

Portland General Electric Co.

REQUEST FOR PROPOSALS

Power Supply Resources

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Purpose and Scope

Portland General Electric Company (PGE), an electric utility in Oregon, is soliciting bids through this Request for Proposals (RFP) for energy and capacity power products described below. In August 2002, PGE filed its *2002 Integrated Resource Plan (IRP)*, and followed up with an *IRP Supplement* in February 2003. Together, these documents comprise PGE's *IRP* and Resource Action Plan, identifying specific planning assumptions, and resource needs for upcoming years, and are available on PGE's Internet site:
http://www.portlandgeneral.com/about_pge/regulatory_affairs/filings/2002_resource_plan.asp.

Resource Targets

Based on the conclusions reached in its *IRP*, PGE is seeking to acquire:

- Up to 600 MW/h of energy power products, beginning October 2006:
 - Baseload tolling service.
 - Firm physical energy purchase.
 - Firm financial energy purchase.
 - Firm shaped energy purchase.
 - Ownership position in generating facility.

PGE will also consider bids for energy products that begin before October 2006.

Note: "MW/h" means a *flat* quantity of megawatts across the entire hour.

- Up to 400 MW of capacity power products, beginning December 2005:
 - Peak tolling.
 - Daily physical capacity.
 - Daily financial capacity.
 - Daily exchange.
 - Short-term exchange.
 - Seasonal exchange.

This competitive RFP is being conducted in consultation with the Oregon Public Utility Commission and other participants in PGE's *IRP* public process, and in accordance with Oregon Public Utility Commission (OPUC) Order 91-1383 (UM-316) ("Competitive Bid Order"), dated October 18, 1991.

About PGE

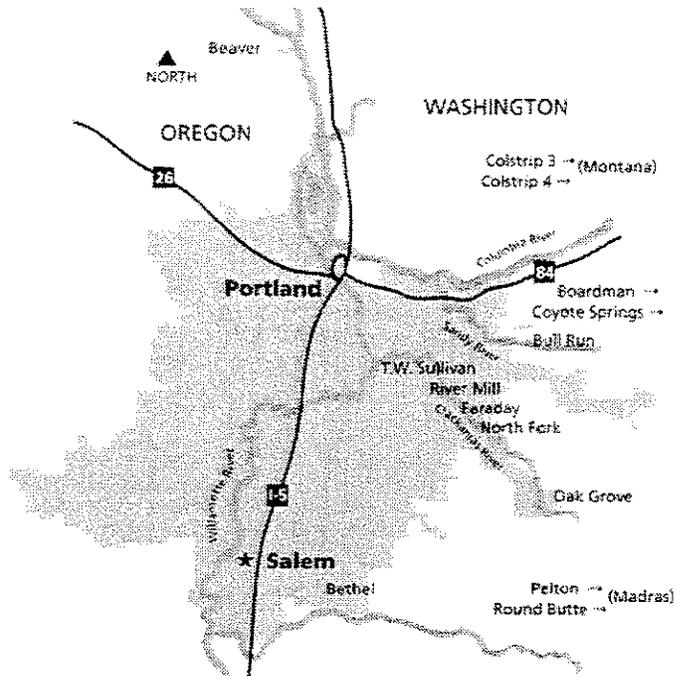


Figure 1. PGE Service Territory

Located in Oregon's Willamette Valley, PGE serves approximately 750,000 retail customers within a 3,150 square mile service territory.

- 750,000 retail customers.
- Service territory population 1.5 million, 44% of state's population.
- Serve 51 cities, the largest being Portland and Salem.
- 3,150 square mile service area.
- 26,000 miles of transmission and distribution lines.
- Net plant-in-service, \$1.86 billion.
- Average annual demand, approximately 2,300 MW.
- Expected peak load, 3,408 MW.
- 1,855 MW of generation for resource planning purposes, including eight hydrogeneration facilities, along with three thermal plants, two gas-fired and one coal-fired. We also hold long-term contracts for energy from hydroelectric projects on the mid-Columbia River, have a partial interest in two units of another coal plant, and regularly enter into short-term wholesale contracts.

For more information, see PGE's Internet site: www.portlandgeneral.com.

RFP Schedule

The tentative schedule listed below may be revised as the RFP process unfolds:

- April 25 – File RFP with OPUC, begin formal review process.
- May 9 – OPUC Staff workshop.
- May 14 – Bidder pre-RFP workshop.
- May 16 – Renewables bidder pre-RFP workshop.
- May 22 – File revised RFP with OPUC.
- May 29 – Comments due on RFP.
- June 5 – OPUC Staff issues recommendations on RFP and comments.
- June 12 – OPUC approves RFP at special public meeting.
- June 18 – Issue RFP.
- July 23 – RFP responses due.
- August – PGE identifies short list, initiates negotiations.
- October – PGE announces resource actions.
- October 21 – OPUC acknowledges IRP, including Final Action Plan.

Outside of this RFP process, PGE is also planning to issue a separate RFP for natural gas, and an RFQ and RFI for demand-side resources.

Guidelines for Submitting Proposals

This chapter describes the guidelines Bidders must follow when submitting proposals.

Procedural and Commercial Questions

Correspondence regarding *procedural* questions, but not including commercial questions and bid submissions, should be directed to:

Dennis Bleything, Project Manager
Portland General Electric Company
121 SW Salmon St. (3WTC-BR06)
Portland, OR 97204
Tele. (503) 464-8534
Fax (503) 464-2605
e-mail PGE_Resource_RFP@pgn.com

Commercial correspondence and questions, including questions related to product characteristics, terms and conditions, should be directed to:

Brett Sims
Manager, Wholesale Origination & Structuring
Portland General Electric Company
121 SW Salmon St. (3WTC-BR06)
Portland, OR 97204
Tele. (503) 464-7255
Fax (503) 464-2605
e-mail brett_sims@pgn.com

PGE will post answers to frequently-asked questions regarding this RFP on our Web page: http://www.portlandgeneral.com/about_pge/current_issues/rfp/. Those to whom we sent the RFP packets, and who have provided e-mail addresses, will be notified by e-mail when the "Q&A" section of this Web page is updated.

Submitting Bids

Parties submitting bids under this RFP (Bidders) may submit bids responding to one or more of the energy and capacity power products. Bids must be *received by* 5:00 p.m. Pacific Prevailing Time on July 23, 2003. Bids must be sealed, and sent to:

Sandy Parnell, Project Assistant
Portland General Electric Company
121 SW Salmon St. (3WTC-BR06)
Portland, OR 97204

All bids received will be date stamped and initialed. Bids received unsealed, after the deadline, or containing incomplete information will not be considered.

Validity of Price and Offer

By submitting a proposal, the Bidder acknowledges and agrees that each of its bids constitute a proposal that shall remain irrevocable until the earlier of (1) 90 days after the bid responses are due, as defined under "RFP Schedule," and (2) the date that PGE commences post-bid negotiations with short-listed bidders. Bidders selected for the short list will have an opportunity to refresh the price components of their bids during the post-bid negotiation process. PGE reserves the right to disqualify from the short list any bid for which the refreshed price is higher than the next best bid received for the same product that is not already on the short list.

Price

Price comprises 60 percent of our evaluation criteria, reflecting PGE's intent and commitment to obtain the best possible value for our customers. Bidders are advised that they are competing primarily on price, and secondarily on non-price factors.

Affiliation with Enron Corp.

Bidders are required to describe any affiliated interest they have with Enron Corp. or any of its affiliates, per Oregon Revised Statute 757.015. Affiliated interest can be based on any one of several criteria, including a five percent direct or indirect equity control threshold, and two or more common officers or directors. The complete statute can be found on the Internet: www.leg.state.or.us/ors/757.html. Projects or products proposed by Bidders that are directly or indirectly affiliated with Enron Corp. or its affiliates must specifically be approved by the OPUC.

Reservation of Rights

This RFP is not, and shall not be construed to be, an offer by PGE. PGE is not bound to enter into negotiations or execute an agreement with, or purchase energy or capacity products from, any Bidder pursuant to this RFP. No rights shall be vested in any Bidder, individual or entity by virtue of its preparation to

Guidelines for Submitting Proposals

participate in, or its participation in, this RFP. No binding commitment shall arise on the part of PGE to any Bidder under this RFP until and unless the parties execute definitive agreements that become effective in accordance with their terms.

Each Bidder shall be solely responsible for all costs it incurs in preparing to participate in, participating in, or responding to this RFP.

The bids received will be evaluated and selected based on the information supplied by each Bidder pursuant to this RFP. PGE reserves the right to modify or withdraw from this RFP process, or modify the schedule and any provisions contained herein, for any reason. PGE also reserves the right to make purchase commitments, at any time, to suppliers not participating in this RFP process.

PGE reserves to itself:

- The selection of short-listed bids and the awarding of contracts, if any, in the exercise of its sole discretion.
- The right to reject any and all bids, and any portion of a specific bid for any reason.
- The right to waive any informality or irregularity in any bid received.
- The right to award a contract to a Bidder based on a combination of price and non-price factors, a qualitative assessment of portfolio fit, and post-bid negotiations.

PGE shall have no obligation to provide a reason for rejecting a Bidder's bid.

Confidentiality and Nondisclosure

In accordance with an executed Confidentiality and Nondisclosure Agreement, PGE will maintain the confidentiality of any claimed proprietary and confidential information contained in a bid, provided that such information is clearly identified by the Bidder as "Confidential Information" on the page on which such proprietary and confidential material appears. Each Bidder must execute and return a copy of the Confidentiality and Nondisclosure Agreement, the form for which is included separately in the RFP packet, as soon as possible, but no later than its timely submission of its bid or bids. *It is the Bidder's responsibility to indicate clearly in its proposal what materials it deems to be proprietary and confidential.*

PGE may release such information to PGE employees or attorneys and external consultants who are involved in the RFP process or have a need to know for business reasons in connection with the RFP process, to the independent observer, who will execute a confidentiality and nondisclosure agreement, to the staff of the OPUC and any other person qualified to receive such information

pursuant to the Modified Protective Order issued by the OPUC on May 15, 2003, or as may be required by court or administrative process or otherwise by law.

Bids based on subsidies from the Energy Trust of Oregon (ETO) will be released to the Trust for their review. PGE may also release to the ETO a report that summarizes the cost of short-listed, non-renewable bids, without revealing the identity of the bidders.

Document Retention

All bids and exhibits supplied to PGE during the RFP process will become the property of PGE. PGE will retain all bid materials supplied to it and pertinent information generated internally by it in connection with the RFP process for at least six years.

Bid Evaluation Process

This chapter describes PGE's process for evaluating bids received in response to this RFP. For details about our scoring criteria, see the chapters, "Bid Pre-Qualifications," and "Criteria Used for Scoring Qualified Bids," below.

Reviewing, Ranking and Selecting Bids

In selecting the RFP short list, PGE will use a first-price, sealed-bid format as required by the OPUC's Competitive Bid Order. Under this format, Bidders may not update pricing during the scoring and evaluation period. We will use the first prices provided by Bidders to select our short list of candidates, and then negotiate price and non-price elements during post-bid negotiations. The scoring process is illustrated in Figure 2, below.

PGE reserves the right to request additional information regarding any proposal received.

Bids will be evaluated using a two-step process.

- *Assessment of Pre-Qualifications* – First, we will screen bids according to pre-established qualifying criteria, *i.e.*, minimum quantity and term, and quality of credit.
- *Evaluation of Scoring Factors* – Next, we will score bids that meet the pre-qualification standards. Overall scores will be comprised of price and non-price factors.

Independent Observer

PGE will use an independent, third-party observer to validate that our scoring criteria do not inappropriately bias the process in favor of equity investment by PGE. The independent observer will be given the following tasks:

- Evaluate the scoring criteria to confirm that they do not inappropriately bias the process in favor of an equity investment by PGE.
- Evaluate whether scoring criteria have been applied in a fair and unbiased manner.
- At the discretion of the independent observer, observe and review the process by which PGE evaluates and negotiates the short list proposals to confirm that the process is not inappropriately biased in favor of an equity investment by PGE.

- Submit a written report to the Commission, in light of the above, stating whether the process was fair and objective.

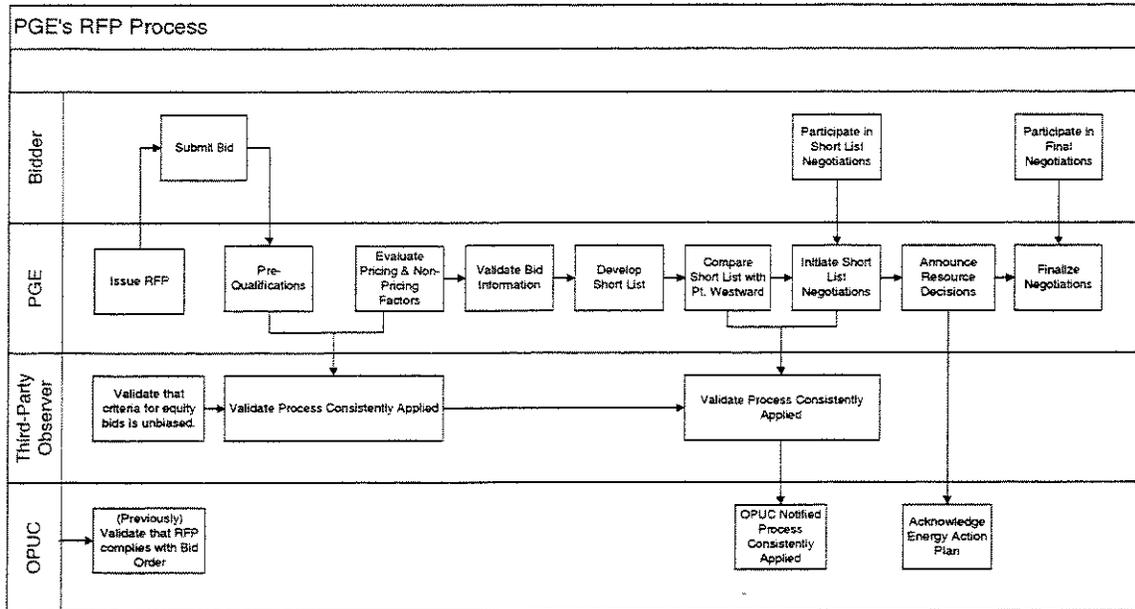


Figure 2. Resource Selection Process

Potential Resource Alternatives

As part of our normal course of business, PGE conducts bilateral discussions with developers and other providers, and may enter into agreements for energy or capacity products through these discussions.

