EXHIBIT NO. ___(RG-1HCT)
DOCKET NOS. UE-09___/UG-09___
2009 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-09____** **Docket No. UG-09____**

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

REDACTED VERSION

MAY 8, 2009

PUGET SOUND ENERGY, INC.

PREFILED DIRECT TESTIMONY (HIGHLY CONFIDENTIAL) OF ROGER GARRATT

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PUGET SOUND ENERGY, INC.

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I. INTRODUCTION

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

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

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

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

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

A. My present responsibilities include oversight of: (i) the acquisition of electric resources for PSE, commencing with the 2008 All Generation Sources Request for Proposals (the "2008 RFP") process and culminating in the execution and closing of all of the definitive agreements necessary to acquire a resource;

(ii) contracts for long-term electric supply; and (iii) the emerging generation technologies program.

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

A. My prefiled direct testimony presents PSE's resource acquisition activity and includes the following subjects:

(i) PSE's evaluation of the proposals submitted in response to its 2008 RFP.

(ii) the process by which PSE's evaluation of the proposals submitted in response to its 2008 RFP led to the decision to acquire the following proposals:

a) a 75 Megawatts (MW) four-year winter power purchase agreement with Barclays Bank PLC;

b) the 310 MW Mint Farm Energy Center from Wayzata Investment Partners;

(iii) the expansion of the Wild Horse Wind Project to add 44 MW of capacity to the facility;

(iv) the execution of the following power purchase agreements:

a) a four-year and three-month power purchase agreement with Credit Suisse;

b) a five-year power purchase agreement with Puget Sound Hydro LLC;

c) a five-year power purchase agreement with Qualco Energy, LLC;

(v) the acquisition of the Fredonia Generating Units #3 and #4;

(vi) the execution of the Joint Development Agreement with Renewable Energy Systems to build, construct, own and contract wind generation up to 1250 MW in Columbia and

Garfield Counties in Washington;

(vii) status updates on the acquisition of the Whitehorn Generation Station Units #2 and #3, and the Goldendale Generation Station; and

(viii) an overview of PSE's ongoing commitment to renewable energy, including PSE's participation in the sales of renewable energy credits generated from PSE's wind generating facilities, wind power purchase agreements, and the Solar Demonstration Project.

II. PSE'S EVALUATION OF RESOURCE ALTERNATIVES

A. Overview

Q. How did PSE evaluate potential resources to meet its need?

A. Ms. Harris' testimony describes the process and analysis leading up to PSE's issuance of the 2008 RFP. PSE evaluated the proposals submitted in response to the 2008 RFP in two phases based on criteria designed to take into account qualitative and quantitative factors that PSE believed should be considered in deciding whether to acquire a potential resource. The quantitative analysis is described in more detail in the testimony of Mr. James Elsea, Exhibit No. ___(WJE-1HCT). My testimony focuses primarily on the qualitative analysis undertaken by PSE.

During Phase I of the 2008 RFP, PSE evaluated proposals based on each individual proposal's qualitative attributes and economic impacts. This initial phase was designed to screen out proposals with high costs, unacceptable risks, or

feasibility constraints, with the goal of creating a "Candidate Short List" for continued evaluation in Phase II.

In Phase II, PSE performed more extensive due diligence on the proposals on the Candidate Short List, including but not limited to data requests, bidder presentations and site visits. PSE also evaluated a potential self-build option. Additionally, PSE quantitatively tested each project on the Candidate Short List in a variety of resource portfolios, scenarios and in Monte Carlo analysis. *See generally* Exhibit No. ___(WJE-1HCT). In Phase II, PSE ultimately identified a "Final Short List" of projects that PSE would seek to acquire by reaching definitive agreements through additional negotiations and due diligence.

Q. What processes did PSE put in place to organize and document its efforts?

A. PSE staff responsible for this evaluation worked extensively through the evaluation process from the time responses to the 2008 RFP were submitted in February 2008 to July 2008, when PSE completed the evaluation process associated with the 2008 RFP. PSE acquired one project, and PSE staff continues to engage in negotiations for one project on the Final Short List.

Personnel involved in the evaluation met weekly to review and discuss their documented findings and recommendations. In addition to its own staff, PSE used outside consulting firms to evaluate the technical and environmental attributes of the proposals.

During the course of the evaluation process, PSE staff regularly updated PSE's officers and the Staff of the Washington Utilities and Transportation Commission ("Commission Staff") on the status of the evaluation and any preliminary conclusions through presentations documented primarily in PowerPoint slides. PSE's management, in turn, regularly apprised PSE's Board of Directors of the status of the evaluation process.

PSE's evaluation process and conclusions, reached at various stages of its analysis, are further explained below, and were documented in reports prepared during the course of the evaluation. Please see Exhibit No. ___(RG-3HC) for a copy of PSE's 2008 All Generation Sources RFP (February 2008 – July 2008) Evaluation Process Documentation.

B. Phase I of the 2008 RFP Evaluation

1. The Proposals

Q. What proposals did PSE evaluate in Phase I?

A. In response to the 2008 RFP, PSE received 31 unique proposals from 25 different respondents. Many of the proposals contained multiple options such as a power purchase agreement ("PPA"), asset ownership, and a combination of a PPA and partial ownership. Considering all the options offered under each proposal, PSE evaluated more than 100 different proposals. With respect to fuel source, ten proposals were for natural gas-fired facilities, eight were for wind, three were for

hydro, one was for coal, and nine were power purchase agreements that did not specify a fuel source (i.e., market PPAs). *See, e.g.,* Exhibit No. ___(RG-3HC) at pages 4–6, and at pages 33–34.

Q. In addition to the proposals received from the 2008 RFP solicitation, did PSE receive and review any other proposals during this process?

A. Yes. Prior to receipt of the proposals in response to the 2008 RFP, PSE was reviewing three separate projects: (i) the expansion of the Wild Horse Wind Project, (ii) the acquisition of the [redacted], and (iii) the execution of the Joint Development Agreement with RES America Developments Inc. and affiliated parties ("RES"). Shortly after the deadline for receipt of proposals to the 2008 RFP, PSE received a proposal from [redacted] for a wind PPA for the [redacted]. Because [redacted] submitted its proposal shortly after PSE received proposals submitted in response to the 2008 RFP, PSE considered the [redacted] proposal at the same time and in the same manner that it considered the proposals to the 2008 RFP. Indeed, PSE selected the [redacted] proposal for the Candidate Short List. Shortly before the selection of the final Short List; however, [redacted] withdrew its proposal.

2. <u>The Criteria</u>

Q. What criteria did PSE apply during Phase I of the evaluation process?

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

- Compatibility with PSE Resource Need;
- Cost Minimization;
- Risk Management;
- Public Benefits; and
- Strategic and Financial.

These criteria are described in greater detail below. *See, e.g.,* Exhibit No. ___(RG-3HC) at pages 13–15.

Q. What considerations were included under the "Compatibility with Need" criterion?

A. This criterion focused on PSE's interest in meeting its long-term energy need while reducing the risk of excess capacity. PSE was interested in projects that would come on-line sooner rather than later because of its ongoing exposure to wholesale market risks and capital cost escalation risk. Because PSE's loads are much higher in winter than in summer months, PSE was interested in resources that were or could be shaped to balance the seasonality of its loads. PSE also considered its need to diversify its portfolio, pursuant to the conclusions of its 2005 Least Cost Plan ("LCP"), the 2007 Integrated Resource Plan ("IRP"), and RCW 19.285, which establishes a renewable portfolio standard in Washington.

Q. What considerations were included under the "Cost Minimization" criterion?

A. PSE sought to identify the lowest cost alternatives that would meet its energy and

capacity needs, looking not only at prices that might be stated in proposals but at other factors that would ultimately affect the cost of the resource. Examples of such costs include the costs of transmission, emission costs, fuel transportation and energy firming capabilities.

Q. What considerations were included under the "Risk Management" criterion?

A. PSE considered many risks, particularly those that could threaten the feasibility of a project or the timing of completion. Such risks included environmental and permitting risks. PSE also evaluated risks associated with whether a potential counterparty would actually be able to perform its obligations related to a project proposal. Other considerations included the desirability of long-term flexibility in order to better respond to future changes in the industry or PSE's portfolio.

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

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

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

A. These considerations included potential exposure to future environmental regulations and future state wholesale market restructuring. They also included balance sheet impacts and potential degradation of PSE's credit quality or ability

to fund ongoing operations due to factors such as credit support requirements and imputed debt.

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

Q. How did PSE apply these criteria?

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

In addition, PSE sent 12 projects that involved short-term opportunities to the Energy Supply and Planning and Energy Risk departments for consideration. *See* Exhibit No. ___(RG-3HC) at pages 84–88.

PSE then performed quantitative analysis using its Portfolio Screening Model ("PSM"), to develop a benefit ranking for each individual resource proposal. *See, e.g.,* Exhibit No. ___(RG-3HC) at pages 79–91, and at pages 160–70. For further description of the quantitative process, please see generally the testimony of Mr. Elsea, Exhibit No. ___(WJE-1HCT).

Q. Did PSE do anything in addition to this initial PSM analysis?

A. PSE also conducted an extensive evaluation of qualitative factors related to its evaluation criteria. Such factors included availability and potential problems regarding fuel supply and transmission. PSE also evaluated whether the bidders' projections regarding their proposal appeared to be realistic, as PSE had concerns

regarding the likely ability of bidders to actually deliver what they proposed. Subject matter experts within PSE were assigned to closely review various project proposals or aspects of proposals with which they were familiar. After each team performed their evaluations, positive and negative comments were documented. Then, through the weekly evaluation meetings, the teams summarized their evaluations by assigning a qualitative evaluation rating for each of the proposals using a rating system of "Low," "Medium," and "High," with "High" being considered more favorable and "Low" being considered less favorable. This qualitative rating system was applied in order to identify the most favorable proposals. *See, e.g.,* Exhibit No. ___(RG-3HC) at pages 59–107.

Q. Please describe the evaluation teams.

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

Analysis.

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

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

- The environmental team researched the web sites of local, state, and federal agencies in order to determine whether there were any environmentally sensitive issues and to uncover any assessment documents that had been produced. This allowed PSE to more fully evaluate environmental impacts related to the proposal.

- With respect to permitting, the environmental team outlined local, state, and federal permitting processes to ascertain the status and potential risks of the project proposals' permits. This assessment was particularly important with respect to a project's feasibility.

Q. Would you please explain how PSE applied these qualitative factors?

A. Yes. As described above, PSE personnel with permitting experience reviewed the proposals with an eye toward the status and documentation related to project permitting. Projects at the earliest stages of permitting or with no real permit documentation provided for review received a "low" ranking with respect to this factor; proposals containing submitted permit applications or draft permits received a "medium" ranking; and those with all necessary permits to build or operate the plant received a "high" ranking.

As for transmission issues, PSE personnel evaluated the location of proposed projects in relation to PSE's system as well as transmission paths and known transmission constraints. Proposals that were not interconnected directly to PSE's

system were reviewed to determine whether the developer had already submitted a request for transmission rights and the status of that request in the transmission provider's queue. Depending on the status of a project's transmission, including the future likelihood, projects were given a "high", "medium" or "low" ranking.

PSE engineers also evaluated the technologies proposed for each project. They noted positive attributes such as the reliability or efficiency of a type of turbine as well as negative attributes such as lack of information on the type of equipment proposed for a project. A rating of high, medium or low was given to each project with respect to the technology evaluation.

Q. Did PSE do all of the Phase I evaluation in-house?

A. No. PSE retained DNV Global Energy Concepts Inc. ("DNV-GEC") to perform high-level evaluation of the wind resource proposals that PSE received in the 2008 RFP to ensure all wind resource assessments were based on similar assumptions. DNV-GEC is a multi-discipline engineering and technology consulting firm recognized as a global leader in the wind energy industry for, among other things, conducting wind resource assessments. DNV-GEC has acted as project engineer on behalf of lenders, insurers and owners on numerous projects. As part of this work, it has performed due diligence with respect to wind turbine technology and wind resource assessment, and it has consulted with respect to various aspects of project design and construction including economic modeling. Please see Exhibit No. ___(RG-4HC) for a copy of the Analysis of

Wind Energy Proposals for 2008 RFP Evaluation prepared by DNV-GEC. Because there are numerous wind energy resource assessors in the industry, wind energy predictions can vary as each assessor may use different calculation methods and assumptions. For Phase I, DNV-GEC revised these assumptions and resource assessment predictions so that PSE could more accurately compare wind projects. For Phase II analyses, DNV-GEC undertook its own evaluation of the wind projects. It employed its proprietary software for analyzing topographic and wind turbine wake effects on project output to validate the wind generation profiles submitted with each wind proposal.

4. The "Most Favorable Proposals" List and Ultimate Phase I "Candidate Short List"

Q. How did PSE then proceed?

A. The qualitative evaluation and rating, combined with the PSM ranking, eliminated certain proposals with high costs, unacceptable risks, and/or feasibility constraints and showed others as favorable. PSE then selected thirteen proposals for a Candidate Short List.

Q. How did PSE proceed with respect to the Candidate Short List?

A. The thirteen proposals on the Candidate Short List appeared to offer the strongest operational characteristics while minimizing risk and cost. The proposals selected for the Candidate Short List included a diverse mix of ownership types and fuel sources: Five natural gas-fired projects, four wind projects and four

market PPAs. *See, e.g.*, Exhibit No. ___(RG-3HC) at page 207.

PSE presented the Phase I analyses and the Candidate Short List to Commission Staff. Please see Exhibit No. ___(RG-5HC) for PSE's presentation to Commission Staff, dated May 28, 2008.

C. Phase II of the 2008 RFP Evaluation

1. The Criteria

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

A. Yes. Early in Phase II, one respondent notified PSE that the project conditions had changed and the project was no longer available for consideration. Additionally, one week before the end of Phase II, another respondent with a proposal selected for the Candidate Short List notified PSE that it was withdrawing its proposal because it had entered into exclusive conversations with another counterparty. PSE did not add any proposal to its Candidate Short List to replace these proposals following these withdrawals because PSE believed that the remaining eleven proposals on the Candidate Short List still presented a strong portfolio of resources to evaluate.

Q. What criteria did PSE apply during Phase II of the evaluation process?

A. During Phase II, PSE continued to apply the Phase I evaluation criteria and placed

further emphasis on the following qualitative factors:

- Transmission and Integration Plans and Alternatives;
- Comparison of PPAs and Ownership Alternatives;
- Ability to Deliver on Commercial Terms;
- Experience of Developers;
- Guarantees and Security;
- Pricing and Cost Risk; and
- Environmental and Public Benefit.

See, e.g., Exhibit No. ___(RG-3HC) at pages 20–21.

Q. How did PSE apply these criteria?

A. PSE reevaluated the proposals on the Candidate Short List against each other by combining quantitative cost rankings with extensive evaluation of qualitative criteria, and again chose a "High," "Medium," or "Low" rating. PSE based this evaluation on information provided in the initial proposals as well as on responses to information requests that PSE sent to the owners and developers of the projects on the Candidate Short List. PSE also considered information discovered through its due diligence efforts.

Q. What additional information did PSE request?

A. PSE requested information such as copies of existing permits or applications for permits, a list of agreements contemplated between PSE and the developer, information about contingency plans in the event certain assumptions did not

materialize, and preliminary information about the commercial agreements and terms the bidder anticipated requesting of PSE. PSE also inquired as to certain projects whether the bidder would be willing to agree to terms such as price guarantees or date certainty to the extent such terms were not addressed in the original proposal.

2. PSE's Quantitative Evaluation of the Proposals

Q. Did PSE conduct a quantitative evaluation process for the proposals on the Candidate Short List during Phase II?

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

3. PSE's Qualitative Evaluation of Proposals

Q. What qualitative evaluation did PSE undertake in Phase II?

A. PSE's qualitative evaluation included continuing efforts such as those described above for Phase I. In addition, PSE conducted due diligence and considered information regarding qualitative factors that resulted from those investigations. PSE also evaluated the creditworthiness of the bidders as potential counterparties to long-term transactions. *See, e.g.*, Exhibit No. ___(RG-3HC) at pages 109–47.

