

APPENDIX E

RFP PROCESS AND RESULTS

PSE's April 2003 Least Cost Plan identified a need for new resources. To implement the plan's resource strategy, PSE subsequently initiated a competitive acquisition process that included requests for proposals (RFP) for wind resources, generation resources, and energy efficiency. The energy efficiency acquisition process and results are discussed in Chapter VII. This appendix summarizes the results of the competitive acquisition processes and the status of selected projects.

A. Generation RFPs and Responses

PSE's first RFP following the release of the 2003 Least Cost Plan sought bids for wind resources (Wind RFP). The Wind RFP was issued on November 19, 2003. The RFP called for approximately 150 megawatts of wind power capacity. PSE sought proposals for long-term power purchase agreements (PPA) or PSE ownership of wind power projects. The proposals were due on January 16, 2004.

In response to the Wind RFP, PSE received 13 unique proposals for new wind development projects from 10 developers. Many of the proposals contained multiple offer options such as PPAs, asset ownership, and a combination of a PPA and a partial ownership. Considering all the options offered under each proposal, more than 40 different proposals were submitted.

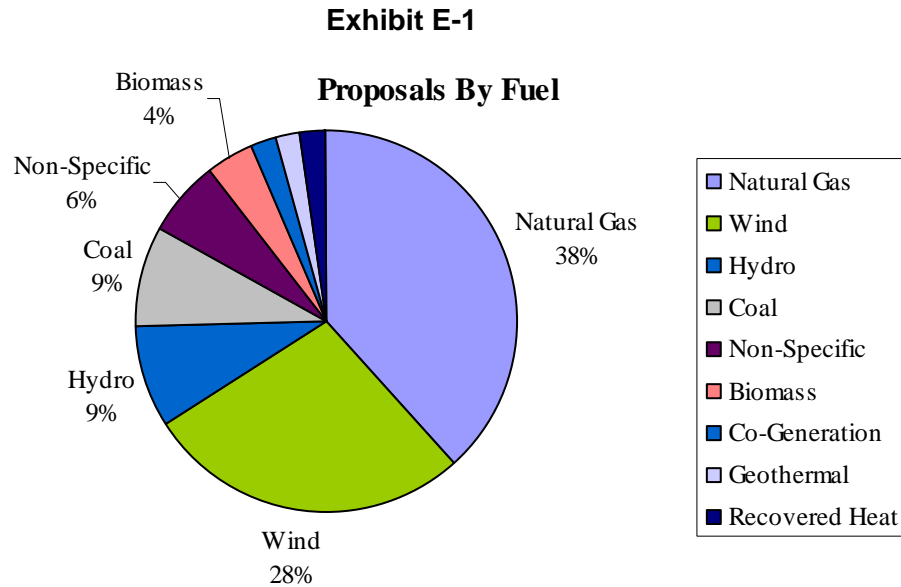
Shortly thereafter, PSE issued a RFP for all generation sources (All-Source RFP), dated February 4, 2004. PSE sought proposals for a wide variety of generation projects that would provide approximately 355 aMW of energy, under long-term PPAs or PSE ownership of power projects. The proposals were due on March 12, 2004.

PSE received 47 unique proposals from 39 different owners/developers. Again, many of the proposals contained multiple offer options such as PPAs, asset ownership, and a combination of a PPA and a partial ownership. Considering all the options offered under each proposal, more than 88 different proposals were submitted.

All but two of the proposals submitted in response to the Wind RFP were resubmitted in response to the All-Source RFP, which included all of the short-listed proposals from the Wind

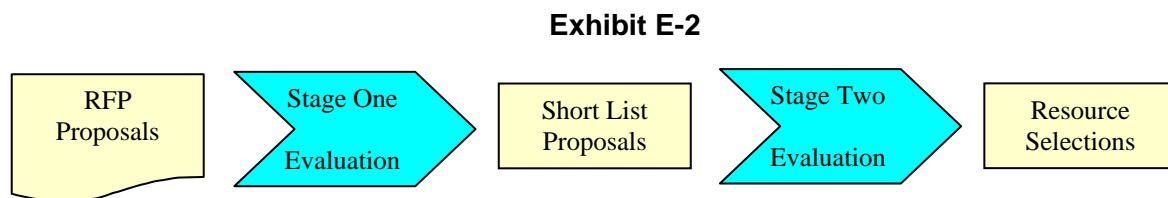
RFP. For this reason, PSE decided to merge the ongoing evaluation of the Wind RFP proposals with the evaluation of the All-Source RFP proposals.

Exhibit E-1 shows the relative proportions of the fuel sources that backed the proposals.