Also, we intend to compare the results of this RFP with the economics of developing a one- or two-unit gas fired combined cycle, combustion turbine (CCCT) power plant, using one, one-on-one F-class or equivalent gas turbine per unit, with supplemental duct firing. A single unit would provide approximately 250 to 300 MW, depending on the amount of duct firing and the size of the steam turbine selected to accommodate duct firing. Degraded, nominal heat rate is an estimated 7,100 Btu/kWh-HHV without duct firing.

Overnight capital cost for both units combined, including duct firing, is estimated at \$590 per kW, and for one unit is an estimated \$670 per kW. Overnight capital cost information does not include Allowances for Funds used During Construction, or property taxes. This information is based on data available as of May 22, 2003, and is provided pursuant to the requirements of OPUC Order No. 91-1383; it is not intended to be used as a benchmark for

Bidders in preparing their bids. Values may change as plant configuration is finalized.

The potential plant, located at our Port Westward site near Clatskanie, Oregon, would be directly connected to PGE's service territory. The K-B gas lateral pipeline connects directly with the Williams Interstate pipeline.

Before RFP bids are due, PGE will provide OPUC staff with cost estimates for the one- and two-unit options for Port Westward. This information will be provided in the same format as that required for the RFP bids. PGE will have the opportunity to refresh cost information for Port Westward options during the period when short-listed third parties are allowed to refresh their bids. Upon selection of the RFP short list, PGE will score our most current cost estimates for Port Westward, and share the results with OPUC staff. The independent observer will confirm that Port Westward options have been scored using the same criteria used for RFP bids and that the scoring criteria have been applied consistently between Port Westward and comparable RFP bids.

Contract Terms and Conditions

Energy and Capacity Purchase Agreements

The contract templates for power and capacity purchases are included in appendices as follows:

- Appendix L – Firm Physical Wholesale Energy Purchase and Sale Agreement.
- Appendix M – Physical Capacity Purchase and Sale Agreement.
- Appendix N – Capacity Exchange Agreement.
- Appendix O – Tolling Agreement.
- Appendix P – Firm Financial Energy and Capacity Purchase and Sale Agreement.

Bidders must use one or more of the purchase agreement templates included in this RFP, and must include any proposed revisions to the contract (shown in red-line) as part of their response package to this RFP. PGE will evaluate all proposed revisions, but is under no obligation to accept any revisions or adopt any changes. Changes to terms and conditions or revisions to the templates will be discussed with Bidders selected for post-bid negotiations.

Ownership Position in an Energy Resource

Bidders submitting a bid for an ownership position in an energy resource are requested to provide as part of their response package to this RFP the documents identified in Appendix E. PGE will consider the terms and conditions in those documents, but will be under no obligation to accept them without modification. Changes to terms and conditions or revisions to the documents will be discussed with Bidders selected for post-bid negotiations.

Requested Power Products

PGE requests proposals for the electric energy and capacity products, as described in this chapter, and summarized below. See Appendices A through K for specific product term sheets. We are willing to consider projects that begin before the specified dates, provided they meet our portfolio needs.

Table 1. Summary of Requested Energy and Capacity Products

Type	Product	Block			Term			Take	Return
		Min.*	Pref.	Max.	Start	Min.	Months		
Energy	Baseload Tolling	25 MW/h**	<150 MW/h	600 MW/h	10/06	5 yrs	All year	NA	NA
	Physical Energy Purch.	25 MW/h	<150 MW/h	600 MW/h	10/06	5 yrs	All year	NA	NA
	Financial Energy Purch.	25 MW/h	<150 MW/h	200 MW/h	10/06	5 yrs	All year	NA	NA
	Firm Shaped Purch.	25 MW/h	<150 MW/h	600 MW/h	10/06	5 yrs	All year	On-peak	NA
	Ownership	25 MW/h	<150 MW/h	600 MW/h	10/06	NA	All year	NA	NA
Capacity	Peak Tolling	25 MW/h	100 MW/h	400 MW/h	12/05,7/06	2 yrs	Win., Sum.	On-peak	NA
	Daily Physical Capacity	25 MW/h	100 MW/h	400 MW/h	12/05,7/06	2 yrs	Win., Sum.	On-peak	NA
	Daily Financial Capacity	25 MW/h	100 MW/h	200 MW/h	12/05,7/06	2 yrs	Win., Sum.	NA	NA
	Daily X/C	25 MW/h	100 MW/h	400 MW/h	12/05,7/06	2 yrs	Win., Sum.	On-peak	Daily
	Short-Term X/C	25 MW/h	100 MW/h	400 MW/h	12/05	2 yrs	All year	All hours	168 hrs
	Seasonal X/C	25 MW/h	100 MW/h	400 MW/h	12/05	2 yrs	Win., Sum.	Dec - Feb	Jul-Sept

*Minimum energy product requirement for renewable resources is 5 MW/h

**MW/h means a flat quantity of megawatts across the entire hour. Capacity is average, annual expected output.

Alternative Bid Structures

Bidders may submit bids that differ from the term sheets in the allocation of risks between the Bidder and PGE, provided the risks assigned to each party are clearly identified in the bid. Risks may include those for providing fuel, covering environmental damage, providing firm transmission, or providing ancillary services to firm the output variables associated with non-firm, non-dispatchable resources.

For example, the Bidder may offer two bids for a tolling agreement. The first would assume that PGE provided the fuel and transportation, while the other would assume that the Bidder provided the transportation.

Electric Energy Products

As described under "Non-Price Factors" in the chapter, "Criteria Used for Scoring Qualified Bids," PGE prefers delivery to our service territory, but will accept certain other proposed PODs and score them accordingly.

Baseload Tolling – PGE is interested in purchasing up to 600 MW/h of baseload tolling services delivered to PGE’s service territory beginning October 1, 2006. Baseload tolling services quantities should be in blocks of 25 MW/h or greater, with a minimum five-year duration; the minimum for renewables-based bids is 5 MW/h. These services should provide PGE with the daily right to convert natural gas or oil to electricity according to the pre-defined physical and operating characteristics of the Bidder’s generating facility. See Appendix A for a sample term sheet and required bid information.

Firm Physical Energy Purchase – PGE is interested in purchasing up to 600 MW/h of firm energy, delivered to PGE’s service territory beginning October 1, 2006. Purchase quantities should be in blocks of 25 MW/h or greater, with a minimum five-year duration; the minimum for renewables-based bids is 5 MW/h. To the extent that the Bidder does not provide firming, regulation or other ancillary services for integrating the power product, PGE will include the cost of obtaining these services in our bid evaluation. See Appendix B for a sample term sheet and required bid information.

Firm Financial Energy Product – PGE is interested in purchasing up to 200 MW/h of “fixed for floating swaps,” or other substantially similar products for managing energy price risk, beginning October 1, 2006. Purchase quantities should be in blocks of 25 MW/h or greater, with a minimum five-year duration. These products would obligate PGE to pay a fixed price based on a predetermined quantity of energy in exchange for variable price payments to PGE for the same quantity of energy, based on a mutually-agreeable, predetermined daily price index. The price index should be transparent, and representative of Northwest wholesale power markets, such as the Dow Jones Mid-Columbia Daily Index for Firm On- and Off-Peak Power. See Appendix C for a sample term sheet and required bid information.

Firm Shaped Energy – PGE is interested in purchasing up to 600 MW/h of firm shaped power delivered to PGE’s service territory beginning October 1, 2006. Purchase quantities should be in blocks of 25 MW/h or greater, with a minimum five-year duration. Purchase hours will vary by calendar quarter. To the extent that the Bidder does not provide firming, regulation or other ancillary services for integrating the power product, PGE will include the cost of obtaining these services in our bid evaluation. See Appendix D for a sample term sheet and required bid information.

Ownership Position in an Energy Resource – PGE is interested in acquiring an ownership position of up to 600 MW/h in long-term energy resources, including renewable generation. See Appendix E for a listing of the elements of an ownership offer and required bid information.

Electric Capacity Products

As described under “Non-Price Factors” in the chapter, “Criteria Used for Scoring Qualified Bids,” PGE prefers delivery to our service territory, but will accept certain other proposals and score them accordingly.

Peak Tolling – PGE is interested in purchasing up to 400 MW/h of peak tolling services delivered to our service territory, beginning December 1, 2005. These services should provide PGE with the right during the months of December, January and February of each year to schedule daily on-peak energy in at least four-hour continuous blocks at a capacity charge. Bidder also may offer a similar option for July, August and September. These services should provide PGE with the daily right to convert natural gas or oil to electricity according to the pre-defined physical and operating characteristics of the Bidder’s generating facility or portfolio of assets. Purchase quantities should be in blocks of 25 MW/h or greater, with a minimum two year duration. Bidders may include fuel supply options within their peak tolling bids. PGE will also consider bids for “virtual” or system tolls, and for tolls based on representative gas and power indices, such as heat rate options. See Appendix F for a sample term sheet and required bid information.

Fixed Strike Daily Physical Capacity – PGE is interested in purchasing up to 400 MW/h of daily electric capacity delivered to our service territory, beginning December 1, 2005. Daily capacity services should provide PGE with the right during the months of December, January and February of every year to schedule daily on-peak energy in at least four-hour continuous blocks at a demand charge. Bidder also may offer a similar option for July, August and September. Daily capacity products should be in blocks of 25 MW/h or greater, with a minimum two-year duration. See Appendix G for a sample term sheet and required bid information.

Fixed Strike Daily Financial Capacity – PGE is interested in purchasing up to 200 MW/h of daily fixed strike call options with financial settlement, beginning December 1, 2005. Daily call options should provide PGE with the daily right to pay a fixed price in exchange for variable price payments, based on a mutually agreeable, predetermined price index, during the months of December, January and February of every year. The price index should be transparent and representative of Northwestern wholesale power markets, such as Dow Jones Mid-Columbia Daily Index for Firm, On-Peak Power. Bidder also may offer a similar option for July, August and September. Daily capacity products should be in blocks of 25 MW/h or greater, with a minimum two-year duration. See Appendix H for a sample term sheet and required bid information.

Daily Exchange Product – PGE is interested in purchasing up to 400 MW/h of daily energy exchange delivered to our service territory, beginning December 1, 2005. Daily electric exchange services should provide PGE with the right during the months of December, January and February of every year to, within a 24-hour period, receive energy during on-peak hours in exchange for return of an equal quantity of energy during off-peak hours. Delivery by PGE may precede receipt by PGE. Bidder also may offer a similar option for July, August and September. This exchange must conform to certain minimum and maximum return requirements, as specified in the term sheet. Daily exchange products should be in blocks of 25 MW/h or greater, with a minimum two-year duration. Energy exchanged must net to zero each day. See Appendix I for a sample term sheet and required bid information.

Short Term Exchange – PGE is interested in purchasing up to 400 MW/h of short term energy exchange delivered to our service territory, beginning December 1, 2005. Short term energy exchange should provide PGE with the right, during any 168-hour period, to receive from the Bidder and return to the Bidder equal quantities of energy, subject to negotiated minimum and maximum take and return parameters per hour and day. See Appendix J for a sample term sheet and required bid information.

Seasonal Exchange – PGE is interested in purchasing up to 400 MW/h of seasonal exchanges delivered to our service territory, beginning December 1, 2005. Seasonal exchange should provide PGE with the right during the months of December, January and February of every year to receive energy in exchange for the return of an equal amount of energy during the months of July, August and September, subject to certain minimum and maximum take and return requirements. Products should be in blocks of 25 MW/h or greater, with a minimum two-year duration. See Appendix K for a sample term sheet and required bid information.

About the Term Sheets

Term Sheets are Examples Only

As discussed above under “Alternative Bid Structures,” the draft term sheets included in the appendices are provided as examples and, while they include expressions of preferred product structures and characteristics, are not intended to exclude other proposals for meeting PGE’s energy and capacity needs. Bidders should mark up the sample term sheets as needed. For example, a bid might include use of a specific plant and fuel procurement. Alternatively, a bid could offer capacity produced by duct firing. In any case, bids must include sufficient information for PGE to make a thorough evaluation of the proposals.

Starting Date for Energy

PGE will consider bids with start dates earlier than those shown in the term sheets.