4. Due Diligence

Q. Please explain what is meant by "due diligence"?

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

Q. What due diligence did PSE perform with respect to the potential projects?

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

Q. How did PSE go about performing this due diligence?

A. PSE conducted much of this review in-house, through personnel experienced in legal, environmental and real estate matters, and also relied upon outside expertise on environmental and permitting matters, real estate issues, and technical matters. With respect to wind projections, wind project feasibility, and

technical compatibility, PSE continued to work with DNV-GEC, as described above.

PSE's due diligence efforts began during the Phase I evaluation process and continued through Phase II culminating in the the selection of the Final Short List.

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

A. These efforts caused PSE to decide not to pursue certain projects on the Candidate Short List and confirmed the attractiveness of certain projects. For example, based on the Phase II analysis, PSE determined that too much uncertainty and risk surrounded the complexity of the [redacted] tolling proposal. In addition to having little dispatching flexibility, one aspect of the proposal in particular created too much risk. It was structured such that fuel costs would be based on monthly average gas prices. Therefore, a trader would have to dispatch without knowing how much the fuel would cost until the end of the month.

5. <u>Credit and Balance Sheet Issues With Respect to PPAs</u>

Q. Do you have additional comments on other factors considered in PSE's evaluation?

A. Yes. Creditworthiness, credit support and credit quality issues continue to be of importance in evaluating PPAs as compared to ownership options.

Q. What were PSE's concerns about creditworthiness and credit support?

A. In prior rate proceedings, PSE has documented its concerns regarding the financial condition of potential counterparties and the credit required to support long-term, fixed price power contracts.

It is very common for companies to include in PPAs a requirement that counterparties provide credit assurances to protect a party from the risk that the counterparty will not perform its obligations under the contract. Credit provisions are generally reciprocal and generally take the form of access to immediately available funds in the form of a letter of credit or cash to cover the daily market-to-market exposure (above a certain threshold level).

Q. Did bidders of PPAs request such credit support from PSE?

A. Yes. The proposed terms and conditions of various PPA proposals sought the right to request credit assurances securing PSE's obligations under the long-term PPAs above a certain threshold level. Generally, potential counterparties requested credit support from PSE in the form of a standby letter of credit or cash.

Q. Did PSE have concerns about the creditworthiness of any counterparties?

A. Yes. PSE had concerns about the creditworthiness of counterparties that were not financially rated or were of speculative grade. Further, project companies held as a special purpose entity (e.g., a limited liability company in which the project is

the only asset) were of particular concern to PSE. In those cases, PSE requested credit support, generally in the form of a parental guarantee.

Q. Did PSE seek to address these concerns without rejecting the resource proposal?

A. Yes. PSE selected proposals based on (i) their respective abilities to meet the established criteria that PSE has outlined in its 2008 RFP solicitation and (ii) lowest reasonable cost with lowest reasonable risk. Please see Exhibit No. ___(KJH-6) for a copy of the 2008 RFP, which describes these criteria. In Phase I, PSE did not eliminate any project based on creditworthiness concerns. Once PSE identified the Candidate Short List at the conclusion of Phase I, creditworthiness became more significant to the analysis and evaluation of the proposals.

Q. Did PSE have other concerns about PPAs?

A. Yes. Credit rating agencies view electric utility PPAs as debt-like in nature and, in their analysis of PSE's financial strength and risk factors, treat a portion of PSE's obligation under such contracts as debt. This "imputed debt" is a significant concern for PSE because of its impact on PSE's credit quality. Moreover, the Commission's 1994 prudence order expressly instructed PSE to consider "rating agencies' views of purchased power" and "to quantify the impact

of future resource acquisitions on capital cost and capital structure."[1]

Q. Did PSE consider the impact of imputed debt when comparing PPAs to ownership options?

A. Yes. PSE's quantitative analysis of the competing resource proposals took into account costs related to debt imputed to PSE if it entered into various proposed PPAs, as described in the prefiled direct testimony of Mr. W. James Elsea, Exhibit No. ___(WJE-1HCT).

D. PSE Also Considered a Self-Build Option

Q. Did PSE analyze a self-build option in addition to the proposals received in response to the 2008 RFP?

A. Yes. Contrary to the 2005 RFP, in which PSE received several self-build options, PSE received only one self-build proposal as part of the 2008 RFP. Typically, two types of self-build proposals emerge:

i) Self-Build Option 1 – PSE plays a key role in the remaining development activities and funds the cost of completing the project with the developer; or

ii) Self-Build Option 2 – PSE purchases the existing development assets from the developer and PSE completes the project on its own.

Each of the above described self-build options requires different levels of PSE

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

involvement in both development activities and construction build-out, but both self-build options result in PSE ownership of the project.

Although PSE received proposals for each type of self-build option in the 2005 RFP, PSE only received a proposal based on the first type of self-build option in the 2008 RFP. PSE evaluated this proposal, which considered the installation of several reciprocating natural gas units at PSE's Fredrickson Generation Station in South King County. For this proposal, the developer assumed PSE would play a key role in the remaining development activities and fund the cost of completing the project.

Additionally, PSE received a wind self-build option shortly after the deadline expired for the submission of proposals for the 2008 RFP. Although such proposal was not officially part of the 2008 RFP, PSE did consider this wind self-build option in each of its Phase I and Phase II analyses.

Q. Why does PSE believe that the number of self-build proposals decreased from the 2005 RFP to the 2008 RFP?

A. PSE believes that the change in number of self-build options between the 2005 RFP and the 2008 RFP illustrates the dynamic market conditions of the energy industry. In 2005, the wind industry was developing quickly, but many developers were underfunded and, hence, remained interested in selling development rights or a turnkey project due to the favorable developer fees they were likely to secure. By 2007, however, most developers wanted to develop,

construct, and operate wind projects because they were able to (i) capture favorable developer fees via construction financing, (ii) obtain favorable annual cash flows as a result of partnering with tax investors able to capture the federal Protection Tax Credits ("PTCs") associated with wind generation, and (iii) develop a small portfolio of operating projects and earn an attractive margin by "flipping" their portfolios to financial or strategic investors.

Q. Please describe the self-build analysis that PSE performed.

A. As defined by the 2008 RFP evaluation criteria, PSE evaluated the self-build proposals in the same manner as all other proposals. PSE ran PSM models based on operational characteristics and financial information provided by the bidder. Where feasible, PSE supplemented the information provided based on PSE's existing operational experience from recent asset purchases, including, for example, the Hopkins Ridge Infill Project, Wild Horse Wind Facility, and the Goldendale Generating Station.

E. Results of the Phase II Evaluation

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

A. PSE compiled all the qualitative, quantitative, and due diligence findings from each reviewer group throughout PSE and then selected the most favorable resources with the best qualitative and quantitative factors for the Final Short List.

See, e.g., Exhibit No. ___(RG-3HC) at pages 212–13.

Q. What did PSE conclude as a result of the Phase II evaluation?

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

Fuel	Project	Owner/Developer	Location	MW	Offer
Wind	[redacted] Wind Project	[redacted]	[redacted]	200	20-year PPA / potential joint venture
Wind	[redacted] (20-year prepay)	[redacted]	[redacted]	50	20-year PPA prepay
NatG	Mint Farm Energy Center	Wayzata Investment Partners	Longview, WA	311	Ownership
PPA	Fixed Price, 4-Year Winter PPA	Barclays Bank PLC	N/A	75–275	4-year PPA, winter only, fixed price

Q. Please describe why PSE determined that it should pursue these four resources?

A. PSE determined that it should pursue the four resources selected for the Final Short List based upon the full range of qualitative and quantitative evaluation conducted in Phase I and Phase II. Favorable aspects of each project on the Short List are briefly described below:

1. [redacted] Wind Project – The [redacted] Wind Project had an attractive PPA price per megawatt hour and a respectable wind capacity factor. The project is far along in the development process and is being developed by a financially strong developer. It is a renewable resource that would help PSE meet the renewable energy targets set forth in the Energy Independence Act[2] and diversifies PSE's fuel supply.

[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.

2. [redacted] Wind Project – The [redacted] Wind Project was an attractively priced wind project with a proven wind resource and an established developer. This project development is mature and has firm transmission rights to PSE. The ability to prepay for a portion of the generation substantially improves project economics.

3. Mint Farm Energy Center – The Mint Farm Energy Center offered attractive pricing for a completed, low heat rate plant. There were synergies to be gained with the rest of PSE's natural gas fleet because the Mint Farm Energy Center uses a GE 7FA gas turbine.

4. Barclays Four-Year Winter PPA – The Barclay's four-year winter, around-the-clock PPA beginning in November 2011 was a structure that met PSE's need for additional winter capacity and energy.

PSE presented the Phase II Analyses and the Short List to Commission Staff. Please see Exhibit No. ___(RG-6HC) for PSE's presentation to Commission Staff, dated September 19, 2008.

Q. Did PSE reject the seven proposals on the Candidate Short List that were not selected for inclusion on the Final Short List?

A. No. PSE determined that those promising proposals from the Candidate Short List that PSE did not select for the Final Short List should be placed on a "continuing investigation" list. The "continuing investigation" list allowes PSE to monitor the status of each proposal and potentially reconsider such proposal at a later date. *See, e.g.*, Exhibit No. ___(RG-3HC) at pages 215–16.

F. PSE's Efforts to Finalize Contracts

Q. What is the status of the potential acquisitions that made the Final Short List?

A. PSE has acquired two resources from the Final Short List:

1. Mint Farm Energy Center – PSE completed its acquisition of the Mint Farm Energy Center on December 5, 2008.

2. Barclays Four-Year Winter PPA – PSE finalized a four-year around-the-clock winter PPA with Barclays on October 9, 2008.

Shortly after selecting the [redacted] Wind Project PPA for the Final Short List, [redacted] revised its proposal and increased the PPA price per megawatt hour. [redacted] also updated contract provisions and delayed the projected commercial operation start date to 2010. Although subsequent analyses showed ongoing favorable economics, the revised provisions increased the risk that the [redacted] wished to place on PSE. Therefore, PSE continues to negotiate with [redacted] regarding the [redacted] Wind Project PPA, but such negotiations are not exclusive, and [redacted] is also negotiating with other potential counterparties.

Shortly after selecting the [redacted] Wind Project for the Final Short List, Iberdrola pulled its proposal for the [redacted] Wind Project and replaced the proposal with an ownership proposal for [redacted] Wind Project (a [redacted] MW wind project). PSE had previously evaluated the [redacted] Wind Project in its Phase I analyses, but [redacted] withdrew that proposal shortly before

PSE selected proposals for the Candidate Short List. Although the [redacted] Wind Project has some favorable characteristics (diversification of PSE's wind resources, helps meet the Energy Independence Act requirements, and offers favorable development rights), the current [redacted] proposal is relatively expensive as compared to other offers. PSE management met with [redacted] to discuss the proposal but could not come to agreement on economics. As a result, both companies decided to end negotiations.

Q. Does PSE anticipate that it will acquire any of the outstanding proposals on the Final Short List?

A. Currently, PSE is uncertain whether it will acquire any of the outstanding proposals on the Final Short List. As discussed above, PSE and [redacted] have ended negotiations with respect to the [redacted] Wind Project because the developer was unwilling to reduce its indicative offer. However, markets continue to be in a state of turmoil, and it is plausible that developers will revise proposals to make their project and terms more attractive. PSE and [redacted] continue to negotiate the [redacted] Wind Project PPA, even though [redacted] also continues to pursue negotiations with other counterparties.

III. RESOURCES PURCHASED PURSUANT TO PSE'S 2008 RFP PROCESS

A. The Mint Farm Energy Center

1. Facility Description

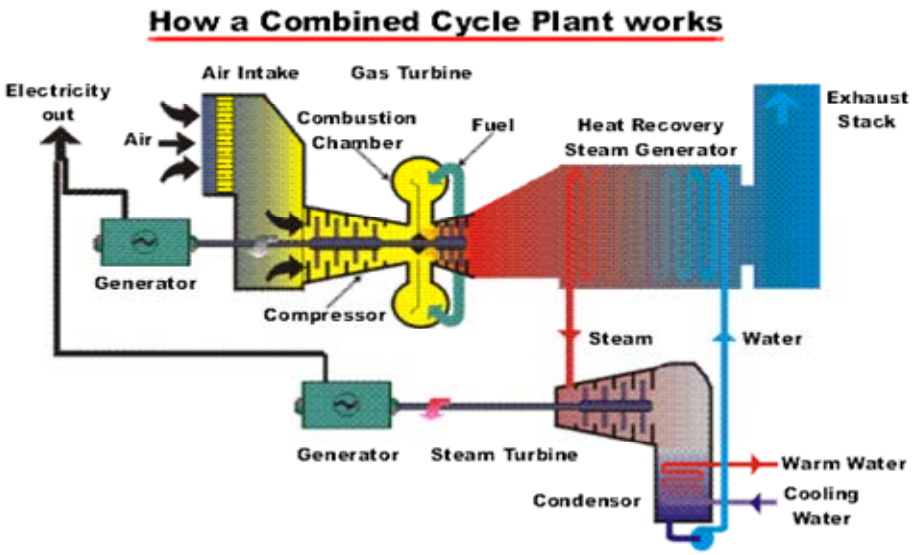
Q. Please describe the Mint Farm Energy Center.

A. The Mint Farm Energy Center is a 311 MW natural gas-fired combined cycle generating facility (260 MW "nominal" plus 37 MW duct firing, plus 14 MW through steam augmentation). The Mint Farm Energy Center is located on an approximately 11-acre site within the Mint Farm Industrial Park in the City of Longview, Washington.

Avista Power originally developed the Mint Farm Energy Center in partnership with Steag AG, a large German power producer. Avista Power sold the development assets to Mirant Corp. in 2001. Construction commenced in October 2001. In August 2002, Mirant suspended construction on the partially completed facility due to Mirant's financial distress and ultimate bankruptcy. Wayzata Investment Partners ("Wayzata") acquired the project from Mirant in 2005 through a bankruptcy auction process. Wayzata completed construction in 2007, and the Mint Farm Energy Center began commercial operation in January 2008. *See generally* Exhibit No. ___(RG-7HC) at page 22.

Q. Please describe the technical aspects of the Mint Farm Energy Center.

A. As stated above, the Mint Farm Energy Center is a natural gas-fired combined cycle generating facility. The following diagram depicts the combined cycle process.



The combined cycle process using a natural gas cycle and a steam cycle is a highly efficient process that results in greater operating efficiencies and lower fuel costs and emissions.

The primary components of the plant consist of (i) a General Electric ("GE") Frame 7FA model combustion turbine and generator, (ii) a Foster-Wheeler heat recovery steam generator, and (iii) a Siemens-Fuji KN steam turbine and generator. The Mint Farm Energy Center's low heat rate makes it one of the most efficient generating facilities in the Western Energy Coordinating Council ("WECC") region.

The GE 7FA is a mature technology, proven and well understood. GE's 7FA dominates the F-class combustion turbine market with the largest installed base of any manufacturer. GE's F-class fleet includes more than 900 units in operation

worldwide and has compiled more than ten million hours of commercial operation. Independent operating data confirms that fleet average reliability is about 98% with an availability of 93%. The availability of parts and service is excellent.

The Siemens-Fuji Steam Turbine Generator is not common in North America, but numerous units are in operation throughout the world. North American Energy Services operates a nearly identical unit at a facility in Calgary and has reported no maintenance concerns. *See generally* Exhibit No. ___(RG-7HC) at pages 22–23.

Q. Please describe the electric transmission arrangements for the Mint Farm Energy Center.

A. As part of the acquisition, Wayzata assigned to PSE its 293 MW of long-term, firm, point-to-point transmission service with the Bonneville Power Administration ("BPA"). The Mint Farm Energy Center is interconnected at BPA's Longview Substation, and the power is delivered directly to PSE's load center. The plant's generation improves system reliability by providing voltage support for the region and it relieves stress on nearly all BPA flowgates.

