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January 28, 2009

Allan Arlow
Administrative Law Judge
Public Utility Commission of Oregon
550 Capitol St NE – Suite 215
PO Box 2148
Salem OR 97308-2148

Re: UM 1345 – Final Report of the Oregon Independent Evaluator

Dear Judge Arlow:

Enclosed is the "Final Report of the Independent Evaluator Regarding Portland General Electric Company's Request for Proposals for Renewable Energy Resources." This confidential report is being filed under Modified Protective Order No. 07-440.

I am serving the non-confidential version of the report on the other UM 1345 parties via electronic mail only.

Any party that wishes to view the confidential version must first comply with the Modified Protective Order's requirements and then submit a request for copies directly to the Public Utility Commission's Administrative Hearings Division.

Sincerely,

s/Michael T. Weirich

Michael T. Weirich
Assistant Attorney General
Regulated Utility & Business Section

MTW:rgs/DM1262900
Enclosures
Cc: All parties w/o enc.

Report of

to

STATE OF OREGON
PUBLIC UTILITY COMMISSION OF OREGON

FINAL REPORT OF THE INDEPENDENT EVALUATOR

REGARDING PORTLAND GENERAL ELECTRIC COMPANY'S REQUEST FOR PROPOSALS FOR RENEWABLE ENERGY RESOURCES

January 9, 2009

Submitted by:

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FINAL REPORT OF ACCION GROUP, INC.
INDEPENDENT EVALUATOR REGARDING
PORTLAND GENERAL ELECTRIC COMPANY'S
REQUEST FOR PROPOSALS FOR RENEWABLE ENERGY RESOURCES

EXECUTIVE SUMMARY

Accion Group, Inc. (Accion or IE) served as the Independent Evaluator for the Portland General Electric (Company or PGE) 2008 Renewables Request for Proposals (RFP). Accion worked closely with PGE and the Staff of the Oregon Public Utility Commission (Commission Staff) throughout the RFP. In addition, Accion created and operated the website used for all communications about the RFP from the first release of draft RFP documents, through the selection of the Final Short-list. With the website we had access to all RFP-related materials, reviewed all exchanges of information with bidders after bids were received, and captured all evaluation materials for possible review by the Oregon Public Utility Commission (Commission).

This, our final report, reviews the action taken by PGE in the selections of the Final Short-list. Our earlier report[1] reviewed the RFP process through the selection of the Initial Short-list.[2]

The Commission Order 06-446 provides guidelines for competitive bidding. The 2008 PGE Renewable RFP was designed to satisfy those guidelines in order to ensure a fair bidding process. The IE was engaged to evaluate the RFP process, the evaluation process, and adherence to the guidelines. During the RFP process several key issues and action items were identified by the IE, principally due to the uniqueness of preparing a RFP and evaluation methodology to accommodate a wide range of renewable resource bids. PGE's decision to forego bid fees was appropriate, though it was clear from the start that the decision would result in the receipt of bids that would cover a wide range of technology maturities making the evaluation methodology uniquely challenging. Also, from the outset we accepted that the evaluation modeling would likely need refinement after bids were received and specific supply characteristics were identified. The IE tested the evaluation model before bids were received by evaluating a set of "mock bids." The mock bids establish a baseline for the evaluation model and permitted us to confidently stress-test the model when adjustments were necessitated by unique bids.

Our access to PGE personnel was unfettered and we found PGE exceptionally responsive to suggestions and recommendations. PGE was consistently cooperative and responsive to our inquiries. We received full access to the Commission Staff, who we found to be fully engaged and knowledgeable in all aspects of the procurement process. The willingness of the Commission Staff and PGE personnel to discuss issues assisted greatly in crafting the RFP to maximize the opportunity for participation by prospective bidders. We found that PGE personnel made a sincere effort to address each potential shortcoming we identified while maintaining

[1] IE Supplemental Report on Draft RFP, April 15, 2008 (IE Supplemental Report). The report is available on the Portland General RFP Website (www.portlandgeneralrfp.com) in the IE Documents Sub-folder on the Documents Page.

[2] The IE Final Report was originally scheduled for release on December 4, 2008. The report was delayed to permit a full review to remove from the public version of the report all confidential information provided by bidders. This is necessary to respect the express commitments to bidders, and to avoid providing competitive information, such as price proposals, among competitive providers.

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compliance with the competitive bidding guidelines. As issues arose, we believe PGE succeeded in identifying the best available alternatives for meeting the Oregon Renewable Portfolio Standards (RPS), in terms of cost and risk.

In summary, we observed that:

- Bidders were advised of the RFP and invited to bid.
- The process was open and fair, permitting all bidders access to the same information at the same time.
- Prospective bidders were provided with draft RFP documents and the opportunity to request or recommend changes to those documents.
- The final RFP documents provided clear and complete product definitions that were not questioned by any prospective bidder. The RFP permitted submission of unique proposals.
- During the refinement of the RFP documents, PGE personnel and the Commission Staff demonstrated flexibility in order to provide a fair and comprehensive bidding opportunity to a wide range of alternative generation types.
- The RFP documents were thorough, accurate, and complete, providing bidders with all necessary information.
- The RFP documents provided adequate disclosure of the evaluation process that would be employed, and no prospective bidder questioned the evaluation process prior to the submission of bids.
- The RFP process treated all bidders in the same way.
- The RFP evaluation process and modeling treated all bidders fairly.
- Between the Initial Short-list and Final Short-listing of bids, PGE personnel sought additional information from bidders through the website. This ensured that a complete understanding of each bid was available before the Final Short-list was established.
- We reviewed the security used by PGE at their offices and provided a secure website for the exchange of information with bidders. We believe PGE took all necessary and appropriate steps to secure bid information and to prevent unauthorized disclosure of RFP-related information.
- Even with the potential diversity of technologies, we found the RFP documents to be free of bias towards any form of renewable generation.
- Some bidders contacted the IE because they disagreed with PGE's decision to release their bids. However, no bidders claimed that the RFP documents or process was flawed.
- Credit requirements were clearly defined.
- All bids were evaluated using the same standards, evaluation models, and methodology. The evaluation model was perfected to accommodate the types of generation bid into the RFP. All modeling adjustments were reviewed by the IE before being made and we found each adjustment to be appropriate.
- PGE personnel took appropriate measures to prevent un-monitored contact between any bidder and the PGE evaluation team, up until the point when the Final Short-list was finalized.
- We believe PGE conducted a fair RFP and that PGE acted appropriately when releasing certain bids.
- Transmission availability was a significant issue for a number of bids. We reviewed PGE's transmission assessment and found it to be appropriate.

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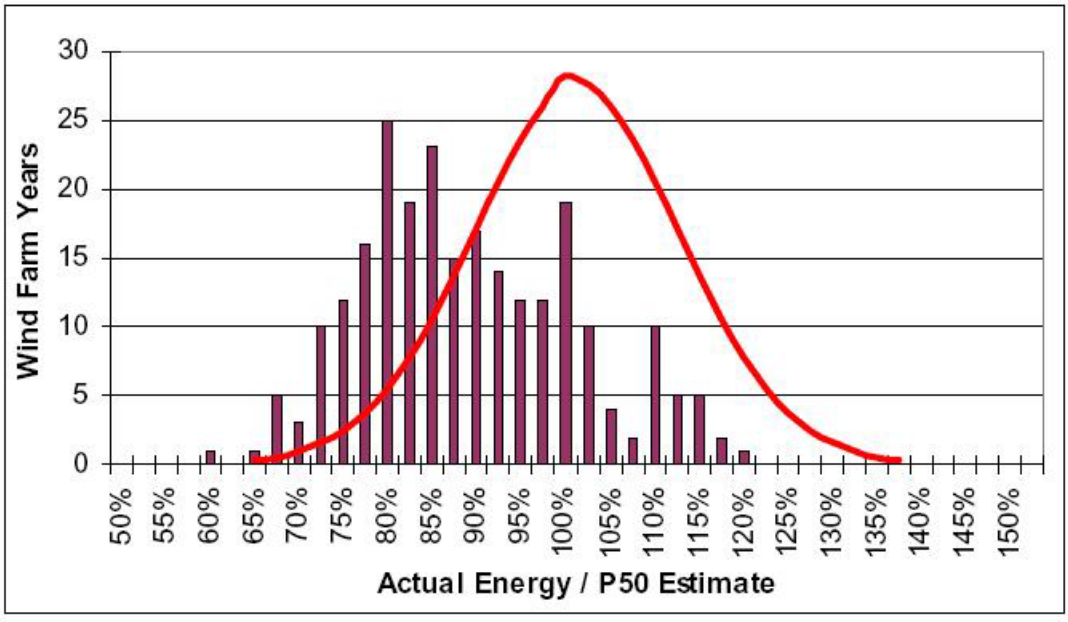
- We fully concur with the selected Final Short-list.