Firm Transactions

For the purposes of this RFP, a “firm transaction” is one in which either party shall be relieved of its obligations to sell and deliver or purchase and receive without liability only to the extent that, and for the period during which, such performance is prevented by *force majeure*, as defined in the purchase agreement templates. Firm energy and capacity will also be deemed to require the necessary reserves and ancillary services to ensure that energy schedules are certain and delivered intact within the hour.

Financial Swap and Option Transactions

All “fixed for floating swap” products are assumed to be priced against the Dow Jones Mid-Columbia On- or Off-Peak price indices. All financial swap and options products will be executed under an International Swaps and Derivatives Association (ISDA) agreement.

Bid Pre-Qualifications

To be considered for evaluation, all proposals must meet the requirements specified below.

General

General pre-qualifications include minimum bid quantity, minimum bid term, credit and bidder qualifications.

Minimum Bid Quantity

The minimum bid amounts are:

- *Non-renewable energy products* – 25 MW/h.
- *Renewable energy products* – 5 MW/h average annual expected output.
Proposals for smaller amounts of renewables will be discussed outside of the RFP process.
- *Capacity products* – 25 MW/h.

Minimum Bid Term

The minimum bid terms are:

- *Energy resources* – Five years.
- *Capacity resources* – Two years.

Credit and Bidder Qualifications

All transactions are contingent upon the Bidder meeting and maintaining the credit requirements established by PGE's Wholesale Credit Department:

- Bidder's long-term, senior unsecured debt that is not supported by third-party credit enhancement must be rated BBB- or higher by Standard & Poor's, and Baa3 or higher by Moody's Investor Services, Inc., if the Bidder is rated by both agencies.
- Bidders that are not publicly rated, and bids offering full project ownership, will be subject to review by PGE's Wholesale Credit Department for qualification.

Bidder may obtain credit approval by providing security in a form and amount acceptable to PGE. Bids for an outright purchase of a 100 percent interest in a plant will be considered regardless of the creditworthiness of the Bidder. If the

plant is not yet complete, PGE's Wholesale Credit Department requirements will apply until construction is satisfactorily completed. All information required to evaluate and establish credit will be subject to the Confidentiality and Nondisclosure Agreement.

As applicable, the Bidder must provide documentation, satisfactory to PGE, that it is able to schedule power and operate under industry standards established by the Federal Energy Regulatory Commission (FERC), Western Electricity Coordinating Council (WECC) and the North American Energy Reliability Council (NERC).

For Projects Used to Support Bids

Commercial In-Service Date

Projects being developed to support bids must have a reasonable commercial in-service date of no later than January 1, 2008 for energy products, and December 1, 2005, for capacity products. The Bidder must identify the power supply source it intends to use to support its bid commitments before the project in-service date. PGE will consider projects that begin before the specified dates, provided they meet our portfolio needs.

Technology

Projects being developed to support bids shall use commercially viable generation technology. The Bidder shall specify the generation technology it proposes to use and provide preliminary design studies – completed in sufficient detail to identify major equipment. The Bidder will also provide a site layout plan, and a project milestone schedule indicating critical path elements. For generation technologies that are not in common use, the Bidder shall identify electric projects where the technology is already being used or provide documents describing the technology.

Suitability of Site (where applicable)

The Bidder must identify the project site location and provide satisfactory evidence that the site is not otherwise committed and is available for the full-term of the proposed bid. The Bidder must have identified all required site-specific permits and have prepared a plan or schedule for obtaining all permits and licenses.

Fuel Supply (where applicable)

The Bidder must demonstrate physical and commercial access to fuel supplies and fuel transportation for the term of the contract proposed in its bid.

Criteria Used for Scoring Qualified Bids

This chapter briefly describes the criteria PGE will use to evaluate bids submitted in response to the RFP. The following tables summarize these criteria, *in order of priority*. For details about information that should accompany each bid, see “Appendix Q, Required Bidder Profile,” and “Appendix R, Required Bidder Information.”

Table 2. Evaluation Criteria for Energy Products

<i>Factors</i>	<i>Descriptions</i>	<i>Sub Total</i>	<i>Total</i>
Price Factors	Base prices adjusted for considerations described in following paragraph		60%
Non-Price Factors	Credit Factors	10%	
	Environmental Factors	10%	
	Product Characteristics	9%	
	<ul style="list-style-type: none"> ▪ Compensation for failure to meet Guaranteed Availability Factor (GAF) ▪ Dispatchability ▪ GAF ▪ Amount (MW/h) ▪ Product flexibility ▪ Contract term 		
	Project Characteristics	7%	
	<ul style="list-style-type: none"> ▪ Fuel supply diversity, resource risk, and O&M reliability characteristics ▪ Point-of-delivery ▪ Project location ▪ Resource supply diversity ▪ Resource adequacy ▪ Extension option 		
	Project Development	4%	
	<ul style="list-style-type: none"> ▪ Project financing ▪ Site control ▪ Developer experience ▪ Permitting status 		
	Total Non-Price Factors:		40%
	Total:		

Table 3. Evaluation Criteria for Capacity Products

<i>Factors</i>	<i>Descriptions</i>	<i>Sub Total</i>	<i>Total</i>
Price Factors	Base prices adjusted for considerations described in following paragraph		60%
Non-Price Factors	Credit Factors	10%	
	Environmental Factors	10%	
	Product Characteristics	9%	
	<ul style="list-style-type: none"> ▪ Deviations from capacity product term sheet ▪ Compensation for failure to meet Guaranteed Availability Factor (GAF) ▪ GAF ▪ Amount (MW/h) ▪ Contract Term 		
	Project Characteristics	6%	
	<ul style="list-style-type: none"> ▪ Point-of-delivery ▪ Natural gas delivery point ▪ Resource supply diversity ▪ Resource adequacy ▪ Project location 		
	Project Development	5%	
	<ul style="list-style-type: none"> ▪ Project financing ▪ Permitting status ▪ Site control ▪ Developer experience 		
	Total Non-Price Factors:		40%
Total:			100%

Price Factors

Price will be heavily weighted. To evaluate bids containing different product characteristics on a comparable basis, base prices submitted by the bidder will be subject to adjustment for the following considerations:

- *Additional costs and risks associated with delivering product to PGE's service territory from PODs other than PGE's service territory.*
- *Ancillary services, if not included in product pricing – See discussion below.*

Criteria Used for Scoring Qualified Bids

- *Cost of fixing fuel prices.*
- *Variability of output by time-of-day or season* – If the bid does not include integration, we will estimate its cost and include it in our price analysis.
- *Quality and firmness of energy and capacity.*
- *Any other factor necessary to ensure bids are evaluated on a comparable basis.*

PGE may require performance assurances in support of the Bidder's obligations, which may include one or more subordinate liens in combination with corporate guarantees, escrow accounts, cross-default thresholds, cash deposits or letters of credit. PGE retains the right to adjust the bid price to include the cost to us of performance assurances if the bidder does not provide an adequate amount. Lower levels of performance assurances may be acceptable, if there are other compensating factors compelling to PGE.

Ancillary Services – If ancillary services are not included in product pricing, power product bids for delivery to PGE's service territory will at a minimum need the following ancillary services to meet control area operations and transmission provider requirements:

- Operating and supplemental reserves.
- Generation and energy imbalance.
- Scheduling, system control and dispatch.
- Reactive support and voltage control.

Bidders shall provide a comprehensive list of all ancillary services they are planning to provide in delivering the power product to the point-of-delivery. To the extent that any of these required ancillary services are not being supplied by the Bidder, PGE will, for scoring purposes, adjust the price provided by the bidder to reflect the cost of acquiring additional ancillary services required. In doing so, we will use verifiable expected costs, adjusted for probability.

Non-Price Factors

Project Development

This category scores the likelihood that a project supporting a bid will be placed in commercial service. The evaluation criteria for this category generally address construction and development risks associated with the completion of projects that are not yet in commercial operation, and which are necessary to support bids. Plants that are already operating or are sufficiently advanced in construction may be deemed to earn the maximum possible score from this category.

For projects that are less advanced, we will consider the following criteria for scoring:

- Method and status of project financing.
- Level of site control by developer.
- Project team experience.
- Permitting status.

Point-of-Delivery

Point-of-delivery (POD) is both a price and non-price factor. When scoring for price, we will factor in costs associated with delivering power from the proposed POD to PGE's service territory. When scoring for non-price factors, we will factor in the risks of transmission congestion.

The preferred point-of-delivery for products specified in this RFP is PGE's service territory. Bidders are encouraged to submit separate bids for delivery to our system or other PODs where appropriate, to allow the Bidder and PGE to consider any comparative advantages in costs or differences in risk tolerance for exposure to incremental transmission expenses and uncertainties for PODs outside PGE's system. Bidder must identify the POD for any bid, and will be responsible for all transmission arrangements and costs to the specified POD. These costs include those of any required interconnection and transmission service.

PGE has transmission interconnections with BPA and PacifiCorp. We will accept bids for delivery of power and ancillary services at other PODs, but will factor in the additional costs and risks of delivering this power to our service territory in our evaluation of such proposals.

Most of PGE's long-term rights to transmission on BPA's system are already dedicated to a PGE resource. With one exception, Bidders should assume that PGE has no long-term firm transmission rights that could be dedicated to transmitting their power to PGE's service territory. PGE does have a limited amount of transmission that could be used to bring power from the California-Oregon Border (COB) to our service territory. However, we reserve the right to continue to use that capacity to support market purchases.

Additional cost and risk factors include, but are not limited to, incremental transmission demand charges, line loss costs and any necessary ancillary services, as well as risks associated with potential transmission constraints or curtailments in delivering the power to PGE's system.

After PGE's service territory, we prefer delivery to the California-Oregon Border, South to North. After these two options our preferences are prioritized as shown below (also see Figure 3):

Criteria Used for Scoring Qualified Bids

- NW Market/Mid-Columbia Hub.
- John Day.
- Nevada-Oregon Border (NOB).
- Other points on BPA's transmission system.

Bidder may specify multiple PODs in its bid, provided it specifies which party has the right to choose the applicable POD. Bids that assign this option to PGE will be scored more favorably than those that do not.

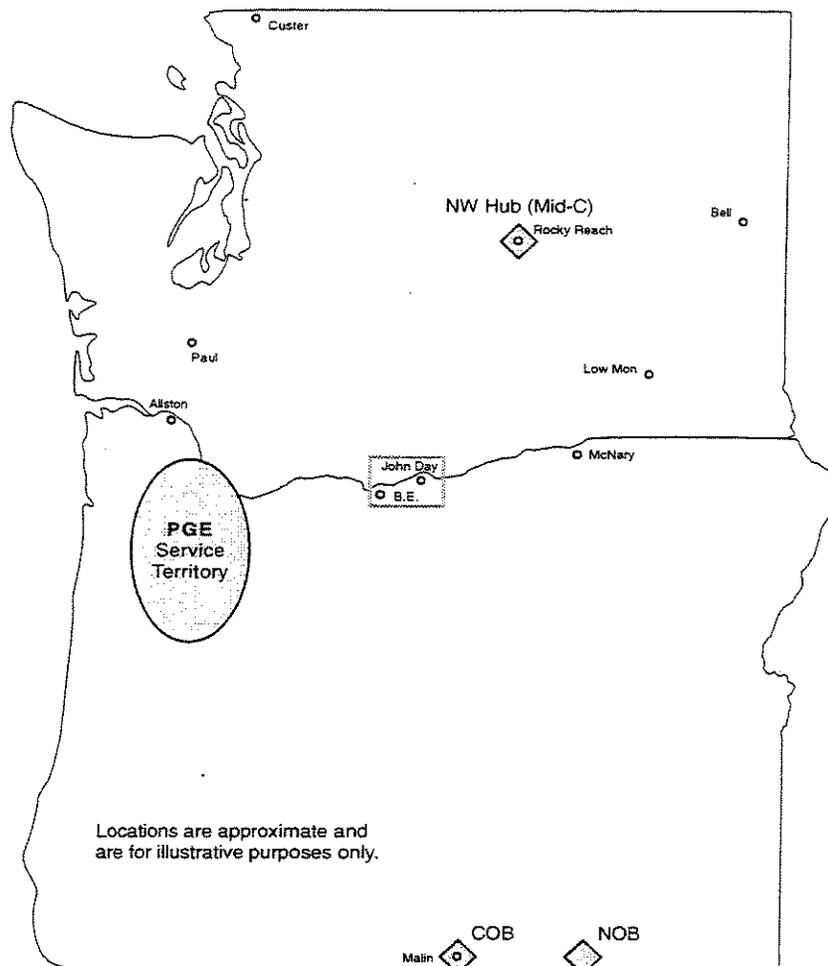


Figure 3. Map of PODs

For proposed projects within PGE's service territory, interconnection to, and transmission service on, PGE's transmission system will be provided under the terms and conditions of PGE's federal Open Access Transmission Tariff (OATT), PGE's Generator Interconnection Guidelines and all applicable orders and rules. PGE's Generator Interconnection Guidelines are available at: http://oasis.portlandgeneral.com/pdf/gen_inter.pdf

Physical Project Characteristics

This category captures the physical characteristic risks of the bid product that affect PGE. The evaluation criteria for this category generally address physical and operational risks associated with the production and delivery of power to PGE. Some of the characteristics that we will consider in our scoring are:

- Resource supply diversity.
- Resource adequacy.
- Point-of-delivery (as discussed above).
- Project location.
- Fuel supply diversity, resource risk, and O&M reliability characteristics.
- Extension option.
- Natural gas delivery point (for capacity products only).

