7 for the Hopkins Ridge Wind Infill Project. As described in further detail in the
8 prefiled direct testimony of Mr. W. James Elsea, Exhibit No. ___(WJE-1HCT),
9 the Hopkins Ridge Wind Infill Project provides benefits to the Company’s power
10 portfolio. The projected 20-year levelized cost of the Hopkins Ridge Wind Infill
11 Project is approximately \$█/MWh. See Exhibit No. ___(WJE-1HCT) at page
12 27. PSE also projects that the Hopkins Ridge Wind Infill Project will provide
13 (i) an expected net present value benefit to PSE’s electric portfolio of \$5 million
14 and (ii) a benefit ratio of 0.3552. See *id.* at page 25. These quantitative analyses
15 demonstrate that the Hopkins Ridge Wind Infill Project is an attractive resource
16 for PSE.

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1 **Q. Why are the projected 20-year levelized costs of Hopkins Ridge Wind Infill**
2 **Project higher than the projected 20-year levelized costs of the Hopkins**
3 **Ridge Wind Project?**

4 A. The higher costs of the Hopkins Ridge Wind Infill Project are due, in large part,
5 to (i) the tight supply market for wind turbines, (ii) the declining value of the
6 dollar, and (iii) the higher raw commodity prices (predominately for steel and
7 copper). Since PSE acquired the Hopkins Ridge Wind Project in 2004, the
8 Company has witnessed significant price increases in the wind power industry,
9 particularly with respect to wind turbines and operations and maintenance costs.

10 **Q. Please elaborate on how market and political forces have affected the wind**
11 **industry.**

12 A. A primary factor driving the higher price for the Hopkins Ridge Wind Infill
13 Project was considerable tightening of the U.S. wind turbine market resulting
14 from the adoption of renewable portfolio standards by multiple states, such as
15 Washington. Nearly half of the states in the U.S. have adopted standards
16 specifying a certain amount of power be produced from renewable resources.
17 Please see Exhibit No. ___(RG-19HC) for the renewable resource acquisition
18 presentation to the Board of Directors Retreat, dated August 3, 2007, for a
19 summary of state renewable portfolio standards.

20 Further, the U.S. has experienced significant devaluation of the dollar versus the
21 Euro thus making the components manufactured abroad more costly. PSE has

1 seen capital costs increase approximately 50% above the capital costs of the
2 Hopkins Ridge Wind Project constructed in 2005.

3 **C. Project Acquisition Costs**

4 **1. Capital Expenses**

5 **Q. Please describe the acquisition costs for the Hopkins Ridge Wind Infill**
6 **Project.**

7 A. The Company projects an “all in” capital cost of approximately \$13.2 million for
8 the Hopkins Ridge Wind Infill Project:

Hopkins Ridge Infill Cost	Project Costs
Turbine Supply Agreement	██████████
Balance of Plant Agreement	██████████
Transaction & Due Diligence	██████████
AFUDC	██████████
Total Capital Expense	\$13,240,285

9 Please see Exhibit No. ___(RG-20C) for the detail of the projected “all in” capital
10 costs and Exhibit No. ___(RG-21C) for detail regarding the capital costs paid by
11 PSE as of October 31, 2007, and the projected capital costs remaining as of
12 October 31, 2007.

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1 **Q. Please describe the category “Turbine Supply Agreement.”**

2 A. The Turbine Supply Agreement (“TSA”) category consists of the costs associated
3 with the agreement under which Vestas-American Wind Technology, Inc.
4 (“Vestas”) will supply, transport, and commission the Hopkins Ridge Wind Infill
5 Project’s four wind turbines. Please see Exhibit No. ___(RG-22HC) for a copy of
6 the Vestas TSA. The TSA reflects a firm, fixed total price for the wind turbines
7 and the services of Vestas, other than for scope changes to which the parties may
8 agree pursuant to the TSA.

9 **Q. Please describe the category “Balance of Plant Agreement.”**

10 A. The Balance of Plant Agreement consists of costs associated with the Balance of
11 Plant Engineering, Procurement and Construction and Wind Turbine Installation
12 Agreement (the “Balance of Plant Agreement”), pursuant to which RES America
13 Construction, Inc., (“RES”) will engineer, procure, and construct all the materials
14 and equipment required to construct the Hopkins Ridge Wind Infill Project.
15 Please see Exhibit No. ___(RG-23HC) for a copy of the Balance of Plant
16 Agreement. Such engineering, procurement, and construction will include, but is
17 not limited to, the erection and mechanical completion of the turbines. *See*
18 Exhibit No. ___(RG-23HC).

19 The Balance of Plant Agreement reflects a firm, fixed total price for these
20 materials and the services of RES. *See* Exhibit No. ___(RG-23HC). Although
21 the Balance of Plant Agreement is a firm, fixed price agreement, PSE will be

1 responsible for scope changes to which the RES and PSE may agree pursuant to
2 such agreement. *See id.*

3 **Q. Please describe the category “Transaction & Due Diligence.”**

4 A. The category “Transaction & Due Diligence” consists of legal fees paid to the law
5 firm LeBoeuf, Lamb Greene & McRae, L.L.P. for negotiating, drafting and
6 documenting the definitive agreements for the project. It also includes PSE labor
7 costs, insurance costs, and contingency costs.