B. Evaluation Methodology

PSE reviewed and evaluated the proposals in a two-stage process. In Stage One, PSE screened the proposals on defined evaluation criteria and project costs, on a stand-alone basis. The most promising proposals from Stage One were evaluated in Stage Two. In addition to its own staff, PSE used outside consulting firms to evaluate the technical and environmental attributes of the proposals. Exhibit E-2 shows an overview of this process:



Stage One Evaluation

PSE screened the proposals in Stage One using qualitative and quantitative analysis. PSE applied the defined evaluation criteria listed below:

- A. Compatibility with PSE Resource Need
 - 1. Performance within Existing PSE Generation Portfolio
 - 2. Timing
 - 3. Resource Mix/Diversity
- B. Cost
- C. Risk
 - 1. Impact on PSE's Overall Risk Position
 - 2. Environmental and Permitting Risk
 - 3. Respondent Risk
 - 4. Ability to Deliver as Proposed (Development Status and Schedule)
 - 5. Ability to Deliver as Proposed (Experience and Qualification)
 - 6. Status of Transmission Rights
 - 7. Security and Control
- D. Public Benefits
 - 1. Environmental Impacts
- E. Strategic and Financial
 - 1. Guarantees and Security

PSE rated the proposals under the qualitative criteria using a rating system of “Low,” “Medium,” and “High,” with “High” being considered more favorable and “Low” being considered less favorable.

PSE used the Acquisition Screening Model (ASM) in Stage One to summarize and compare quantitative factors on an equivalent basis. The ASM, a simplified version of the Portfolio Screening Model (PSM), is used to evaluate the relative costs of individual resource proposals. These factors included the following:

- Pro Forma with Dispatch
- 20-year Levelized Cost

- Revenue Requirements
- Mark-to-Model
- PPA Imputed Debt
- Transmission Costs, including ancillary services
- Integration Costs
- End-effects

The ASM calculated the levelized energy cost of a proposal—acquisition or PPA—over a 20-year period. With this information, PSE was able to develop a cost ranking for each proposal. The Portfolio Screening Model (PSM) was used to evaluate combinations of new resources along with PSE's existing resources, to calculate overall portfolio revenue requirements. Exhibit E-3 shows the inputs that PSE used to develop the ASM/PSM calculations.

**Exhibit E-3
Inputs Used in ASM/PSM Calculations**

PLANT CHARACTERISTICS:	PLANT COST DATA:
<ul style="list-style-type: none"> • Capacity • Heat rate • Maintenance outage schedule • Forced outage rate • Sample 8760 hour generation profile for wind projects • Book and tax depreciation rates • Emission rates for SO₂, NO_x, and CO₂ 	<ul style="list-style-type: none"> • Capital cost including AFUDC and deal transaction costs • Fixed O&M per kW of capacity • Fixed A&G costs per kW of capacity (this will include property taxes and insurance) • Variable O&M per MWh • Fuel transportation costs including fixed pipeline and lateral charges as well as pipeline commodity charges plus fuel use (losses) and Washington state use tax • Fixed and variable transmission costs including wheeling, ancillary services and imbalance or integration costs
PPA COST DATA:	OTHER ASSUMPTIONS:
<ul style="list-style-type: none"> • PPA fixed prices and escalation • PPA variable prices, and or variable adders • Transmission costs: fixed and variable • Tolling: fixed and variable gas transportation, variable O&M heat rate, seasonal and maintenance outage forecast, forced outage rate 	<ul style="list-style-type: none"> • Costs of borrowing debt and equity capital. Uses the weighted average cost of capital for levelizing costs. • Natural gas price = input to AURORA • Power price = hourly output from AURORA • Trading values of emissions • Imputed debt risk percentage • Production tax credits for qualifying renewable projects

Combining the rating system of the qualitative evaluation criteria and the ranking of the quantitative costs, PSE narrowed the proposals to a "short list". The short-listed proposals were further evaluated in Stage Two.

Stage Two Evaluation

In Stage Two, PSE used the Portfolio Screening Model (PSM) to evaluate short-listed proposals by calculating the portfolio impacts for a given set of resources. These portfolio analyses were also compared to updated generic portfolios similar to those that PSE evaluated in its 2003 Least Cost Plan. PSE continued to apply the Stage One evaluation criteria in the Stage Two evaluation process and placed further emphasis on the following qualitative factors:

- Transmission and Integration Alternatives
- Comparison of PPAs and Ownership Alternatives
- Ability to Deliver
- Experience of Developers
- Guarantees and Security
- Environmental and Public Benefit

As in the Stage One process, PSE again combined the quantitative cost rankings with the "High," "Medium," and "Low" qualitative ratings for the qualitative criteria. PSE ranked the short-listed proposals to prioritize due diligence efforts and possible commercial discussions.

