### Before the Public Service Commission of Utah

IN THE MATTER OF THE
APPLICATION OF PACIFICORP FOR
A CERTIFICATE OF CONVENIENCE
AND NECESSITY AUTHORIZING
CONSTRUCTION OF THE LAKE SIDE
POWER PROJECT

Docket No. 04-035-30

DPU Exhibit 2.0

**Direct Testimony** 

Of

Wayne Oliver

On Behalf of

**Division of Public Utilities** 

September 27, 2004

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DPU Exhibit 2.2	Economic Evaluation of Bids

# Certificate of Convenience and Necessity Lake Side Power Project Docket No. 04-035-30

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#### Introduction

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- 7 Q: Please state your name, occupation and business address.
- 8 A: My name is Wayne Oliver. I am Principal and Founder of Merrimack
- 9 Energy Group, Inc. (Merrimack Energy), 727 Lafayette Road, Seabrook,
- New Hampshire 03079.
- 11 Q: On whose behalf are you testifying?
- 12 A: I am testifying on behalf of the Utah Division of Public Utilities.
- 13 Q: Please summarize your educational and professional experience.
- 14 I have over 25 years of experience in the energy field. During that time, I A: 15 have held senior level positions as an economist and consultant with government agencies and private sector firms. I was formerly a Founder 16 and Senior Officer of Reed Consulting Group, Inc. I also served for a 17 18 short time as a Director with Navigant Consulting, Inc. after the acquisition of Reed Consulting Group by Metzler & Associates in 1997 19 20 and the subsequent formation of Navigant to integrate a number of the 21 consulting firms acquired by Metzler & Associates. I have also been an 22 Assistant Professor in the Economics Department at Northeastern 23 University and an Adjunct Professor in the Finance Department at Babson 24 College, where I taught courses in Risk Management and Futures and Options. I have an MA in Economics and completed all course work 25 26 toward a Ph.D in Economics. My resume is attached as DPU Exhibit 2.1.

# Q: Please describe your experience with competitive bidding programs and power procurement processes?

I have served as project manager for over 20 competitive bidding assignments on behalf of electric utilities, other power buyers and public sector organizations representing a range of different technologies, project structures and bidder types. In that process I have reviewed and evaluated hundreds of power supply proposals in the US and Canada. I have assisted clients in the design and development of competitive bidding programs, the associated RFPs for both power supply and DSM options, and power contract negotiations. I have also served as Independent Evaluator or Observer on a number of RFP processes. In addition, I have provided technical assistance to utilities in evaluating bids in the areas of fuel supply, critical path assessment, credit and financial issues, and the commercial terms of power supply contracts. I have also worked with power generators in submitting power supply proposals, conducting market assessments and due diligence for power project acquisition.

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#### Scope of Testimony

#### Q: What is the purpose of your testimony in these proceedings?

A: I have been asked by the Utah Department of Public Utilities to evaluate the application of PacifiCorp for a Certificate of Convenience and Necessity Authorizing Construction of the Lake Side Power Project, including the supporting testimony and documentation, to assess whether the RFP evaluation and selection process led to the selection of the best alternative under the competitive bidding process undertaken by PacifiCorp. My review and evaluation reflects the approaches undertaken

by other utilities in implementing competitive bidding processes and the consistency of the PacifiCorp process with regard to "industry standards". I also provide a series of recommendations regarding potential revisions to the competitive bidding process for future solicitations.

The testimony filed by PacifiCorp's witnesses in this case identify the factors that had the most important influence on the Company's decision. These include: (1) the ability of the bidder to meet the June 2007 inservice date requirement, (2) the economics of the bids relative to the Next Best Alternative, and (3) the risk factors of most importance including CO2 liability and inferred debt. My testimony will address each of these factors.