8 **Q. Please describe the category “Contingency.”**

9 A. During the course of construction of a major project, various events may occur
10 that require funds that were not specifically budgeted. For example, if conditions
11 on the ground differ from assumptions made for the Balance of Plant Agreement,
12 a scope change (or “change order”) may be required to complete an aspect of the
13 Hopkins Ridge Wind Infill Project. For these purposes, a contingency allowance
14 helps assure that there are adequate funds budgeted to complete the Hopkins
15 Ridge Wind Infill Project.

16 The contingency budget, approximately 5% of the total anticipated project cost, is
17 within the range typical for a project of this size. It is customary to assume that
18 the entire contingency amount will be exhausted by the time the project is
19 completed.

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1 **Q. Please describe the category “AFUDC.”**

2 A. The AFUDC category reflects the return the Company is entitled to receive on the
3 funds it invests for the Hopkins Ridge Wind Infill Project during the course of the
4 construction prior to the time the project is placed into service.

5 **Q. Why are there no additional costs associated with transmission?**

6 A. PSE’s existing Hopkins Ridge Wind Project has a 150 MW of BPA transmission
7 capability at the project switchyard. The combined generation of 156.6 MW from
8 the Hopkins Ridge Wind Project will be interconnected with BPA’s transmission
9 system at North Lewiston-Walla Walla 115 kV line.

10 As stated above, in June 2007, PSE made an interconnection request to BPA for
11 the additional 7.2 MW expansion, which PSE anticipates will be granted by the
12 end of 2007. Shortly after the interconnection request was submitted, PSE made a
13 transmission request to BPA for an additional 7.2MW. PSE does not expect to be
14 granted the additional firm transmission capacity until such time as BPA
15 completes the West of McNary System Upgrade Project. Absent the additional
16 transmission, PSE will manage to the 150 MW transmission capacity limitation
17 and does not project any incremental capital costs for transmission at this time.
18 The project’s evaluation included a capacity factor adjustment for the potential
19 eventuality to “spill” wind. With that assumption, the project continues to be an
20 attractive alternative.

1 **2. Operations and Maintenance Expenses**

2 **Q. What arrangements has the Company made with respect to ongoing**
3 **operations and maintenance (“O&M”) for the Hopkins Ridge Wind Infill**
4 **Project?**

5 A. PSE has entered into a Service and Maintenance Agreement (the “Service and
6 Maintenance Agreement”) and a Warranty Agreement (the “Warranty
7 Agreement”) with Vestas American Wind Technology, Inc. Please see Exhibit
8 No. ___(RG-22HC), pages 247-299, for the Vestas Service and Maintenance
9 Agreement and Exhibit No. ___(RG-22HC), pages 301-412, for the Vestas
10 Warranty Agreement. Pursuant to these agreements, Vestas will provide an
11 availability warranty, a mechanical warranty, and maintenance, spare parts and
12 service of the wind turbines until November 26, 2010, pursuant to the expiration
13 of the original Hopkins Ridge Availability Term.

14 PSE will perform the site management and the operations and maintenance for the
15 Balance of Plant.

16 **Q. What does the Company project its rate year O&M expenses will be for the**
17 **Hopkins Ridge Wind Infill Project?**

18 A. The Company projected total O&M expenses of \$416,855 for the Hopkins Ridge
19 Wind Infill Project.

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Hopkins Ridge Infill Expenses	Expenses
Transmission O&M	\$122,360
Production O&M	\$246,049
Property Tax	\$38,900
Insurance	\$9,545
Total O&M Expense	\$416,855

1 Please see Exhibit No. ___(RG-24C) for detail regarding the projected total O&M
2 expenses for the Hopkins Ridge Wind Infill Project.

3 **E. Senior Management Approval of the Hopkins Ridge Wind Infill Project**

4 **Q. Did PSE Staff keep senior management updated on the Hopkins Ridge Wind**
5 **Infill Project?**

6 A. Yes. In April 2007, PSE's Energy Management Committee considered--and
7 approved--the Hopkins Ridge Wind Infill Project. Please see Exhibit
8 No. ___(RG-25HC) for the presentation to, and minutes of, the Energy
9 Management Committee meeting in which the Hopkins Ridge Wind Infill Project
10 was approved.

11 **Q. Did PSE update the Board of Directors on the Hopkins Ridge Wind Infill**
12 **Project?**

13 A Yes. PSE kept the Board of Directors apprised of the Hopkins Ridge Wind Infill
14 Project as part of PSE's resource acquisition process.

1 **F. Construction Schedule and Status**

2 **Q. What is the schedule for construction of the Hopkins Ridge Wind Infill**
3 **Project?**

4 A. PSE estimates that the Hopkins Ridge Wind Infill Project will be substantially
5 complete and placed into service by June 30, 2008. Balance of plant construction
6 commenced in late October 2007. Currently roads and crane pads have been
7 rough graded, and foundations have been excavated. The turbines have shipped,
8 will be stored at the Port of Vancouver, Washington, and will be delivered the site
9 in May 2008. Turbine erection and balance of plant should be complete in June
10 2008. Final completion is projected by August 2008.

11 **Q. What is the current status of the Hopkins Ridge Wind Infill Project?**

12 A. As of November 30, 2007,
13 (i) PSE has executed the Turbine Supply Agreement, Vestas Services
14 Agreement, and the Vestas Warranty Agreement with Vestas;
15 (ii) PSE has executed the Balance of Plant Agreement with RES;
16 (iii) the turbine equipment for the Infill Project has been shipped; and
17 (iv) construction road work and foundation work has begun.