To reward local economic development, our scoring includes a modest non-price scoring benefit for location within Oregon, and a somewhat higher benefit for location within our service territory.

Power Product Characteristics

This category scores how well the bid product matches PGE's system operating needs. The evaluation criteria for this category generally address price, performance and supply portfolio concentration risks, along with the benefits of flexibility and optionality. Some of the characteristics that we will consider in our scoring are:

- Guaranteed Availability Factor (GAF) and compensation for failure to achieve it.
- Dispatchability.
- Product flexibility.
- Contract term.
- Amount (MW per hour).
- Deviations from capacity product term sheet.

Credit Evaluation

This category scores the creditworthiness of the Bidder. We will consider the following bid credit considerations in our scoring:

- Debt and equity ratings.
- Performance assurance.

Criteria Used for Scoring Qualified Bids

- Financial ratio analysis.
- Default risk.
- Credit concentration and liquidity effect.
- Enforceability of contractual credit terms.
- Bidder revisions to contract templates that may affect credit requirements.

Environmental Impacts

This category captures environmental concerns in our scoring system. We will use an updated version of the damage factor approach described in the Competitive Bid Order (see Appendix T), as negotiated with participants in our RFP public process and approved by the OPUC. PGE will reflect in scoring any required or voluntary commitments to mitigate environmental impacts of projects, *e.g.*, payments to the Oregon Climate Trust to mitigate for emissions.

PGE is willing to weigh other project specific environmental benefits that a Bidder is able to offer that are not mentioned in this solicitation. Bidders are encouraged to describe any such project-specific factors that they believe would be attractive to PGE.

Considerations for Renewable Resource Products

Minimum Bid Threshold – While we set a minimum quantity threshold of 25 MW/h for proposals submitted through this RFP, we set a lower minimum of 5 MW/h for bids supplied by renewable resources.

Firm Physical Energy Purchases from Non-dispatchable, Intermittent Resources – Bids for firm energy from such resources as wind or solar require integration services to supply a firm, in-hour product. Bidders have the choice of acquiring integration services on their own behalf, or requesting that PGE supply such services. Because PGE has a limited ability to self-supply such services, we will generally prefer to acquire such services on the bidder's behalf from another supplier, such as BPA. In making this decision, PGE will evaluate market prices for integration services and our own resource mix and internal opportunity cost. If a bidder would like PGE to supply integration services, we will add to the bidder's price the cost of acquiring such services, based on our evaluation of market prices.

Another important element of integration services is the scheduling notice period. Longer notice periods provide load-serving entities higher supply certainty and reduced exposure to market risk by limiting reliance upon spot markets to absorb fluctuations in energy production. For non-price scoring

purposes, PGE prefers to know as far in advance as possible the amount of energy to be supplied in any given hour.

We will award the highest non-price score to products which, after integration, provide a flat volume of power (MW/h) for all hours. However, we recognize that such certainty has an associated cost, and will score that as part of the price factor scoring. For example, we would expect the price of a product that is flat for all hours, *i.e.*, no variability, to be more expensive than a variable product provided with a 168-hour scheduling notice. Both of these products would likely be more expensive than one provided with a 24-hour scheduling notice. We expect the product with the combination of lowest price and the longest scheduling notice to achieve the highest overall score.

Price to PGE – The ETO has up to \$9 million that could be used to “buy down” the costs of renewable resources, thereby making them competitive with non-renewable resources (see Appendix S). The Trust may help fund more than one project, but reserves the right to make no offers to renewable proposals. PGE will score bids for renewable resources based on their price to PGE, after applying any subsidies agreed to by the ETO.

PGE is prepared to evaluate renewable product bids both with and without green tags. Green tags, however, are required in all bids that assume financial support from the ETO. Bidders are required to indicate whether they intend to seek the ETO subsidy in support of their bids.

The ETO has a preference for projects based in Oregon, but will defer judgement until bids are reviewed and costs are defined.

Technical evaluation of renewables-based bids – PGE will use consultants, if necessary, to help us evaluate such technical information as wind speed, solar incidence data, and geothermal reservoir exploration and modeling.

Post-Bid Negotiations

PGE's goal is to conduct an efficient post-bid negotiation process. PGE will initiate negotiations with a short list of bidders whose proposals rank highest in the evaluation process and whose proposed transactions, PGE believes in its sole discretion, offer value to PGE's energy and capacity supply portfolio for customers, and have a reasonable likelihood of being executed.

The number of bidders with whom negotiations will be held will depend upon the bids received, the results of the scoring process and other factors described more fully in the chapters "Bid Evaluation Process" and "Criteria Used for Scoring Qualified Bids." Selection for the short-list and initiation of negotiations do not constitute a winning bid.

PGE intends to negotiate price and non-price elements during the post-bid negotiations. Any contract contemplated by this RFP shall not bind PGE until execution of a definitive agreement by both PGE and the bidder and, if required, the agreement is approved or otherwise authorized by the appropriate regulatory agencies, including the OPUC and FERC. By gaining such approval or authorization of contracts before executing them, we are striving to protect our customers and shareholders from the risks associated with obtaining resources that may later be invalidated by our regulators.

A number of factors will likely be considered in the post-bid process to ensure an appropriate fit with our overall energy and capacity portfolio. These include concentrations of risk and contract terms, firmness of delivery, fuel risk exposure and leverage effects.

Leverage effects refers to the effect of long-term contracts on PGE's debt-equity ratio, which affects our cost of credit. If PGE purchases power under a contract requiring fixed payments, Standard & Poor's will calculate the net present value (NPV) of the fixed payments and impute a percentage of that as debt on PGE's balance sheet. A leverage adjustment is an important factor that will be considered during the post-bid process.

PGE shall have no obligation to enter into a definitive agreement with any Bidder to this RFP and, at its sole discretion, may terminate negotiations with any Bidder at any time without liability or obligation to any Bidder.

In the event negotiations with Bidders do not produce final and fully executed contracts satisfactory to PGE for its resource targets under the RFP, PGE reserves the right to pursue any and all other resource options available to it.

Appendix A – Energy Product, Baseload Tolling Service

Sample Term Sheet – For Discussion Only

Product: Baseload Tolling Service should provide PGE the daily right to convert natural gas to electricity according to the pre-defined physical and operating characteristics of the Bidder's tolling facility. In consideration of such right, PGE will pay the Bidder a capacity charge over the contract term.

Seller: Bidder.

Purchaser: Portland General Electric Company (PGE).

Tolling Facility: Bidder's natural gas fueled electric generating plant or network of plants as mutually agreeable to PGE and the Bidder.

Available Hours: On-peak and off-peak hours. On-peak hours include hours ending 0700 through 2200, Pacific Prevailing Time (PPT), Monday through Saturday, excluding NERC holidays. Off-peak hours include hours ending 0100 through 0600 and hours ending 2300 through 2400, PPT, Monday through Saturday, and hours ending 0100 through 2400, PPT, Sundays and NERC holidays.

Term: Bidder to provide.
Sample: Commencing October 1, 2006, for up to 20 years.

Contract Quantity: 25 MW/h minimum, 600 MW/h maximum.

Available Capacity: Bidder to provide.
Preferred: 50 to 150 MW/h.

Heat Rate: Bidder to provide.
Preference: Less than 7,300 Btu per kWh (HHV) at full power.

VOM: Bidder to provide.
Sample: Variable operation and maintenance rate: \$2.50 per MWh, to be paid by PGE to the Bidder for all hours that PGE dispatches the tolling facility.

Delivery Point: Bidder to provide.
Preferred: PGE's system.

- Fuel Delivery Point:* Bidder to provide.
Preferred: PGE to deliver fuel to a trading hub, such as AECO or Sumas, with the Bidder to supply all additional gas transportation services.
Sample: PGE to deliver fuel to an agreed-upon trading hub or pipeline interconnection, and be responsible for all expenses related to the transportation of fuel to that trading hub or pipeline interconnection.
- Fuel Supply:* Bidder to provide.
Sample: PGE shall be responsible for all expenses related to the acquisition of fuel.
Note: Bidders interested in providing the fuel for this tolling service should describe in detail the services, pricing, terms and conditions associated with this service, and should indicate whether their supplying fuel is an option or a requirement of their proposal.
- Dispatch:* Bidder to provide.
Sample: PGE has the right of daily dispatch on a customary pre-schedule basis. Real-time hourly adjustments shall be made available according to pre-established facility ramp-rates, start-up costs and dispatch protocols. Energy shall be scheduled according to customary WECC scheduling practices.
- Availability Guarantee:* Bidder to provide.
Sample: 97 percent capacity availability over the contract Term. Scheduled maintenance shall not exceed 400 hours per year, except for major overhauls required by manufacturer specifications.
- Maintenance:* Bidder shall be responsible for all operation and maintenance expenses for the tolling facility (except VOM as stated above). The Bidder agrees to maintain the tolling facility according to the manufacturer's and operator's recommended guidelines. Bidder and PGE shall coordinate all planned maintenance outages. However, the Bidder agrees that no planned annual maintenance outages will be scheduled during the months of November through February, and July through September. Other planned maintenance shall be performed on weekends.
- Capacity Charge:* Bidder to provide.
Sample: \$USD ____ per kW month paid monthly during the term.

Appendix B – Energy Product, Firm Physical Energy Purchase

Sample Term Sheet – For Discussion Only

<i>Product:</i>	Firm Physical Energy Purchase.
<i>Product Seller:</i>	Bidder.
<i>Product Purchaser:</i>	Portland General Electric Company (PGE).
<i>Available Hours:</i>	On-Peak and off-peak hours. On-peak hours include hours ending 0700 through 2200, Pacific Prevailing Time (PPT), Monday through Saturday, excluding NERC holidays. Off-peak hours include hours ending 0100 through 0600 and hours ending 2300 through 2400, PPT, Monday through Saturday, and hours ending 0100 through 2400, PPT, Sundays and NERC holidays.
<i>Term:</i>	Bidder to provide. <i>Sample: Commencing October 1, 2006, for up to 20 years.</i>
<i>Contract Quantity:</i>	Bidder to provide. <i>Sample: 25 MW/h minimum, 600 MW/h maximum.</i> <i>Preferred: 50 to 150 MW/h; 5 to 150 MW/h for renewables.</i>
<i>Delivery Point:</i>	Bidder to provide. <i>Preferred: PGE service territory..</i>
<i>Quality:</i>	Firm transactions as defined in “About the Term Sheets.” Bidders proposing energy service from non-dispatchable sources, such as hydro, wind or solar, must provide descriptions and costs of ancillary services required to firm their products.
<i>Energy Payment:</i>	Bidder to provide. <i>Sample: \$USD ____ per MWh.</i>

Appendix C – Energy Product, Firm Financial Energy Purchase

Sample Term Sheet – For Discussion Only

- Product:* Firm Financial Energy Purchase. PGE to purchase fixed for floating swaps or other substantially similar energy price risk-management products. These products should obligate PGE to pay a fixed price in exchange for variable price payments to PGE, based on a mutually-agreeable and predetermined daily price index. The price index should be transparent and representative of Northwestern wholesale power markets such as the Dow Jones Mid-Columbia Daily Index for Firm Power.
- Product Seller:* Bidder.
- Product Purchaser:* Portland General Electric Company (PGE).
- Available Hours:* On-Peak and off-peak hours. On-peak hours include hours ending 0700 through 2200, Pacific Prevailing Time (PPT), Monday through Saturday, excluding NERC holidays. Off-peak hours include hours ending 0100 through 0600 and hours ending 2300 through 2400, PPT, Monday through Saturday, and hours ending 0100 through 2400, PPT, Sundays and NERC holidays.
- Term:* Bidder to provide.
Sample: Commencing October 1, 2006, for up to 20 years.
- Contract Quantity:* Bidder to provide.
Sample: 25 MW's per hour minimum, 200 MW's per hour maximum.
Preferred: 50 to 150 MW's per hour.
- Purchaser Pays:* Bidder to provide – Fixed price.
Sample: \$USD ____ per MWh.
- Bidder Pays:* Daily Index.
Sample: Mid-Columbia Daily Electricity Price Index as published in the Dow Jones Daily Index for Mid-C Firm, On-peak and Off-peak hours.

Appendix D – Energy Product, Firm Shaped Energy Purchase

Sample Term Sheet – For Discussion Only

Product: Firm Shaped Energy Purchase.

Product Seller: Bidder.

Product Purchaser: Portland General Electric Company (PGE).

Purchase Hours: Q1 and Q4: Hours ending 0700 through 1000, and hours ending 1700 through 2000, Pacific Prevailing Time (PPT), Monday through Saturday, excluding NERC holidays.
Q2: Hours ending 0800 through 1100, and hours ending 1700 through 2000, PPT, Monday through Saturday, excluding NERC holidays.
Q3: Hours ending 1400 through 2100, PPT, Monday through Saturday, excluding NERC holidays.
Note: Quarters referred to are calendar quarters.

Term: Bidder to provide.
Sample: Commencing October 1, 2006, for up to 20 years.

Contract Quantity: Bidder to provide.
Sample: 25 MW/h minimum, 600 MW/h maximum.
Preferred: 50 to 150 MW/h for all on-peak hours.

Delivery Point: Bidder to provide.
Preferred: PGE System.,

Quality: Firm transactions as defined in "About the Term Sheets."

Energy Payment: Bidder to provide.
Sample: \$USD ____ per MWh.