C. Detailed Evaluation Summary and Selection Results

Stage One Evaluation

PSE began the Stage One evaluation considering over 88 proposal options representing PPAs, asset ownership, and combinations of PPAs and partial ownership. The initial screening that PSE performed in Stage One identified some proposals that warranted lesser priority due to the lack of viability of the proposal. PSE moved these projects to the "constrained list". PSE evaluated the proposals that passed the initial screening by applying levelized cost calculations under the PSM, as well as defined qualitative criteria. Using the levelized cost from PSM, PSE was able to develop a cost ranking for each proposal that passed the initial screening. This process eliminated certain proposals with high costs, unacceptable risks, and/or feasibility

constraints. PSE determined that a selection of proposals should be included in a preliminary list of "most favorable" proposals.

From that preliminary list, PSE then identified the proposals that—although attractive at some levels—faced obstacles such as transmission constraints, high fuel costs, premature development status, permitting obstacles, and other issues. PSE placed these proposals on the "continuing investigation" list. PSE continued to monitor their status through the remainder of Stage One and throughout Stage Two.

The remaining proposals from the most favorable list were placed on the short list. PSE determined that, for the most part, the short-listed proposals were both low cost under the PSM levelized-cost analysis, and low risk under the qualitative criteria.

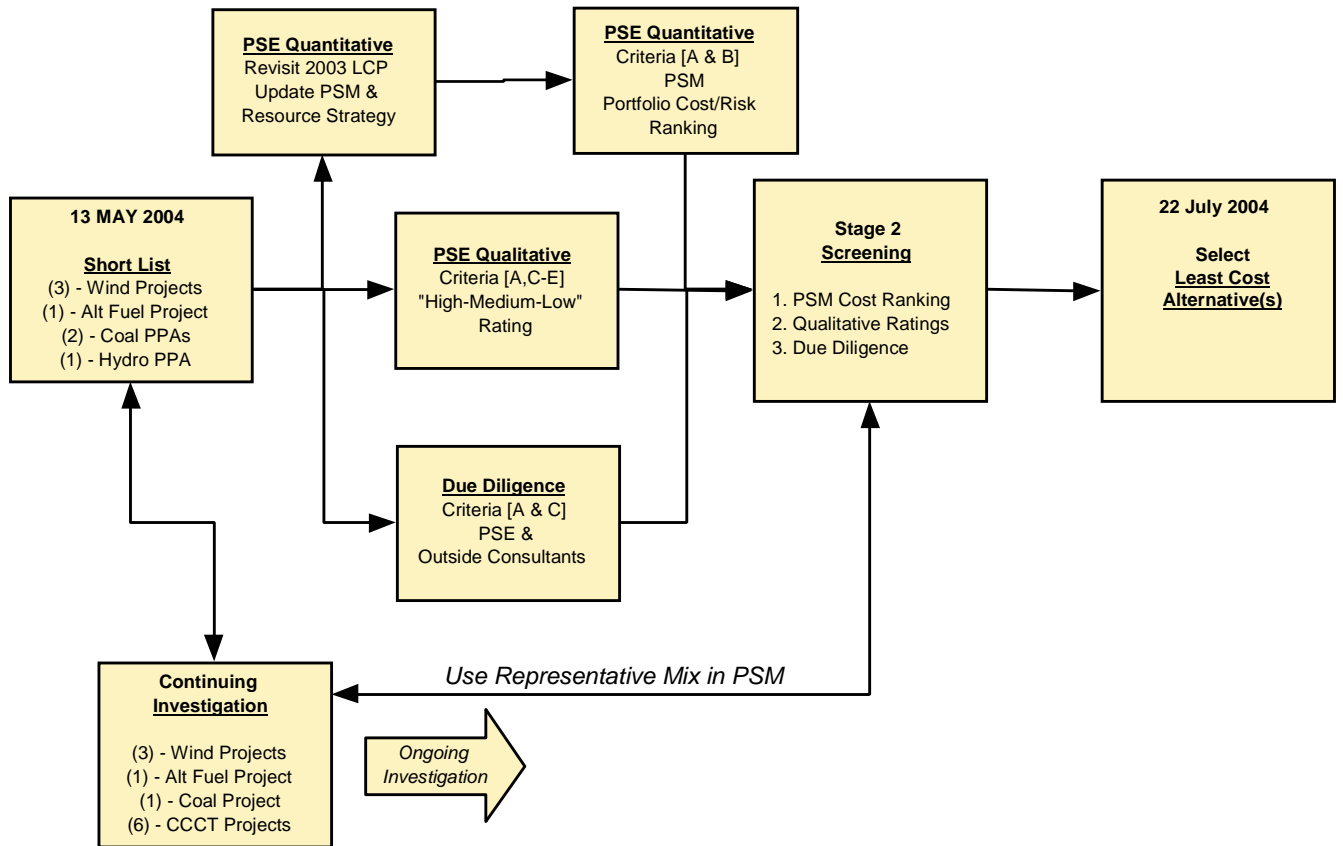
Given the high level of current and forecasted natural gas prices, no natural gas-fired projects were included in the short list. To evaluate the impacts of natural gas projects in PSE's portfolio, PSE did analyze representative natural gas proposals—drawn from the continuing investigation list—in the PSM during Stage Two.