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1 V. **LEASE BUYOUT OF WHITEHORN GENERATING**
2 **STATION UNITS 2 AND 3**

3 **A. Description of the Whitehorn Generating Station and PSE's Interest**
4 **in Whitehorn Generating Station Units 2 and 3**

5 **Q. Please describe the Whitehorn Generating Station.**

6 A. The Whitehorn Generating Station consists of two GE MS7001E peaking units
7 installed in the late 1970s and the early 1980s with a rated capacity of 75 MW
8 each. The Whitehorn Generating Station facility is located in the northwest
9 corner of Whatcom County two miles from Birch Bay and adjacent to the
10 BP Cherry Point Refinery.

11 **Q. Please describe the Company's relationship with Public Service Resources**
12 **Corporation ("PSRC") to date.**

13 A. In 1981, PSE entered into an agreement to sell to, and lease back from, PSRC two
14 GE MS7001E combustion turbines and other facilities at the Whitehorn
15 Generating Station. Please see Exhibit No. ___(RG-26) for the original lease for
16 the Whitehorn Generating Station. The original lease term extended through
17 July 2004.

18 The Second Lease Supplement, dated January 31, 2003, provided for the First
19 Renewal Term of the lease from August 2, 2004, through February 2, 2009.

20 Please see Exhibit No. ___(RG-27) for the Second Lease Supplement for the

21 Whitehorn Generating Station. Annual lease payments totaled \$1.6 million under

1 the Second Lease Supplement. *See id.* at page 1. PSE's analysis supporting the
2 Second Lease Supplement estimated that the benefit derived from the capacity
3 and energy was greater than the cost of the renewed lease. Please see Exhibit
4 No. ___(RG-28C) for PSE's analysis supporting the Second Lease Supplement.

5 **B. The November 2003 Offer to Sell Whitehorn Generating Station**
6 **Units 2 and 3.**

7 **Q. Did the Company consider purchasing Whitehorn Generating Station**
8 **Units 2 and 3 in lieu of extending the lease?**

9 A. Yes. In November 2003, an agent for PSRC notified PSE that PSRC would be
10 willing to cancel the lease and sell Whitehorn Generating Station Units 2 and 3 to
11 PSE for [REDACTED].

12 PSE analyzed the PSRC November 2003 offer by comparing two options:

- 13 (i) Option A03 – Continue the lease and defer purchase until
14 February 2009; or
- 15 (ii) Option B03 – Cancel the lease and purchase Whitehorn Generating
16 Station Units 2 and 3 in December 2003.

17 Please see Exhibit No. ___(WJE-16C) for the Company's analysis of the PSRC
18 November 2003 offer. PSE's analysis demonstrated that the present value of the
19 revenue requirement for Option A03 was approximately \$2 million less than the
20 present value revenue requirement for Option B03. Additionally, the revenue
21 requirement costs in the first five years (through 2008) for Option A03 were
22 significantly lower than the revenue requirement costs during the same period for

1 Option B03. For these reasons, PSE declined the PSRC November 2003 offer
2 and continued with the lease through 2009.

3 **C. The January 2006 Offer to Sell Whitehorn Generating Station Units 2 and 3**

4 **Q. Did the Company reexamine its decision to extend the lease in lieu of**
5 **purchasing Whitehorn Generating Station Units 2 and 3?**

6 A. Yes. In January 2006, PSRC issued a notice of default to PSE. Please see Exhibit
7 No. ___(RG-29C) for the January 2006 notice of default. The notice of default
8 alleged that PSE had defaulted “in the observance and performance of certain
9 covenants and agreements”. *See id.* at 1. Specifically, the notice of default
10 alleged that PSE failed to (i) extend the terms of gas and water agreements
11 through December 31, 2016, and (ii) use and operate the units in a careful and
12 proper manner. *See id.* at 1. PSE disputed the allegations in the notice of default.

13 In April 2006, PSE received an offer from PSRC in the form of a draft letter of
14 intent to cancel the lease and sell the Whitehorn Generating Station Units 2 and 3
15 to PSE for [REDACTED], with a proposed closing date of August 2, 2006. At that
16 time, PSE decided to consider the offer and weigh the benefits of purchasing
17 Whitehorn Generating Station Units 2 and 3 against the costs of disputing the
18 allegations set forth in the notice of default.

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1 **D. PSE Decided to Purchase Whitehorn Generating Station Units 2**
2 **and 3.**

3 **Q. Did the PSRC offer to sell Whitehorn Generating Station Units 2 and 3 to**
4 **PSE compare favorably to extending the lease with PSRC?**

5 A. Yes. PSE compared the purchase of Whitehorn Generating Station Units 2 and 3
6 to the capacity bids received by PSE in response to its 2005 RFP. The Whitehorn
7 Generating Station Units 2 and 3 purchase compared favorably to the capacity
8 offers received in the RFP. Please see Exhibit No. ____ (WJE-1HCT) for a
9 discussion of the Company's quantitative analysis of the PSRC April 2006 Offer.

10 **Q. Did the Company decide to purchase Whitehorn Generating Station Units 2**
11 **and 3 from PSRC?**

12 A. Yes. PSE and PSRC entered into an Asset Purchase Agreement, dated October
13 16, 2006, to purchase the Whitehorn Generating Station Units 2 and 3 upon
14 termination of the lease in 2009. Please see Exhibit No. ____ (RG-30C) for the
15 Asset Purchase Agreement for Whitehorn Generating Station Units 2 and 3. The
16 Federal Energy Regulatory Commission ("FERC") approved the Asset Purchase
17 Agreement under section 203 of the Federal Power Act on December 22, 2006.
18 Please see Exhibit No. ____ (RG-31) for the FERC order approving the Asset
19 Purchase Agreement. PSE expects that closing under the Asset Purchase
20 Agreement will occur in February 2009.