In the Conclusions and Recommendations section we present our views on ways to improve the RFP evaluation process. In this summary we offer one recommendation we believe is the most significant. The Final Short-list contains an ownership and PPA option for one wind project. Using the RFP evaluation model the ownership bid is ranked higher than the PPA bid in PGE's analysis. While the IE agrees with the analysis, he also recognizes that additional factors should be considered before making the final selection between the two options. First, the evaluation model reviews the life cycle cost of the project but does not assess all externalities unique to the site or the project which could raise the value of the ownership bid to customers. Second, the ownership option comes with significant capacity factor risk for the ratepayer which would be borne by the counterparty in a PPA structure. During the development of the project, two studies were completed within three months of each other. These studies resulted in capacity factor estimates that varied by more than 5%, which affected the projected levelized cost of the project by approximately $20/MWh. An ownership option would bear the full impact of this production shortfall, whereas a PPA option would effectively shield customers from most of the cost because the energy price would be fixed. The first study had a lower capacity factor and was for a partial year. We recognize that the additional data used in the second study makes it more reliable than the first study, but without more information we recommend additional review of wind history. Chart 1[3] graphically presents a study documenting actual energy versus predicted energy production from wind farms placed in service in the United States in the recent past. This variation reflects the risk that lower energy production from the facility could dramatically lower the value the ownership option would provide.

Chart 1



Average: about 11% below P50
2006 presentation: 13% below P50

PGE may identify benefits from the project that are beyond those identified in the RFP evaluation model, and it should be incumbent upon the Company to identify and quantify those benefits. At a minimum, we would

[3] Source: http://www1.eere.energy.gov/windandhydro/pdfs/20-2030_poore.pdf

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expect PGE to require an updated analysis of the project with a new wind study and a salvage value that reflects the potential for re-powering the site at the end of its economic life. Also, if PGE pursues the ownership option, we encourage PGE to explore structuring the acquisition to appropriately mitigate the risk that the project may not perform as projected. For example, PGE could structure the agreement with an initial purchase price that is lower than the bid value, and provide for a performance payment based on actual production during some number of initial years in operation. An arrangement of that sort would, in our opinion, more appropriately share the risk between the developer and PGE's customers. We would expect PGE to fully document the benefits and value of the ownership option, beyond what is reflected in the RFP evaluation model, and establish that the value offered by the ownership option outweighs the risk of energy production implicit in the ownership option. In summary, the IE believes PGE must make a stronger case for the ownership option either through a contractual arrangement that reduces the assumed risk or by quantifying additional benefits the ownership option would bring beyond what was considered in the RFP.

In IE Confidential Attachment 1 we provide a summary of bids received before the final short-list review was undertaken.

In this report we discuss our findings in greater detail.

I. RFP PROCESS

PGE submitted a draft RFP for all resources consistent with the most recently filed IRP. When the Commission declined to acknowledge the IRP in March 2008, PGE adjusted the RFP to only consider renewable resources. PGE issued the Renewable RFP on April 17, 2008. Prior to receipt of the bids, the IE completed a review of the evaluation methodology to be employed as well as performed a mock bid process to identify any limitations of the process and quantify the impact of key components on the rankings. Thirty-eight bids for 2,970 MW were received on the website and in hardcopy by the IE on June 4, 2008. Each bid was opened and summarized by the IE before being released to PGE.

The initial evaluation was concluded on September 10, 2008. The IE performed full scoring on 4 bids of various technologies and compared its scoring to PGE's scoring and reviewed in detail all of PGE's scoring at that time. After resolving differences, approximately 360.2 MW of nameplate capacity (Six bids) were released from the RFP, and 2127.8 MW, based on nameplate rating, (twenty bids) were invited to continue as part of the Initial Short-list. A summary table of the shortlist and explanations of bids released is included in IE Confidential Attachment 1, entitled "Initial Short-list and Released Bids." Further detailed analysis and scoring updates in the areas of credit, transmission, integration costs, and energy valuation were concluded on November 18, 2008, with the identification of the Final Short-list. The Final Short-list consisted of nine bids (787 MW of nameplate rating, with the ability to provide 255 MWa of energy). The release of six bids due to credit, transmission, and economic factors was concluded when the Final Short-list was established. A summary table of the Final Short-list and released bids is included in IE Confidential Attachment 2. A summary of all bids is provided in IE Confidential Attachment 3.

This RFP was particularly challenging because PGE's most recent IRP was not acknowledged by the Commission and because of the complexity of fairly evaluating renewable bids across a spectrum of various technologies. Upon selection of an evaluation process, a mock bidding process was used by the IE to stress test the evaluation

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methodology. This helped identify key issues and communicate the impact of those issues to PGE and the Commission Staff.

The key issues that were resolved during the RFP process and which will be discussed in greater detail in the body of the report include:

- Assigning Appropriate Capacity Value to Bids of Different Technologies
- Addressing the Differences in Ownership vs. PPA Risk Profiles
- Evaluating Intermittency and Allocating Integration Costs
- Portland General's Requirement for Specific Project Bidding
- Required Pricing Updates Between Bidding and Negotiation
- Credit and Transmission Evaluation Impacts
- Non-Price Preferences and Impacts on Ranking

We are satisfied that PGE adhered to the established RFP protocols and consistently demonstrated a good faith effort to a fair and objective process. PGE was open to our suggestions for adjusting the evaluation criteria and methodology and reviewed each aspect of the evaluation process with the IE before final decisions were made.

In the following section we discuss specific aspects of the evaluation process.

II. RFP EVALUATION - CRITERIA, METHODS, AND MODELS

Detailed review of PGE's evaluation methodology was performed by the IE prior to release of the Renewable RFP on April 17, 2008. In order to validate that all evaluation models would utilize the same calculations and assumptions, the IE and PGE worked together prior to the receipt of bids to finalize the financial models and inputs that would be used to evaluate the bids. The IE validated that the models were not changed during the evaluation to unfairly enhance the scoring for any bidder or technology. An expanded review of the evaluation methodology is detailed below to incorporate additional observations noted throughout the evaluation process. The body of this section will cover the specific components of the IE review and why we believe the process as designed and implemented meets the requirements of the Commission's order 06-446.

Performing an evaluation of renewable resource bids presents specific challenges that are typically not found in the evaluations of traditional resources. These include considerations of intermittency, energy profiles, project size, annual and daily energy variations, developer experience, fuel risk, and environmental benefits and disadvantages. These unique characteristics required significant scrutiny by the IE and PGE to ensure that methods and tools were in place to select resources that provided the most value to customers in terms of price, risk and reliability and also met the requirements of the Oregon Renewable Portfolio Standards, and the requirements of the Commission's Competitive Bidding Guidelines.

Beyond the challenges of comparing individual bids, PGE had to select a mix of resources that provided a good overall value to customers while not exposing them to inappropriate risk. Also, in light of the fact that PGE's most recent IRP was not acknowledged by the Commission, PGE and the IE recognized the need to meticulously finalize the procedures by which a Final Short-list of bidders would be selected. Accion Group's prior experience in evaluating renewable projects, including wind, solar, biomass, and landfill gas helped to ensure

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that the review of the evaluation process was sufficiently comprehensive. In addition, the IE used a mock bidding process prior to receipt of bids to proactively identify and rectify any issues.

In validating the Evaluation Process, the IE ensured that the Commission's Guidelines that dealt with evaluation procedures were satisfied. The applicable items were Guidelines 4, 9, and 10.

A. Guideline 4: Ownership Options

Guideline 4 states:

> A utility may use a self-build option in an RFP to provide a potential cost-based alternative for customers. A site-specific, self-build option proposed in this way is known as a Benchmark Resource. A utility may also consider ownership transfers within an RFP solicitation.

Consistent with Guideline 4, PGE considered ownership transfers as part of this RFP and thus, the scoring and risk analysis took into account the various options. PGE did not consider a site-specific self-build option as part of this RFP. Also relative to Guideline 4, one bidder proposed their project to be sited on existing PGE plant locations. [4] Per the bidding guidelines, PGE was not required to offer their sites to the bidders, and, as the bids did not offer relative value, those bids were rejected.

B. Guideline 9: Bid Scoring and Evaluation Criteria

The relevant portions of Guideline 9 provide:

> (a) Selection of an initial short-list of bids should be based on price and non-price factors and provide resource diversity (e.g., with respect to fuel type and resource duration). The utility should use the initial prices submitted by the bidders to determine each bid's price score. The price score should be calculated as the ratio of the bid's projected total cost per megawatt-hour to forward market prices using real-levelized or annuity methods. The non-price score should be based on resource characteristics identified in the utility's acknowledged IRP Action Plan (e.g., dispatch flexibility, resource term, portfolio diversity, etc.) and conformance to the standard form contracts attached to the RFP.
>
> (b) Selection of the final short-list of bids should be based in part on the results of modeling the effect of candidate resources on overall system costs and risks. The portfolio modeling and decision criteria used to select the final short-list of bids must be consistent with the modeling and decision criteria used to develop the utility's acknowledged IRP Action Plan. The IE will have full access to the utility's production cost and risk models.