Public Utility District No. 1 of Cowlitz County, Washington provides station service power for the Mint Farm Energy Center when the plant is offline and for startup power. PSE has included this cost of station service power and startup power in its quantitative analysis of the project. *See generally* Exhibit

No. ___(RG-7HC) at page 24.

Q. Please describe the gas transportation arrangements for the Mint Farm Energy Center.

A. The Mint Farm Energy Center is exclusively natural gas-fired and does not have distillate oil back-up. Thus, there is no on-site fuel storage. At baseload, the Station requires approximately 43,500 MMBTU/day. When duct firing, the Mint Farm Energy Center requires approximately 52,000 MMBTU/day. The Mint Farm Energy Center interconnects to the Northwest Pipeline ("NWP") system via Cascade Natural Gas Company's ("Cascade") distribution system, which provides natural gas service to many of the large industrial companies in the area. Accordingly, the plant requires gas transportation on both systems.

PSE currently holds 30,000 MMBTU/day of firm gas transportation on the Cascade system. PSE is evaluating options for the additional natural gas transportation capacity needed on Cascade's system. PSE has identified the following four options, each of which PSE is actively pursuing:

1. Option 1 – [redacted]

2. Option 2 – [redacted]

[redacted]

3. Option 3 – [redacted]

4. Option 4 – [redacted]

For purposes of this proceeding, PSE has modeled Option 1.

In the near-term, existing non-firm capacity on Cascade's distribution system allows PSE to serve the plant until PSE can finalize a long-term solution.

To address the transportation capacity needed on NWPs interstate pipeline, PSE is using a multi-pronged approach. In the near-term, the Mint Farm Energy Center is partially served with discounted capacity on NWP from British Columbia and surplus capacity from PSE's other pipeline capacity resources. PSE recently acquired 11,210 MMBTU/day of long-term NWP transportation capacity from Sumas to Longview and other downstream delivery points, which PSE can use to serve the plant, in part, beginning in April 2009. PSE has also acquired another 34,000 MMBTU/day of NWP capacity, with terms ranging from 15 months to three years, most of which commences on November 1, 2009. *See generally*

Exhibit No. ___(RG-7HC) at pages 24–26.

Q. Please describe the fuel supply arrangements for Mint Farm Energy Center.

A. For the longer-term, the Mint Farm Energy Center has the potential to access gas from British Columbia via NWP. PSE has also entered discussions with various pipeline companies to participate in pipeline projects, such as NWP's proposed Blue Bridge project, to meet PSE's growing natural gas needs. If the proposed Blue Bridge pipeline project proceeds as planned, PSE may be able to access Alberta and Rockies supply. Currently, PSE is integrating the fuel supply requirement for the Mint Farm Energy Center into PSE's gas supply hedging program. *See generally* Exhibit No. ___(RG-7HC) at page 26.

2. <u>Due Diligence</u>

Q. What due diligence did PSE conduct with respect to the Mint Farm Energy Center?

A. PSE conducted a review of legal, commercial, environmental, real estate, insurance, operations and maintenance, and technical concerns related to the Mint Farm Energy Center.

a. Commercial and Legal Due Diligence

Q. Please describe the commercial and legal due diligence conducted by PSE.

A. PSE and its outside counsel reviewed the various contracts pertaining to the ownership and operation of the Mint Farm Energy Center, such as interconnection, transportation, operations and maintenance, water supply, and similar types of agreements. In the course of these investigations, PSE discovered no significant liabilities and ensured that all necessary assignments and consents were in place. *See generally* Exhibit No. ___(RG-7HC) at pages 199–206.

Q. Please describe the real estate due diligence conducted by PSE.

A. The real estate due diligence included title review and a survey of the entire site to confirm the site is contiguous, without significant encroachments, and that no additional real property interests are necessary for the Mint Farm Energy Center.

The plant is located on two contiguous parcels of property within the Mint Farm Industrial Park in Longview, Washington. One parcel is 5.46 acres, and the other is 5.96 acres. A 2.5-acre parcel, owned by the City of Longview, abuts in a triangular fashion between the two aforementioned parcels. This 2.5-acre parcel is utilized as a storm water discharge pond for both the Mint Farm Energy Center and other industrial properties within the Mint Farm Industrial Park.

The Mint Farm Energy Center is located within three-quarters of a mile from the Columbia River at an elevation of 15 feet above mean sea level ("MSL"), which

places the plant approximately two feet above the 13-foot MSL of the Columbia River near the site. Located in FEMA zone X, there is low to moderate exposure to flooding, dependent on a 100-year rated dike that separates the site from the Columbia River. The earthquake risk is moderate, and the site is located in ISO earthquake zone 3 and flood management overlay zone 250 year. The area around the Mint Farm Energy Center is not highly susceptible to windstorms. *See generally* Exhibit No. ___(RG-7HC) at pages 168, and at pages 194–195.

b. Environmental Due Diligence

Q. Please describe the environmental due diligence conducted by PSE.

A. The environmental due diligence review consisted of a site visit, interviews with facility employees, review of all available environmental documentation (including environmental agency correspondence, permit applications, final permits, environmental plans and policies, etc.) at the plant, and review of Washington Department of Ecology files pertaining to the plant. PSE also interviewed Washington Department of Ecology and Southwest Clean Air Agency representatives and a Longview Fire Department representative.

PSE did not identify any significant environmental issues during the environmental due diligence. The Mint Farm Energy Center appears to be properly sited and constructed and in good condition. The plant has programs in place to address air emissions, wastewater discharge, storm-water discharges, solid waste management, hazardous materials handling, and hazardous waste

management. PSE either will adopt these same programs or will modify them to improve the existing programs. An example, discussed later, is the storm water program.

For air emissions, the Mint Farm Energy Center is currently operating under a Final Air Discharge Permit registered under the U.S. EPA acid rain program. A Title V Operating Permit application was submitted in September 2008, one year after initial operation. The purpose of the Title V permit is to consolidate all federally enforceable permit conditions and establish compliance monitoring, recordkeeping and reporting requirements for each applicable requirement. The Title V process is not intended to change applicable requirements or related permit restrictions—unless a change in regulatory requirements occurred since the current air permit was issued. Previous Best Available Control Technology (BACT) determinations for the current permit should remain unchanged. *See generally* Exhibit No. ___(RG-7HC) at pages 181–194.

c. Insurance Due Diligence

Q. Please describe the insurance due diligence by PSE.

A. The comments from PSE's property insurance engineer were generally good, but there were a number of recommended or required actions needed to gain insurance coverage. PSE has added the Mint Farm Energy Center to its all-risk property insurance program, with a replacement value of $415 million. The deductibles are $[redacted] million for the combustion turbine, $[redacted] million for combined

all-risk, and $[redacted] million or [redacted]% of the total insurable value of each location involved in a loss, whichever is greater, for earth movement coverage.

PSE's property insurer's fire protection engineer reported that the fire protection is generally good. All equipment and systems are commissioned, and the installed fire protection systems are at industry standard or better. Fire water supply provided by the City of Longview is acceptable. In addition, an electric fire pump takes suction from the 250,000 gallon raw water tank to supplement the city supply and provides fire water for the gas turbine building fire sprinkler systems. The insurer had three fire-related loss control recommendations all of which have been implemented by PSE.

The Mint Farm Energy Center includes one GE 7FA combustion turbine. Recently, there have been compressor blade failures at similar plants, which resulted in significant damage to GE 7FA units. PSE's property insurance boiler and machinery engineer determined that two critical recommendations published in GE technical information letters ("TILs") had not been completed. PSE's property insurance underwriters were unwilling to provide insurance coverage for the combustion turbine until these two TILs were completed. PSE initiated an outage immediately after closing of the transaction to address these upgrades. *See generally* Exhibit No. ___(RG-7HC) at pages 195–197.

d. Technical Due Diligence

Q. Please describe the technical due diligence conducted by PSE.

A. The Mint Farm Energy Center is a conventional natural gas-fueled combined cycle power plant with one combustion turbine generator and one steam generator ("one-on-one"). GE has operated the plant under an Operating & Maintenance Agreement (the "Mint Farm O&M Agreement"). The plant achieved commercial operation in January 2008 and is rated at approximately 260 MW baseload, approximately 296 MW with duct firing, and approximately 311 MW with steam augmentation. A GE Frame 7FA+e Model 7241 combustion turbine provides electrical power via a GE generator and exhaust heat to a Foster Wheeler heat recovery steam generator ("HRSG"), which is used to generate high, intermediate, and low pressure steam. Steam generated by the HRSG drives a triple-pressure Siemens-Fuji steam turbine, which drives a Fuji generator.

The Mint Farm Energy Center is located on geo-technically poor soil conditions. The engineering firm, Stone & Webster, utilized significantly more conservative earthquake modeling than is required to meet Uniform Building Code standards in the design of the plant. Fourteen hundred (1,400) twelve-inch pilings were driven to a depth of 160 to 200 feet to stabilize the soil. All foundations with at least minimal load are seated on piles with 3000+ psi concrete. Additionally, no noteworthy foundation settling appears to have occurred over the five year project intermission. Specifically, the combustion turbine to generator alignment was

checked prior to project re-initiation in 2006 and displayed an insignificant 3 mil change.

The GE 7FA gas turbine is a mature, well-understood machine with more than one thousand units installed around the world. The turbine provides power at 98 percent reliability and 93 percent availability, and is considered a superior "F" class combustion turbine when compared with many of its competitors. It is nearly identical in design and operation to the 7FA at PSE's Goldendale Generating Facility. Although supported by a smaller installed base, the Siemens-Fuji steam turbine and generator are recognized as reliable equipment.

On-site wells permitted to 3.89 million gallons per day, which is more than adequate to supply the plant's maximum daily usage of approximately three million gallons per day, supply water to the Mint Farm Energy Center. The secondary source is filtered water from the Columbia River supplied by the Weyerhaeuser Longview Mill, also at a rate sufficient for 100% plant operations. This two-source system adds redundancy that is not typically seen in the combined cycle fleet. A 250,000 gallon ground-level raw water storage tank is integrated into the system to mitigate raw water supply interruption issues.

Under a services agreement with the Weyerhaeuser Longview Mill, the Mint Farm Energy Center sends its wastewater to the Weyerhaeuser Longview Mill water treatment facility, which treats the wastewater and discharges it into the Columbia River through the Weyerhaeuser Longview Mill's outfall. The Mint

Farm Energy Center has applied for permission from the Washington State Department of Ecology to bypass the Weyerhaeuser Longview Mill treatment system and discharge the wastewater directly to the Columbia River. Approval of the permit would result in reduced service charges that the Mint Farm Energy Center now pays to Weyerhaeuser.

The overall conclusion of PSE's technical due diligence team is that the Mint Farm Energy Center is clean, quiet, well-designed, and in near-new condition. Although plant construction was interrupted for a period of about five years, plant components that had been installed were laid-up to prevent corrosion. Operations and maintenance at the plant appear to have been carried out by conscientious and experienced personnel guided by good procedures. *See generally* Exhibit No. ___(RG-7HC) at pages 167–180.

e. Operations and Maintenance Due Diligence

Q. Please describe the operations and maintenance due diligence conducted by PSE.

A. After closing on the Mint Farm Energy Center, PSE negotiated with GE to terminate the Mint Farm O&M Agreement effective on April 30, 2009. To operate the plant successfully without the GE agreement, PSE will transition: (i) GE employees that are interested in continuing at the plant under PSE ownership, (ii) all software and vendor contracts, and (iii) the operations and maintenance policies and procedures of the plant.

With GE permission, PSE has interviewed current staff and extended contingent offers to successful candidates. At contract termination, GE employees who have accepted the contingent offers will become PSE employees.

As a result of the Mint Farm Energy Center acquisition, PSE expects that its Power Generation department will grow by 21 positions, and that such growth will consist of former GE employees who accept PSE's offers and new hires. Additionally, the labor force will transition into IBEW Local 77, pursuant to PSE labor relations protocol. *See generally* Exhibit No. ___(RG-7HC) at pages 42–43, and at pages 208–210.

3. Board Approval of the Acquisition

Q. Was PSE able to finalize contracts for acquisition of the Mint Farm Energy Center?

A. Yes. Negotiations with Wayzata Investment Partners produced definitive agreements for PSE's acquisition of the Station. At the August 4, 2008 meeting of PSE's Board of Directors, PSE management recommended that the Board approve the acquisition as set forth in the summary documentation to the Board of Directors. Please see Exhibit No. ___(RG-7HC) for a copy of the presentation to the PSE Board of Directors, dated August 4, 2008, regarding the Mint Farm Energy Center. The Board approved the recommendation, and PSE executed the necessary agreements and closed on the transaction on December 5, 2008. Please

see Exhibit No. ___(RG-8) for copies of the PSE Board minutes approving the acquisition of the Mint Farm Energy Center.

Q. Does PSE's acquisition of the Mint Farm Energy Center satisfy the evaluation criteria set forth in the 2008 RFP?

A. Yes, PSE's acquisition of the Mint Farm Energy Center satisfies the evaluation criteria set forth in the 2008 RFP for the following reasons:

(i) The Mint Farm Energy Center is compatible with PSE's need. Mint Farm Energy Center produces early surplus energy but meets PSE need in the mid- to long-term. The Mint Farm Energy Center adds 311 MW of capacity and 247 aMW of winter energy, which is a significant contribution to meeting PSE's 2012 January energy need of 700 aMW, and brings PSE closer to meeting its longer term energy need of 1,161 aMW[3] identified in 2015. Exhibit No. ___(RG-7HC) at page 41.

(ii) The Mint Farm Energy Center will minimize PSE's costs. At approximately $[redacted]/kW all-in cost, the Mint Farm Energy Center represents an attractive price relative to new construction. The Mint Farm Energy Center also offers maintenance and spare parts synergies with PSE's Goldendale Generating Station.

(iii) The Mint Farm Energy Center minimizes PSE's risks. With the firm transmission included with the Mint Farm Energy Center, the plant holds no delivery risk. Additionally, by purchasing an existing facility, PSE was able to avoid construction and financing risk.

(iv) The Mint Farm Energy Center includes public benefits. The Mint Farm Energy Center is among the most efficient gas fired generation available in the WECC and has NOx and CO_2 controls to limit emissions.

[3] The 1,161 aMW need is taken from the 2008 RFP analysis updated to include Sumas and is after conservation.

(v) The Mint Farm Energy Center meets PSE's financial and strategic needs. The Mint Farm Energy Center represents an opportunistic purchase as it was the only remaining constructed combined cycle combustion turbine in Washington, other than the Grays Harbor Energy Center, that was not under long-term contract. Accordingly, the Mint Farm Energy Center offers PSE a lower risk and lower cost source of efficient capacity and energy than a comparable new build project.

4. Project Acquisition Process

Q. Please describe the process resulting in PSE's acquisition of the Mint Farm Energy Center.

A. PSE and Wayzata Investment Partners entered into a non-binding Letter of Intent and Term Sheet. Please see Exhibit No. ___(RG-9C) for copies of the non-binding Letter of Intent and Term Sheet for the Mint Farm Energy Center. This Letter of Intent and Term Sheet formed the basic terms upon which PSE would be willing to proceed to negotiate Definitive Agreements.

Wayzata Opportunities Fund, LLC; Mint Farm Power, LLC; and PSE executed the Membership Interests Purchase Agreement, dated as of September 24, 2008, following approval from PSE's Board of Directors. Please see Exhibit No. ___(RG-10C) for copies of the Membership Interests Purchase Agreement, dated as of September 24, 2008, between Wayzata Opportunities Fund, LLC and Mint Farm Power, LLC, as Sellers, and PSE, as Buyer.

Q. Has the Federal Energy Regulatory Commission approved the acquisition of the Mint Farm Energy Center?

A. Yes. On November 14, 2008, the Federal Energy Regulatory Commission ("FERC") issued its "Order Authorizing Disposition of Jurisdictional Facilities and Acquisition of Generating Facilities." Please see Exhibit No. ___(RG-11) for a copy of such FERC order.