21 //

1 **Q. Did the Company accept PSRC's original offer?**

2 A. No. PSE and PSRC settled on an asset purchase price of \$ [REDACTED] million. *See*
3 Exhibit No. ___(RG-30C) at 6.

4 **Q. What is the portfolio benefit associated with the purchase of Whitehorn**
5 **Generating Station Units 2 and 3?**

6 A. The portfolio benefit associated with the purchase of Whitehorn Generating
7 Station Units 2 and 3 is \$1.9 million. *See* Exhibit No. ___(WJE-1HCT) at 22.

8 **VI. REPLACEMENT POWER AND PURCHASE OPTION OF**
9 **THE SUMAS NATURAL GAS-FIRED COMBINED CYCLE**
10 **COGENERATION PLANT**

11 A. **Existing Arrangement**

12 **Q. Please describe the events leading up to the default by Sumas Cogeneration**
13 **Company, LP ("SCCLP") under its power purchase agreement with PSE.**

14 A. In Spring 2006, SCCLP notified PSE that SCCLP would not be able to continue
15 supplying energy under the long-term firm PPA with PSE because it was
16 experiencing increasing financial pressures. SCCLP cited a variety of reasons for
17 these financial pressures, including but not limited to high gas prices, increasing
18 royalty costs on Canadian gas reserves, and concerns about meeting debt service
19 coverage. SCCLP proposed the following restructuring of the long term PPA:

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- (i) SCCLP would sell its existing gas reserves and make a payment of not less than [REDACTED] to PSE;
- (ii) SCCLP and PSE would terminate the existing PPA, PSE would enter into a replacement power purchase agreement, and the parties would split the savings resulting from such replacement; and
- (iii) SCCLP would sell the cogeneration plant at a discount to PSE for approximately [REDACTED].

After several months of consideration, PSE notified SCCLP that the proposed restructuring was not compelling given the level of savings and risk to PSE’s customers.

On March 14, 2007, PSE met with Commission Staff and presented the presentation prepared for the EMC meeting the following day to provide an update on the status of these discussions with SCCLP. Please see Exhibit No. ___(RG-32HC) for a copy of the presentation made to Commission Staff regarding PSE’s discussions with SCCLP. PSE staff presented the same analysis and information with a revised order to the EMC on March 15, 2007, at which time PSE staff recommended a cessation of further discussions with SCCLP. Please see Exhibit No. ___(RG-33HC) for the presentation made to PSE’s Energy Management Committee

Q. How did the Company learn about SCCLP’s default on its long term firm PPA?

A. On May 7, 2007, PSE received a letter from SCCLP, in which SCCLP stated that it would not make further deliveries of electricity to PSE under the PPA after June 30, 2007. Please see Exhibit No. ___(RG-34HC) for the letter from SCCLP. The

1 letter further stated that the sale of ENCO Gas, Ltd., which owned the gas
2 reserves that supplied much of the fuel to operate SCCLP, had closed on May 3,
3 2007. *See id.* SCCLP indicated that it would no longer be able to sustain ongoing
4 losses due to adverse market conditions. Again, SCCLP cited increasing prices
5 for natural gas and related costs, including but not limited to costs for royalties,
6 transportation and field operations that had undermined the ability of SCCLP to
7 maintain positive cash flow under the PPA. *See id.*

8 **Q. What was the term of the PPA?**

9 A. The term of the PPA was twenty years, beginning in April 1993 and expiring on
10 April 13, 2013. SCCLP's breach gave rise to termination of the PPA
11 approximately six years before it was due to expire.

12 **Q. What was the size of the PPA?**

13 A. Under the PPA, SCCLP provided PSE the entire electrical output of the facility,
14 up to a maximum of 135 MW.

15 **B. Replacement Supply for the PPA with SCCLP**

16 **Q. How did the Company respond to SCCLP's breach and what was the**
17 **Company's proposed strategy for replacing the power?**

18 A. After receiving the May 7, 2007, letter from SCCLP, PSE staff began formulating
19 a response. At the next EMC meeting on June 11, 2007, PSE staff briefed senior

1 management of the events, proposed a replacement strategy for the energy and
2 capacity, and discussed PSE's potential legal response with regard to direct
3 damages. Please see Exhibit No. ___(RG-35HC) for the presentation made at,
4 and the minutes of, the Energy Management Committee meeting of June 11,
5 2007.

6 The proposed strategy required PSE to take a series of steps, some of them in
7 parallel. The initial step was to try to replace the existing PPA in accordance with
8 its terms and pricing. If the replacement power proved to be costly, PSE would
9 undertake the following three step response:

10 Step 1: Purchase 125 MW of index power immediately for summer
11 reliability to ensure that the Company had available power in
12 the event of peak loads on hot days and to mitigate risk of lost
13 generation if, for example, there were fires under Colstrip
14 transmission lines.

15 Step 2: Continue programmatic hedging through 2008 consistent with
16 the PSE's programmatic hedging plan.

17 Step 3: Hedge the remaining term of the contract, January 1, 2009,
18 through March 31, 2013, with fixed price power for up to
19 125 MW based on the Company's power position.