[4] During the period when PGE sought clarifying information from bidders several offered to expand their proposals to include building on PGE-controlled sites. Those proposals were not presented on the bid date as fully developed proposals, and were not evaluated.

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> (c) Consideration of ratings agency debt imputation should be reserved for the selection of the final bids from the initial short-list of bids. The utility should obtain an advisory opinion from a ratings agency to substantiate its analysis and final decision, if requested by the Commission.

Portland General used a scoring methodology that assigned 60% of the value to price components and 40% to non-price components. We address the appropriateness of this ratio and the appropriateness of each component below. We believe the overall structure used by PGE satisfies the requirement in section (a) of Guideline 9. In addition, consideration was given to including bids of alternative technologies in the Initial Short- list to provide resource diversity if the scoring resulted in a portfolio without diversity[5]. However, the Initial Short-list included a diverse set of bids and no adjustment was necessary.

PGE does not have an acknowledged IRP and the RFP is only for renewable resources. Consistent with an order of the Commission, portfolio analysis was not appropriate for this RFP, and was not performed. [6] However, PGE intended, if possible, to select resources which would provide diversity and risk mitigation. The Final Short-list contains resources of various technologies. This was primarily possible because there were some bids of various technologies that were able to be somewhat competitive on a price and non-price basis with wind.

During meetings with PGE, the IE was given full access to the utility's production cost and risk models to ensure that the basis of price comparison to the market was appropriate. The production cost models have been previously vetted in public settings. We performed a sufficient review of the fuel and capital cost assumptions that were used to formulate market prices for the RFP evaluation and found the Company's approach to be satisfactory.

Consistent with Guideline 9(c), the Company performed a simple debt imputation impact on the price scoring of the bids after the Initial Short-list was established. The assumptions for the treatment of portions of PPAs as debt came from Standard & Poor and reflect a limited leverage impact. The total debt imputation assumptions added approximately 4-5% to the economic cost of each project. Debt imputation did not alter the composition of the final Short-list, though there was an insignificant shift within the ranking on the Final Short-list. While determination of cost recovery of debt imputation is outside the scope of the IE's evaluation, we do not expect this to be a continuing concern to the selection of the appropriate resources.

C. Guideline 10: Utility and IE Roles in the RFP Process

Relative to the IE's role in validating the scoring of bids in RFPs that include ownership options, the order states "the IE will independently score the utility's Benchmark Resource (if any) and all or a sample of the bids to determine whether the selections for the initial and Final Short-lists are reasonable."

The IE independently scored several bids and reviewed PGE's scoring of all bids. While a few errors and issues were identified during this process, there was no apparent intentional bias toward any bidder or technology,

[5] See IE Supplemental Report at 3.

[6] See: Order No. 08-234, April 24, 2008, page 6 of 8.

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and all issues were quickly corrected prior to the release of the Initial Short-list and the Final Short-list respectively. We discuss specific areas in more detail below.

D. Mock Bid Process

The IE employed a mock bid process after completion of the initial review of price and non-price spreadsheets to "stress test" the selected scoring mechanisms. The mock bids were evaluated before actual bids were received and captured in the Evaluation Folder on the website. The mock bid process helped to identify key areas which significantly impacted bid ranking and to identify areas that would not require as much scrutiny because of their small impact on ranking. We found the mock bidding process to be an excellent communication tool to understand the impact variation in bids regarding key issues to be evaluated. In anticipation of future review by the Commission, the Commission Staff was invited to use the mock bid process to test sensitivities of particular areas of concern, such as locational impact and transmission access.

Six different mock bids were created:

- Wind PPA inside BPA Control Area
- Wind project inside BPA Control Area bid as Build-Own-Transfer to PGE
- Wind project external to BPA Control Area
- Solar thermal PPA
- Solar PV PPA
- Biomass PPA

Prior to the selection of the Final Short-list, the IE performed a review of the assumptions in the mock bids. The only significant updates since the original mock bids were run were new wind integration estimates and capacity valuations of wind resources. Both of these updates were appropriate and neither affected the overall ranking.

E. Evaluation Scoring

Price Scoring

PGE developed and employed a price scoring methodology in previous RFP evaluations. A similar method was proposed for this RFP evaluation. The method is a MS Excel-based discounted cash flow analysis with different models for different technologies and ownership cases. The IE performed a detailed review of each component in each model to ensure that all bids would be treated fairly across all technologies and all proposed ownership structures in terms of price review. We also reviewed all financial assumptions, including debt costs, tax rates, rates of return, and inflation assumptions. We found that PGE consistently applied the assumptions. We found the assumptions to be appropriate and free of bias.

The only costs that were not supplied by the bidder were integration costs and transmission costs. Technology-specific integration costs were consistently applied across all wind and solar projects. We address the reasonableness of the integration cost assumptions below, including transmission costs. Our review of these assumptions found them to be adequately derived and consistently applied. The model's calculations of various components including levelized costs, the value of energy, line losses, revenue requirements, and wheeling

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charges were appropriately performed. The value of the energy supplied by each bid was determined by a forecast of future energy prices.

For ownership bids, operating cost assumptions were made. The operating cost assumptions made by PGE are in line with industry expectations. Some ownership proposals were bid requiring PGE to develop the project, and the bidder being paid a royalty for finding the project. In performing the price scoring for these bids, capital cost assumptions were made. While careful attention was paid to the assumptions, all bids in this category scored very low and were eliminated prior to Initial Short-list selection.

Non-Price Scoring

Non-price scoring spreadsheets that PGE used in previous RFPs were modified by PGE for use in this solicitation. The components measured in the non-price spreadsheets were expanded because of the substantial variations in renewable projects that were expected to be bid in the RFP. The IE worked extensively with PGE to identify important components to add, to identify unnecessary components to remove, and to develop a proper allocation of all weightings across components.
The non-price scoring was subdivided into the following categories:

- Development Criteria - 65 points
- Project Characteristics – 125 points
- Power Product Characteristics – 100 points
- Credit Evaluation – 50 points
- Environmental Criteria – 60 points

The magnitude of the allocations for each of the non-price components were determined in part by comparing the impact a similar point change would make on the energy price on a $/MWh basis. This was simple for non-price components for which rough price estimation could be made, such as capacity value, compensation method for availability deficiencies and quality of energy. This was a more difficult comparison for purely non-price components such as development experience and project financing, but still provided a rough guideline for allocating the proper points. The IE and PGE refined the allocations until both parties believed they were appropriate. PGE's initial recommendations and the final scoring template used are available for review by the Commission in the secure Evaluation Folders on the portlandgeneralRFP.com web site.

Price and Non-Price Ranking

Ranking of technologies seemed reasonable across price and non-price factors, giving credibility to the overall evaluation methods employed by PGE. The resulting net ranking was:

1. Wind
2. Biomass/Geothermal
3. Solar

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In the Final Short-list, wind was the obvious leader followed by solar. One geothermal bid was received, but the bidder withdrew the bid before the Final Short-list evaluation was commenced. All biomass bids were eliminated for transmission and credit reasons or because the bidder withdrew the proposal. [7]

One wave power proposal was received, and one presentation for innovative solar-friendly home building design. The latter was eliminated because it was not consistent with the RFP goals of providing energy to the PGE system. Due to the novelty of the wave power proposal, PGE invested considerable effort to evaluate this project, in an attempt to fully appreciate the likely cost and to include the proposal on the Final Sort-list. After considerable time and effort, we encouraged PGE to release the wave power proposal because the technology was unproven, and the transmission and cost challenges were significant barriers to completing an agreement within the terms of the RFP.

Other areas given close attention were:

- **Ranking of Ownership Options vs. PPA** – Assuming an ownership bid is assigned to PGE upon completion of construction, a PPA wind project in the same location as a PGE-owned wind project would score almost at parity. Accion believes this to be acceptable as the scoring balances the risk-avoidance benefits of a PPA and some of the experience benefits of PGE. PGE and the IE recognized that regardless of the ranking, PGE would be required to provide additional substantial validation of the value offered by an ownership option over a PPA option because of the implicit risks of ownership that could not be captured in the scoring template.

- **Capacity Scoring** – One of the primary differences in value that the renewable technologies bring is the capacity value. Accion pushed PGE hard in this area to appropriately account for this difference in the scoring. PGE agreed to assign 60 points in non-price for capacity value as well as 20 points for intermittency. Projects with high capacity factors and dispatchability will score higher in these areas because of the capacity value the projects bring to PGE. We feel this appropriation is fair and does not unduly burden projects with significant output variability.