Q. Have PSE and Wayzata Investment Partners closed the sale of the Mint Farm Energy Center?

A. Yes, the transaction closed on December 5, 2008.

5. Project Acquisition Costs

Q. Please describe the acquisition costs for the Mint Farm Energy Center.

A. PSE's purchase price for the Mint Farm Energy Center was $240,690,000 or approximately $800 per kW. There were additional acquisition costs as indicated in the following table, which resulted in a total acquisition cost of approximately $[redacted].

Mint Farm Energy Center	Project Costs
Facility Purchase Price	$240,690,000
Additional Acquisition Costs	$[redacted]
Total Project	**$**[redacted]

Q. Please describe the line item Additional Acquisition Costs.

A. Additional Acquisition Costs contains costs PSE incurred to complete the transaction, bring the Mint Farm Energy Center up to PSE's operating standards and pay a portion of the Real Estate Excise Tax ("REET"). The REET is a Washington State tax levied on the portion of property classified as "real" in which a controlling interest of the property is transferred. The combined tax rate for Cowlitz County and Washington State is 1.53%. PSE and Wayzata Investment Partners agreed that PSE would bear a portion of the REET.

When PSE purchases or constructs a generating facility and before the facility is placed into service for operation by PSE, PSE ensures that the plant meets PSE's Operating Standard. The Operating Standard defines PSE's policy for continued safe and reliable operations of PSE's generating facilities. PSE identified some necessary upgrades, including a gas turbine inspection, upgrades of the continuous emissions monitoring system ("CEMS"), information technology and security infrastructure integration, and balance of plant work, which includes repairs of the high energy piping system, spill prevention, and storm water management. Please see Exhibit No. ___(RG-12) for a copy of PSE's Operating Standard.

Transaction and due diligence costs are PSE's internal costs for due diligence and negotiations, title insurance, third party expert consultants and legal fees

associated with the transaction. Please see the discussion above regarding the due diligence efforts undertaken by PSE.

The category "Transaction & Due Diligence Costs" reflects (i) the costs paid by PSE to third parties who assisted in PSE's due diligence efforts for the acquisition and (ii) the legal fees paid to the law firm Dewey & LeBoeuf for negotiating, drafting and documenting the definitive agreements for the acquisition.

Q. What does PSE project its O&M expenses will be for the Mint Farm Energy Center during the rate year?

A. PSE anticipates total O&M costs of $[redacted] for the Mint Farm Energy Center during the rate year. The projected O&M costs during the rate year are provided in the workpapers in support of Exhibit No. ___(DEM-8C).

Q. Did PSE prepare a projected balance sheet, income statement, and statement of cash flows associated with the Mint Farm Energy Center?

A. Yes. Please see Exhibit No. ___(RG-13C) for the projected balance sheet, income statement, and statement of cash flows associated with the Mint Farm Energy Center.

B. <u>The Barclays Winter Only PPA</u>

Q. Did the Barclays Winter Only PPA proposal rank high in PSE's Phase I quantitative and qualitative criteria?

A. Yes. During Phase I of the 2008 RFP evaluation, the Barclays Winter Only PPA proposal ranked high from both a quantitative and qualitative perspective, and PSE placed the proposal on the Candidate Short List. *See, e.g.*, Exhibit No. ___(RG-3HC) at page 207. This high ranking resulted from the seasonal shape of the power deliveries, the start date of the contract, and the duration of the contract term.

Q. Did the Barclays Winter Only PPA proposal rank high in PSE's Phase II quantitative and qualitative criteria?

A. Yes. During Phase II of the evaluation, the Barclays Winter Only PPA proposal continued to rank high in both quantitative and qualitative criteria, and PSE placed the proposal on the Final Short List. *See, e.g.*, Exhibit No. ___(RG-3HC) at pages 212–13.

Q. Please describe the process used to procure final pricing on the Barclays Winter Only PPA.

A. As discussed above, PSE determined in Phase I and Phase II of the 2008 RFP that the basic structure of the Barclays Winter Only PPA was economically attractive. After selecting the Final Shortlist, PSE held internal discussions to review

potential improvements to the structure. PSE determined that a structure that contained power purchases only in November through February would be more economically attractive to PSE than the original structure that contained power purchases in November through March.

PSE held a pricing solicitation to ensure that a competitive final price was secured for that structure. PSE invited nine counterparties to prequalify and participate in the solicitation, and three counterparties completed the pre-qualification process and bid. On October 9, 2008, PSE asked the counterparties to submit a live price for consideration. Please see Exhibit No.____ (RG-14C) for documentation regarding PSE's October 9, 2008 live bid process. Barclays submitted the lowest bid, and the PPA was confirmed immediately after receiving approval via email from the PSE Energy Management Committee ("EMC").

1. The Barclays Winter Only PPA Structure

Q. Please describe the Barclays Winter Only PPA Structure as it was proposed in the 2008 RFP.

A. As proposed in the 2008 RFP, the Barclays Winter Only PPA was a 4-year November through March PPA, starting in 2011 (the "Original Structure"). The Original Structure also called for delivery sizes that varied from 50 MW to 175 MW depending on the month of delivery. The Original Structure would start November 1, 2011, and continue through March 31, 2015.

Q. Please explain the structure of the Barclays 4-year Winter PPA actually executed by Barclays and PSE.

A. PSE entered into a PPA with Barclays, dated as of October 9, 2008, beginning November 1, 2011, for 75 MW of power flat, around the clock. The Barclays Winter Only PPA is pursuant to Schedule C of the Western System Power Pool (WSPP) Agreement (the "WSPP Agreement") and consists of the following three agreements:

(i) the form WSPP Agreement, a then-current copy of which is provided as Exhibit No. ___(RG-15);

(ii) the Master Confirmation Agreement to the WSPP Agreement, dated as of October 9, 2008, between PSE and Barclays, a copy of which is provided as Exhibit No. ___(RG-16); and

(iii) the Confirmation Agreement under the WSPP Agreement, dated as of October 9, 2008, between PSE and Barclays, a copy of which is provided as Exhibit No. ___(RG-17C).

Pursuant to this Barclays Winter Only PPA, Barclays will provide power during the months of November, December, January and February around-the-clock, seven days a week. The total contract generation is 866,100 Megawatt hours ("MWh"). *See* Exhibit No. ___(RG-17C) at page 2.

Q. Why did the Barclays 4-year Winter PPA proposal change from the Original Structure to the Final Structure?

A. There are two differences between the Original Structure and the Final Structure—time period and capacity. During Phase II evaluations, PSE decided

that the proposed time period of the Original Structure (November through March) did not best match PSE's need and that a structure limited to November through February would more closely match PSE's needs.

PSE also determined that the proposed capacity of the Original Structure, which ranged from 50 to 175 MW depending on month, presented too much concentration risk. Capital markets were extremely volatile, and a number of trading entities were at risk of financial difficulty or failure. PSE decided that a flat 75 MW capacity would reduce exposure to any one entity while simultaneously offering a large enough product to encourage bidding interest.

Q. What is the term of the Barclays Winter Only PPA Structure?

A. The Barclays Winter Only PPA is for four winter periods, November through February, commencing on November 1, 2011, and expiring on February 28, 2015. *See* Exhibit No. ___(RG-17C) at page 2.

Q. Does the Barclays Winter Only PPA protect PSE in the event that Barclays cannot deliver power under such PPA?

A. The WSPP Agreement, which governs the Barclays Winter Only PPA, contains a mechanism for dealing with the supplier's failure to deliver power. In such a scenario, a settlement would occur in which PSE would be reimbursed by Barclays for the cost of a replacement PPA.

Q. How will the power under the Barclays Winter Only PPA be delivered to PSE?

A. As discussed above, the Barclays Winter Only PPA is a firm power purchase under Schedule C of the WSPP Agreement. The power under the Barclays Winter Only PPA will be delivered to the Mid-C trading hub where PSE will take the power.

2. The Barclays Winter Only PPA Price

Q. What is the contract price for the Barclays Winter Only PPA?

A. The final price of the Barclays Winter Only PPA is $[redacted]/MWh. *See* Exhibit No. ___(RG-17C) at page 2.

3. The Projected Benefits of the Barclays Winter Only PPA

Q. Why is the Barclays Winter Only PPA attractive to PSE?

A. The Barclays Winter Only PPA is attractive to PSE for a variety of reasons, including but not limited to the following:

(i) PSE's quantitative analysis demonstrated that the price associated with the Barclays Winter Only PPA had one of the best levelized costs of power of all proposals received by PSE in the 2008 RFP and provided over $39.97 million of benefit to the generic resource portfolio. *See* Exhibit No. ___(RG-3HC) at page 204.

(ii) The Barclays Winter Only PPA provides power to PSE during the period of the year (winter months) when PSE's resource need is greatest.

(iii) Barclays is a financially strong counterparty.

IV. RESOURCES ACQUIRED OUTSIDE OF PSE'S 2008 RFP PROCESS

Q. Did PSE acquire any resources outside of the 2008 RFP process?

A. Yes. Throughout the year, PSE received proposals outside the 2008 RFP. After conducting due diligence, analyses, and negotiations, PSE acquired five additional resources outside of the 2008 RFP process. The acquired resources represent a balance of resources types, capacities, and contract structures, while minimizing risk.

A. Extension of the Nooksack Hydro PPA

Q. Please provide an overview of the Nooksack Hydroelectric Facility.

A. Puget Sound Hydro, LLC owns and operates a 3 MW run-of-river hydroelectric facility on the north fork of the Nooksack River in Whatcom County. The Nooksack Hydroelectric Project is a non-FERC jurisdictional project that connects into PSE's system.

PSE had a PPA in place with Puget Sound Hydro, LLC for the output of the Nooksack Hydroelectric Project from December 2002 to December 2008. The price of that PPA was indexed to the Dow Jones Mid-Columbia Electricity Index. About a year before the expiration of the PPA, Puget Sound Hydro, LLC approached PSE to gage PSE's interest in renewing the contract.

Q. Was PSE willing to entertain this request?

A. Yes. PSE was pleased with the generation reliability and availability of the Nooksack Hydroelectric Project during the first PPA and agreed to negotiate a second PPA.

Q. Does the Nooksack Hydroelectric Project qualify for Schedule 91 pricing?

A. No. To qualify for Schedule 91 pricing, generators must be 2 MW capacity or less, and the Nooksack Hydroelectric Project has a capacity of 3 MW. Therefore, the Nooksack Hydroelectric Project does not qualify for Schedule 91 pricing.

Q. At what price will PSE purchase the output of the Nooksack Hydroelectric Project?

A. PSE and Puget Sound Hydro, LLC agreed to fix the price of power under the PPA at $[redacted]/MWh per year for the life of the new contract. Please see Exhibit No. ___(RG-18C) for a copy of the Power Purchase Agreement, dated as of September 26, 2008, between PSE and Puget Sound Hydro, LLC.

Q. Did PSE contract to purchase other project attributes?

A. Yes. Because small hydroelectric projects are considered to be renewable resources by the GreenE Program (the national certification organization that audits firms' renewable energy programs and/or generation), PSE's Green Power Program agreed to buy the environmental attributes generated from the Nooksack Hydroelectric Project for the duration of the PPA. Please see Exhibit

No. ___(RG-19C) for a copy of the Renewable Energy Credit Agreement, dated as of September 26, 2008, between PSE and Puget Sound Hydro, LLC.

B. <u>Qualco Energy Anaerobic Dairy Digester PPA</u>

Q. What is Qualco Energy?

A. Qualco Energy is a not-for-profit public benefit corporation that owns and operates a 450 kW anaerobic digester in Monroe, Washington. Qualco Energy is a partnership between the Tulalip Energy Corporation, the Northwest Chinook Recovery and the Sno/Sky Agricultural Alliance. The purpose of Qualco Energy is to collect, process, and generate power from burning the methane contained in animal waste.

Q. Please explain the nature of the transaction.

A. This transaction required three agreements related to the purchase of the output of the 450 kW anaerobic digester, the renewable energy credits associated with such output, and the transmission of such output to PSE's system:

(i) the Power Purchase Agreement, dated as of March 9, 2009, between PSE and Qualco Energy, a copy of which is provided as Exhibit No. ___(RG-20C);

(ii) the Renewable Energy Credit Agreement, dated as of January 21, 2009, between PSE's Green Power Program and Qualco Energy, a copy of which is provided as Exhibit No. ___(RG-21C); and

(iii) the Aggregation and Delivery Agreement, dated as of February 20, 2009, between PSE and Public Utility District No. 1 of Snohomish County, Washington, a copy of which is provided as Exhibit

No. ___(RG-22).

Q. Please discuss the terms of the PPA between Qualco Energy and PSE.

A. Pursuant to the terms of the PPA between Qualco Energy and PSE, PSE will purchase the output from the 450 kW anaerobic dairy digester for five years, commencing on December 11, 2008, and expiring on December 10, 2013. Because the anaerobic dairy digester is not located within PSE's service territory, Qualco Energy did not fully qualify for Schedule 91 pricing. Nonetheless, PSE agreed to pay Schedule 91 prices to Qualco Energy, less the costs to transmit the power to PSE's system on a monthly basis as determined by the Aggregation and Delivery Agreement with Public Utility District No. 1 of Snohomish County, Washington, because of the close proximity, generator size, and renewable energy generation. *See generally* Exhibit No. ___(RG-20C).

Q. Please discuss the terms of the Renewable Energy Credit Agreement between Qualco Energy and PSE.

A. Pursuant to the terms of the Renewable Energy Credit Agreement between Qualco Energy and PSE, the PSE Green Power Program will purchase all the renewable energy credits generated from the anaerobic dairy digester and will pay for these credits on a quarterly basis. *See generally* Exhibit No. ___(RG-21C).

Q. Please discuss the terms of the Aggregation and Delivery Agreement between Qualco Energy and Public Utility District No. 1 of Snohomish County, Washington.

A. Pursuant to the terms of the Aggregation and Delivery Agreement between Qualco Energy and Public Utility District No. 1 of Snohomish County, Washington, PSE will pay wheeling and administrative fees to Public Utility District No. 1 of Snohomish County, Washington, to (i) manage the hourly generation from Qualco Energy for each month, and (ii) "store" the generation and then deliver the monthly aggregated amount on a flat, whole MWh basis around-the-clock on the tenth day of the following month. *See generally* Exhibit No. ___(RG-22C) for a copy of the Aggregation and Delivery Agreement.

Q. Will PSE purchase any power in excess of 450kW?

A. Yes, the PPA and the Aggregation and Delivery Agreement both establish that PSE will purchase up to 1,000kW should Qualco decide to expand and add another unit at the plant. Should this occur, PSE and Qualco will amend the PPA to reflect these changes.

C. Replacement of the Lehman Brothers PPA

1. Lehman Brothers Bankruptcy

Q. Please describe the circumstances that led to the replacement of the Lehman Brothers PPA.

A. On September 15, 2008, Lehman Brothers Holdings Inc. filed for bankruptcy protection. PSE issued a notice of termination of the Lehman Brothers PPA to Lehman Brothers Commodity Services, a subsidiary of Lehman Brothers Holdings, shortly thereafter. Please see Exhibit No. ___(RG-23) for a copy of PSE's notice of termination, dated September 16, 2008, to Lehman Brothers Commodities Services Inc. PSE immediately began preparations to run a small request for proposal to replace the terminated Lehman Brothers PPA.

Q. Please describe the request for proposal used to replace the terminated Lehman Brothers PPA.

A. On September 15, 2008, PSE contacted four creditworthy potential counterparties to solicit prices for the replacement PPA. PSE gave the potential counterparties the terms of the desired PPA and PSE's required modifications to the WSPP Agreement. PSE asked the potential counterparties to produce a live price for evaluation. Please see Exhibit No. ___(RG-24) for a copy of PSE's price solicitation for September 15, 2008. PSE ultimately received pricing offers from three of the bidders, of which, Credit Suisse's offer was the most attractive.