20 At the June 11 meeting, the EMC approved PSE staff's recommended strategy.

21 See Exhibit No. ___(RG-35HC) at 9-10.

22 **Q. Was the Company successful in securing replacement power?**

23 A. PSE developed a term sheet that replicated the significant terms and conditions of
24 the existing SCCLP PPA and solicited four counterparties, including three

1 “market makers” and one generator. Please see Exhibit No. ___(RG-36C) for the
2 term sheet solicitation. Two of the respondents declined to participate, citing
3 reasons such as an inability to simulate the plant characteristics, complexity of the
4 transaction, and other general contract issues, such as credit requirements. PSE
5 received two responses to its solicitation for replacement power. Of the two
6 proposals that PSE received, the analysis indicated that the cost to the Company
7 to replace the contract on such terms and conditions ranged from \$ [REDACTED] million.
8 Please see the prefiled direct testimony of Mr. W. James Elsea,
9 Exhibit No. ___(WJE-1HCT), for a discussion of the projected cost to replace the
10 SCCLP PPA.

11 **Q. What steps did the Company take next?**

12 A. PSE staff notified the EMC of the results of the solicitation. PSE staff then
13 proceeded with replacing the energy as prescribed in the replacement power
14 strategy outlined in the June 11, 2007 EMC meeting. For the long-term
15 replacement (Step 3), PSE staff developed a second term sheet solicitation for a
16 standard block product up to 125 MW with a term of January 1, 2009, through
17 March 31, 2013. Please see Exhibit No. ___(RG-37C) for the term sheet for the
18 standard block product solicitation.

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1 **Q. Was the solicitation for the standard block product successful?**

2 A. PSE conducted four informal solicitations to procure the necessary power up to
3 125 MW. The initial solicitation went out to five counterparties on July 9, 2007,
4 and resulted in the selection of the most competitive offer of 50 MW flat at
5 \$ [REDACTED]. In the next two rounds, the most competitive counterparty offer
6 proved to be unexecutable due to, among other things, credit concerns. PSE
7 conducted the final round of bidding on July 23, 2006, and selected the most
8 competitive offer. In doing so, PSE purchased the remaining quantities: 75MW
9 for first, third and fourth quarters of each year and 25 MW for the second quarter
10 of each year at a flat price of \$ [REDACTED].

11 **Q. Why did PSE choose not to purchase the full 125 MW for the second quarter**
12 **of each year during the 2009-2013 period?**

13 A. The Company determined that 75 MW rather than the full 125 MW was
14 reasonable during the second quarter of each year based on (i) the historical
15 operations and output of the Sumas Cogeneration Station and (ii) surplus hydro
16 and lower pricing generally experienced during the second quarter of each year.
17 Please see the prefiled direct testimony of Mr. W. James Elsea, Exhibit
18 No. ___(WJE-1HCT) at 23-24, for a discussion of this analysis.

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1 **Q. How did the replacement power cost compare with the cost of the remaining**
2 **value of the SCCLP PPA?**

3 A. PSE was able to replace the power at a cost of approximately \$ [REDACTED]
4 than the cost of energy under the SCCLP PPA. Although this lower power cost is
5 beneficial to PSE's customers, this lower price does not address the loss of the
6 inherent dispatch flexibility of the resource or the displacement optionality of the
7 resource. Please see the prefiled direct testimony of Mr. W. James Elsea, Exhibit
8 No. ___(WJE-1HCT) at 28-29, for a discussion of the calculation of the direct
9 damages.

10 **Q. Did the Company discuss damages with SCCLP?**

11 A. Yes. PSE met with SCCLP to discuss direct damages on August 8, 2007. At that
12 meeting, PSE indicated that it may suffer in the range of [REDACTED] million of direct
13 damages as a result of the SCCLP breach. SCCLP countered that, based on
14 PSE's solicitation and analysis, PSE suffered negligible damages, if any.

15 After further discussion and negotiation, PSE and SCCLP agreed to pursue a
16 settlement whereby SCCLP would sell the Sumas Cogeneration Station to PSE at
17 a significant discount -- approximately [REDACTED] or [REDACTED]. On August 31,
18 2007, PSE and SCCLP signed a Letter of Intent for the purchase and sale of the
19 Sumas Cogeneration Station. Please see Exhibit No. ___(RG-38HC) for the
20 Letter of Intent between PSE and SCCLP.

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C. Acquisition of the Sumas Cogeneration Station

1. Ownership Arrangement

Q. [REDACTED]

A. [REDACTED]

[REDACTED]

[REDACTED]

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[REDACTED]

Q.

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A.

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Q.

A.

[REDACTED]

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Q. [REDACTED]

A. [REDACTED]
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[REDACTED]
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[REDACTED]

Q. [REDACTED]
[REDACTED]

A. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Q. [REDACTED]
[REDACTED]

A. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

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[REDACTED]

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[REDACTED]

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2. Due Diligence

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Q. [REDACTED]

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A. [REDACTED]

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[REDACTED]

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[REDACTED]

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[REDACTED]

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[REDACTED]

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[REDACTED]

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[REDACTED]

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Q. [REDACTED]

A. [REDACTED]

a. Commercial and Legal Due Diligence

Q. [REDACTED]

A. [REDACTED]

b. Real Estate Due Diligence

Q. [REDACTED]

A. [REDACTED]

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[REDACTED]

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Q. [REDACTED]

A. [REDACTED]

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c. Environmental Due Diligence

Q. [REDACTED]

A. [REDACTED]

Q. [REDACTED]

A. [REDACTED]

Q. [REDACTED]

A. [REDACTED]

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Q.