- **Locational Impacts on Bids** – PGE explicitly prefers projects inside Oregon and inside their service territory and this is reflected in the non-price scoring. However, the penalties for being outside the service territory are not too punitive to make a good project outside the territory score poorly in the evaluation. The total benefit a project could get from being inside the service territory is around 30 points (or approximately $1.75/MWh levelized).

- **PGE Experience vs. PPA Risk Avoidance** – PPA projects can provide some risk mitigation in terms of guaranteeing mechanical or actual availability. This was captured with 30 points in the non-price scoring. Ownership cases were obviously not eligible for these points. However, ownership projects could provide lower costs of capital, and would have high credit scores and low risk in areas that require experience. The price trade-offs were appropriately calculated in PGE's price scoring models, and the non-price scoring allocations were appropriate for reflecting the values provided in these areas.

[7] The bidder withdrew after signing a contract with a different buyer, and not due to any issues arising from the PGE RFP process or evaluation process.

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- **Lower Cost vs. Risky Bid** – Lower cost bids will obviously score well in the price section. PGE adequately, but not punitively, assigned risk factors for areas like experience and credit score and financing that could affect the overall score of low cost projects. However, well-priced options still scored well, unless the risks were inappropriately high. For instance, a well priced bid without good credit score may make the Initial Short-list because of scoring methodology. While good credit is a requirement for signing a PPA with PGE, the initial screening allowed bidders unable to demonstrate good credit an opportunity to cure before the Final Short-list was set through obtaining a parent guarantee or other adequate credit arrangements.

- **Environmental –** The environmental section was handled in the non-price evaluation and accounted for such areas such as air emissions, land and water usage, and waste. The mock bidding process showed that the scoring adequately penalizes projects proportional to their environmentally detrimental components. The rankings of technologies for environmental scoring are

    1. Wave, Hydroelectric, and Solar Rooftop
    2. Geothermal
    3. Wind
    4. Other Solar Technologies
    5. Biomass

    The IE found the environmental impact scoring to be appropriate.

- **Debt Imputation Sensitivity**

    The base case used in the mock bids for debt imputation assumed 0%, since PGE was not allowed to include any debt imputation in developing the Initial Short-list. For analyzing Final Short-list impacts, a range of debt imputation from 0% to 25% based on the present value of the capacity and energy payments was evaluated for each of the PPA projects.

    Imputed debt was calculated for the Final Short-list, resulting in the reordering of the Final short-list. The inclusion of Imputed debt did not result in any bid being removed from the Final Short-list. The methodology proposed by PGE for calculating imputed debt was to assume 12.5% of the total payments made under the PPA to be equivalent to debt for ratings agencies, such as Standard and Poor's. The total leverage adjustment for most PPA projects was between 4% and 5% of the total cost of the project. For one project with both ownership and PPA options, the inclusion of imputed debt made the PPA option look less attractive, but the ownership option ranked higher even without the inclusion of the analysis. The IE does not expect this component to be an issue for the selection of the resources, but the leverage adjustment may be an issue, should PGE opt to seek certification of the procured assets.

- **Credit**

    Several bids were identified with serious credit concerns, such as lack of parent guarantees or the ability to obtain letters of credit. All bidders with credit deficiencies were given opportunities to cure. For those unable to cure, credit played a role in their release from the RFP, but no bids were eliminated solely on the basis of credit scoring. For example, one bidder was unable to provide financial statements for their corporation and could not secure an adequate letter of credit or provide a parent

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guarantee. Therefore, they did not pass the credit requirements specified in the RFP. However, they were also unable to prove access to transmission for their project, so they failed on more than one criterion to meet the requirements of the RFP.

- **Integration Cost Sensitivity**
  As wind bids ranked the highest even with a $10/MWh integration cost, it was not expected that this component will affect the rankings. However, it was recognized that if the cost of bids for other technologies came in lower than expected, it could affect ranking.

F. Treatment of Non-conforming Bids

The evaluation process was further complicated by the receipt of non-conforming bids. The lack of a bid fee and PGE's appropriate, yet expansive, view of renewable resources may have encouraged the offering of non-conforming bids. Clearly, evaluation of these bids could not be modeled before the bid date.

In the RFP, PGE laid out that "the Bidder must identify the project site location, show site control and provide satisfactory evidence that the site is not otherwise committed or encumbered 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." The RFP further required that "the Bidder shall specify the generation technology it proposes to use and provide preliminary design studies – completed in sufficient detail to identify all major equipment and components. The Bidder will also provide a site layout plan, and a project milestone schedule indicating critical path elements." Also, there was a required bidder worksheet (Appendix F to the RFP) for each project that required information such as energy production profiles, availability guarantees, and transmission interconnection information. These requirements were not met by all bidders.

During the evaluation, a number of bids were found to be incomplete. Clarification requests or data requests were made repeatedly to bidders in order to create complete bids, but some bidders opted to ignore part or all of these requests. Those bids were then categorized as non-conforming and incomplete. Also, several bids were removed when it was demonstrated that they either did not have a site identified or the site identified was not under control by the bidder.

In addition to bidding specific projects, some bidders also referenced other projects within their portfolio that could be considered by PGE, notwithstanding the bidder's failure to provide a proposal for the additional projects. Indeed, they did not provide satisfactory data for any of the items mentioned above from the RFP document. In consultation with the IE, PGE did not consider these as bids.

The IE agrees with the position that PGE was not obligated to request bid information for these referenced projects and that doing so could possibly expose PGE to issues of fair treatment of all bidders in the process. We note PGE's good faith effort to identify ways to have these bids sufficiently complete to permit evaluation. At the same time, we agree with PGE's termination of that effort, rather than further delay the establishment of the Final Short-list.

G. IE Scoring of Bids

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The IE independently reviewed non-price and price bid materials from several bids representing multiple technologies to develop a score for those bids. One wind ownership bid, one wind PPA bid, one biomass bid, and one solar bid were scored. The bid evaluation methodology developed by PGE with the assistance of the IE was thorough, and most items were easily scored using the scoring instructions.

The price scoring templates were populated using bid data. The only section in the price scoring that interpretation resulted in differences in scoring was in the energy shape and in the cost assumptions. The energy shape valuations were different because of minute allocation differences due to holidays and the number of weekend days in different years. Once the differences were accounted for no further work was necessary. The IE relied on the bidders' assessments or PGE's assessments for transmission costs for all bids and on PGE's assumptions for O&M costs for ownership bids. The IE originally used outdated cost information provided by PGE for some cost assumptions. After updating, the price scoring was very similar.

The non-price scoring instructions were explicit for most items and the results of the scoring were very similar for both the IE and PGE's scoring team. Some small differences in scoring were due to the experience the respective scorers credited to the bidder. Also, the scoring was slightly different for some minor categories such as operating characteristics where the IE believed the bidder provided different qualifications than what was understood by the PGE scoring team. These differences were reconciled in the actual scoring used for developing the short-lists. Comparison of IE scoring and PGE scoring of the four specific bids is included in IE Confidential Attachment, submitted under seal pursuant to Order No. 07-440.

The IE first compared the results of the bids independently scored by the IE to the scoring by the PGE Team. The PGE team had at least two scores for each component to ensure valid scoring. The IE's scoring was generally in-line with PGE's scoring. The IE also performed a detailed review of PGE's scoring of all bids. Some inconsistencies were noted including the scoring for experience of the project team, availability guarantees, credit rating, quality of energy, and curtailment and dispatchability. See: IE Confidential Attachment submitted under seal pursuant to Order No. 07-440

Several issues in both the price scoring and non-price scoring were identified by the IE during the review of the evaluation tools in addition to items noted in previous sections. A summary of the issue and how each was resolved is presented briefly below. For additional details, the scoring templates used are available for review by the Commission in the secure Evaluation Folders on the Portland General Website (www.portlandgeneralrfp.com).

- **Quality of Energy**

  Most renewable resources lack dispatchability and their energy profiles are less than predictable. The capacity factors, energy profiles, and mechanical availability not only vary across technologies, but also across locations and providers. The IE vigorously encouraged the Company to award appropriate scores to bids that use technologies that have high capacity factors and/or dispatchability, or to bids that externally alleviate the intermittency issues through other resources or market mechanisms. The initial scoring components for intermittency reflected a bias towards technologies that had lower capacity factors and were not dispatchable. After discussions, the PGE scoring team and the IE settled on a scoring mechanism that recognized resource variables, but was fair to all technologies

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- **Capacity Value**
  While quality of energy addresses the hourly swings in output, a capacity scoring component was necessary to account for the fact that some renewable resources do not have an energy profile that is coincident with peak load periods. In July of 2008, Bonneville Power Authority (BPA) and the Northwest Power and Conservation Council released their revised assessment of wind generator statistical capacity value from 15% to 5% of the nameplate. The study established that many renewable resources will require simple cycle combustion turbine back up for a majority of their nameplate capacity. The level of capacity back up required differs across renewable technologies. Initially, PGE did not reflect differences for capacity values across technologies, but in order to be consistent with actual resource planning guidelines of backing renewable resources with firm capacity, the IE and the PGE scoring team developed a table that adequately reflected the different capacity requirements without being punitive to certain technologies.