2. The Credit Suisse PPA Structure

Q. Please describe the structure of the Credit Suisse PPA.

A. PSE and Credit Suisse entered into a 4-year, 3-month PPA, dated as of September 16, 2008, beginning January 1, 2011, for 50 MW of power. The Credit Suisse PPA is pursuant to Schedule C of the WSPP Agreement and consists of the following two agreements:

(i) the form WSPP Agreement, a then-current copy of which is provided as Exhibit No. ___(RG-15); and

(ii) the Confirmation Agreement under the WSPP Agreement, dated as of September 16, 2008, between PSE and Credit Suisse, a copy of which is provided as Exhibit No. ___(RG-25C).

Pursuant to the Credit Suisse PPA, Credit Suisse will provide power during the term around-the-clock, seven days a week. The total contract generation is 1,861,150 MWh. *See* Exhibit No. ___(RG-25C) at page 2.

Q. What is the term of the Credit Suisse PPA Structure?

A. The PPA commences on January 1, 2009, and expires on March 31, 2013. *See* Exhibit No. ___(RG-25C) at page 2.

Q. Does the Credit Suisse PPA protect PSE in the event that Credit Suisse cannot deliver power under such PPA?

A. Similar to the Barclays Winter Only PPA described above, the WSPP Agreement, which governs the Credit Suisse PPA, contains a mechanism for dealing with the

supplier's failure to deliver power. In such a scenario, a settlement would occur in which PSE would be reimbursed by Credit Suisse for the cost of a replacement PPA.

Q. How will the power under the Credit Suisse PPA be delivered to PSE?

A. As discussed above, the Credit Suisse PPA is a firm PPA under Schedule C of the WSPP Agreement. The power under the Credit Suisse PPA will be delivered to the Mid-C trading hub. PSE will take the power at Mid-C and either redirect it east of the Cascades or transport it over the Cascades into the Puget Sound Region

3. The Credit Suisse PPA Price

Q. What is the contract price for the Credit Suisse PPA?

A. The final price of the Credit Suisse PPA is $[redacted]/MWh. *See* Exhibit No. ___(RG-25C) at page 2.

4. The Projected Benefits of the Credit Suisse PPA

Q. Why is the Credit Suisse PPA attractive to PSE?

A. The Credit Suisse PPA is attractive to PSE for a variety of reasons, including but not limited to the following:

(i) PSE's quantitative analysis demonstrates that the contract price associated with the Credit Suisse PPA provides over five million dollars of benefit to the generic portfolio. *See* Exhibit No. ___(WJE-1HCT).

(ii) Credit Suisse is a financially strong counterparty.

D. Fredonia Generating Station Units #3 and #4 Lease Buyout

Q. Please provide background information on the Fredonia Generating Station Units #3 and #4 that PSE intends to purchase.

A. In 2001, PSE acquired two Pratt and Whitney FT8 combustion turbines ("Units #3 and #4"). Each CT generates approximately 54 MW with a heat rate of about [redacted] MMBtu/MWh. These CTs were installed on PSE's Fredonia Generating Station property. Fredonia Generating Station Units #3 and #4 were available for commercial operation in August 2001, at a total cost of about $65.4 million, including the turbines, generators, transmission improvements, construction labor, controls, spare parts, and start-up costs.

Q. Why did PSE acquire the Fredonia Generating Station Units #3 and #4 in 2001?

A. PSE acquired the Fredonia Generating Station Units #3 and #4 to provide (i) peak winter capacity, (ii) 10-minute start capability for use as contingency reserves, and (iii) energy reliability at a relatively low heat rate in a 2001 market affected by critically low hydro conditions and California's impact on the market in the Pacific Northwest.

Q. How did PSE finance the acquisition?

A. PSE financed Units #3 and #4 using a capital lease with Citicorp BLC Corporation. Please see Exhibit No. ___(RG-26) for a copy of the Master Leasing Agreement, dated as of September 1, 1988, between BLC Corporation, as lessor, and Puget Sound Power & Light Company, as lessee. The capital lease for Fredonia Generating Station Units #3 and #4 had an expected basic term of ten years but could be cancelled by either party after three years. *See* Exhibit No. ___(RG-26) at page 60

Q. Why is PSE purchasing Fredonia Generating Station Units #3 and #4?

A. In August 2008, GE Capital Commercial Inc. acquired Citicorp's North American commercial leasing businesses, which included Citicorp BLC Corporation. The current lessor (GE Capital Commercial Inc.) sent a letter, dated November 14, 2008, to PSE that provided PSE with the required sixty days' notice of the lessor's election to terminate the lease. Please see Exhibit No. ___(RG-27) for a copy of the notice to PSE of GE Capital Commercial Inc.'s election to terminate the Lease, dated November 14, 2008. The lease terminated on January 13, 2009, but under the terms of the lease PSE has until January 13, 2010, to purchase or sell the equipment. Please see Exhibit No. ___(RG-28) of a copy of the notice to GE Capital Commercial Inc. of PSE's election to purchase all Equipment for its then Unamortized Value pursuant to Section 16 of the capital lease.

Q. Is PSE required to purchase the Fredonia Generating Station Units #3 and #4?

A. Sections 10 and 16 (as amended) of the capital lease provide two options: (i) PSE may sell Fredonia Generating Station Units #3 and #4 and pay the residual value to the lessor or (ii) PSE may acquire Fredonia Generating Station Units #3 and #4 from the lessor for the residual value. *See generally* Exhibit No. ___(RG-26).

Q. What benefits does the acquisition provide to PSE and its customers?

A. The Fredonia Generating Station Units #3 and #4 are the newest and most efficient units in PSE's peaking CT fleet. As shown in the prefiled direct testimony of Mr. Elsea, Exhibit No. ___(WJE-1HCT), Fredonia Generating Station Units #3 and #4 are needed to meet PSE's new 15% capacity reserve standard. Please see the pre-filed testimony of Ms. Kimberly J. Harris, Exhibit No. ___(KJH-1HCT), for an overview of this capacity reserve standard.

The acquisition of Fredonia Generating Station Units #3 and #4 at the residual value of the lease results in a much lower cost than PSE would incur if it were to replace such Fredonia Generating Station Units #3 and #4 with new peaking generation units. *See generally* Exhibit No. ___(WJE-1HCT). Please also see Exhibit No. ___(RG-29HC) for a copy of a presentation to the EMC, dated January 14, 2009, regarding the acquisition of the Fredonia Generating Station Units #3 and #4.

Q. What are the acquisition costs?

A. PSE estimates the acquisition cost to be approximately $43.7 million. *See* Exhibit No. ___(RG-29HC) at page 8. This cost assumes (i) a purchase based on the residual lease value at the beginning of December 2009, (ii) transaction costs, and (iii) capitalized pre-paid sales tax.

Q. What is the acquisition process?

A. PSE plans a direct purchase of the units from GE Capital Commercial, Inc., on or about January 2010, pursuant to the current lease agreement and as stipulated in the November 14, 2008, notification of lease termination.

Q. Will the acquisition affect PSE's O&M expenses?

A. No. Although Fredonia Generating Station Units #3 and #4 have been under capital lease, PSE has been responsible for all operation and maintenance expenses. Going forward, PSE expects no change in the units' O&M costs due to the change from capital lease to PSE ownership.

V. RESOURCES ACQUIRED AND DEVELOPED BY PSE

Q. Please describe PSE's development strategy.

A. In late 2006, PSE created a development strategy to address some of the difficulties PSE was facing in acquiring renewable energy resources, specifically wind resources (the "Development Strategy"). This Development Strategy

established the guidelines by which PSE would pursue wind development (e.g., actively seek out new wind opportunities from securing land leases, gather wind speed data to identify possible wind resources, build and construct a wind facility). This differs from the acquisition strategy where PSE purchases operating facilities or mature development rights and manages the construction phase. In January 2007, the EMC approved PSE staff's recommendation to enter the wind development arena. A development strategy was presented to management. Please see Exhibit No. ___(RG-30HC) for a copy of the presentation to the PSE Board of Directors, dated August 3, 2007, regarding the Development Strategy.

Q. Please describe the difficulties PSE faces when acquiring wind resources.

A. PSE faces many challenges in acquiring wind resources, including the following: (1) increasing market competitiveness, (2) a lack of mature wind projects, (3) escalating wind project costs, and (4) the passing of the Energy Independence Act in Washington State, which substantially increased the difficulty for PSE to acquire low-cost renewable energy resources quickly.

Q. Will you please elaborate?

A. In the 2004 RFP, PSE received over 13 wind project proposals, and PSE successfully executed two wind project acquisitions for 380 MW. In the 2006 RFP, however, PSE received only nine wind project proposals, and PSE was only able to acquire a 50 MW 20-year PPA because several wind project proposals in

the 2006 RFP proposals were retracted and sold to other counterparties before PSE could complete its evaluations. PSE compared the evaluation of the wind sites in 2006 to the evaluation of wind sites in 2004, which comparison showed increasingly fewer good wind sites and less mature projects developments (over half had not secured turbines).

Additionally, the 2006 RFP proposals indicated a shift in the business models for wind developers. The predominate wind project proposal in the 2004 RFP was a build-and-transfer wind project. In contrast, the predominate wind project proposal in the 2006 RFP was a PPA.

Q. Are the market prices for wind generating resources escalating?

A. Yes. PSE saw significant price escalations in wind generating resource costs. ION Consulting confirmed this in their report published in 2007. Please see Exhibit No. ___(RG-31C) for a copy of the ION Consulting report, dated December 2007. The ION Consulting study reported that project costs from 2005 to 2006 increased by approximately 18%. All indications were that these costs would continue to increase in the near term. This was based on several factors, including (i) turbine supply constraints, (ii) commodity price escalation, (iii) extension of renewable PTCs, and (iv) state renewable portfolio standards.

Washington State's Energy Independence Act requires PSE to meet 15% of its load with renewable resources by 2020. With 430 MW of wind capacity, PSE still required approximately 1,000 MW of additional wind to meet the 15% target.

Q. How does the Development Strategy enhance PSE's ability to acquire wind generating resources?

A. The "seller's market" for wind generating resources described above allowed developers to place more cost and risk on counterparties. The Development Strategy will allow PSE to be more proactive and flexible in the way it acquires these necessary resources. The Development Strategy builds on PSE's ability to leverage its wind acquisition and operational experience, nurture its relationships with counterparties, and remain flexible in the evolving renewable energy markets. Rather than waiting for a private wind developer to come to PSE with a proposal, PSE may now act as a "first mover" in developing wind generating projects. This "first mover" position should allow PSE to acquire beneficial wind generating projects while avoiding high developer fees. Finally, the Development Strategy would allow PSE to own, operate and control wind generating resources for the future.

Q. What benefits will the Development Strategy provide to the customers?

A. By entering the development chain early, PSE should be able to realize significant capital cost savings through the remaining phases of development, procurement, construction and commissioning. These capital costs savings result, in part, from PSE's access to lower cost capital versus that of a typical wind developer. Over the last year, other utilities in the Pacific Northwest, including PacifiCorp and

Portland General Electric Company, have adopted a similar development strategy to control more of the project costs and risks.

In addition to saved costs through lower cost of capital, PSE can also avoid high fees charged by developers for the "value-add" services completed during various stages of development. This sentiment is echoed in a 2007 study conducted by Thorndike Landing, a management consulting firm. Thorndike Landing's analysis of 12 wind portfolio transactions indicates market value of $21/kW up to $565/kW, depending on the stage of project development. The following table is a pictorial view of the additional premiums developers assess to buyers for the risk they incurred while developing a project:

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As mentioned earlier, PSE's typical resource acquisition strategy implemented before the Development Strategy was to acquire wind resources at the point construction commenced. The Development Strategy recognizes that by taking on development activities earlier in the acquisition process, PSE can generally save money by avoiding paying these high fees for late-stage development projects that are under construction. Please see Exhibit No. ___(RG-32C) for a copy of the Thorndike Landing study entitled "Assessment of the Wind Generation Market."

Q. What risks does PSE face by pursuing the Development Strategy?

A. The Development Strategy will require PSE to assume more developer risk for wind generating projects. These risks include the following: (i) risks associated with not completing all necessary site control, (ii) risks associated with findings of a poor wind resource, (iii) risks associated with community and local opposition to a project, (iv) risks associated with the inability to obtain necessary permits, and (v) risks associated with the inability to reach definitive agreements with the turbine supplier and construction contractor. Additionally, PSE assumes regulatory risk associated with the inability to recover project development costs if a project is found to be unfeasible and the project development is abandoned for unacceptable risks or costs.

Q. What experience does PSE have to implement the Development Strategy?

A. PSE has a strong foundation of development experience as a result of its work associated with the purchase of the Hopkins Ridge and Wild Horse Wind Facilities. For example, PSE played a key role in securing the necessary long-term firm transmission for the Hopkins Ridge Wind Facility; indeed, PSE's strategy and personnel are a key reason why the Hopkins Ridge Wind Facility was brought to fruition. With the Wild Horse Wind Project acquisition, PSE provided significant assistance to the developer to get the project permitted and helped in the real estate transactions.

PSE's ability to execute these types of deals requires a mix of utility expertise and project development expertise. PSE has recruited staff with independent power producer and non-utility project development experience. Combined with PSE's in-house resources, such as real estate, environmental, land-use and planning, and transmission integration, PSE has the experience and resources to deliver on project development. To further supplement PSE's experience, PSE contracts with outside consultants and legal firms that have ample experience with development and the wind industry.

Q. Please describe the internal process PSE has established for review and approval of the development assets and activities.

A. Similar to the acquisition process, PSE staff will present project development recommendations to the EMC and Board of Directors for approval. This process

will occur more frequently than acquisitions to reflect the changing risk levels at key milestones in development. Currently, PSE projects that it will acquire two separate approvals for project development: (1) approval for development costs, and (2) approval for the construction budget and ongoing operation of the plant. PSE implemented this process for the Wild Horse Wind Expansion: PSE received EMC approval for acquisition of the development projects and Board approval for the construction budget, including the approval to enter into the Vestas Turbine Supply Agreement.

Q. Will PSE follow the same process to gain prudency determinations for wind generating development projects as it does for acquisitions?

A. Yes. PSE will submit each wind generating development project for a prudency determination by the Commission.

Q. What will PSE do if development projects do not come to fruition?

A. As stated above, one of the risks assumed by PSE in the Development Strategy is the risk that the Development Strategy cannot identify or develop viable projects. Projects that initially seem viable, may, through the development and due diligence processes, prove to be unworthy of development. In such a case, PSE will seek recovery of such costs because such funds were spent with the intention to meet growing customer loads and expanding resource needs.

Q. Does PSE currently have any projects in development?

A. Yes, PSE is currently developing the Wild Horse Wind Facility Expansion and entered into a Joint Development Agreement with RES. Both projects are discussed below.

A. Wild Horse Wind Project Expansion

1. Facility Description

Q. Can you please summarize the Wild Horse Wind Project Expansion?

A. When completed, the Wild Horse Wind Project Expansion will be a 44 MW addition to the Wild Horse Wind Generating Facility located on an approximately 960-acre[4] site in unincorporated Kittitas County, approximately eleven miles east of the City of Kittitas. The Wild Horse Wind Project Expansion site is located adjacent to the Wild Horse Generating Facility on its northern border. It will incorporate 22 Vestas V80 2.0 MW wind turbine generators (the "WTGs"), which will interconnect at the existing Wild Horse electrical substation. The Wild Horse Wind Project Expansion site is uninhabited shrub steppe habitat currently used for cattle grazing and is owned by PSE.

The Wild Horse Wind Project Expansion was originally developed by Whiskey

[4] Approximately 1,400 acres were purchased for the development of the Project; however, only approximately 960 acres are proposed for permitting.

Ridge Power Partners, LLC ("WRPP").[5] WRPP's parent, Horizon,[6] is a leading developer of wind energy projects. WRPP commenced development of the Wild Horse Wind Project Expansion in 2002 and, subsequently, secured purchase options with the landowner and conducted certain environmental studies necessary to obtain the required permits. Collection of meteorological data began in 2001 and includes wind resource measurements from five met towers located within close range of the proposed turbine locations for the Wild Horse Wind Project Expansion. Additionally, WRPP had applied for an interconnection of the Wild Horse Wind Project Expansion with PSE's transmission system.