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[REDACTED]

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Q.

[REDACTED]

[REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

d. Insurance Due Diligence

Q.

[REDACTED]

A.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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- (i) [REDACTED]
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Q. [REDACTED]

A. [REDACTED]

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e. O&M Due Diligence

Q. [Redacted]

A. [Redacted]

Q. [Redacted]

A. [Redacted]

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[REDACTED]

f. Technical Due Diligence

Q. [REDACTED]

A. [REDACTED]

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Q. [REDACTED]

[REDACTED]

A. [REDACTED]

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(v) [REDACTED]

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3. Project Acquisition Process

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Q. [REDACTED]

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A. [REDACTED]

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Q. [REDACTED]

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A. [REDACTED]

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Q. [REDACTED]

A. [REDACTED]
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Q. [REDACTED]

A. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

4. Project Acquisition Costs

Q. [REDACTED]

A. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

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Sumas Cogeneration Station	Project Costs
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

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Q. [REDACTED]

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A. [REDACTED]

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[REDACTED]

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Q. [REDACTED]

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A. [REDACTED]

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[REDACTED]

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[REDACTED]

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[REDACTED]

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[REDACTED]

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Q. [REDACTED]

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A. [REDACTED]

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[REDACTED]

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Q.

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[REDACTED]

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[REDACTED]

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[REDACTED]

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5. O&M Expenses

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Q.

[REDACTED]

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[REDACTED]

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A.

[REDACTED]

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[REDACTED]

Sumas Cogeneration Station Expense	Expense
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

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[REDACTED]

[REDACTED]

**VII. EXTENSION OF POINT ROBERTS
SUPPLY CONTRACT WITH POWEREX**

Q. Please describe the Point Roberts contract extension with Powerex.

A. Due to the unique geography of Point Roberts, Washington, it is not electrically connected to PSE’s system, and PSE must use Powerex to serve this load in the absence of a distribution tariff on BC Hydro’s system.

The contract extension with Powerex to supply the Point Roberts load provides for another two (2) years of service, commencing October 1, 2007, and ending September 30, 2009, at a renegotiated price of [REDACTED]. The contract is a full requirements contract, up to a maximum of 8 MW. Peak capacity is estimated to be 6 MW with an annual average load of 2.5 aMW.

Q. Has the Company discussed the potential for a distribution tariff with BC Hydro?

A. PSE contacted BC Hydro in June 2007 to discuss the potential for a distribution tariff. At the time, BC Hydro was in a rate proceeding but indicated interest in meeting with PSE in the future.

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**VIII. UPDATE REGARDING OUTAGE OF THE
GOLDENDALE GENERATING STATION**

A. Combustion Turbine Failure

Q. Please describe the outage the Goldendale Generating Station.

A. On July 24, 2007 the Goldendale Generating Station combustion turbine generator failed in service. Preliminary diagnostics and investigation indicated that such failure resulted in damage to the compressor and turbine rotors. PSE requested assistance from the turbine manufacturer, GE, to disassemble the unit onsite for a more thorough inspection. GE confirmed that one row two (“R2”) blade separated from the unit and traveled into the turbine rotor, damaging several downstream compressor blades in rows R3-R17. Please see Exhibit No. ___(RG-44HC) for GE’s report regarding the damage to the Goldendale Generating Station.

B. Turbine Repair Options Available to PSE

Q. Please describe the steps PSE took to identify a viable repair option.

A. At the time of the outage, PSE did not have a service agreement with GE for future major maintenance repairs. As a result, PSE requested estimates for several repair options from three service providers (GE, Calpine Corporation (“Calpine”) and Dominion (“Dominion”) based on worst-case damage assumptions regarding the GE 7FA unit.

1 **Q. Which of the three service providers did the Company select to service the**
2 **damaged turbine?**

3 A. PSE selected GE to service the damaged turbine for two reasons. First, Calpine
4 and Dominion were unsuccessful in locating a refurbished rotor in the market and
5 did not submit proposals. Second, GE provided PSE with six preliminary repair
6 options based on GE's market presence and current inventory. Please see Exhibit
7 No. ___(RG-45HC) for the six preliminary repair options presented by GE based
8 on the worst-case scenarios.

9 **Q. Did GE subsequently examine the damaged turbine to determine which**
10 **options were possible?**

11 A. Yes. GE removed the casing from the turbine and conducted a more thorough
12 damage assessment. Based on this assessment, GE revised its repair options and
13 proposed two repair options for the damaged unit:

- 14 (i) Option 1 – The unit would be un-stacked and repaired with a
15 mixture of refurbished, off-the-shelf parts and PSE-repaired parts.
16 Option 1 required PSE to give the damaged parts to GE in
17 exchange for refurbished, off-the-shelf parts. GE documented the
18 history and quality of the refurbished parts and assured PSE that it
19 would receive fully repaired parts with all technical issues
20 addressed.
- 21 (ii) Option 2 – The compressor and turbine rotor would be exchanged
22 with GE for a refurbished, off-the-shelf rotor. Similar to Option 1,
23 GE documented the history and quality of the refurbished parts and
24 assured PSE that it would receive fully repaired parts with all
25 technical issues addressed.

1 Please see Exhibit No. ___(RG-46HC) for the two revised repair options
2 presented by GE based on assessment of the turbine. Both Option 1 and Option 2
3 required PSE to execute a letter of intent and a Contractual Services Agreement in
4 the future with GE to secure discounted refurbished parts. Please also see Exhibit
5 No. ___(RG-47HC) for GE's rotor repair feasibility report.