Appendix E – Energy Product, Elements of an Ownership Offer

Draft– For Discussion Only

PGE invites offers for ownership positions of up to 600 MW/h that fit our mid- to long-term resource requirements. In making such proposals, Bidders are asked to provide the following:

- Detailed description of the project including, but not limited to, the location, availability of transmission, fuel type and fuel transportation.
- Current and proposed ownership structure.
- Project *pro forma* financial operating statements and documentation supporting significant assumptions. Documentation should at least address operating and financial information, such as output and efficiency, estimates for unit availability, O&M costs, fuel and fuel transportation costs, transmission costs and losses, expected ongoing capital requirements, warranties and guarantees, project operating characteristics, and all regulatory compliance requirements.
- Current and proposed capital structure.
- Legal and regulatory requirements to complete siting and construction.
- Whether the project is turnkey, or PGE will be involved in the development.
- Whether the project would be operated under a joint ownership arrangement.
- Payment schedule for purchase of ownership position.
- Current and proposed operating agreement(s).
- Description of project management and workforce agreements(s).
- Associated development contract, *e.g.*, Engineering, Procurement and Construction (EPC), long-term service agreement (LTSA).
- Joint ownership agreement, if any.
- For projects currently in operation, provide operating history and any other information required to evaluate the proposal.
- For projects in the planning or development phase, provide information on liquidated damages related to the project missing significant project development and operational milestones and missing the stated capacity. Also, describe the developer's insurance coverage during construction and at project completion including insurance amounts, deductibles, and the timing of coverage effectiveness.

PGE retains the right to contact contractors, equipment suppliers and others engaged in developing or operating the project(s) described in the ownership proposal. PGE may also request additional information relevant to specific bids.

Appendix F – Capacity Product, Peak Tolling

Sample Term Sheet – For Discussion Only

Product: Peak Tolling should provide PGE the daily right to convert natural gas to electricity according to the pre-defined physical and operating characteristics of the Bidder's tolling facility. In consideration of such right, PGE will pay the Bidder a capacity charge over the contract term.

Seller: Bidder.

Purchaser: Portland General Electric Company (PGE).

Tolling Facility: Bidder's natural gas fueled electric generating plant or network of plants as mutually agreeable to the PGE and Bidder.

Available Hours: On-peak hours, which include hours ending 0700 through 2200, Pacific Prevailing Time (PPT), Monday through Saturday, excluding NERC holidays.

Term: Bidder may provide one or both of the following options in the same bid:
Preferred: Months of December, January and February of each year, commencing December 1, 2005 for two to 20 years.
Will also consider: Months of July, August and September of each year, commencing July 1, 2006, for at least two years.

Available Capacity: Bidder to provide.
Sample: 100 MW/h.
Preferred: 50 MWh per hour to 100 MW/h.
Limits: Bids must exceed 25 MW/h and not be greater than 400 MW/h.

Exercise Quantity: Bidder to provide.
Sample: Exercise of up to 8 hours per day in increments of at least 4 continuous hours.

Heat Rate: Bidder to provide.
Sample: Guaranteed at 12,500 Btu per kWh (HHV) at full power.

VOM: Bidder to provide.
Sample: Variable operation and maintenance rate: \$_____ per MWh. To be paid by PGE to the Bidder for all hours that PGE dispatches the tolling facility.

- Delivery Point:* Bidder to provide.
Preferred: PGE's service territory.
- Fuel Delivery Point:* Bidder to provide.
Preferred: PGE to deliver fuel to a trading hub, such as AECO or Sumas, with the Bidder to supply all additional gas transportation services.
Sample: PGE to deliver fuel to an agreed-upon trading hub or pipeline interconnection, and to be responsible for all expenses related to the transportation of fuel to the agreed-upon trading hub or pipeline interconnection.
- Fuel Supply:* Bidder to provide:
Sample: PGE shall be responsible for all expenses related to the acquisition of fuel.
Note: Bidders interested in providing the fuel for this tolling service should describe in detail the services, pricing, terms and conditions associated with this service, and should indicate whether their supplying fuel is an option or a requirement of their proposal.
- Dispatch:* PGE has the right of daily dispatch on a customary pre-schedule basis. Real time hourly adjustments shall be made available according to pre-established facility ramp-rates, start-up costs and dispatch protocols. Energy shall be scheduled according to customary WECC scheduling practices.
- Capacity Charge:* Bidder to provide.
Sample: \$USD ____ per kW-month paid monthly during the term.

Appendix G – Capacity Product, Fixed Strike Daily Physical Capacity
Sample Term Sheet – For Discussion Only

Product: Fixed Strike Daily Electricity Physical Capacity.

Seller: Bidder.

Purchaser: Portland General Electric Company (PGE).

Available Hours: On-peak hours. On-peak hours include hours ending 0700 through 2200, Pacific Prevailing Time (PPT), Monday through Saturday, excluding NERC holidays.

Exercise Periods: Daily, for any on-peak hours for each calendar day. The product must be exercised in a minimum of 4-hour continuous blocks.

Term: Bidder may provide one or both options in the same bid:
Preferred: Months of December, January and February of each year, commencing December 1, 2005 for two to 20 years.
Will also consider: Months of July, August and September of each year, commencing July 1, 2006 for at least two years.

Contract Quantity: Bidder to provide.
Sample: 25 MW/h minimum, 400 MW/h maximum, when option is exercised.
Preferred: 50 to 100 MW/h, when option is exercised.

Quality: Firm transactions, as defined in "About the Term Sheets."

Delivery Point: Bidder to provide.
Preferred: PGE service territory.

Energy Charge: Bidder to provide.
Sample: \$USD ____ per MWh.

Exercise Procedure: For each day during the Term that PGE chooses to exercise the Product, PGE will notify Bidder by 6:30 AM PPT of the customary scheduling day of its intention to receive firm, on-peak energy at the delivery point according to the selected exercise periods. All energy shall be pre-scheduled according to customary WECC scheduling practices.

Option Premium: Bidder to provide.
Sample: \$USD ____ per kW-month.

Appendix H – Capacity Product, Fixed Strike Daily Financial Capacity

Sample Term Sheet – For Discussion Only

- Product:* Fixed Strike Daily Electricity Financial Capacity. Daily fixed strike call options with financial settlement. Daily call options should provide PGE with the daily right to pay a fixed strike price in exchange for variable price payments to PGE based on a mutually agreeable and predetermined index price. The index price should be transparent and representative of Northwest wholesale power markets such as the Dow Jones Mid-Columbia Daily Index for Firm Power.
- Seller:* Bidder.
- Purchaser:* Portland General Electric Company (PGE).
- Available Hours:* On-peak hours. On-peak hours include hours ending 0700 through 2200, Pacific Prevailing Time (PPT), Monday through Saturday, excluding NERC holidays.
- Exercise Periods:* Daily, for any on-peak hours for each calendar day.
- Term:* Bidder may provide one or both options in the same bid:
Preferred: Months of December, January and February of each year, commencing December 1, 2005 for two to 20 years.
Will also consider: Months of July, August and September of each year, commencing July 1, 2006 for at least two years.
- Contract Quantity:* Bidder to provide.
Sample: 25 MW's per hour minimum, 200 MW's per hour maximum, when option is exercised.
Preferred: 50 to 100 MW's per hour, when option is exercised.
- Strike Price:* Bidder to provide.
Sample: \$USD ____ per MWh.
- Index Price:* Daily Index.
Sample: Mid-Columbia Daily Electricity Price Index as published in the Dow Jones Daily Index for Mid-C Firm, On-peak hours.
- Exercise Procedure:* For each day during the term that PGE chooses to exercise the Product, PGE will notify Bidder by 6:30 AM PPT of the customary scheduling day of its intention to receive cash-flows based on the index price in exchange for cash-flows based on the strike price.
- Option Premium:* Bidder to provide.
Sample: \$USD ____ per kW-month.

Appendix I – Capacity Product, Daily Exchange

Sample Term Sheet – For Discussion Only

- Product:* Daily Electricity Exchange (daily shaping) should provide PGE the right to deliver an amount of energy for storage at rates up to the maximum contract MW per hour. PGE has the right to receive a like quantity of energy at rates up to the maximum MW per hour within 24 hours of delivery. The delivery and return quantity and hourly shape are to be specified by PGE on a day-ahead (pre-schedule) basis. In all cases, the total energy delivered by PGE and returned by the Bidder shall match in quantity and quality for each 24-hour period.
- Seller:* Bidder.
- Purchaser:* Portland General Electric Company (PGE).
- Available Hours:* PGE may receive during on-peak and return during off-peak hours. On-peak hours include hours ending 0700 through 2200, Pacific Prevailing Time (PPT), Monday through Saturday, excluding NERC holidays. Off-peak hours include hours ending 0100 through 0600 and hours ending 2300 through 2400, PPT, Monday through Saturday, and hours ending 0100 through 2400, PPT, Sundays and NERC holidays.
- Exercise Periods:* Daily, for any on- or off-peak hours for each calendar day.
- Term:* Bidder may provide one or both of the following options in the same bid:
Preferred: Months of December, January and February of each year, commencing December 1, 2005 for two to 20 years.
Will also consider: Months of July, August and September of each year, commencing July 1, 2006 for at least two years.
- Contract Quantity:* Bidder to provide.
Preferred: 50 to 100 MW/h. Delivery by PGE may precede receipt by PGE.
Sample: 100 MW/h maximum receipt by PGE, 100 MWh maximum delivery by PGE. Energy must net zero each day. Delivery by PGE may precede receipt by PGE.

- Quality:* Firm transactions, as defined in "About the Term Sheets."
- Delivery Point:* Bidder to provide.
Preferred: PGE's service territory.
- Energy Charge:* Bidder to provide.
Sample: \$USD ____ per MWh.
Note: Can be zero.
- Exercise Procedure:* For each day during the term that PGE chooses to exercise the Product, PGE will notify Bidder by 6:30 AM PPT of the customary scheduling day of its intention to receive firm, on-peak energy and deliver firm, off-peak energy at the delivery point in a profile consistent with the contract quantity. All energy shall be pre-scheduled according to customary WECC scheduling practices.
- Demand Charge:* Bidder to provide.
Sample: \$USD ____ per kW-month.

Appendix J – Capacity Product, Short-Term Exchange

Sample Term Sheet – For Discussion Only

<i>Product:</i>	Short-Term Energy Exchange (intra-week capacity and energy return) should provide PGE the right to receive from the Bidder and return to the Bidder a quantity of energy within minimum and maximum per hour receipt and return restrictions. The total quantity of energy received by PGE from the Bidder for each day shall be returned to the Bidder within 168 hours of receipt by PGE. The receipt and return quantity and hourly shape are to be specified by PGE on a day-ahead (pre-schedule) basis. In all cases, the total energy delivered and received by PGE and the Bidder in any 168 hour period shall match in quantity, quality, delivery and receipt point.
<i>Seller:</i>	Bidder.
<i>Purchaser:</i>	Portland General Electric Company (PGE).
<i>Available Hours:</i>	On-peak and off-peak hours. On-peak hours include hours ending 0700 through 2200, Pacific Prevailing Time (PPT), Monday through Saturday, excluding NERC holidays. Off-peak hours include hours ending 0100 through 0600 and hours ending 2300 through 2400, PPT, Monday through Saturday, and hours ending 0100 through 2400, PPT, Sundays and NERC holidays.
<i>Exercise Periods:</i>	Daily, for any on-peak or off-peak hours for each calendar day. The product must be exercised in blocks of at least four continuous hours.
<i>Term:</i>	Bidder to provide. <i>Sample: December 1, 2005 for at least two years.</i>
<i>Available Receipt & Return Capacity:</i>	Bidder to provide. <i>Preferred: In blocks of 50 to 100 MW/h, when exercised.</i> <i>Sample: 50 MW/h, in increments of 25 MW/h; maximum of 1,200 MWh per exercise period (daily).</i>
<i>Contract Quantity:</i>	25 MW/h minimum, 400 MW/h maximum when option is exercised.
<i>Quality:</i>	Firm transactions, as defined in "About the Term Sheets."
<i>Delivery & Receipt Point:</i>	Bidder to provide. <i>Preferred: PGE's service territory.</i>

Energy Charge: No energy charge. Price, quantity and delivery point for energy exchanged for each 168 hour period shall match and net to zero. If during any 168 hour period an imbalance in energy exchanged occurs, such imbalance shall be resolved through the scheduled delivery of energy from the excess party to the deficit party in a subsequent hour as soon as practical, bringing the net energy exchanged to zero.

Demand Charge: Bidder to provide.
Sample: \$USD ____ per kW-month.

Exercise Procedure: For each day during the term that PGE chooses to exercise the Product, PGE will notify Bidder by 6:30 AM PPT of the customary scheduling day of its intention to receive firm, on-peak and off-peak energy at the delivery and receipt point for the selected exercise periods. If so elected, PGE shall subsequently schedule and return a like quantity and quality of energy to Bidder within 168 hours at the delivery and receipt point. All energy shall be pre-scheduled according to customary WECC scheduling practices.