In February 2008, PSE purchased the project development rights and assets from WRPP pursuant to an Asset Purchase Agreement. Please see Exhibit No. ___(RG-33C) for a copy of the Asset Purchase Agreement between PSE and WRPP. At the closing of the WRPP transaction, PSE exercised the option held by WRPP to purchase the land owned by American Minerals and Land Corporation and Land Development and Promotion Services, Inc. ("AMLC"). Please see Exhibit No. ___(RG-34C) for a copy of the Option and Real Estate Purchase and Sale Agreement, pursuant to which PSE exercised the option held by WRPP to purchase the land owned by AMLC. PSE has continued the development of the Wild Horse Wind Project Expansion by performing additional

[5] WRPP is a special purpose entity created to own the development assets of the Whiskey Ridge Wind Project. WRPP has no employees; the management responsibility for the development of the Project was being performed under the direction of its parent, Horizon.

wind energy studies, selecting and negotiating turbine supply, performing preliminary engineering, and applying for a permit.

PSE has contracted with Vestas-American Wind Technology, Inc. ("Vestas-American"), a subsidiary of Vestas Wind Systems A/S ("Vestas") for the supply of the 22 WTGs pursuant to a Wind Turbine Supply Agreement. Please see Exhibit No. ___(RG-35C) for a copy of the Wind Turbine Supply Agreement, dated as of November 7, 2008, between PSE and Vestas-American. Vestas-American will manufacture, deliver, and commission the WTGs, guarantee their performance, and warrant their availability and mechanical performance. Vestas will deliver at the closing, for the benefit of PSE, a parent guarantee.

PSE has selected Renewable Energy Systems America Construction Inc. ("RES Construction Inc.") as the engineering, construction, and procurement ("EPC") contractor to erect the turbines and construct the Project's balance of plant ("BOP") facilities under a fixed price, turnkey engineering, construction and procurement contract ("BOP EPC Agreement"). Please see Exhibit No. ___(RG-36C) for a copy of the BOP EPC Agreement, dated as of April 6, 2009, between PSE and RES Construction Inc. PSE will seek a payment and performance bond from RES Construction Inc. to be issued by a surety bond company that meets specified standards as set forth in the definitive agreements.

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[6] Horizon Wind Energy, LLC began in 1998 as a developer known as Zilkha Renewable Energy, followed by a period of ownership by Goldman Sachs beginning in 2005. Following its acquisition on July 2, 2007 by Energias de Portugal, S.A. ("EDP"), a major Portuguese utility headquartered in Lisbon, Portugal, the company is now owned by EDP Renováveis, S.A. ("EDPR").

Upon Substantial Completion of the Wild Horse Wind Project Expansion, PSE will assume responsibility for operating the project. PSE has contracted with Vestas-American for service and maintenance of the WTGs under a five-year Service and Maintenance Agreement, which includes a two-year warranty for the WTGs. Please see Exhibit No. ___(RG-37C) for a copy of the Service and Maintenance Agreement, dated as of November 7, 2008, between PSE and Vestas-American.

Substantial Completion (i.e., commercial operation) is estimated to occur before the end of 2009.

2. Additional Due Diligence

Q. Will you please describe the details of the Asset Purchase Agreement?

A. Pursuant to the Asset Purchase Agreement, dated as of February 12, 2008, PSE acquired from WRPP all of its development assets related to the Wild Horse Wind Project Expansion, including but not limited to the AMLC land purchase option, environmental studies, wind resource data and analysis, interconnection request, met towers and other development assets (the "Project Development Assets"). PSE paid an initial purchase price for the Project Development Assets of $[redacted] at closing. Additional consideration will be paid to WRPP in the form of a production royalty equal to $[redacted]/MWh for all energy generated by the Wild Horse Wind Project Expansion during the 20-year period following Substantial Completion. The Wild Horse Wind Project Expansion purchase price was

structured in this way so that WRPP would share operational and availability risk with PSE, including wind resource risk, as compared to a structure whereby WRPP realized all of its compensation at closing. *See generally* Exhibit No. ___(RG-33C).

Q. Will you please describe the details of the Option and Real Estate Purchase and Sale Agreement?

A. Pursuant to the Option and Real Estate Purchase and Sale Agreement, dated as of February 12, 2008, PSE acquired approximately 1,400 acres of private land from AMLC. PSE paid the option exercise price of $1,680,000 at closing. Ultimately, 19 of the Wild Horse Wind Project Expansion's WTGs will be located on this land with three additional WTGs to be located on the existing Wild Horse Generating Facility property. *See generally* Exhibit No. ___(RG-34C).

In connection with the exercise of the Option and Real Estate Purchase and Sale Agreement, PSE also entered into a Wind Energy Royalty Agreement ("Royalty Agreement") and an associated release and indemnity agreement, with Caurus Power, Inc. ("Caurus"), the party that originally secured the option to purchase the property for the purpose of developing a wind farm. PSE will pay to Caurus a royalty interest in the wind energy produced by wind turbines located on the option land. The amount to be paid is equal to $0.50/MWh (escalating at 2.5% per year) for all energy generated by the Project for the 30-year period following Substantial Completion. Please see Exhibit No. ___(RG-38C) for a copy of the

Wind Energy Royalty Agreement, effective September 30, 2005, between PSE and Caurus.

Q. What environmental review did PSE conduct?

A. The environmental due diligence consisted of review by PSE staff and its agents of all required documentation to support the Washington State Energy Facility Site Evaluation Council ("EFSEC") site certification process, and all other local, state and federal government notices, authorizations, approvals, licenses, and permits required for construction and operation of the Wild Horse Wind Project Expansion, and corresponding applications, notices, studies and other information, as provided by the developer.

The major documents reviewed included Horizon's initial response to PSE's 2006 RFP and subsequent information provided as requested, the EFSEC Application for the amended Site Certification Agreement, the EFSEC Draft and Final SEPA Supplemental Environmental Impact Statements (including underlying studies and analysis), the Kittitas County Development Activities Application, Draft and Final Kittitas County Development Agreement, and Draft and Final EFSEC amended Site Certification Agreement.

Q. What real estate matters did PSE study?

A. The real estate due diligence included title review and a survey of the entire site to confirm the site is contiguous, without significant encroachments, and that

there were not any additional real property interests needed for the Wild Horse Wind Project Expansion.

Q. How did PSE conduct due diligence related to the proposed wind turbines?

A. PSE retained DNV-GEC to provide a due diligence review of the Vestas V80-2.0, the wind turbine generator that has subsequently been selected for the Wild Horse Wind Project Expansion, and of Vestas. DNV-GEC confirmed that Vestas is the world's leader in wind turbine market share and is considered the leader in technology as well. Det Norske Veritas ("DNV"), an industry recognized certification agency, will be certifying the V80-2.0 MW VCUS 60 Hz turbine for use in North American class I sites; this certification is a contractual requirement of the Wind Turbine Supply Agreement. The V80 fleet has achieved over 97% availability in the United States, according to DNV-GEC.

In addition to the DNV-GEC due diligence, PSE continually monitors the performance history of the 218 Vestas turbines currently in PSE's fleet. The Vestas V80-2.0 is structurally identical and technically similar to the turbines already deployed, differing in areas such as rotor control functionality, generators, and gearboxes. PSE views changes to internal turbine components as improvements that were enacted by Vestas to address design challenges in previous models.

Further supplementing the technical diligence and PSE experience, PSE will take advantage of the two-year warranty offered by Vestas as protection against

product defects. PSE secured this warranty by entering into a five-year Service and Maintenance Agreement with Vestas-American, similar to the two service agreements PSE currently has for the Wild Horse and Hopkins Ridge Projects. *See generally* Exhibit No. ___(RG-37C). The operating history of PSE's wind turbine fleet, coupled with the technical diligence and warranties, led PSE to conclude it should expect to achieve its operational and financial goals with this wind turbine.

Q. As PSE continues to develop the Wild Horse Wind Project Expansion, what ongoing due diligence will PSE conduct?

A. PSE will consult with experienced engineers and technical advisors to assist with issues that require specific wind energy industry expertise, including foundation design and installation and commissioning of the wind turbines.

3. Cost Analyses

Q. Please describe the Wild Horse Wind Project Expansion economics.

A. The final PSM analysis completed for the Board of Directors meeting, used break-even economics and projected a three million dollar portfolio benefit ratio and a 0.03 benefit ratio. The projected proformed 20-year levelized cost for the Wild Horse Wind Project Expansion presented to the PSE Board of Directors was $[redacted]/MWh. Please see Exhibit No. ___(RG-39HC) at page 22.. As discussed below, PSE has since reduced certain project construction costs, and the current projected proformed 20-year levelized cost for the Wild Horse Wind Project

Expansion is $[redacted]/MWh.

Q. How did the Wild Horse Wind Project Expansion compare economically to other projects being evaluated at the time?

A. Because the Wild Horse Wind Project Expansion is a development project, PSE conducted a two-phase evaluation process to analyze project economics and gain the necessary approvals to acquire development rights and build the project.

PSE used the first phase of the quantitative evaluation to gain EMC approval to purchase the project development rights. During this phase, the Wild Horse Wind Project Expansion evaluated in the middle range of relative economic rankings of renewable projects and evaluated with break-even economics. Please see the prefiled direct testimony of Mr. W. James Elsea, Exhibit No. ___(WJE-1HCT) , for an explanation of this analysis.

From the time PSE gained EMC approval to purchase the development rights to the time PSE went before the Board of Directors for approval of the construction budget, PSE was unable to acquire any of the other projects against which PSE compared the Wild Horse Wind Project Expansion in this stage. This inability to acquire the other projects underscores the fast-changing renewable energy markets in which PSE operates and the difficulty inherent in bringing projects to completion before they are sold to other counterparties or encounter transactional difficulties.

For the second approval of both the construction budget and the ongoing operation and maintenance of the Wild Horse Wind Project Expansion, PSE staff refreshed PSM and pro forma analyses to take into account the most accurate and updated information possible. Wild Horse Wind Project Expansion economics at this time again evaluated with break-even economics when compared to the generic wind resource. The Wild Horse Wind Project Expansion was projected to be $[redacted]/MWh levelized cost with about three million dollars of portfolio benefit. Please see Exhibit No. ___(WJE-1HCT) for additional detail.

In both phases of the analysis, the Wild Horse Wind Project Expansion remains the only project that is executable, allows PSE to progress in meeting the requirements of the Energy Independence Act and minimize acquisition and operating risk.

Q. Did the break-even project economics indicate that this is an unfavorable project to acquire and build?

A. No. The break-even economics indicated that the Wild Horse Wind Project Expansion was priced relative to current market value for wind projects. As the wind industry has expanded over the last five years, PSE had a limited number of opportunities to find and add "low hanging fruit" projects to its portfolio (i.e. projects that are relatively under priced for the wind generating resource, such as the Wild Horse Wind Project and the Hopkins Ridge Wind Project). The wind generating market in the Pacific Northwest has matured considerably in recent

years, which means tighter market competition for wind generating resources and more efficient and consistent pricing in the market. For example, developers are now more knowledgeable of fair market prices for wind generating resources and are pricing their projects accordingly. Therefore, these analytical results simply indicate that PSE is paying a fair value for the cost of the development rights and the opportunity to construct the Wild Horse Wind Project Expansion.

Q. Did PSE consider not moving forward with the Wild Horse Wind Project Expansion due to project economics?

A. No. PSE believed that the project economics of the Wild Horse Wind Project Expansion are reflective of the value of the project and justified moving forward with development. Nonetheless, PSE did consider the benefits and risks associated with both moving forward with project development in 2009 and postponing project development to 2010 because, at the time of the process for obtaining approval for the project from the PSE Board of Directors, OSE was concerned that the project permit would be appealed.

Moving forward with the Wild Horse Wind Project Expansion in 2009 provided the following benefits: (1) capturing the PTC value, which, at the time of the approval process by the PSE Board of Directors, was set to expire on December 31, 2009, (2) securing the Washington State renewable energy asset sales tax exemption (which is set to expire on June 30, 2009), and (3) progressing towards meeting the renewable energy goals of Washington State's Energy

Independence Act. In moving forward with the Wild Horse Wind Project Expansion in 2009, the following risks were identified: (1) permit appeal which could delay development to 2010, (2) project deferral although PSE would store wind turbines at the Port of Vancouver until development could proceed, (3) lost opportunity of not capturing the Washington State renewable energy asset sales tax exemption for customers, and (4) lost opportunity of not capturing the 2009 PTC value for customers and risk of it not being extended beyond 2009.

After internal dialogue and analysis, PSE determined that benefits of capturing PTC and sales tax exemption value outweighed the risks inherent in a permit appeal. This decision to move forward with project development proved valuable as PSE received a non-appealable permit on February 24, 2009.

4. Board Approval of the Acquisition

Q. Was PSE able to finalize contracts for acquisition of the Wild Horse Wind Project Expansion Project?

A. Yes. Negotiations with Horizon produced definitive agreements for PSE's acquisition of the Project development rights. At the November 7, 2008 meeting of PSE's Board of Directors, PSE management recommended that the Board approve the final development budget set forth in the documentation provided to the Board of Directors. Please see Exhibit No. ___(RG-39HC) for a copy of presentation to the PSE Board of Directors, dated November 4, 2008, regarding the Wild Horse Wind Project Expansion. Please see Exhibit No. ___(RG-40) for

a copy of the PSE Board minutes approving the Wild Horse Wind Project Expansion.

Subsequently PSE executed the Wind Turbine Supply Agreement with Vestas-American. The BOP EPC Agreement with RES was signed April 6, 2009 and construction is now underway.

5. Project Acquisition Costs

Q. Please describe the acquisition costs for the Wild Horse Wind Project Expansion.

A. When the Board of Directors approved the budget for the Wild Horse Wind Project Expansion, PSE anticipated an "all in" capital cost of approximately $107.5 million, including land and development acquisition costs. *See* Exhibit No. ___(RG-39C) at pages 106–107.

Q. Have the development costs changed since the budget was approved in November 2008?

Yes. Since the Board of Directors' approval, the project "all-in" cost has been significantly reduced. PSE staff recently concluded the development phase of the project and development activities came in under budget by $1.8 million. Additionally, PSE staff has worked diligently to solidify and reduce the construction budget. On November 10, 2008, PSE staff hedged the Euro at $128.1534 / 100 Euro. The exchange rate assumption for the Board of Directors'

package was $135 / 100 Euro. PSE was able to save almost two million dollars on the purchase of the wind turbines by executing this hedge and thereby eliminating exchange rate risk and volatility for ratepayers. PSE staff reduced planned contingency by almost $3 million because much of the cost risk was eliminated due to the Euro hedge, and additionally locking in the BOP budget. Even though BOP costs, including the substation buildout, were $[redacted] higher than projected due to additional site requirements, the net effect of these revisions and finalization of contract pricing was a reduction in the total project budget of $107.5 million to $102.5 million.

Q. Did PSE prepare a projected balance sheet, income statement, and statement of cash flows associated with the Wild Horse Wind Expansion?

A. Yes. Please see Exhibit No. ___(RG-41C) for the projected balance sheet, income statement, and statement of cash flows associated with the Wild Horse Wind Expansion.

6. <u>Construction Schedule and Status</u>

Q. What is the schedule for construction of the Wild Horse Expansion Project?

A. PSE estimates that the Wild Horse Expansion Project will be substantially complete and placed into service by December 31, 2009. There are two major contracts that determine the construction schedule: the Wind Turbine Supply Agreement and the BOP EPC Agreement. RES provides all engineering, procurement and construction for the BOP scope of the project pursuant to the

BOP EPC Agreement. RES will, in turn, contract with various subcontractors for the engineering and construction of the civil and electrical facets of the Wild Horse Expansion Project, such as the roads, wind turbine foundations, the electrical collection system and modifications to the site. Previously, RES has successfully executed the construction of the Hopkins Ridge Generating Facility and the Wild Horse Generating Facility.