6 **Q. How did PSE evaluate the repair options presented by GE?**

7 A. PSE analyzed the incremental costs associated with each of the repair options. As
8 part of that analysis, the Company considered outage time, increased power cost
9 to replace lost generation, and accounting treatment of the replacement. The costs
10 and outage times associated with GE's two revised repair options were more
11 favorable when compared to the six preliminary repair options, which were based
12 on the worst-case scenarios. Of the two revised options, Option 1 repair costs
13 were less than Option 2, but Option 2 required a shorter outage than Option 1:

- 14 (i) Option 1 – Projected outage of approximately twelve to thirteen
15 weeks and a projected repair cost of \$17.2 million.
- 16 (ii) Option 2 – Projected outage of approximately nine to ten weeks
17 and a projected repair cost of \$18.5 million.

18 **Q. What repair option did the Company select?**

19 A. PSE elected Option 2 because it required (i) a shorter outage time and (ii) smaller
20 subsequent increases in power costs. Moreover, the accounting treatment of the
21 expenditures incurred in Option 2 more than made up the original \$1,300,000
22 difference between the two options:

**Goldendale Rotor Replacement Cost Analysis
August 16, 2007**

All Dollars in \$MM	Option 1 + Turbine	Option 2+ Turbine
Outage Duration in Weeks Starting 7/30/07	█	█
GE Capital Cost	█	█
GE O&M	█	█
PSE O&M	█	█
Total Rotor Replacement Cost	█	█
2007 Net Income (Loss) without Power Cost	█	█

2007 Power Cost Increase (pre-tax)

Expected Lost Generation Revenue: -1 SD	█	█
Expected Replacement Power Costs: Mean	█	█
Expected Lost Generation Revenue: +1 SD	█	█

2007 Net Income (Loss) with Power Cost (post-tax)*

2007 Net Income Impacts: -1 SD	█	█
2007 Net Income Impacts: Mean	█	█
2007 Net Income Impacts: +1 SD	█	█

NPV Net Income (Loss) with Power Cost**

NPV of Incremental Difference: -1 SD	█	█
NPV of Incremental Difference: Mean	█	█
NPV of Incremental Difference: +1 SD	█	█

* Power Cost is tax adjusted at FIT rate of 35%

** Analysis assumes an NPV of 28 years, discounted at 8.4%

1 C. **Progress of, and Actual Costs Associated with, Refurbishment of the**
2 **Turbine**

3 Q. **What is the progress to date on the refurbishment?**

4 A. GE finished refurbishment of the turbine on September 13, 2007, and PSE placed
5 the compressor and turbine rotor in service on October 6, 2007.

6 Q. **What are the actual repair costs associated with the refurbishment of the**
7 **turbine?**

8 A. To date, PSE has incurred repair costs of \$19,527,851, and PSE projects that it
9 will incur total costs of \$20.5 million, of which \$18.6 million is a capital expense,
10 \$0.7 million is O&M expense, and \$1.2 million is retirement costs.

11 Q. **Will insurance cover any of the repair costs associated with the**
12 **refurbishment of the turbine?**

13 A. Concurrent with disassembling the turbine, PSE invited its insurance broker to the
14 Goldendale Generating Station to conduct a preliminary estimate of recoverable
15 expenditures (less PSE's \$1 million deductible). The broker inspected the unit
16 and estimated that insurance would pay for [REDACTED] of the
17 repair.

18 The insurance payment will be made after completion of the repair and will
19 reflect GE's estimated costs to rebuild PSE's existing parts. GE is preparing the

1 necessary paperwork for the broker. PSE projects that it will receive the
2 insurance payment [REDACTED]

3 **D. Mitigation of Similar Future Events**

4 **Q. Has PSE or GE identified the cause of the problem?**

5 A. Although PSE's due diligence did not find any indications of blades cracking and
6 failing in the GE 7FA unit acquired, the due diligence did identify that cracking
7 has been an issue in the GE 7FA fleet. GE has issued several Technical
8 Information Letters that recommend specific maintenance and operation actions
9 to mitigate this problem.

10 **Q. Has the Goldendale Generating Station been operating in accordance with
11 the Technical Information Letters?**

12 A. Yes. Prior to PSE's acquisition of the Goldendale Generating Station, Calpine
13 operated the plant in accordance with the Technical Information Letters. Since
14 PSE's acquisition of the Goldendale Generating Station, PSE has also operated
15 the plant in accordance with the Technical Information Letters. Nevertheless, the
16 damage occurred for reasons that remain unknown, and PSE is working with GE
17 to conduct a root cause analysis of the failure. Once GE identifies a solution to
18 this issue, PSE will work with GE to implement the solution.

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1 **E. Update Regarding Contractual Services Agreement Negotiations**
2 **With GE**

3 **Q. Has PSE entered into a Contractual Services Agreement with GE subsequent**
4 **to the turbine failure and refurbishment?**

5 A. No. At the time of the turbine failure, PSE and GE were in negotiations to
6 finalize a Contractual Services Agreement (“CSA”). The parties suspended
7 negotiations during the outage until the unit could be repaired. PSE and GE have
8 resumed negotiations now that the turbine is online. PSE projects that the parties
9 will execute a CSA by the end of calendar year 2007.