Risk Assessment

Renewable resources require unique risk assessment. PGE, the Commission Staff and the IE invested considerable effort in establishing appropriate risk components to be applied to bids. It was necessary to balance the encouragement of renewable resources with the potential unintended consequence of hidden costs to customers. We believe PGE successfully set risk components that fairly assigned costs, while at the same time avoiding inappropriate weighting. A review of risk components follows.

- **Weather Risk**
  The inherent weather risks that renewable technologies are forced to accept make diversity in location and technology important. In addition to the consideration of the effects of weather in the capacity scoring and quality of energy scoring, projects with similar energy profiles to existing PGE resources did not score as well as projects with different profiles. Among wind bids, locational diversity credit was awarded to projects that have different wind profiles by virtue of their physical distance from PGE's Biglow Canyon project.

- **Fuel Risk**
  Biomass projects are subject to significant fuel price and availability risks. PGE's method for alleviating this risk was to require all biomass bidders to provide firm fuel pricing for all bids. The IE believes that this adequately protects the ratepayer without significantly impacting the value of biomass bids. This also assisted in the comparison of bids with fuel costs (biomass) and without fuel costs (all other renewable), because there is no risk to be quantified if all fuel bids are fixed price.

- **Developmental risks**
  Ownership often can provide customers significant value over the long-term, but because of its implicit risk, ownership options must be evaluated not just from a total cost perspective but also from a risk perspective. For comparison to PPA options, development risk must be identified and mitigated for the ratepayer. The only ownership bid remaining on the Final Short-list is a turnkey project without development risk, so further consideration of this risk is not warranted.

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- **Energy Production Risk**

  PPAs implicitly assume capacity factor risk as the development costs are independent of the projected capacity factor. Therefore, if the capacity factor over time is higher than that assumed in the PPA, the developer's profit is commensurately higher. However, a lower than expected capacity factor can substantially impact the returns to the developer. In an ownership option, these risks and benefits are reversed. A historical survey shows that average actual production is typically 11% below the projected P50 (see Chart 1). While the trend is getting better over time, we feel the risks are still weighted toward over-estimating capacity factors. In a PPA arrangement the developer is assuming this risk. In an ownership case, customers would assume this risk.

  This remains an outstanding issue as one of the Final Short-list bids has both ownership and PPA options. Specifically, the project had two wind studies performed with a 5% range of capacity factor estimates which affected the levelized cost of power by ~$20/MWh. The evaluation was performed based on the newer and more complete of the two studies, which also had the much higher capacity factor estimate. The earlier wind study was for a partial year as the developer attempted to refine the project. We know from experience that this is a normal evolution with a wind project, and refinement of the estimates would be unimportant with a PPA. Accordingly, the evaluation model did not require refinement of the wind study. We understand PGE will require additional wind studies if the acquisition option is pursued.

  The IE notified PGE that we believe this to be a substantial risk to the customers if the ownership option were to be selected before additional analysis is performed and other externalities are considered. The IE recommends that 1) additional independent wind studies be performed with the existing wind data before the decision is made between the ownership and PPA option and 2) that a risk adjustment should be assessed to the ownership option that takes into account the results of the additional wind study. While the IE recognizes that PGE should not be expected to guarantee the capacity factor of a wind ownership project if such project offers value over a PPA option, the negotiations with the bidder should attempt to reconcile the differences in the risk profiles between the two options. As discussed above, PGE will consider values other than those included in the evaluation model for this RFP when negotiating the terms of an acquisition contract. We expect the Company will establish a production risk assessment matrix for use when determining the value to PGE customers if PGE acquires the project, instead of entering into a PPA.

  We believe the risk assumed should be justified by additional value provided to the customers. PGE noted that additional factors not considered in the RFP evaluation, including the option for repowering the asset at the end of its economic life, could add significant value to the ownership option. However, until additional analysis and support for the ownership option is provided by PGE, the IE recommends the PPA option for contracting.

- **Operating Cost Risks**

  The only revenue mechanism in each PPA bid was energy payment, and bidders did not require pass-through of changes to their operating costs. Accordingly, these PPAs effectively shield customers from

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both variable and fixed operating cost risks. We found projected operating costs of the Final Short-list for the PPA proposals to be appropriate.

As discussed earlier, we recognize an ownership bid, as opposed to a PPA proposal, has the added concern of requiring assumption of this risk by taxpayers. Since the ownership evaluations used conservative estimates for operating costs, the IE did not recommend a separate risk adjustment for this component. Instead, we suggested PGE recognize the added risk associated with an ownership bid as part of the negotiation process and before contracting would be completed. PGE committed to document the value of ownership as opposed to a PPA, and we expect the projections for ongoing operating cost will be given full review as part of the documentation.

- **Availability Risk**
  In the non-price scoring PPA options were eligible for availability guarantee credit if the bidder was willing to assume availability risk. However, few bidders provided guarantees beyond manufacturer's mechanical availability guarantees, and when they provided a guarantee, their method of compensation for failure to meet those requirements was generally limited. Therefore, since the total risk the bidders were willing to assume was small, the credit in the non-price scoring was also small.

PGE Market Price Forecast Impact on Evaluation

A market price forecast reflecting accurate hourly shape and annual charges was developed by PGE for evaluating the renewable resource bids. The important aspects of developing market prices for use in an RFP bid evaluation are 1) that the annual price differences are reflective of appropriate escalation of costs across time and 2) that the hourly shapes accurately reflect the dispatch of resources in the system. Appropriate market price forecasts will result in the most cost effective technologies being selected in the RFP evaluation.

The significant factors of the market price forecast employed by PGE are discussed below.

- **Capacity cost**
  Inaccurate construction cost forecasts may affect the resource mix and thus not only the annual market prices but also the hourly market price shapes. The IE reviewed PGE's forecasts of technology specific construction costs to ensure that recent significant escalations in commodities were reflected in their costs. We believe PGE's capital cost expectations are in line with other market forecasts.

- **Aurora build out of resources**
  AuroraXMP is the production cost model that PGE utilizes to generate an expansion plan. The logic AuroraXMP uses is a cost-recovery algorithm that is typical in the industry. PGE's use of the software is consistent with standard practice and the expansion plan it developed as part of developing the hourly market price is reasonable.

- **Fuel price forecast**

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With the exceptional volatility in fuel markets recently, it is difficult to determine the validity of any fuel price forecast. However, this volatility should encourage diversity among resources in the expansion plan. We believe the expansion plan used to develop the market prices was reasonably diverse.

- **Load forecast**
  PGE's most recent IRP was not acknowledged at the time of the release of the RFP, partially because of an unsupported load forecast. The load forecast was updated for use in development of the market prices for the RFP and designed to alleviate the concerns that the Staff had with the load forecast. However, the load forecast for the RFP did not have the same implications as in the IRP since the RFP was not designed to procure all necessary resources for the planning horizon. The load forecast has a minor impact on the marginal energy prices in future years. The load forecast PGE developed was appropriate for use in the development of market prices for the RFP. Given that PGE is ahead of schedule for meeting the RPS requirements, the IE recognizes that PGE is well positioned to address any deficiencies that could develop if load growth exceeds forecasts.

PGE's Preference for Certain Components in Bids

PGE clearly and explicitly stated its preferences for specific project components and the associated scoring for those components to both bidders and the Commission. The preferred components that did not have a corresponding price benefit were location and term. Chief among the stated preference were location, term and integration costs.

- **Location**
  As stated in the explanation of the mock bidding process, PGE had a preference for projects located in its service territory and that preference was reflected in its scoring. The IE is comfortable with this preference for the following reasons:
  1. the preference was defined in the RFP document
  2. the scoring impact was small, such that other projects could still easily be competitive
  3. a majority of the bidders had participated in the Bonneville Power Authority open season, and were able to meet transmission requirements [8]
  4. the preference had very little impact on the Final Short-list as most of the projects from outside of the territory were not able to get transmission and be eligible resources anyway, and
  5. this preference could provide benefits to the local Oregon economy

- **Term**
  PGE had components in the non-price scoring that would allow projects with long terms (terms greater than 20 years) to receive up to twenty-five more points than projects with shorter terms. Again, the IE feels this is reasonable given the risk mitigation longer terms provide.

[8] IE Confidential Attachment 4 provides an overview of the participation in the NOS by bidders to this RFP. We view this as confidential information.