Appendix K – Capacity Product, Seasonal Exchange

Sample Term Sheet – For Discussion Only

<i>Product:</i>	Variable Quantity Seasonal Energy Exchange (Summer for Winter Energy Exchange) should provide each Party the right to schedule and receive energy within minimum and maximum constraints during the Party's respective receipt season.
<i>Winter Receipt Party:</i>	Portland General Electric Company (PGE)
<i>Summer Receipt Party:</i>	Bidder.
<i>Receipt Season:</i>	PGE's receipt season shall be winter ("Winter Receipt"), defined as the months of December, January, and February. Bidder's receipt season shall be summer ("Summer Receipt"), defined as the months of July, August, and September.
<i>Available Hours:</i>	On-peak and off-peak hours. On-peak hours include hours ending 0700 through 2200, Pacific Prevailing Time (PPT), Monday through Saturday, excluding NERC holidays. Off-peak hours include hours ending 0100 through 0600 and hours ending 2300 through 2400, PPT, Monday through Saturday, and hours ending 0100 through 2400, PPT, Sundays and NERC holidays.
<i>Exercise Periods:</i>	Daily, for any on-peak or off-peak hours for each calendar day.
<i>Term:</i>	Beginning December 1, 2005, for two to 20 years.
<i>Contract Quantity:</i>	25 MW/h minimum, 400 MW/h maximum, when exercised.
<i>Available Receipt & Return Capacity:</i>	Bidder to provide. <i>Preferred: Blocks of 50 to 100 MW/h when exercised. Lower limits on MWh per season.</i> <i>Sample: Variable, 100 MW/h in increments of 25 MW/h up to 2,400 MWh per day, when exercised, up to 10,000 per month and 30,000 MWh per season.</i> <i>Note: Prior to execution of contract, Parties will negotiate a maximum MWh per season of between 10,000 and 30,000 MWh.</i>
<i>Minimum & Maximum Constraints:</i>	Bids must exceed 25 MW/h and not be greater than 400 MW/h.
<i>Quality:</i>	Firm transactions, as defined in "About the Term Sheets."

<i>Winter Delivery & Receipt Point :</i>	Bidder to provide. <i>Preferred: PGE's service territory.</i>
<i>Summer Delivery & Receipt Point:</i>	Bidder to provide. <i>Preferred: COB or NW Market/Mid-Columbia Hub.</i>
<i>Energy Charge & Settlement Process:</i>	No energy charge. Price and quantity for energy exchanged for each 12-month period, consisting of the annual combination of Summer and Winter receipt seasons, shall match and net to zero. If during any receipt season either Party elects to schedule and receive less than the maximum quantity of energy for the season, and if such election results in a deficit or excess of total energy exchanged between the Parties for the 12-month period, neither Party will be obligated to deliver or receive additional energy, or other form of compensation, at any point in the future to balance the total quantity of energy exchanged for such 12-month period.
<i>Demand Charges:</i>	The value of the receipt seasons, quantities and PODs should be calibrated to achieve economic parity between the parties, and as a result no demand charges will be paid by either party. When such economic parity cannot be achieved, the appropriate demand charge will be negotiated between the Parties.
<i>Exercise Procedure:</i>	<p>For each day during the Winter period, PGE shall notify Bidder by 6:30 AM PPT of the customary scheduling day of its intention to exercise its right to receive energy and its intended delivery schedule. On those days on which PGE so exercises its right to receive energy, Bidder will be obligated to deliver firm transactions, as defined in "About the Term Sheets," at the Winter receipt point for such following day (or days).</p> <p>For each day during the Summer period, Bidder shall notify PGE by 6:30 AM PPT of the customary scheduling day of its intention to exercise its right to receive energy and its intended delivery schedule. On those days on which Bidder so exercises its right to receive energy, PGE will be obligated to deliver firm transactions, as defined in "About the Term Sheets," at the summer receipt point for such following day (or days).</p> <p>All energy shall be pre-scheduled according to customary WECC scheduling practices.</p>

Appendix L – Firm Physical Wholesale Energy Purchase and Sale Agreement

Template provided separately.

Appendix M – Physical Capacity Purchase and Sale Agreement

Template provided separately.

Appendix N – Capacity Exchange Agreement

Template provided separately.

Appendix O – Tolling Agreement

Template provided separately.

Appendix P – Firm Financial Energy and Capacity Purchase and Sale Agreement

Template provided separately.

Appendix Q – Required Bidder Profile

Company Name:		
Name of Contact:		
Title:		
Mailing Address:		
Telephone:	Fax:	E-mail:

Bidder's general background and principal business:

Legal entity that would be the contracting party to a power purchase contract with PGE. State whether this entity will be formed for the sole purpose of the project and a description of the ownership and debt arrangements:

Describe relationship of Bidder and Contracting Party, if any, to Enron and any Enron affiliate. Describe percentage of project or product owned by Enron or any Enron affiliate.

Bidder's senior unsecured debt rating: .
 Standard & Poor's, Moody's Investor Services., Inc.

One- or two-paragraph summary of proposal):

Appendix R – Required Bid Information

Please use the following multi-page form to provide required information regarding each bid. Wherever possible, enter information directly onto the form. Check boxes () indicate documents that are likely to be provided as attachments to the form.

Required Information

<p><i>Term Sheet:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Provide a term sheet describing power product being bid, including any exceptions or modifications to the applicable sample term sheet found in the RFP. <input type="checkbox"/> Submit the appropriate sample purchase agreement" provided with the RFP including all requested amendments to the document. All modifications of the credit terms and conditions will be used for the credit evaluation:
<p><i>Source of supply:</i> Will the bid will be supplied from:</p> <ul style="list-style-type: none"> <input type="checkbox"/> A specific project. <input type="checkbox"/> A portfolio of projects. <input type="checkbox"/> A system sale not necessarily tied to specific projects. <input type="checkbox"/> A financial transaction without reliance on specific resources. <p>Identify all project(s) that will be used to supply the bid:</p>
<p><i>Price:</i></p> <p>Provide any additional price information not already captured in the term sheet:</p>
<p><i>Term:</i> Include any provisions for renewal or extension:</p>
<p><i>Power Product Quality:</i></p> <p>For energy service from intermittent, non-dispatchable sources such as wind and solar, describe Bidder's approach for obtaining the integration services needed to firm their products:</p>
<p><i>Product-specific Information:</i></p> <p>Provide any additional information not already captured in the term sheet:</p>
<p><i>Resource Adequacy Considerations:</i></p> <p>For products supplied from portfolios or system sales, will the Bidder assign specific regional resources to support the product should a regional or national resource adequacy standard be implemented? If so, identify the resources.</p>

Appendix R – Required Bid Information

Bids for Renewable Resources, Seeking a Subsidy from the ETO

Does the Bidder intend to seek a subsidy from the ETO?

Yes No

Request *Pro Forma* from Parties Seeking Support from the ETO

Provide a summary of the major project capital and operating expenses and documentation to support the reasonableness of the estimates. Include a budget with a breakdown of projected capital costs.

Provide *pro forma* financing projections showing the projected cash flow and financing. At a minimum the *pro forma* should include the following:

- Annual energy production and assumed revenue.
- Annual operating expenses including lease or royalty payments.
- Planned or required reserve and contingency amounts.
- Transmission costs, losses and ancillary services to delivery energy produced at the project to the POD.
- Debt service and debt coverage ratios.
- Depreciation.
- Taxes.
- Net Income.
- Equity rate of return.

Provide the *pro forma* in hard copy and electronically as an Excel file.

Credit Support and Quality of Credit

Provide the following:

- A corporate organizational chart identifying the Bidder and, if applicable, the Bidder's financial Guarantor.
- A list describing the relationship of the Bidder to its financial Guarantor, the developer and development team, or the thermal host, as applicable.
- The unsecured credit ratings of the Bidder, the Bidder's financial guarantor, the developer and the development team, or the thermal host, as applicable.
- The most recent summary, opinion or update by S&P and Moody's, as applicable.
- The Dun & Bradstreet number of the Bidder, the Bidder's financial guarantor, developer and the development team, or the thermal host, as applicable.
- Bidder's audited financial statements for the three most recent fiscal years. In the event Bidder cannot provide the information, Bidder shall provide that information for its financial Guarantor.
- Audited financial statements for the three most recent fiscal years from the developer and development team.
- Audited financial statements for the three most recent fiscal years from the thermal host associated with a cogeneration resource, as applicable.

All transactions are contingent upon the Bidder, or its financial Guarantor, meeting and maintaining the credit and performance assurance requirements established by PGE's Wholesale Credit Department.

Point-of-Delivery

Identify the POD(s) for the bid:	
Provide evidence satisfactory to PGE of the Bidder's ability to deliver the power product to each specified POD on a firm basis. Including the following information:	
Describe all applicable transmission agreements:	
Identify any restrictions on operation imposed by applicable interconnection and transmission agreements. Include any requirement to participate in remedial action schemes or be subject to re-dispatch as identified by the transmission provider.	
If the proposed POD is not within PGE's service territory, describe the basis upon which the power is expected to be delivered to PGE's service territory, including:	
Provide expected contract path.	
<input type="checkbox"/> Firm <input type="checkbox"/> Non-firm. Please describe:	
Provide all relevant information that will help us evaluate the expected cost and timing associated with converting any non-firm transmission to firm transmission in the path to PGE's service territory.	
If Bidder has not obtained firm transmission rights to the specified POD, provide all relevant details, including:	
Key dates for finalizing the interconnection and transmission agreements.	
Dates	Agreements
Completion dates for transmission facility additions or modifications necessary to secure such service.	
Dates	Transmission Facility Additions

Appendix R – Required Bid Information

Fuel or Energy Source and Technology

Fossil-Fuel Technology

Complete a separate copy of this page for each fossil-fueled project used to supply the bid.

Project name:
Describe the normal annual maintenance outage for the project, including timing and expected duration.
List major outages planned during the contract period.
Provide a heat rate curve for the project showing heat rate versus output.
What is the primary fuel type to be used by the project? Are there restrictions that could limit the use of the primary fuel? Please describe. Can secondary fuel types be used by the project? If so, are there any restrictions on their use? Please describe.
For the primary fuel, is there access to fuel delivery from multiple sources, e.g., interconnections with multiple gas pipelines? Does the project have contracts for firm fuel transportation for the primary fuel? If so, for what term? What percentage of the total fuel needs are covered under these contracts?
Is there any fuel storage capability at the project site or held by the project at other sites? For tolling agreements, please indicate whether the storage capability would be available to PGE, in what amount and at what cost?

<p>If the bid assumes PGE will use fuel or fuel transportation contracts held by the project:</p> <p><input type="checkbox"/> Provide any documentation that will assist PGE in evaluating the supplier's financial strength and ability to meet its contract commitments.</p>
<p>For projects that are not already in commercial operation, identify new fuel transportation infrastructure needed before commercial operation of the project?:</p> <p>What actions are needed to ensure that this new infrastructure is developed in a timely manner to support the scheduled in-service date of the project?</p>
<p><input type="checkbox"/> Provide any additional information the Bidder believes is pertinent to evaluating access to fuels for the project.</p>

Biomass, Biogas and Solid Waste

Please fill out a separate copy of this page for each biomass, biogas or solid waste project used to supply the bid.

<p>Project name:</p>
<p><input type="checkbox"/> Provide documentation that will enable PGE to evaluate project fuel suppliers for current and future production and delivery capabilities, and financial strength.</p>
<p>Discuss the status of fuel supply and transportation contracts with potential suppliers and any contingencies that could affect the availability of fuel supply to the facility:</p>
<p><input type="checkbox"/> If contracts have not been signed, provide copies of correspondence or other materials from these parties that demonstrate their level of commitment to the project.</p>
<p>Projection of the price of fuel over the term of the proposed contract:</p> <p><input type="checkbox"/> Provide the basis for the price projection.</p>
<p>Projection of annual fuel availability for the term stated in your bid:</p> <p>Include assumptions and associated variable costs necessary to operate the unit and tipping fees received in association with procurement of fuel.</p>
<p>For projects not already in commercial operation, describe any new fuel transportation infrastructure that would be needed before commercial operation of the project:</p> <p>What actions are needed to ensure this new infrastructure is developed in a timely manner to support the scheduled in-service date of the project?</p>
<p><input type="checkbox"/> Provide any additional information the Bidder believes is pertinent to evaluating access to fuels for the project.</p>

Appendix R – Required Bid Information

Hydroelectric

Complete a separate copy of this page for each hydroelectric project used to supply the bid.

Project name:
For projects already in operation: Hourly net energy production records for the period that the project has been operating:
<input type="checkbox"/> Also provide a projection of forward-going energy production.
For all hydroelectric projects: <input type="checkbox"/> Provide resource assessment reports for the project, and augment if necessary with the following information:
Water flow data and basis of the project head assumptions used in the development of the net annual and monthly energy projections. Include: <input type="checkbox"/> Identification of the organization responsible for data collection and analysis, the period over which the data was collected, a discussion of the approach used for collecting data, and data quality assurance procedures. <input type="checkbox"/> The analysis used to determine the project head assumptions. <input type="checkbox"/> A table of projected monthly and annual water flows (average, adverse, and favorable) over the term of the proposed power purchase contract, including any assumptions for such projections, and a conversion of such flows into kilowatts and kilowatt-hours.
Does the project have a certificate from the Low Impact Hydroelectric Institute indicating the project meets the requirements for classification as a low impact hydroelectric project? If not, is the project seeking a certification from the Low Impact Hydroelectric Institute?
Describe the normal annual maintenance outage for the plant, including timing and expected duration. List major outages planned during the contract period:
Estimate the daily variability of flows which can be used to forecast the range in daily net energy output from the project:
Contingencies that could affect the availability of water flow and head to the facility: Include: <input type="checkbox"/> Present or future issues regarding fish or other concerns that could possibly place operational restrictions on the project. <input type="checkbox"/> Available hours of draw-down from any water storage at the project assuming full generator output, reservoir draw-down capability and downstream flow restrictions.
<ul style="list-style-type: none"> ▪ Plant configuration: ▪ Year built: ▪ Equipment ratings: ▪ Number of units: ▪ Ending date of the current license:

- Provide the detailed analysis used to estimate the annual and monthly net energy output of the hydroelectric project.
- List and individually quantify all sources of losses, and provide the basis for quantification.