The BOP EPC Agreement does not govern the procurement of the Wild Horse Expansion Project's wind turbines. Vestas-American is obligated to provide the supply, transportation, and commissioning of all of the Wild Horse Expansion Project's 22 WTGs pursuant to deadlines set forth as part of the Wind Turbine Supply Agreement.

RES is obligated under the BOP EPC Agreement to achieve Substantial Completion by November 9, 2009. *See generally* Exhibit No. ___(RG-36C). Vestas-American is obligated under the Wind Turbine Supply Agreement to achieve a Guaranteed Commissioning Completion by September 11, 2009. *See generally* Exhibit No. ___(RG-35C). Following Guaranteed Commissioning Completion, the Wild Horse Expansion Project will begin routine commercial operation. Events of force majeure, which include abnormal wind conditions (e.g. wind speeds greater than 15 meters per second during a time when work is to be performed in a Hub), allow adjustments of the guaranteed completion date. Hence, PSE conservatively projects that the Wild Horse Expansion Project will go into service by December 31, 2009.

Q. What is the current status of the construction?

A. The following details the status of the construction of the Wild Horse Expansion Project, as of May 6, 2009:

(i) PSE and RES executed the Balance of Plant Agreement, which simultaneously triggered Full Notice to Proceed, on April 6, 2009. Site mobilization commenced and the project transitioned from the planning to execution stage.

(ii) Substantially all turbine foundation and MV fiber optic cabling has been procured and delivered to the site. Turbine foundations are anticipated to be completed by the end of the first week of June, with the first turbine tower section deliveries anticipated to arrive in the beginning of July.

(iii) The project continues to progress in a timely manner and the project's twenty-two wind turbines are expected to reach guaranteed Substantial Completion by September 11, 2009. RES anticipates achieving project Substantial Completion by November 9, 2009.

Please see Exhibit No. ___(RG-42) for a rolled-up schedule of Wild Horse Wind Project Expansion construction milestones with current forecasted dates and corresponding percent of work completed as of April 4, 2009.

Q. What is required to bring the Wild Horse Expansion Project into commercial operation?

A. The Wild Horse Expansion Project consists of 22 separate WTGs, which will be positioned along the collection system into two electrical circuits, or "strings." WTGs will be erected and commissioned in strings so that portions of the wind farm can be brought on-line and operated while other parts remain under construction. To facilitate this incremental approach, connection to the existing

Wild Horse Generating Facility substation is scheduled to achieve Substantial Completion first. To facilitate this incremental approach, these two electrical circuits will be connected to the existing Wild Horse Substation until such time that the Wild Horse Expansion Project transformed can be installed and placed in service.

After RES completes its infrastructure work, erection of the turbines will occur. After erection, RES will make final checkouts of each WTG, resulting in its Mechanical Completion. Vestas-American then performs commissioning of the individual turbines. Commissioning involves connecting the turbine to the electrical grid. Once commissioned, the turbine achieves a "Commissioning Completion Certificate." Vestas-American will assume operation and monitor these turbines in an initial testing period until all turbines are complete.

The Wild Horse Expansion transformer is due on site in October, which should allow the complete Wild Horse Expansion Project to be placed in service prior to the end of calendar year 2009.

When all turbines have achieved Commissioning Completion and the rest of the Wild Horse Expansion Project is complete, the Wild Horse Expansion Project is determined to have reached Substantial Completion. At Substantial Completion, the Wild Horse Expansion Project is placed into service in PSE's electric portfolio. The only tasks remaining at that time to achieve Final Completion involve cleanup of punch list items that do not interfere with the commercial

operations of the project.

Prior to Substantial Completion, one string may be operating and producing significant quantities of power while in another string, turbines might still be under construction. Power generated by the Wild Horse Expansion Project prior to Project Substantial Completion is "test power," the value of which will offset project's capital costs, as described above.

Q. What assurances does PSE have that the Wild Horse Expansion Project will actually be completed by December 31, 2009?

A. RES is an experienced construction contractor with a track record of completed projects, and Vestas-American is an experienced turbine supplier with a successful track record. In addition, the Wind Turbine Supply Agreement and BOP EPC Agreement provide for liquidated damages for project delays. *See generally* Exhibit No. ___(RG-35C) and Exhibit No. ___(RG-36C). Finally, prior construction experience at the site led to a conservative construction schedule.

Q. What assurance does PSE have that RES and Vestas-American will be in a position to satisfy such obligations if they do not meet the deadlines?

A. PSE's due diligence of the financial strength of both RES and Vestas-American showed that they are reasonably likely to be able to satisfy any damages caused by delay of the Wild Horse Expansion Project. In addition, as part of its negotiations for the Wild Horse Expansion Project, PSE obtained a parent

guarantee from both RES and Vestas. Please see Exhibit No. ___(RG-43) for a copy of the guarantee from the RES parent, dated April 6, 2009, and please see Exhibit No. ___(RG-44) for a copy of the Supplier Parent Guaranty, dated as of November 7, 2008, from Vestas.

7. Operations and Maintenance Expenses

Q. What arrangements has PSE made with respect to ongoing operations and maintenance for the Wild Horse Expansion Project?

A. PSE has entered into a separate Service & Maintenance Agreement and a Warranty Agreement with Vestas under which Vestas will provide a five-year availability warranty, a two-year mechanical warranty, a serial-defect warranty, and five years of maintenance, service, spare parts and service of the wind turbines. *See generally* Exhibit No. ___(RG-37C). Operations and maintenance for the balance of plant and site management will be performed by PSE.

Q. Why did PSE decide to have Vestas perform O&M on the turbines for the first five years of the Wild Horse Expansion Project?

A. WTGs can be purchased with no warranty or with a warranty period of one to two years. The operating history at Hopkins Ridge Generating Facility and Wild Horse Generating Facility demonstrate the benefits of an extended warranty. Specifically, serial defects have occurred that have been covered under the service and maintenance contract with Vestas. The major wind turbine suppliers,

however, will not sell an extended warranty without the associated O&M services.

Moreover, Vestas is an experienced wind turbine manufacturer and operator. As PSE is still relatively new to wind generation ownership and operation, PSE believed it made sense to contract with Vestas for several years as it built up its internal knowledge base and capacity to perform O&M on wind turbines.

Q. Are there other aspects to the O&M of the Wild Horse Expansion Project?

A. Yes. Vestas will operate and maintain the WTGs only. The remainder of the plant will be operated and maintained by PSE or PSE subcontractors. This includes road maintenance and maintenance of the underground collection system, the overhead transmission line, the substation, and the operations and maintenance facility.

Q. What does PSE project its O&M expenses will be for the Wild Horse Expansion Project during the rate year?

A. PSE anticipates total O&M costs of $2,069,000 for the Wild Horse Expansion Project during the rate year. Please see the workpapers in support of Exhibit No. ___(DEM-8C) for the projected O&M costs for the Wild Horse Expansion Project during the rate year.

B. Joint Development Agreement with RES

Q. What is the purpose of this testimony with respect to the RES Joint Development Agreement?

A. The purpose of this portion of the testimony with respect to the RES Joint Development Agreement ("JDA") is to update the Commission and the parties to the proceedings on the progress PSE is making in implementing its Development Strategy.

Q. Is PSE requesting a prudence determination in this proceeding regarding the development of any project pursuant to the JDA?

A. No. PSE is not requesting a prudence determination in this proceeding regarding the development of any project pursuant to the JDA. The RES JDA is the acquisition of the development rights to build several wind plants in the coming years. PSE will request a prudence determination of the acquisition of the development rights when, and if, projects are brought online. This testimony simply provides an overview of the projects in an effort to keep the Commission and parties apprised of PSE's activities with respect to the JDA.

1. Project Description

Q. Can you please describe the JDA between PSE and RES?

A. On November 26, 2008 PSE entered into the JDA with RES to acquire a half interest in development-stage wind projects in Columbia and Garfield Counties.

The purchase price is $[redacted]. Please see Exhibit No. ___(RG-45C) for a copy of the Joint Development Agreement (Columbia and Garfield Counties, Washington), dated as of November 26, 2008, among PSE, RES America Developments Inc., Blue Sky Wind, LLC, and RES America Construction Inc.

Q. What assets were acquired under the terms of the JDA?

A. The assets that were acquired included real property contracts (wind energy ground leases, anemometer agreements), meteorological towers and equipment, wind and climatic data and reports, environmental studies and reports, and interconnection studies and agreements. *See generally* Exhibit No. ___(RG-45C).

Q. Please describe the projects included in the JDA.

A. Preliminary analysis indicates there are four distinct development opportunities, or wind resource areas ("WRA"), based on geographically distinct regions. The WRA names and estimated capacity are as follows: Oliphant Ridge (200 MW), Tucannon (500 MW), Kuhl Ridge (300 MW), and Dutch Flats (250 MW) (collectively, the Oliphant Ridge Project, the Tucannon Project, the Kuhl Ridge Project, and the Dutch Flats Project are referred to as the Lower Snake River Projects). PSE owns a 50% undivided interest in these project developments. Additionally, the JDA is neither limited to these four WRA nor limited to 1,250 MW. In fact, PSE and RES have committed, pursuant to the JDA, to work together exclusively in Columbia and Garfield Counties on all future development for a term of four years from the date of execution of the JDA.

Q. How will PSE and RES develop these WRAs?

A. PSE and RES will develop the WRA with a phased project approach. A project phase is defined as an independently financed generating facility associated with a construction period. A project phase may incorporate all or part of more than one WRA. PSE and RES are currently planning to develop approximately 250 MW for each phase. The first 250 MW phase is planned to be constructed and in-service by 2011 and then the next four 250 MW phases will be constructed in succession, following the construction of the first phase.

2. <u>Development Activities</u>

Q. Please explain how PSE and RES will jointly develop the projects.

A. Under the terms of the JDA, PSE and RES will be tenants-in-common of these jointly-owned projects as specific projects are developed and constructed. During development, decisions are made by a Development Management Committee comprised of two members from PSE and two members from RES. The committee is responsible for initial project approval, budgets, schedules, selecting turbine vendors, development plans, project agreements, and final project approval.

In addition to the responsibilities delegated by the management committee, both PSE and RES have agreed to focus on other project development items. PSE will be responsible for substantially completing development work, community and government relations, as well as negotiating affiliate contracts. RES in turn will

play a lead role in project development, obtaining permits, securing real estate rights, monthly reporting, and managing the joint funding account.

Q. What are the key financial terms of the JDA?

A. As stated above, PSE has paid RES $[redacted] for a 50% ownership interest in all development assets. At closing on December 5, 2008, PSE paid one quarter of this total ($[redacted]) to RES. PSE paid the remainder on February 9, 2009, when certain administrative milestones (i.e., finalization of project form agreements) were satisfied.

Q. How will PSE account for the purchase price paid under the JDA and the ongoing development costs?

A. PSE will allocate the purchase price across the four projects. During construction, PSE will continue to allocate the capital expenditures to the specific project in construction. As each project phase reaches commercial operation, PSE will record the capitalized amounts in plant asset accounts. If a project fails to reach commercial operation, PSE may file an accounting petition requesting amortization of the development expenses over a specified period of time.

Q. Under the JDA, is PSE obligated to purchase the output of power from the RES portion of each project?

A. No. PSE has the opportunity, but not the obligation, to purchase half of each project output. RES may market the power from its half to other potential power

purchasers if PSE elects not to purchase the power.

Q. How does PSE intend to finance its portion of the projects?

A. Under the current arrangement, PSE and RES each own a 50% undivided interest in each operating wind project. PSE's financing of its 50% depends upon what financing is best to capture the benefit of PTCs. The American Recovery and Reinvestment Act of 2009 (the "Stimulus Bill") extends the deadline to place wind farms in service through 2012 to qualify for PTCs. The Stimulus Bill also gives wind developers the option to forego PTCs and claim a 30% investment tax credit instead for projects completed during 2009 and 2010, or through 2012 for projects that have commenced construction prior to the end of 2010. Alternatively, PSE will have the option to forego tax credits and receive a cash grant from the U.S. Treasury for 30% of the qualifying costs. PSE is currently evaluating which of these alternative credits will result in the lowest cost for PSE customers.

Q. Please explain the use of tax equity financing.

A. PSE will pursue tax equity financing if it appears to be the low cost alternative to realize the benefits of PTCs. Because PSE has a limited appetite for tax credits, the use of tax credits would involve partnership with a third party investor, called tax equity, who can use the tax credits. This financing would require the formation of a LLC where PSE could raise tax equity through partnership flip transactions. In such transactions, one or more tax equity investors are brought in

as partners to own a project with PSE. As much as 99% of the tax benefits and other economic returns, except cash, are allocated to the tax equity investors until they reach a target return, after which their interest drops, or flips, usually to 5%. After about 10 years PSE has an option to buy out the remaining 5% interest of the investors for the fair market value determined when the option is exercised. These partnership structures are commonplace in developer-owned wind projects, but the structures will likely need to be modified slightly for optimal use in a regulated utility environment.

Q. What if tax equity financing is not the lowest cost alternative to capture the benefits of the PTCs?

A. If tax equity financing is not the low cost alternative, or if tax equity financing is not available, then PSE will pursue the cash grant as provided for in the Stimulus Bill.

3. Wind Resource Need

Q. Why did PSE choose to pursue the JDA?

A. As I described earlier about PSE's Wind Development strategy, PSE chose to pursue the JDA in order to both comply with the Washington RPS and meet the projected load-resource balance shortfall. Analysis from PSE's 2007 IRP suggests PSE will begin experiencing significant shortages commencing in 2012, as long-term power contracts begin to expire. As part of the lowest reasonable

cost resource portfolio analysis, PSE has identified natural gas and wind as the most cost effective means of securing resources to meet customer needs.

The Washington State RPS requires PSE to generate 15% of its load with renewable resources by 2020, with interim milestones of 3% in 2012 and 9% in 2016. PSE currently owns two wind projects, Hopkins Ridge and Wild Horse (including the expansions to each), and signed a PPA to buy power from the Klondike III wind farm. Although PSE may have already met the 2012 RPS interim requirement, the load analysis suggests that PSE has significant renewable resource needs in order to comply with 2016 and 2020 goals. PSE also has a corporate goal of meeting 10% of its load with renewables by 2013 and committed to meet this corporate goal, subject to certain conditions, in Docket No. U-073275.

Q. In light of PSE's progress in meeting the 2012 RPS milestone, why did PSE enter into the JDA now?

A. To meet both the RPS requirements and PSE 10% goal, PSE needs to develop renewables in advance of these dates for three reasons. First, the timing to develop a wind farm is typically three to four years from wind study to commercial operations, so PSE will need to have projects in development before the milestone dates. Second, PSE does not want to be exposed to the potential market price spikes for wind assets and generation that could occur before each milestone requirement begins. PSE believes that locking up wind assets now will

help offset future cost escalation in the coming years. Finally, given the volatility of the market, PSE strongly believes that pursuing the JDA allows PSE to control project costs more closely, timing of project development and risk associated with developing and owning wind farms.

Q. What were the financial motivations for entering into the RES JDA?

A. The purchase of fully developed wind projects would have been significantly more expensive for ratepayers than buying into a project earlier in the development cycle. As discussed above, the Thorndike Landing indicates market value of $[redacted]/kW up to $[redacted]/kW, depending on the stage of project development. See Exhibit No. ___(RG-32C) at page 33. As compared to the costs projected in the Thorndike Landing study, the PSE purchase price of $[redacted]/kW for development rights was well within the range of values seen for sales of comparable assets, if not more favorable.

4. <u>Approval of the RES JDA</u>

Q. Please describe the process whereby senior management approved the JDA.

A. On May 27, 2008, the RES JDA was presented to the EMC. After a review of the project characteristics, development risks, project timeline, capital budget, financing strategy, and RPS alternatives, the EMC approved the execution of the RES JDA. Please see Exhibit No. ___(RG-46C) for a copy of the minutes of the EMC approval of the RES JDA.

Since approval, resource acquisition staff has provided monthly development updates and, where appropriate, will seek approval from the EMC and the PSE Board of Directors. Senior management also participates in monthly JDA Management Committee meetings.