10 **Q. Please describe the impact of the outage on PSE’s long-term maintenance**
11 **plan.**

12 A. PSE conducted economic analysis of the costs and risk-minimizing attributes of a
13 CSA, major maintenance plan or a transactional maintenance schedule. Please
14 see Exhibit No. ___(RG-48HC) for a writeup of the analysis. The CSA is the least
15 cost option and minimizes the risk of future capital replacement costs through a
16 monthly payment structure and reduced costs of parts. If an unforeseen outage
17 occurs in the future, the costs and outage schedule will be reduced as a result of
18 this agreement.

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1 **IX. HOPKINS RIDGE WIND PROJECT UPDATE**

2 **Q. Since the date of commercial operations of the Hopkins Ridge Wind Project,**
3 **have there been any changes to the generation capabilities of the project, in**
4 **addition to the Infill Project?**

5 A. Yes. RES has recently completed construction of the Marengo I Wind Project
6 and is currently constructing the Marengo II Wind Project for PacifiCorp. The
7 Marengo I and Marengo II Wind Projects will impair the generation at the
8 Hopkins Ridge Wind Project.

9 **Q. Please describe the impact to the Hopkins Ridge Wind Project from the**
10 **construction of the Marengo I and Marengo II Wind Projects.**

11 A. There is no way to measure the generation reduction at Hopkins Ridge Wind
12 Project directly. Additionally, there are no industry standard guidelines for
13 calculating reduction in generation. To assist in calculating the impairment, PSE
14 retained Global Energy Concepts (“GEC”) to evaluate the generation reduction
15 and estimate of the generation loss. GEC estimated a reduction in generation of
16 approximately [REDACTED] over the remaining life of the Hopkins Ridge
17 Wind Project and PSE valued this reduced generation at approximately [REDACTED]
18 [REDACTED]. Please see Exhibit No. ___(RG-49C) for (i) the GEC report regarding
19 the Hopkins Ridge Wind Project impairment, and (ii) PSE’s valuation of the
20 reduced generation.

1 RES's internal wind energy assessment experts estimated that the Marengo I
2 Wind Project will result in approximately [REDACTED] of lost generation at
3 the Hopkins Ridge Wind Project, with an estimated value of approximately [REDACTED]
4 [REDACTED]. In later correspondence via email, RES revised the wake effect from
5 Marengo I & II at [REDACTED] net capacity factor reduction which is approximately
6 [REDACTED]. Please see Exhibit No. ___(RG-50C) for the RES report
7 regarding the Hopkins Ridge Wind Project impairment.

8 After negotiation, PSE and RES entered in to a Wind Loss Settlement Agreement,
9 dated as of November 26, 2007, in which RES would pay [REDACTED] to PSE as
10 compensation for the wind loss associated with these new projects. Please see
11 Exhibit No. ___(RG-51C) for the Wind Loss Settlement Agreement, dated as of
12 November 26, 2007, by and between PSE and RES.

13 **Q. What steps did PSE take in anticipation of the construction of the Marengo**
14 **Wind Projects?**

15 A. When the Company acquired the Hopkins Ridge Wind Project, PSE anticipated
16 that the construction of other wind farms by RES in the vicinity of the Hopkins
17 Ridge Wind Project could potentially reduce the generation of the Hopkins Ridge
18 Wind Project. In the Asset Purchase Agreement between PSE and RES, RES
19 agreed to reimburse PSE for any wind loss associated with the construction by
20 RES, or its affiliates, of any future wind generation facilities within ten (10) miles
21 of any boundary of the Hopkins Ridge Wind Project site.

1 **Q. How will RES compensate PSE for the lost generation?**

2 A. RES will credit PSE's invoiced costs for the Balance of Plant Agreement for the
3 Hopkins Ridge Wind Infill Project. Any remaining payment owed to PSE will be
4 paid to PSE ten days after substantial completion is achieved under the Balance of
5 Plant Agreement.

6 **Q. Does PSE anticipate any remaining mitigation credits owed by RES?**

7 A. PSE estimates that the mitigation value of [REDACTED] exceeds the Balance of
8 Plant costs for the Hopkins Ridge Wind Infill Project by approximately [REDACTED].

9 **Q. When does PSE anticipate credit of the additional [REDACTED]?**

10 A. [REDACTED]
11 [REDACTED]
12 [REDACTED]

13 **X. WILD HORSE WIND PROJECT UPDATE**

14 **Q. What is the current status of the Wild Horse Wind Project?**

15 A. The Wild Horse Wind Project began commercial operation on December 21,
16 2006, as scheduled. Construction punch list items are now complete, and the
17 wind project successfully passed power performance testing. The wind farm
18 achieved final completion and contract closeout with the major project contractors
19 on June 20, 2007.

1 The Wild Horse Wind Project came in under budget by \$3.8 million, for a total
2 cost of approximately \$379 million. Please see Exhibit No. ___(RG-52HC) for a
3 summary of the final capital costs associated with the Wild Horse Wind Project.

4 **Q. How has the Wild Horse Wind Project performed since it was placed into**
5 **service?**

6 A. Since January 2007, the Wild Horse Wind Project has produced over
7 490,000 MWh of electrical energy and operated with a capacity factor of 30.8%.
8 This capacity factor is slightly less than the projected capacity factor of 31.5%
9 due to lower winds than projected in 2007. Turbine availability for the first
10 production period ending in June was over 96%, well ahead of the expected first
11 period availability of 93%.

12 **XI. CONCLUSION**

13 **Q. Does that conclude your testimony?**

14 A. Yes, it does.