Wind

Complete a separate copy of this page for each wind project used to supply the bid.

Project name:
Existing projects:
<ul style="list-style-type: none"> <input type="checkbox"/> Provide hourly net energy production records for the period that the project has been in operation.
All projects:
<ul style="list-style-type: none"> <input type="checkbox"/> Provide any assessment reports that have been prepared for the project and augment them if necessary with the following information:
Describe the normal annual maintenance outage for the plant, including timing and expected duration:
Major outages planned during the contract period:
<ul style="list-style-type: none"> <input type="checkbox"/> Provide source and basis of the wind speed data used in the development of the energy projections for the project. <p>Include:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Purpose and location of the data collection. <input type="checkbox"/> Period of record. <input type="checkbox"/> Number of on-site and off-site meteorological stations used. <input type="checkbox"/> Data quality assurance procedures. <input type="checkbox"/> Levels of measurements. <input type="checkbox"/> Seasonal data recovery and the organization responsible for the data collection and analysis. <input type="checkbox"/> Methodology used to develop the estimated long-term, hub-height, average annual wind speed and wind speed frequency distribution for the project site. <input type="checkbox"/> Time-of-day, monthly and annual representative hub-height wind frequency distributions at intervals of 0.5 m/s. Provide these tables on paper and electronically in an Excel file. <input type="checkbox"/> Duration of on-site measurements (minimum of one year strongly preferred).
Describe the equipment to be used and the layout of your wind project. Include the size, technology type and manufacturer of the individual wind turbine units:
<ul style="list-style-type: none"> <input type="checkbox"/> Provide the detailed analysis used to estimate the net annual and monthly energy output of the wind project. All sources of losses should be listed and individually quantified, along with the basis for quantification. <input type="checkbox"/> Provide a typical hourly energy production from the facility for a one-year period electronically as an Excel spreadsheet. We will use this information to understand the hourly variability of the resource.

Appendix R – Required Bid Information

Solar

Complete a separate copy of this page for each solar project used to supply the bid.

Project name:
<input type="checkbox"/> Provide any available assessment reports for the project and augment them, if necessary, with a detailed description of which the solar and climatic data that were recorded for the site, and how they were sampled and processed (minimum of one year of data strongly preferred).
Normal annual maintenance outage for the plant, including timing and expected duration:
Major outages planned during the contract period:
<input type="checkbox"/> Describe in detail the analysis that used the solar and climatic data from the site to estimate the net annual and monthly energy output from the project.
<input type="checkbox"/> Provide a typical hourly energy production from the facility for a one-year period electronically as an Excel spreadsheet. We will use this information to understand the hourly variability of the resource.
<input type="checkbox"/> List and quantify all sources of losses, and provide the basis for the quantification.
<input type="checkbox"/> Describe the solar incidence data supporting project energy generation assumptions.
<input type="checkbox"/> Describe source and location of the data obtained and, if different from project site, provide an engineering review of its applicability to the proposed site.
<input type="checkbox"/> Identify locations of any operating sites where technology identical to that proposed is employed.
Describe the physical layout of the plant:
Proposed type of solar cell technology:
Manufacturer and supplier of the photovoltaic panels:
<input type="checkbox"/> Provide operational history of the technology, and maintenance requirements.

Geothermal

Complete a separate copy of this page for each geothermal project used to supply the bid.

Project name:
Provide: <ul style="list-style-type: none"> <input type="checkbox"/> Project overview, site location and geological summary of site. <input type="checkbox"/> Resource assessment reports that have been prepared for the project and augment them if necessary with the following information.
Normal annual maintenance outage for the plant, including timing and expected duration:
Major outages planned during the contract period:
<ul style="list-style-type: none"> <input type="checkbox"/> Status of the exploration program at the site, including information on the organizations performing the field work, a summary of the various data collected at the site, and the approach used for validating that data.
<ul style="list-style-type: none"> <input type="checkbox"/> Describe the analysis used to convert data obtained from the geothermal site into a reservoir model. <input type="checkbox"/> Include an assessment of the resource potential, an estimate of the annual production from the resource, an estimate of resource life, and uncertainties associated with the development and life of the resource.
<ul style="list-style-type: none"> <input type="checkbox"/> Discuss the proposed geothermal power conversion technology appropriate for the site and the proposed long-term drilling program for the site. <input type="checkbox"/> Identify any innovative design or special operational features that will be required at this site.
<ul style="list-style-type: none"> <input type="checkbox"/> Provide the detailed analysis used to support the estimate of net annual and monthly energy output of the geothermal project. <input type="checkbox"/> List and quantify all sources of losses, and provide the basis for the quantification.
<ul style="list-style-type: none"> <input type="checkbox"/> Describe the type of the proposed geothermal production technology, the plant technology to be used, operational characteristics and maintenance requirements.

Appendix R – Required Bid Information

Resource Output

<p>For all proposals, provide the following information on the quantity of firm energy and peak capacity, if applicable, offered to PGE from the project. The amount offered must be the quantity of firm energy and capacity metered at the POD.</p>
<p>Project name:</p>
<p><i>Guaranteed Availability Factor</i></p> <p>Provide a Guaranteed Availability Factor (GAF) for all proposals:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Products that can supply the contracted quantity of megawatts per hour on a firm basis during all hours of the contract term will be deemed to provide a 100 percent GAF. The GAF should be a monthly value, and not include annual scheduled maintenance. <input type="checkbox"/> Annual maintenance outages must not be scheduled between November 1 and February 28, and between July 1 and September 30. <input type="checkbox"/> For year-around products, scheduled maintenance shall not exceed 400 hours per year, except for major overhauls required under a manufacturer's long-term service agreement. <input type="checkbox"/> Scheduled maintenance outage hours in excess of this requirement will be charged against the GAF. <input type="checkbox"/> Provide detailed information, including proposed dollar amounts, on how Bidder proposes to compensate PGE if the generating project fails to meet its GAF, i.e., full compensation for replacement power, liquidated damages or other mechanisms (see PGE sample Contracts)
<p><i>Monthly Energy and Peak Capacity</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Provide a table displaying by month for the entire term of the bid, the guaranteed monthly quantity of energy (MWh) and peak capacity (MW) to be supplied under the bid proposal, as metered at the POD. If appropriate, include the guaranteed heat rate (Btu/kWh-HHV) at rated output in the table, accompanied by a heat rate curve.

Temperature Variability

For each project used to supply a bid, provide if appropriate, the following information.

<p>Project name:</p>
<ul style="list-style-type: none"> <input type="checkbox"/> To the extent that the guaranteed quantity of energy, peak capacity, or heat rate in the bid is dependent on ambient temperature, clearly identify and describe the relationship and provide estimates for the range of variation. <input type="checkbox"/> At a minimum, provide an estimate for the guaranteed quantity of energy, peak capacity and heat rate for a hot summer day and a cold winter day.

Resource Variability

<p>Project name:</p>
<ul style="list-style-type: none"> <input type="checkbox"/> Proposals that offer a delivery schedule other than a flat schedule as requested by the product term sheets must include a clear description of the proposed delivery schedule and its relationship with the actual production of the project. <input type="checkbox"/> Supply in a table the variation in energy output by month during on-peak and off-peak hours (see sample table, below). <input type="checkbox"/> Expand upon the information provided in the table if this format is insufficient to fully describe the output variability of the bid.

Monthly Output Variability of the Bid (MWh)

<i>Month</i>	<i>Average Energy On-Peak (MWh)</i>	<i>Average Energy Off-Peak (MWh)</i>
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		

Project name:
<input type="checkbox"/> For energy product bids supported by intermittent projects such as wind, solar or hydroelectric, supply a load duration curve for a typical year as condensed in the sample table below.

Load Duration Curves for a Typical Year

<i>Project Operations</i>	
<i>% of Rated Capacity</i>	<i>Hours per Year</i>
Less than 10%	
10 to 20%	
20 to 30%	
30 to 40%	
40 to 50%	
50 to 60%	
60 to 70%	
70 to 80%	
80 to 90%	
90 to 100%	

Appendix R – Required Bid Information

Information for Cogeneration Projects

Name: Corporate owner: Industrial process at the site:
Describe in detail the effects that the loss of the cogeneration host would have on continued operation of the cogeneration project, including output, operational flexibility and price.
Pertinent operational information concerning the steam host:

Other Factors Affecting Resource Variability

For each project used to supply a bid, provide if appropriate, the following information.

Project name:
Identify and describe in detail: <input type="checkbox"/> Environmental restrictions. <input type="checkbox"/> Operational limitations. <input type="checkbox"/> Other factors relevant to resources supporting a bid that may prevent the resource from meeting its guaranteed monthly quantities of energy or peak capacity.

Power Product Flexibility

Project name:
For all proposals: <input type="checkbox"/> Completely describe all dispatch and operating schedule flexibility available to PGE via the power product.
For energy product offers: Describe any restrictions or limitations on PGE's right to dispatch, curtail, or schedule reduced energy output from the product. For dispatch or curtailment describe: <ul style="list-style-type: none"> ▪ Minimum run time per dispatch call: ▪ Minimum down time per curtailment: ▪ Startup time and costs for a cold start: ▪ Startup time and costs for a hot start: ▪ Cost impact of dispatch, if any: ▪ Ramping rates: ▪ Multiple party output issues:
For energy product offers: For turn-down (operation at below 100 percent of base output), provide the following: <ul style="list-style-type: none"> ▪ Minimum turndown value: ▪ Maximum hour-to-hour adjustment: ▪ Cost impact of turndown, if any: ▪ Multiple party output issues: Please provide Information about heat rate degradation for plant turn-down:
Will PGE have the right to make real time adjustment to pre-schedules? If so, under what conditions will this right be limited? Will PGE have the right to request inter-hour shaping? If so, under what conditions?
Is Bidder willing to give PGE the discretion to schedule annual maintenance? If so state any conditions on such scheduling.

Appendix R – Required Bid Information

How will this the operating flexibility associated with dispatchability, turndown, real time adjustments and inter-hour shaping affect O&M costs and capital replacements?
How does the Bidder envision PGE communicating its needs for operational flexibility to the project, and how will the project respond to such needs:
What other operating flexibility is provided by the project that is not adequately described above?
<input type="checkbox"/> Describe in detail the features in project design that will enable the project to provide this operating flexibility.

Bid Option for Additional Capacity from Energy Products

For each project used to supply a bid, provide if appropriate, the following information.

Project name:
<input type="checkbox"/> Describe in detail any option bundled within an energy product bid that would enable PGE to exercise the right to take additional output using duct-firing, power augmentation or some other characteristics of the Bidder's resource or portfolio.

Rights to Firm Energy and Capacity

For each project used to supply a bid, provide if appropriate, the following information.

Project name:
<input type="checkbox"/> If the Bidder is offering only a portion of the project's firm energy or peak capacity to PGE, describe each entity's rights to the firm energy and peak capacity produced by the project.
<input type="checkbox"/> Describe the process for coordinating the differing operational requirements of the purchasers.

Additional Project-Specific Benefits

Project name:
<input type="checkbox"/> For all proposals, if you believe that there are other project-specific benefits that PGE would find attractive, describe such benefits and the basis for your belief that PGE would find them attractive.

Physical Characteristics of Project

For bids supplying power products from a specific generating project, or in the case of a portfolio from several generating projects, provide a reasonably detailed description of the project(s), including the information requested below.

Location and Size of Project

Project name: Location: Initial in-service date(s): Baseload capacity (MW): Expected monthly and annual energy generation (MWh):
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Resource Base of Power Product

<ul style="list-style-type: none"> <input type="checkbox"/> Describe the project site(s), including a description of the facilities of any thermal energy users and any other major structures related to the production of electricity or thermal energy. <input type="checkbox"/> Concisely describe the technology used for the generation of electricity, including a technical description of, and vendor for, each turbine generator and emissions control technology, as applicable, and each principal fuel or energy source to be used. <input type="checkbox"/> Provide the necessary design documents that will enable PGE to evaluate the engineering design and equipment used for transmission interconnection. <input type="checkbox"/> Provide any additional design documents that would enable PGE to evaluate the engineering design, equipment and layout of the project. <input type="checkbox"/> Describe all licensing and regulatory requirements.

O&M Reliability

For each project used to supply a bid, provide the following information.

Project name: Describe the experience and expertise of the project's current O&M operator and the recent operating experience(s) of the plant(s).
<ul style="list-style-type: none"> <input type="checkbox"/> Describe any training program for the plant staff. <input type="checkbox"/> Does the project have access to support from a centralized engineering staff? If so, please describe. <input type="checkbox"/> Provide a list of the major critical spare parts held in inventory by the project, either at the site or at a common inventory location, or indicate if such parts are readily available from the vendor. <input type="checkbox"/> Are spare transformers installed at the site for backup? <input type="checkbox"/> Does the project have a long-term service agreement with the vendor for major equipment?