Q. Can you describe the purpose of the JDA Management Committee meetings?

A. Under the terms of the JDA, a Management Committee, comprised of two representatives each from PSE and RES, sets forth certain required approvals (such as development budgets, schedules, development plans, etc.), and sets forth development duties for the two parties.

5. <u>Project Development Process</u>

Q. What is the project construction schedule?

A. The construction processes for the WRAs are being defined. PSE anticipates it will build the first 250 MW project in 2011 and subsequent development should occur in succession in 250 MW phases.

Infrastructure improvements required by BPA could potentially delay the project build schedule. BPA will require a new substation to interconnect the Lower Snake River Projects (and other wind projects being developed by other independent developers in the area) to the BPA transmission system. Prior to the anticipated completion of the substation in the fall of 2011, only one of the 250 MW projects may be interconnected to the electrical grid without further

BPA upgrades to the transmission system. A new 40-mile BPA transmission line dubbed the "Little Goose Area Reinforcement" will need to be constructed to accommodate any project capacity over 250 MW.

Q. Please discuss some of the risks associated with the RES JDA?

A. Although analysis by PSE and outside consultants suggest a significantly reduced buy-in price for earlier stage wind projects, there are also greater risks that are associated with any early-stage development project. PSE has identified some of these risks to be:

- Permitting Risk – PSE and RES may fail to successfully permit the project sites for wind turbines.
- Negative Community Sentiment – Public opposition may make the development cycle significantly longer than anticipated.
- Unforeseen Development Costs – Even with the most careful planning, developments generally incur costs not budgeted at project inception.
- Transmission Payments – In the event of the failure of the construction of all or some of a project, PSE and RES may have overpaid BPA for transmission.
- Turbine Availability – Over the last few years, turbines have been in high demand and increasingly expensive. Recent softening in the market has occurred but could quickly change course due to the recent passage of the Stimulus Bill and as the economy begins to recover.
- RPS Revisions – Federal or State government may elect to strengthen or weaken RPS requirements.
- Extended Development Delay – PSE and RES have five years to commence development efforts. Failure to do so would give landowners the opportunity to lease their wind rights to a different party.

6. Process for Seeking Board of Directors' Approval

Q. Will PSE staff still gain Board of Directors' approval for acquisition and development of these projects?

A. Yes, as I described earlier, PSE staff will continue to inform upper-level management about acquisition activities and gain project approval for large capital projects. When small enough, such as a development budget for one project, PSE staff will present development recommendations to the EMC for approval. When specific items, such as WTG deposits and supply agreements or final project approval, carry a significant amount of risk to either ratepayers or shareholders, PSE staff will seek to gain Board of Directors' approval.

7. Process for Prudence Approval from the Commission

Q. Will the Lower Snake River Projects require any modifications to the prudence approval process?

A. No. PSE anticipates that it will seek a prudence determination from the Commission for the Lower Snake River Projects either through a general rate case or a power cost only rate case, as such projects near completion or are completed.

VI. UPDATES REGARDING OTHER RESOURCE ACQUISITIONS

A. Acquisition of Whitehorn Generating Station Units #2 and #3

Q. Please provide an update regarding the acquisition of Whitehorn Generating Station Units #3 and #4.

A. PSE acquired the Whitehorn Generating Station Units #3 and #4 on February 2, 2009. The acquisition occurred as planned, and the plant is operating per PSE's standards and expectations.

Q. Did the Commission previously rule on the prudence of the acquisition of Whitehorn Generating Station Units #3 and #4?

A. Yes. During PSE's 2007 General Rate Case in Dockets UE-072300 & UG-072301, I presented testimony regarding the acquisition of the Whitehorn Generating Station Units #3 and #4, and the Commission approved the prudency of such acquisition as part of its approval of the settlement in that proceeding.

B. PSE Solar Demonstration Project

Q. Please describe the PSE Solar Demonstration Project.

A. In 2007, PSE installed 450 kW of the planned 500 kW photovoltaic solar project on the same property as the Wild Horse Generating Facility. The PSE Solar Demonstration Project has been in operation since November 2007.

PSE purchased the solar panels from two different suppliers. PSE purchased the 450 kW from Sharp, a well-known supplier of solar panels that has 2 GW of cumulative solar cell production. PSE ordered the remaining 50 kW of panels from Silicon Energy, a Washington-based company that is a leading manufacturer of inverters for small residential-based solar panels and has recently expanded into panel manufacturing. These panels are the first solar panels manufactured in Washington. The original intent was to install the entire 500 kW at the same time, but the Washington-made panels have been delayed.

Q. Is Washington a suitable place for solar energy?

A. Washington has significant solar resource potential east of the Cascade Mountains. Germany, which in latitude ranges from one to five degrees of Washington, has twice the installed capacity of the entire United States but has less sun than Washington. Germany's feed-in tariffs greatly incentivize the investment in solar; as a result, Germany is the world leader in total installed solar capacity.

Q. How much did the Solar Demonstration Project cost to install on the Wild Horse Wind Facility?

A. PSE invested four million dollars in the Solar Demonstration Project, to date. The 450 kW portion of the 500 kW was placed into commercial operation on November 5, 2007. PSE expects to spend a remaining $300,000 to acquire and install the last 50 kW. PSE anticipates that the installation of the remaining 50 kW should occur in the second half of 2009.

Q. Why did PSE invest in the technology?

A. PSE invested in the PSE Solar Demonstration Project for the following reasons:

(i) To advance internal experience with integrating renewables into PSE's resource portfolio. As renewable energy becomes a major energy source for the Pacific Northwest, PSE personnel are proactively seeking ways in which PSE can gain firsthand knowledge associated with integrating and operating these new resources. This will better prepare PSE from both a development and operational standpoint when these new resources become more widely implemented across the region.

(ii) To advance external (i.e., customer) experience with renewable energy so that PSE customers gain a better understanding of which renewable resources are viable energy sources for the future. Demonstration projects, such as the Solar Demonstration Project, are vital to progressing research and development of new projects, promoting new industries within Washington State, and to enhancing public understanding of how renewable energy can help mitigate global warming.

(iii) To support the development of solar resources in Washington because solar resources will play a key role in helping utilities, like PSE, meet the State's renewable energy goals as established in the Energy Independence

Act.

Q. Has the PSE Solar Demonstration Project performed to expectations?

A. The Solar Demonstration Project has exceeded PSE's expectations prior to installation. The due diligence analysis predicted that the PSE Solar Demonstration Project would produce 1,000 Watts per square meter. Actual production data indicate that the Solar Demonstration Project is producing about 1,050 Watts per square meter.

Q. Has the Solar Demonstration Project been well-received by the public?

A. Yes. The Solar Demonstration Project has garnered much interest from visitors who stop by PSE's Renewable Energy Center near Ellensburg, Washington, at the Wild Horse Wind Facility. Since it opened in April 2008, about 18,000 people have toured the Renewable Energy Center from 46 states and over 20 different countries.

VII. PSE'S PARTICIPATION IN THE RENEWABLE ENERGY CREDIT AND CARBON FINANCIAL INSTRUMENT MARKETS

A. Participation in Renewable Energy Credit Markets

Q. Please provide a brief overview of the energy requirements in the State of Washington.

A. In November 2006, the citizens of Washington State passed Initiative 937, which established the Energy Independence Act. The Energy Independence Act,

codified as RCW 19.285, requires the state's largest electric utilities to (i) supply certain portions of their electricity sales from eligible renewable resources within specific time periods and (ii) pursue low-cost energy conservation opportunities. The Energy Independence Act mandates that 3% of a utility's generation must be produced from renewable resources by 2012, with targets getting progressively higher until reaching 15% by 2020. Resources that qualify as "renewable" under the Act include, for example, wind, solar, biomass, geothermal and low impact hydro.

Q. What is a renewable energy credit?

A. A renewable energy credit ("REC") represents the environmental attributes of one MWh of generation from an eligible renewable resource. A REC is a marketable commodity, which is separate from the attached energy value. Currently, the REC market in the State of Washington is "voluntary" because the effective date of the renewable energy requirements established by the Act is three years away. Many Western states, with the exception of California, also have renewable energy requirements with target goals some years out. As a result of the gradual phase-in of the Energy Independence Act's renewable energy requirements, entities like PSE are usually surplus RECs in the near term and have no immediate need to procure additional RECs. The State of California, however, has renewable energy requirements beginning in 2010, thus the REC market in California is referred to as a "compliance" REC market.

Q. What is "Green-e certification"?

A. The REC itself is not a physical commodity, and a single REC, absent any protection, could be conceivably sold to, claimed by, or retired by multiple parties. Multiple use of a single REC is commonly referred to as "double counting" and is strictly prohibited.

The leading independent consumer protection program—provided by the Center for Resource Solutions—offers certification and verification of REC products to ensure that each individual REC is not being "double-counted." This type of certification and verification in the voluntary market is referred to as "Green-e certification." Absent Green-e certification, there is little market value for the REC in the *voluntary* market.

Q. Can PSE market Green-e certifiable RECs from its wind projects?

A. Yes. The Center for Resource Solutions approved PSE's application in July 2007, and PSE can now market Green-e certifiable RECs from its Hopkins Ridge Generating Facility and its Wild Horse Generating Facility.

Q. What is required for Green-e certification of RECs?

A. Participation in the Center for Resource Solutions Green-e certification program requires PSE to conduct an annual verification process performed by an independent third-party accountant or auditor, whereby PSE is required to demonstrate that transactions executed during the previous year comply with the

Green-e national standard.

Q. What is the "Western Renewable Energy Generation Information System"?

A. The Western Renewable Energy Generation Information System ("WREGIS") is an independent tracking system for renewable energy located in the WECC region. WREGIS tracks renewable energy generation from facilities that are registered with WREGIS and creates RECs for this generation (a "WREGIS certificate"). WREGIS certificates can be used to verify compliance with RPS requirements and in the voluntary market.

Q. Is PSE tracking its Wind Projects in WREGIS?

A. Yes. PSE began tracking its Hopkins Ridge Generating Facility and its Wild Horse Generating Facility with WREGIS in January 2008.

Q. What is "California Energy Commission certification"?

A. California Energy Commission certification (a "CEC certification") is a process that certifies eligible renewable energy facilities that may be used to satisfy renewable energy requirements in the State of California. Entities with renewable energy requirements in the State of California must procure resources that are CEC certified or certifiable. As discussed above, the State of California is considered a "compliance" REC market. CEC certification is not limited to eligible renewable energy facilities located within the State of California, so long as such facilities satisfy specific criteria established by the California Energy

Commission.

Q. Has PSE applied for "CEC certification"?

A. Yes. PSE applied for CEC certification for both its Hopkins Ridge and Wild Horse Wind Projects in November 2008. PSE is still awaiting a decision back from the California Energy Commission on the acceptance of its application.

Q. Does PSE monetize RECs associated with the generation from its wind facilities?

A. Yes. PSE has been actively monetizing RECs associated with the generation from its wind facilities.

Q. How has PSE monetized its RECs generated from the Hopkins Ridge, Wild Horse, and Klondike III Wind Projects?

A. Over calendar year 2006, PSE closely monitored the REC market and actively prepared internal systems, such as the development of a REC tracking system, to capture such transactions. In calendar year 2007, PSE began actively monetizing its RECs generated from the Hopkins Ridge Generating Facility and the Wild Horse Generating Facility, consistent with EMC approvals. Please see Exhibit No. ___(RG-47C) for copies of all EMC approvals obtained since January 1, 2006, with regard to RECs.

Q. Why does PSE elect to use a broker at times to facilitate the sale of these RECs as opposed to selling directly to other utilities or counterparties?

A. There are a number of reasons PSE elects to use a broker at times. First, without a multi-state Pacific Northwest renewable portfolio standard mandate in place, there is not a compliance requirement that brings Pacific Northwest utilities into the REC market to transact RECs. The only state with an aggressive renewable portfolio standard target in the near term is California.

Second, unlike the developed power and gas markets in which PSE participates, the REC market typically attracts much smaller counterparties with less market experience. Generally, these types of counterparties either purchase RECs for resale to end use customers or purchase RECs to support their corporate commitments. These types of counterparties when acting on their own behalf to execute transactions tend to be much less in touch with the current market pricing; therefore, with the exception of a few counterparties, negotiating a transaction directly with such a counterparty often times does not provide the most competitive bid PSE could receive for its RECs.

Q. What REC sales has PSE transacted to date?

A. As of March 20, 2009, PSE has billed, committed to or has pending transactions to monetize over $9.5 million of RECs from the Hopkins Ridge Generating Facility, the Wild Horse Generating Facility, and the Klondike III Wind PPA for vintage years 2007 through 2009. The $7,687,063 in billed sales from these

transactions to date are considered unearned and have been deferred in a regulatory liability account 25300781, "Unearned Rev-Renewable Energy Credit-Wind". The net amount of such account, after deducting the expenses associated with the sale of such RECs, is $7,308,477 as of March 20, 2009. Currently, PSE is awaiting a decision by the Commission to determine how these funds shall be used. Please see Exhibit No. ___(RG-48C) for a table of PSE's billed, committed and pending REC transactions. For further discussion on PSE's REC activities related to the California Settlement, please see the prefiled direct testimony of Mr. Eric M. Markell, Exhibit No. ___(EMM-1T).

Q. Does PSE plan to continue to monetize RECs from its wind facilities?

A. Yes. PSE plans to continue monetizing RECs in excess of its energy requirements under the Energy Independence Act in Washington.

B. Participation in Carbon Financial Instrument Markets

Q. Please explain PSE's participation in the Chicago Climate Exchange.

A. In February 2007, PSE formally joined the Chicago Climate Exchange ("CCX") as a Phase 1 member. Phase 1 membership is limited to years 2003–2006. Members of CCX make a voluntary—but legally binding—commitment to meet the annual emission reduction targets. Those members that reduce their emissions below the target have surplus allowances to sell, and those members who emit above the targets comply by purchasing Carbon Financial Instruments from other

members of CCX. The commodity transacted at CCX is the Carbon Financial Instrument ("CFI") which represents the equivalent of 100 metric tons of CO_2.

After PSE's membership was announced in February 2007, PSE began the process of preparing and submitting data to a third party auditor for all of the thermal assets PSE owned—including partial ownership—during the years 1998 through 2001.

In November 2008, PSE received final audit results from CCX. The audit results indicated that PSE's Phase 1 emissions were less than PSE's baseline; thus allowing PSE to monetize 13,485 CFIs. Please see Exhibit No. ___(RG-49) for a copy of the PSE Baseline, 2003, 2004, 2005 and 2006 Emissions Verification and Analysis from the Chicago Climate Exchange. Per CCX rules, any CFI transactions must be completed within 12 months of receiving final audit results.

Q. Has PSE monetized any CFIs?

A. As of April 12, 2009, pursuant to the EMC approved hedging strategy, PSE has sold CFIs. Please see Exhibit No. ___(RG-50C) for a table of PSE's billed, committed and pending CFI transactions. In the summer of 2007, the EMC approved the sale of CFIs pursuant to the hedging strategy presented at that meeting.

The strategy approved at the EMC meeting of July 20, 2007, recognized there were many unknown variables associated with transacting CFI transactions, such

as uncertainty regarding third party audit results with respect to PSE's position, and no definitive end date to monetize any allowances that PSE could receive pursuant to the results of the audit. As a result of the unresolved issues surrounding these variables, the EMC approved the recommendation in August 2007 to defer the sale of CFIs until PSE received conclusive audit results. Please see Exhibit No. ___(RG-51C) for a copy of the August 2007 approvals of the EMC for the deferral of the sale of CFIs until PSE received conclusive audit results.

As discussed above, in November 2008, PSE received final audit results from CCX. At the EMC of December 2008, PSE staff recommended and received approval to begin transacting CFIs pursuant to the approved CFI hedging strategy, with all transactions completed by November 2009. Please see Exhibit No. ___(RG-52C) for a copy of the minutes of the EMC meeting of December 2008.

VIII. CONCLUSION

Q. Does that conclude your prefiled direct testimony?

A. Yes, it does.