Stage Two Evaluation

PSE continued to apply the Stage One evaluation criteria during Stage Two, in addition to using the Stage Two evaluation criteria. Moreover, PSE determined that it required additional information to further evaluate the proposals that were short-listed in Stage One. PSE sent information requests to the owners and developers of the short-listed projects.

Exhibit E-4 summarizes how PSE evaluated the short-listed proposals in Stage Two.

Exhibit E-4



PSE revisited the 2003 Least Cost Plan resource strategy in order to update and reaffirm the current resource assumptions and strategy. Given the time that had passed since publication of the 2003 Least Cost Plan, PSE updated its long-term planning data with new gas price forecasts and generic plant costs and types. In addition, the RFP process showed that the capital costs of new wind plants are currently higher than the generic assumption that PSE modeled in the 2003 Least Cost Plan. Further, the initial proposals that PSE received did not include seasonal joint ownership options for new gas plants as modeled in the Least Cost Plan.

For gas price forecasting in the base scenario, PSE used the CERA Rearview Mirror forecast—updated in the fourth quarter of 2003—which is approximately 17 percent higher than the gas price forecast that PSE used in the 2003 Least Cost Plan. The changed input assumptions that PSE ran in the AURORA model resulted in an average increase in electric prices of approximately 14 percent (compared to the forecast in the 2003 Least Cost Plan).

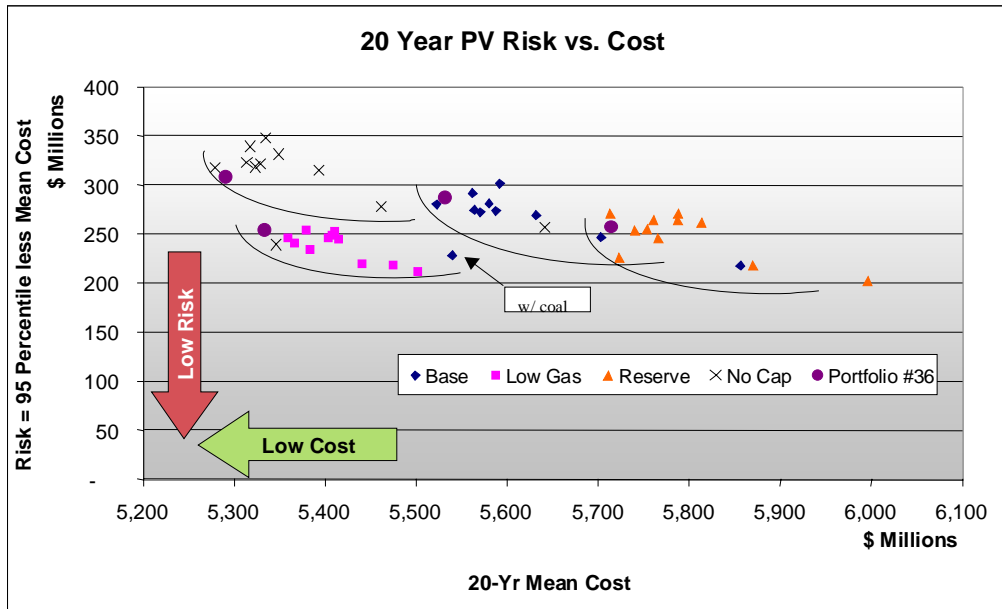
Due to increases in natural gas prices, PSE determined that the Monte Carlo approach might not provide sufficient energy price variability to adequately test the various acquisition alternatives. Instead, PSE developed three price scenarios based upon CERA's Rearview Mirror, World-in-Turmoil, and Green World long-term gas price forecasts. A fourth price scenario used the Rearview Mirror forecast with summer electricity price caps. The four price scenarios provided a more robust test of portfolio cost and risk than that which was provided by Monte Carlo simulation alone.