Appendix R – Required Bid Information

Describe the level of participation that PGE would be given in capital and O&M decisions that could affect reliability of plant operations.

Would PGE have any rights to require replacement of the plant operator?

If so, under what conditions would PGE have such rights?

Describe the Bidder's asset management strategy for future operation of the project.

Information for Projects Under Development

For bids supplying power products from specific generating projects that will not be in commercial operation by July 1, 2003, please supply the following additional information.

Project name:

Permitting and Licensing Status

- List and describe the current status and jurisdictional responsibility for all licenses, permits, zoning variances, and other regulatory approvals necessary for the construction and operation of the project.
- Status categories include: approved, not approved but application submitted, working on application, work on application has not begun.
- For each license, permit, zoning variance and regulatory approval that has not yet been obtained, show the sequencing and duration of permitting and licensing activities in a project schedule diagram, including expected construction time.
- For projects in the permitting and licensing phase, identify whether there is opposition to the siting of this project and how this opposition impacts project permitting.
- Discuss in general terms your approach for resolving these permitting issues or any planned mitigation measures.
- Could any of these permitting issues prevent successful siting of the project?

Progress to Date

- Describe the progress in development or construction of the project to date, including a description of any contracts or letters of intent signed in connection with the project, or a description of other factors demonstrating project progress.
- Include current status of project design and engineering, and equipment procurement.

PGE RFP for Power Supply Resources

Milestone Schedule

Submit an overall milestone schedule for the generating project that identifies all key dates including but not limited to dates for regulatory approvals, finalization of transmission and interconnection agreements, finalization of fuel supply agreements, pre-construction milestones and construction milestones. The schedule that is submitted must be attainable and one to which the Bidder will commit to in the executed agreement. Include all aspects of the development including fuel and transmission infrastructure activities.

Project name:

Experience of Developer Team

Provide the following information:

- Describe the developer's participation in successfully developing power production projects in the U.S., emphasizing projects located in the Pacific Northwest and similar to the project proposed in the bid.
- List members of the development team.
- Provide a resume for each individual, including training, experience with power project development, functions performed, and area of expertise.
- Summarize the current status and a short description of power project development efforts with which team members have been involved. The summary for each team member should include the type of projects developed, *e.g.*, wind, CCCT, biomass, current owner of the projects, geographic location and current status, *e.g.*, operating, in construction, permitted, retired.
- Describe business-related litigation in which the developer or development team members were previously, are currently or are expected to be engaged.

Financial Plans

Provide the financial information listed below to the extent the information is currently available:

Project name:

- Describe whether the Bidder intends to internally finance construction of specific generating project(s), or plans to obtain project financing from another source.
- Describe any existing commitments by financial institutions and provide documentation supporting these commitments. *In lieu* of such information, describe the plans for securing such commitments.

List the name, telephone number and contact person of the developer's:

Commercial bank:

Financial advisor:

Bond underwriter:

Other key financial trustee, advisor, counsel or lender:

Appendix R – Required Bid Information

- Provide a list of projects in the development phase, identifying the manufacturer of the principal components, counterparties in power sales agreement(s), the stage of completion of the project, the estimated operational date, the original estimated operational date, the percentage the project is over- or under-budget, and the project financing sources.
- Identify the extent to which the developer is committed to providing additional assets if necessary to complete the project.
- Has the Bidder already committed to proceed with construction of specific generating projects? If not, what actions or events would need to occur before the Bidder can commit to such construction?
- If the decision to proceed with the generating project depends on obtaining power purchase and tolling agreements with third parties, please identify the amount of the project output that needs to be subscribed before the Bidder will proceed with construction, and the amount of firm commitments through executed agreements that the Bidder already has for output from the project.
- Identify the counterparty, product amount and term of each executed agreement.

- Site Control*
- Site control is an important factor in our RFP evaluation, and should be interpreted to include the site itself, along with all required easements and access required for the site.
- Project name:
- Describe the level of control of the generation project site, e.g., ownership, lease, option, letter of intent.
 - If the Bidder does not have control over the project site, describe the actions already taken to obtain control of the site.

- Environmental Characteristics*
- Bidders supplying the product from a portfolio of resources and contracts should provide an estimate of energy production from the portfolio in terms of fuel type, e.g., 60 percent natural gas, 20 percent coal, 10 percent wind, 10 percent hydro. If the fuel source for contracts is unknown, list contracts as a separate category.
 -
- If supplying the product from one or more specific resources, provide the following information for each resource.
- Project name:
 - Discuss known environmental issues related to the development and operation of the project.
 - Describe environmental impacts of, and existing environmental constraints on, existing and proposed projects.
 - Provide the information requested in the following subsections for *existing and proposed* projects.

PGE RFP for Power Supply Resources

Air Quality

Complete the following table, and provide the information requested below.

Emission Disclosures

<i>Emission</i>	<i>Lbs./MWh</i>
Sulfur Dioxide:	
Nitrogen Oxide:	
Carbon Dioxide:	
Particulate:	

Project name:
Describe the following: <input type="checkbox"/> Air pollution controls used on the project, e.g., type, emissions controlled and removal efficiency. Also describe any new controls that might be required in the future due to the Clean Air Act, e.g., Maximum Achievable Control Technology (MACI) Standards. <input type="checkbox"/> Whether the proposed project will exceed any criteria of the National Ambient Air Quality Standards (NAAQS) for any pollutant when operating on either primary or backup fuel. Also describe the "Prevention of Significant Deterioration Increment Consumption" due to this project, as applicable.
State whether the project requires a federal or state "air permit": <input type="checkbox"/> If relevant, include a copy of this permit, if approved, or a copy of the permit application, if submitted.
Describe any significant toxic air pollutants that may be released from the project:

<i>Land Use (for proposed projects only)</i>
Project name:
Is the proposed project consistent with the recommended uses of adopted local and state land use plans?
Will the project need a zoning change?
If there is likely to be public controversy related to the proposed project, please explain.

Appendix R – Required Bid Information

<i>Noise (for proposed projects only)</i>
Project name:
Characterize the ambient day and night sound environment in the area surrounding the project site.
Provide estimates for the day and night noise levels of the proposed project.
Describe proposed sound attenuation strategies or equipment planned for the project.

<i>Project name:</i>
<i>Scenic Visibility (for proposed projects only)</i>
Give the distance in miles that the project, or its effect, will be visible from any of the locations described in the following table:

Scenic Visibility Effects

<i>Feature</i>	<i>Distance from Project (Miles)</i>
<ul style="list-style-type: none"> ▪ State parks or state forest preserves. ▪ National wildlife refuges or state game refuges. ▪ National natural landmarks or other outstanding natural features. ▪ National park service lands. ▪ Rivers designated as wild, scenic or recreational. ▪ Designated wilderness areas. 	

<i>Threatened and Endangered Species</i>
Project name:
If the project site or contiguous areas contain any species of plant or animal life identified as threatened or endangered, please explain.
If the project site contains any plants or animals being proposed or considered as candidates for threatened or endangered lists, please explain.

Fish and Wildlife

Project name:

- Provide copies of wildlife studies that have been performed for the project.
- For wind generation projects, discuss avian issues.
- For proposed hydroelectric projects, discuss whether in-stream flow studies will be required and the results from such studies.
- For proposed hydroelectric projects, discuss whether fish passage facilities will be required.

Mitigation

Project name:

Briefly describe any environmental mitigation methods, both required and volunteered, that are included as part of an operating project or will be included as part of a proposed project. Include cost of meeting the State of Oregon's carbon dioxide standard, through payments to the Climate Trust, or similar payments in other states.

Appendix S – Energy Trust of Oregon

The Energy Trust of Oregon (ETO) began operation as a nonprofit organization in March 2002 to fulfill a mandate to invest “public purposes funding” for energy efficiency, conservation and renewable energy resources in Oregon. The mandate emerged from 1999 energy restructuring legislation (Senate Bill 1149) that included a three percent public purposes charge added to the rates of the two largest investor-owned utilities.

Subsequent action by the Oregon Public Utility Commission (OPUC) encouraged the startup of a new nonprofit organization to administer the funds created by the legislation. The ETO was formed as an independent, private corporation operating under a contract with the OPUC that dedicates funds collected by utilities to the Trust. The ETO receives funding every year from PacifiCorp and PGE ratepayers to support a broad range of renewable resources.

Role of the ETO in PGE’s RFP

The ETO will see all bids based on renewable generation that presume ETO funding. PGE will forward these bids to the Trust as we receive them, and will subsequently forward our ranking and recommendations regarding funding. Our recommendations will be based on pre-qualification assessments, and scoring of price and non-price factors. The ETO will make its own assessment of the bids, and we will negotiate with them to determine which bids it would prefer to fund, and at what levels.

Funding From the Energy Trust

The ETO funds the above-market costs of new renewable resources. The market cost for energy with the same power characteristics as that produced by the proposed renewable resource can be defined as the regulatory forward price curve, the utility’s published avoided cost, the average result from this RFP or an alternative. PGE and the Energy Trust will agree on the relevant market cost for determining subsidy levels, if any are required.

If market prices are lower than the prices needed to justify construction of the preferred renewable resource(s), the ETO will support the project(s) under a Project Support Agreement. Support can take one of several possible forms: subsidizing the initial costs of a project, committing available funds to subsidize the energy price on a per unit basis over time, and other options that may be proposed. The ETO is more interested in providing support that is associated with some form of performance guarantee.

The ETO expects to have up to \$9 million to help support one or more projects through this RFP with PGE. The Trust is able to fund new renewable energy projects, or new additions to existing renewable energy projects. They are able to fund resources that are:

- Fueled by geothermal, solar, wind or waste, or by biomass that is based on solid organic fuels from wood, forest or field residues, or from dedicated energy crops available on a renewable basis.
- Landfill or digester gas.
- Hydroelectric facilities located outside protected areas as defined by federal law in effect as of July 1999.

The ETO will not provide funds to the project prior to completion of construction and testing, but will place funds in an appropriate escrow account to provide confidence they will be available.

Green Tag Ownership

In return for its support, the ETO will initially control all the green tags and environmental attributes of a project it supports for the life of any PPA with PGE. Under this RFP, if the ETO receives green tags, it will transfer them to PGE for the benefit of the utility's regulated customers. The ETO does not and can not claim rights arising from projects it does not fund. PGE's ownership of green tags from successful renewable projects that do not receive funding from the ETO will depend on the specific project proposal and its comparative costs.

The definitions below characterize what the Energy Trust believes are the rights it must receive when it funds a project.

- *Green Tag* – The environmental attributes associated with the power generated from the specified resource, together with the green tag reporting rights associated thereto. One green tag represents the environmental attributes made available by the generation of 1 MWh from the Specified Resource.
- *Environmental Attributes* – Any and all credits, benefits, emissions reductions, offsets, and allowances, however entitled, resulting from the avoidance of the emission of any gas, chemical, or other substance attributable to the Specified Resource, which are deemed of value by a green tag purchaser. Environmental attributes include but are not limited to: (1) Any avoided emissions of pollutants to the air, soil, or water such as (subject to the foregoing) sulfur oxides (SO_x), nitrogen oxides (NO_x), carbon monoxide (CO), and other pollutants; (2) Any avoided emissions of carbon dioxide (CO₂), methane (CH₄), and other greenhouse gases (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate

Appendix S – Energy Trust of Oregon

Change to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere; and (3) The green tag reporting rights to these avoided emissions. Environmental attributes do not include any energy, capacity, reliability, or other power attributes from the specified resource nor production tax credits or certain other financial incentives existing now or in the future associated with the construction or operation of the Specified Resource.

- *Green Tag Reporting Right(s)* – The right of a green tag purchaser to report ownership of green tags in compliance with federal or state Law, if applicable, and to a federal or state agency, or other parties at the green tag purchaser's discretion, and include those accruing under Section 1605(b) of the Energy Policy Act of 1992, or under any present or future domestic, international, or foreign emissions trading program.

Appendix T – Updated Environmental Damage Factors

The damage factors shown in the following table are updated from those shown in the Competitive Bid Order, and were negotiated with participants in our RFP public process and approved by the OPUC.

Table 4. Environmental Damage Factors (for use only in PGE's RFP)

<i>Resource</i>	<i>Weight</i>	<i>Adj.</i>
Coal	.90	+/- .10
Nuclear	.70	+/- .10
Oil	.65	+/- .10
Solid Waste (garbage)	.60	+/- .10
Natural Gas-Fired Generation	.35 - .75 The range .35 to .65 captures net lbs. CO2/MWh. Low end is Oregon Standard. Additional +.10 for non-CO2 impacts. ¹	Adjustment already included within range
Biomass	Landfill Gas .05 Animal Waste .15 Non-hazardous (slash, crops, etc) with good air emission control .20 Non-hazardous (slash, crops, etc) With poor or no air emission control .40	+/- .05 +.20 [#] , -.15 +/- .10 +/- .10
Geothermal	Binary Cycle .20 Non-Binary Cycle .30	+.20 [#] , -.10 +.20 [#] , -.10
Hydro	.30	+/- .10
Low Impact Hydro	.10	+/- .10
Solar	.10	+.20 [#] , -.10
Wind	.10	+.20 [#] , -.10

¹ Non-permitted natural gas fired projects can be adjusted up by +0.20 for visibility, endangered species or permitting issues. This adjustment will be made within the .35 to .75 range.

[#] Non-permitted projects can be adjusted up by +0.20 for visibility, endangered species or permitting issues.