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- **Integration Costs for Intermittent Resources**

  PGE used a proxy of $10.50/MWh (2008$) for wind integration for the evaluations of the Initial Short-list. [9] Although this appeared high relative to historical values, and the Staff and some bidders initially challenged its validity, the IE supported its use as escalation in integration costs have been very dramatic as the marginal energy supply for the backup energy is no longer BPA's inexpensive hydroelectric power. A thorough integration study that was performed by PGE and discussed with Staff and non-bidding parties in September 2008 resulted in a wind integration estimate of $11/MWh (2008$), which compares well with the placeholder cost of $10.50/MWh. This figure reflects the increased costs of load following and regulation due to wind uncertainty. The IE reviewed the results of the wind integration study commissioned by PGE. While the IE noted several concerns[10], the inclusion of the wind integration cost as calculated did not affect the ranking significantly, and the estimate is only allocated to the project for evaluation.

  The integration cost to be recovered will be actual cost, so if PGE customers were conservative in this estimate, the correction will be made in actual operation without harming customers. For these reasons the IE is comfortable with the wind integration cost assumptions used in this RFP evaluation.

  Per the IE's recommendation, solar resources were assigned integration costs of $6/MWh, when expressed in 2006 dollars, and $6.28/MW when expressed in 2008 dollars. This figure was taken from PGE's last approved IRP. It is recognized that since the total solar resource base in the Pacific Northwest is extremely small the cost of integrating the first resources would be small. However, because solar is an intermittent resource, especially PV solar which is the only type of solar resource bid into this RFP, there is expected to be a direct cost to manage the intra-hour fluctuations. The inclusion of this integration cost for solar did not result in the elimination of any solar bid.

Analyzing and Adjusting Bid Evaluation Methods for Fairness and Transparency

After consultation with the IE, PGE adjusted the evaluation model after the bids were received to accommodate the resources actually proposed. We agreed that the adjustments were appropriate. Further, we believe PGE could not have been expected to anticipate the resulting adjustments before actual bids were examined. PGE demonstrated a willingness to adapt their models to correct deficiencies identified by the IE, along with a genuine attempt to evaluate all bids equitably.

The IE and Commission Staff reviewed the weighting of price and non-price components proposed by PGE. PGE assigned 60% of its overall score to price and 40% to non-price components. Other RFP's in the Pacific Northwest have allocated 70% to price and 30% to non-price. As an IE or Independent Monitor in RFPs in other

[9] See: IE Confidential Attachment 5 for a summary of the wind integration costs price scoring assumptions used for the Initial Short-list.

[10] The integration study was based on a reference year of 2014 and costs could be higher or lower before or after that timeframe. The cost is calculated for self-integration, which is higher for PGE than other utilities because of limited flexible thermal plants with near-market heat rates. In reality, some of the integration costs may be defrayed by reliance on the market. PGE acknowledged that there were some errors in the input data used. The costs for February and May appeared suspect.

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states, we have seen the price score be allocated up to 100% of the total scoring. The primary difference between those RFP's and this one is that PGE recognizes some cost items as non-price that others may treat as price items. These items are, in our view, marginal and could be accounted for as either price or non-price items. Examples are dual fuel supply benefits, availability guarantees, and renewable energy credits. Also, renewable projects often carry much higher implicit risks that will not be captured in price scoring, such as technology risk, weather volatility, developer inexperience and credit support. We are comfortable with the scoring allocations employed by PGE.

Price scoring to reflect hourly production shape resulted in a necessary adjustment of the original evaluation model. The original price scoring models proposed by PGE divided energy into two periods: peak and off-peak. This simple segregation of value did not fully recognize the unique value that one project or technology could bring with having production more coincident with peak energy pricing. For a project with a flat delivery shape, the simple delineation did not impact the evaluation. However, the analysis could result in up to 5% lower valuation for a project that would produce more energy in certain on-peak hours, as compared to less peak-coincident technology or project. Because energy production shapes were not known prior to receipt of bids, the evaluation team used the peak/on-peak methodology for the initial evaluation. After the initial evaluation, the IE and PGE analyzed the issue in detail and found that for some projects the impact would be somewhat substantial. For example, this would generally increase the value of solar projects by 3-5% when compared to wind projects. Accordingly, the hourly shaping adjustment was included to determine the Final Short-list.

Another area of adjustment was in the area of environmental impact. Prior to the evaluations, the PGE scoring team devised a scoring matrix for all renewable technologies based on their environmental impact in the following categories: air emissions, land use, water discharge, and solid waste. All projects within a given technology class generally had similar environmental characteristics and received similar scores. As might be expected, biomass projects generally scored the worst. Wave projects, solar rooftop projects and hydroelectric projects were generally scored the best.

The IE feels this scoring adequately reflects the relative environmental impacts of each technology. The IE is comfortable with the allocation of points to the environmental section, given that the general value of environmental scoring was laid out in the RFP.

Availability guarantees were also assessed based on the quality of the guarantee. In order to receive a high score for an availability guarantee, a bidder had to provide both a high guarantee percentage and a high level of compensation for failure to meet the requirement. None of the bidders were willing to provide high guarantees or high compensation for failure to meet availability guarantees, and thus the scoring was very similar across all bids. If there had been substantial variation in offers from bidders, the availability value could have had substantial impact on rankings.

H. Transmission

Several bids were eliminated for unavailability of transmission. Since one of the requirements in the RFP was to have transmission prior to entering a contract, the IE believes PGE was justified in eliminating those bids even though some of the bids were not expected to be in-service prior to 2012. Although this timeframe might be

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adequate to procure the necessary transmission rights, PGE could not afford to delay the procurement of other resources while waiting to learn if bidders would procure transmission in the next BPA open season or other means. In addition, the RFP stated that: "Confirmation of firm delivery capability or rights to transmit the proposed energy supply to PGE's system will be required prior to execution of any contracts in connection with the RFP. "We note that before releasing these bids PGE invited the bidders to provide guarantees they would procure transmission. Each bidder declined the invitation.

Because transmission availability was significant to the evaluation process, Accion reviewed and assessed each determination made by PGE. We reviewed each of transmission determinations made by PGE, verified the underlying data and independently evaluated the transmission implications. In each instance we found PGE's determinations to be appropriate.

To assess PGE's transmission assessment, we reviewed the materials available from the BPA website and OASIS documents, past cases and previous generation projects. IE also reviewed the transmission information contained on the Portland General RFP website (www.portlandgenerarfp.com) and reviewed PGE's summary of transmission assessment entitled "Transmission Review – Met or Not Met Delivery Requirements".[11] This document contained specific information for each of the twenty bids. The information included:

Bidder name
Bid number
Project/partner
Purchase power agreement/ownership
Point of delivery
Generation interface
Generation interface queue
Generation interface cost
Network open season request
Transmission service agreement form point of delivery
Transmission service agreement queue
Transmission notes
Effective point of delivery
Wheeling party
Any issues
Any comments

The transmission review information was reviewed against the background data base that had been assembled. It became apparent that the specific transmission lines involved in transporting the power associated with each of the bids needed to be identified. To achieve this identification, a Confidential Northwest Power Pool Pacific Northwest transmission system map was requested by the IE. Once received it was used for transmission segment identification purposes.

[11] This document and other evaluation assessment materials were compiled as produced and held in secure files on the portlandgeneralRFP.com website. These materials are not available to bidders or the public, but are retained for review by the Commission.

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A further understanding of the methodology used in creating the transmission review spread sheet was achieved by thoroughly reviewing the system map with PGE personnel. Each line item was discussed with the overall objective of determining if each proposal satisfied the RFP requirement of demonstrated ability to deliver power to the PGE system. At this initial high level of "met not met" screening, all costs included were from existing system studies. There was no in-depth transmission design cost identification, nor was there any specific power flow analysis. But for purposes of an initial screening this depth of analysis is sufficient.

PGE's conclusion that the proposals of each of the Final Short-list bidders satisfies the requirements of demonstrated ability to deliver power to the PGE system was well supported by the transmission evaluation analysis. Six bidders were deemed to be able to deliver their bid power to the PGE system. There were five bidders on the Initial Short-list for whom transmission services were not available. After our review, but before the Final Short-list was established, we advised PGE that we concurred in the transmission review and assessment used by the Company.

III. WEBSITE OPERATION

Accion Group worked with Portland General to design a website that organized information in a useful way, and provided easy use by bidders and interested parties. The general public had access to the calendar and announcements about the RFP without having to register, simply by clicking on the menu bar for those items. Also, the home page accurately described the scope of the RFP. Interested individuals were invited to register for full access to documents, a way to submit questions, view answers to questions of others, and to ultimately submit bids.

When the website was launched the IE sent email messages to prospective bidders and interested parties. The list of recipients of the broadcast message was compiled from information maintained by Portland General and the IE. Bidders and interested parties were invited to register on the website in order to review draft RFP documents and view information about the RFP.
Interest in the RFP increased as the process neared the bid date, resulting in a robust field of potential bidders.