During this analysis, PSE observed that portfolios with a wind component generally had lower costs, whereas portfolios with a natural gas component generally had higher costs. The most uncertain portfolio involved exclusive reliance on market purchases (through the deferral of any new resource acquisitions through 2008).

PSE then analyzed the portfolio costs by developing more than 35 portfolio combinations from the short list, in addition to representative projects that PSE chose from the continuing investigation list. Using the PSM, PSE developed a portfolio cost ranking for each proposal. The PSM provided a framework in which to evaluate the long-term costs of each resource option and how those resources would perform in PSE's portfolio.

From these 35 proposals, PSE selected representative portfolios for further evaluation under the four price scenarios. PSE then calculated the present values of portfolio costs for each of the representative portfolios. Exhibit E-5 shows the present value of portfolio costs ranked from lowest costs on the left to highest costs on the right.

Exhibit E-5



Environmental, real estate, financial, technical, and other assessments were performed to analyze the soundness and feasibility of the proposals that were asset-based. PSE rated the short-listed proposals under the qualitative evaluation criteria using a rating system of “High,” “Medium,” and “Low,” with “High” being considered more favorable and “Low” being considered less favorable.

PSE selected a portfolio that was both low cost and low risk, which included short-listed proposals, as a group of potential acquisition opportunities. Exhibit E-6 summarizes the selected portfolio.

Exhibit E-6

PROJECT NAME	OWNER / DEVELOPER	LOCATION
2-yr Power Purchase Agreement	Arizona Public Service Co.	--
22-yr Seasonal On-Peak PPA	Utility PPA	System Purchase
Hopkins Ridge Wind Project	RES North America, LLC	Columbia Co, WA
Wild Horse Wind Project	Zilkha Renewable Energy	Kittitas Co, WA
NWPL Sumas Recovered Energy	ORMAT Nevada, Inc.	Sumas, WA

D. Status of Resources Selected

Arizona Public Service PPA

PSE determined that the short-term PPA proposed by Arizona Public Service (APS) offers significant portfolio benefits. PSE and APS signed definitive contracts on June 25, 2004. PSE began receiving energy from this contract on January 1, 2005.

Utility PPA

A long-term utility PPA proposal was evaluated as one of the short-listed supply options. PSE and the supplier were unable to finalize commercial terms and this resource is no longer under active discussion.

Hopkins Ridge Wind Project

The 150 MW Hopkins Ridge wind project was among the lowest-cost wind projects according to the quantitative analysis, and all of the project's qualitative ratings were high. In addition, the Hopkins Ridge project had the greatest potential to achieve commercial operation by the end of 2005, which would qualify the project for production tax credits.

On October 29, 2004, PSE and RES North America signed a Letter of Intent (LOI) for PSE's acquisition of the Hopkins Ridge project, and negotiations for definitive contracts proceeded. PSE's board of directors approved the purchase of the Hopkins Ridge project on January 11,

2005. Definitive agreements were executed on March 11, 2005 and a notice to proceed was given to RES North America to begin construction. The project is expected to reach commercial operation in December 2005.

Wild Horse Wind Project

PSE's due diligence showed that the Wild Horse wind project is viable, with a desirable location in Kittitas County and a strong potential for receiving timely permits. The portfolio analysis showed that the Wild Horse project lowers PSE's portfolio costs. Because the Wild Horse project requires transmission line upgrades (which involve cost and schedule risks), permitting and engineering for the upgrades are underway.

On September 1, 2004, PSE and Zilkha signed an LOI for PSE's acquisition of the Wild Horse project, and negotiations for definitive contracts are underway.

Public hearings, coordinated by the Kittitas County Planning Commission and County Commissioners, began January 25, 2005, and the Kittitas Board of County Commissioners approved the Wild Horse project on March 3, 2005. The state Energy Facility Site Evaluation Council held hearings on March 7 and 8, 2005. The Council is expected to forward its recommendation to the governor for a final decision in late May of 2005.

NWPL Sumas Recovered Heat Project

This project involves generating energy using recovered heat at an existing Northwest Pipeline compressor station. The NWPL Sumas recovered heat project showed an attractive 20-year levelized energy cost, and the project's qualitative ratings were also favorable. PSE entered into an LOI with ORMAT Nevada on April 14, 2005, and definitive agreements will follow by mid year. In addition, studies are underway to identify and resolve possible transmission constraints. The projected commercial operations date is the second quarter of 2007.