Chart 2
WEBSITE STATISTICS
As of January 18, 2008

Initial Email notifications of RFP/website	143
Registered bidders	43
Registered non-bidders	6
Questions posted to website	6

Chart 3
WEBSITE STATISTICS
As of November 30, 2008

Registered bidders	154
Registered non-bidders	98
Questions posted to website	6

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Operation of the website was provided in our initial report. Additional features were used as the RFP moved from draft documents through bid receipt and exchange of information between PGE and bidders. Announcements were posted to keep bidders and the public informed of the status of the RFP.

Figure 1

The announcement page was used to advise all visitors to the website of RFP-related developments. Registered users could opt to receive automatic email notices when an announcement is posted to the page.

Accion Group Independent Evaluator for Portland General Electric RFP

HOME CALENDAR ANNOUNCEMENTS DOCUMENTS COMMENTS Q & A BID BOOK EVALUATION LOG OFF

Emily Judd — Admin Menu

Select RFP => Energy RFP

User Questions Energy RFP

PLEASE DO NOT IDENTIFY YOURSELF OR YOUR COMPANY WHEN POSTING QUESTIONS

QUESTIONS AND ANSWERS WILL BE AVAILABLE TO ALL USERS OF THIS WEB SITE.

All questions will be reviewed by the Independent Evaluator and answered Portland General Electric Company. You will be notified by email when an answer to your question has been posted to the web site.

Once an answer has been posted, click on the question to view the answer .

When posting a question, please select a category. When viewing questions and answers, clicking the "category" button will sort questions and answers by the category selected by the person who posted the question.

PLEASE DO NOT IDENTIFY YOURSELF OR YOUR COMPANY WHEN POSTING QUESTIONS.

View All Questions/Answers

Ask Question | Question | Answer

Ref #	Category	Question	Date Asked	Date Posted	Date Modified	Date Answered	Date Modified
6	Other	Must a bidder to sign the Modified Protective Order to participate in the RFP? If so, when must it be signed and how does a bidder get a copy?	1/15/2008 12:00p	1/15/2008 12:00p	-	1/16/2008 1:22p	-
5	Other	When is the next solicitation planned after the 2008 RFP?	1/14/2008 6:37p	1/14/2008 6:37p	-	1/16/2008 1:22p	-
4	Credit	How does PGE view renewable energy from out of state?	1/14/2008 6:36p	1/14/2008 6:36p	-	1/16/2008 2:16p	-
3	Other	Page 24 of the draft RFP refers to the Climate Trust of Oregon. Should be corrected to say Climate Trust.	1/8/2008 7:22p	1/8/2008 7:22p	-	1/16/2008 2:18p	-
2	Other	There are meetings about the RFP on Thursday and Friday. Which should a bidder attend?	1/8/2008 3:29p	1/8/2008 3:29p	-	1/8/2008 3:31p	-
1	Other	For the non-renewable energy products, is the total quantity 25MWs or is it in 25MW increments? If in 25MW increments, what is the total desired volume?	1/4/2008 2:10p	1/4/2008 2:10p	-	1/4/2008 2:11p	-

Home | Documents | Comments | Q&A | Bid Book | Evaluation | Log On

All contact shall be via emails to the Independent Evaluators: Harry Judd or Alan Kessler
Any website questions or problems should be addressed to: Harris Burpee

Figure 2

All registered users were invited to post questions for Portland General to answer. All questions and answers could be viewed by any registered user. All questions were automatically delivered by email to Portland General, without the identity of the individual who posted the inquiry. When an answer was posted, the website generated an email message to the person who posted the question. Questions and answers continued even after bids were received**.**

Each registered bidder had an individual bid book. The bidder's bid book was only accessible by the bidder, Portland General, and the IE. Bidders used the bid book to deliver their bids, and as the means for the exchange of information. In our experience it is a rare bid that does not require clarification or explanation before the evaluation can be completed. By using the bid book to exchange that information, the website captured the information for future review, if needed. It also permitted those with access to the website to view the information at any time, from any computer. The bidder and Portland General received emails from the website when materials were uploaded to the bid book, so there was virtually no delay in the notification of when information was available for review.

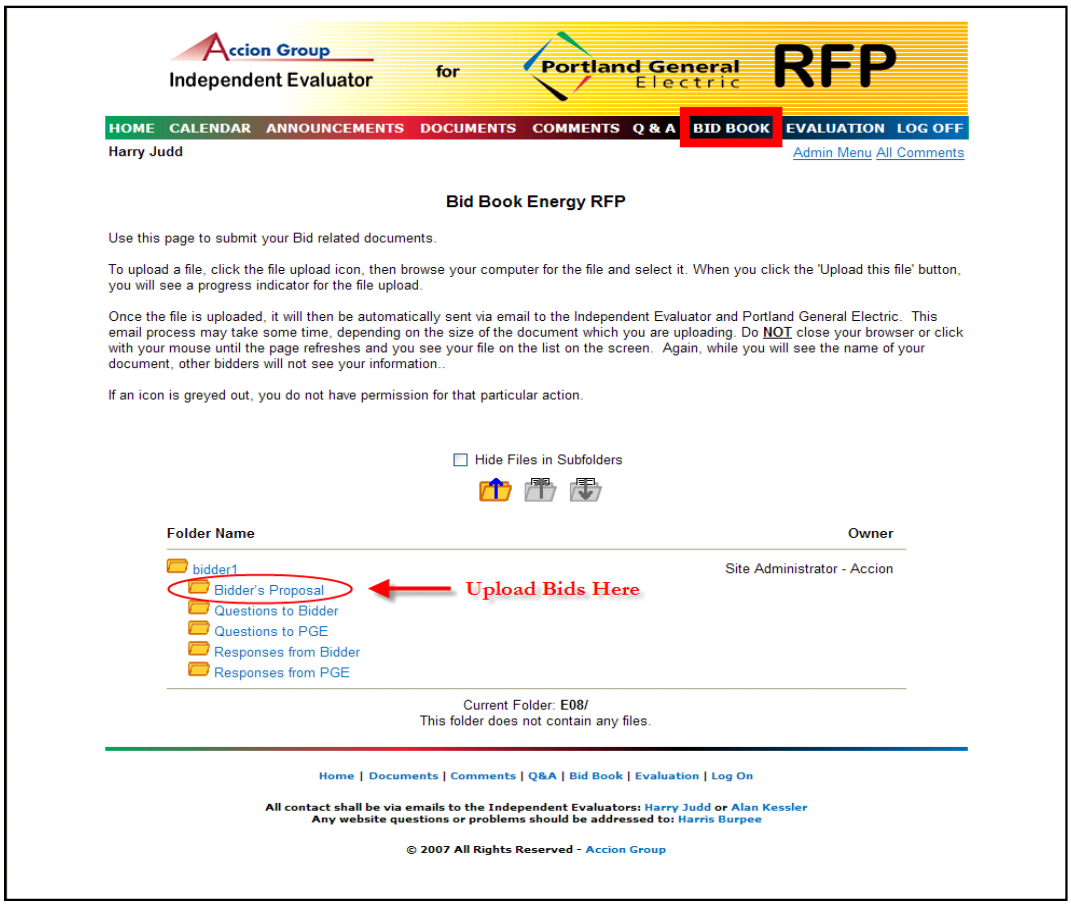

Figure 3

The bid books eliminated the need for direct contact between a bidder and the PGE evaluation team, which in turn avoided the possibility of inappropriate information being exchanged. It also eliminated a potential area of challenge by unsuccessful bidders, since all exchanges are captured in the bid books for subsequent review by the Commission.

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A secure Evaluation Folder was provided on the website. Access to the folder was restricted to the PGE evaluation personnel and the IE. The materials in the folder will be made available to the Commission, upon request.

PGE cooperated in the design and population of the Evaluation Folder. As each phase of the evaluation was conducted, documentation was posted to this folder. For example, the Initial Short-List evaluation and ranking is preserved in the folder. Each document is date stamped when uploaded. Only the IE has the ability to move or remove a document once posted.

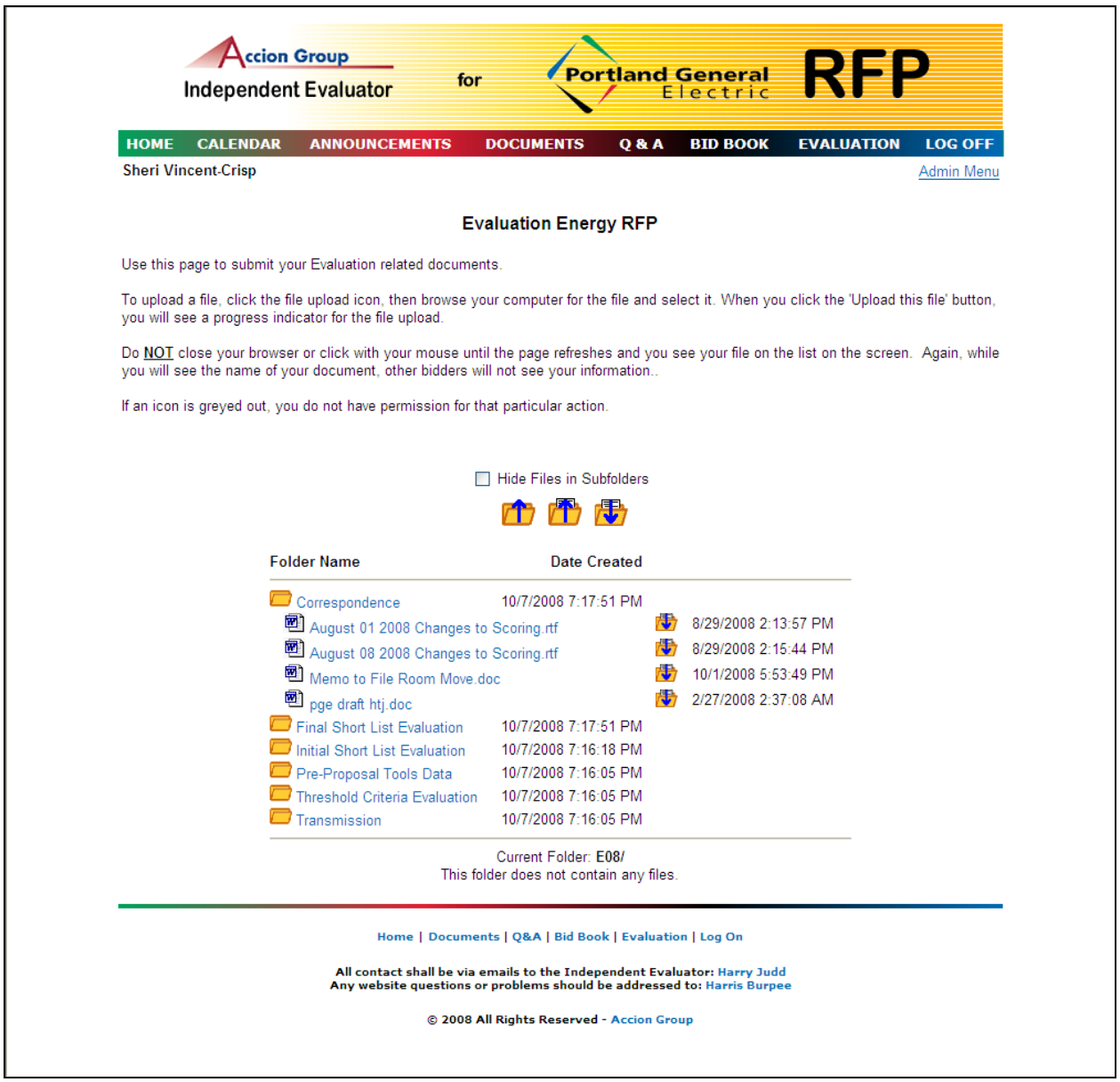

Figure 4

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IV. CONCLUSIONS AND RECOMMENDATIONS

We believe PGE conducted the RFP fairly and without bias towards or against any bidder or type of generation. The criteria and evaluation used to establish the Final Short- list was fully reviewed by the IE, and we found it to be consistently applied to all bids. While transmission assessment was of significant concern to bidders and PGE, we reviewed PGE's decision making for transmission scoring and found it to be appropriate. As stated in our report, we recommend that PGE pursue a PPA with a particular wind project, instead of an ownership option, due to the substantial variation in the wind assessment available from the site subject to further resource assessment and negotiations with the bidder.

Through the website all registered users, including registered bidders, had access to the same information at the same time. The IE was available to all bidders, many of whom took advantage of the access when questions about the RFP process arose. Also, the IE was available to bidders to assist in clarifying bid information requested by PGE, after bids were submitted, and bidders used that access liberally. While some bidders expressed disappointment in being excluded from the Final Short-list, no bidder claimed the RFP process was biased or flawed.

The Final Short-list was established once each evaluative value was determined and each remaining bid thoroughly reviewed. We observed PGE personnel endeavoring to be as inclusive as possible in reaching the Final Short-list. Indeed, the IE encouraged the abandonment of some non-responsive bids, but agreed to PGE's additional attempts to have bidders complete certain proposals.

Since the IE worked closely with the PGE evaluators during the selection of the Final Short-list, and scoring changes were not substantive, the IE did not independently re-score any bids. We note that portfolio modeling was not performed. We agreed that would be unnecessary due to the characteristics of the supplies under consideration. Every change to scoring proposed by PGE was thoroughly reviewed by the IE. The bids continuing on to the Final Short-list and those that were released from the RFP are documented in the Evaluation folder of portlandgeneralrfp.com.

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IE CONFIDENTIAL ATTACHMENT 1

Initial Short List and Released Bids

Submitted to
The Public Utility Commission of Oregon under separate cover as
"Confidential and Subject to Protective Order No. 07-440"

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IE CONFIDENTIAL ATTACHMENT 2

Final Short List with Bids Marked for Release

Submitted to
The Public Utility Commission of Oregon under separate cover as
"Confidential and Subject to Protective Order No. 07-440"

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IE ATTACHMENT 3

TOTAL RESPONSES TO PGE RENEWABLES RFP

RFP Response - Discrete Projects /1

Resource Type	#Projects	Total MW	Total Mwa	MW %	MWa %
Biomass	3	77	58	3%	7%
Solar	8	100	15	4%	2%
Geothermal	1	10	12	0%	1%
Wind	21	2,233	731	89%	86%
Wave	1	100	31	4%	4%
Total	34	2,520	848	100%	100%

Released Bids - Discrete Projects /1

Resource Type	# Bids	Total MW	Total Mwa	MW %	MWa %
Biomass	1	2	2	0%	1%
Solar	6	61	8	6%	2%
Geothermal	1	10	9	1%	3%
Wind	11	980	336	93%	95%
Wave	-	-	-	0%	0%
Total	19	1,052	355	100%	100%

Initial Short List - Discrete Projects /1

Resource Type	# Bids	Total MW	Total Mwa	MW %	MWa %
Biomass	2	75	56	5%	12%
Solar	2	40	7	3%	1%
Geothermal	-	-	-	0%	0%
Wind	10	1,254	395	85%	81%
Wave	1	100	31	7%	6%
Total	15	1,468	490	100%	100%

Released Bids Final Short List- Discrete Projects /1

Resource Type	# Bids	Total MW	Total Mwa	MW %	MWa %
Biomass	2	75	56	11%	24%
Solar	-	-	-	0%	0%
Geothermal	-	-	-	0%	0%
Wind	3	507	147	74%	63%
Wave	1	100	31	15%	13%
Total	6	682	235	100%	100%

Final Short List - Discrete Projects /1

Resource Type	# Bids	Total MW	Total Mwa	MW %	MWa %
Biomass	-	-	0	0%	0%
Solar	2	40	7	5%	3%
Geothermal	-	-	-	0%	0%
Wind	7	747	248	95%	97%
Wave	-	-	(0)	0%	0%
Total	9	787	255	100%	100%

/1 Does not include alternative bids on the same projects.
(Previously reported results reported number of bids received including optional bids on same projects)

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IE ATTACHMENT 4

Portland General Electric
Memo to File
December 16, 2008

RE: Transmission of RFP projects

Transmission for discrete projects in initial short list pool (those projects remaining in the pool after threshold releases and bid withdrawals but before initial short list selection):

Participated in NOS	8
No transmission/not in NOS	8
In PGE Service Territory	5
Total discrete projects	21

Transmission for discrete projects selected for the final short list (after releases for initial and final short lists and one bid withdrawal):

Participated in NOS	6
No transmission/not in NOS	1
In PGE Service Territory	2
Total discrete projects	9

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IE ATTACHMENT 5

Portland General Electric
Memo to File
December 16, 2008

RE: Wind Integration Costs

The price scoring for the **initial short list** included the following wind integration assumptions:

- Wind: Based on IRP Tier II integration cost of $10/MWh in 2006$ ($10.47 in 2008$)
- Solar and Wave: Based on IRP Tier I integration cost of $6/MWh in 2006$ ($6.28 in 2008$)

Following the Wind Integration Study, the price scoring for the **final short list** included the following wind integration assumptions:

- Wind: $12.50/MWh in 2014$ ($10.91 in 2008$)
- Solar and Wave: No change from initial ($6.28 in 2008$)

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CERTIFICATE OF SERVICE

I certify that on January 28, 2009, I served the foregoing non-confidential version of the Final Report of the Independent Evaluator upon all parties of record in this proceeding by delivering a copy by electronic mail, and by mailing a copy of the letter only by postage prepaid first class mail or by hand delivery/shuttle mail to the parties accepting paper service.

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