The competitive bidding process utilized by PacifiCorp has two major phases: (1) solicitation of bids to meet the requirements outlined in the RFP and evaluation and selection of the bids received; and (2) contract negotiations with the preferred bidders. The two phases need to be coordinated and balanced since there is a possibility that the lower cost option(s) selected in Phase I may contain significant risk or shift undue risk to the utility and its customers during the negotiation phase of the process. My testimony will largely address the Phase I activities, focusing largely on the bid evaluation and selection process. Mr. Selgrade's testimony will address the proposed contracts and the contract negotiation process, in particular, whether the contract structures and negotiation process resulted in arrangements that presented equivalent or different risks of project delay or failure to PacifiCorp.

### Summary of Testimony

27 Q: Please summarize the major conclusions of your testimony?

Based on my investigation with regards to the competitive bidding and RFP process followed by PacifiCorp, the evaluation of the bids received under the 2003-A RFP for baseload resources, the application of the risk factors in bid evaluation, and assessment of the contract negotiation process followed by PacifiCorp, I conclude that the selection of the preferred resource was a reasonable decision given the parameters of the process. While the selection of the preferred resource is a reasonable outcome given the competitive bidding process undertaken by PacifiCorp, I believe there are a number of aspects of the process that can be improved for future solicitations to ensure the potential benefits from competitive bidding can be fully realized.

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#### Q: How is your testimony organized?

My testimony is presented in five sections. The first section describes recent industry standards regarding the use of competitive bidding processes for soliciting and selecting power supply options and the characteristics of successful competitive bidding programs. The second section summarizes the competitive bidding process undertaken by PacifiCorp, including the important parameters of the process outlined in the 2003-A RFP. The parameters of the RFP are important because they guide the bidder in its proposal development. The third section addresses the bid evaluation and selection process undertaken by PacifiCorp, including the methodology used and basis for selecting the short-listed bidders and the final evaluation, selection, and negotiation process with the preferred bidder. The fourth section discusses the quantitative basis and justification of the selection of the preferred bid. The fifth section presents my conclusions and recommendations associated with the assessment of the PacifiCorp 2003-A RFP process for power supply resources.

### **Characteristics of Competitive Bidding Programs**

- 4 Q: In your experience, what are the characteristics of an effective competitive bidding program?
- A: Based on my experience with competitive bidding processes and observations regarding the success factors associated with such processes, an effective competitive bidding process should be designed to achieve the following objectives:
  - 1. The solicitation process should be fair and equitable, consistent, comprehensive and unbiased to all bidders
  - 2. The solicitation process should ensure that competitive benefits for utility customers result from the process
  - 3. The solicitation process should be designed to encourage broad participation from potential bidders
  - 4. The Request for Proposal documents (i.e. RFP, Response Package or Bid Form, and Model Power Contract) should describe the bidding guidelines, the bidding requirements to guide bidders in preparing and submitting their proposals, the bid evaluation and selection criteria, and the risk factors important to the utility issuing the RFP. The RFP documents should effectively inform the bidder how they can compete in the process.
  - 5. The solicitation process should include thorough, consistent, and accurate information on which to evaluate bids, a consistent and

equitable evaluation process, documentation of decisions, and guidelines for undertaking the solicitation process.

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- 6. The solicitation process should ensure that the power contracts are designed to provide a reasonable balance between the objectives of the counter-parties, seeking to minimize risk to utility customers and shareholders while ensuring that projects can reasonably be financed.
- 7. The solicitation process should incorporate the unique aspects of the utility system and the preferences and requirements of the utility and its customers.

# Q: Please describe some of the recent issues or trends associated with competitive bidding programs?

Over the past few years the competitive bidding programs instituted by utilities have evolved with changes in the power market. Certainly, the most significant change over the past few years is the emphasis on credit assurance and credit quality of the counter-party. Credit quality of the counter-party is now one of the most important evaluation criteria used by utilities to evaluate and select bids and has important ramifications for contract structure and contract negotiations. For example, the level of collateral or security required of a bidder has generally been increasing and terms are more stringent. These issues are particularly important in cases where a utility requires firm physical power and has limited access to other power markets. Utilities and other power purchasers are concerned about counter-party default and are requiring more restrictive contract covenants to protect the customers and shareholders in case of counter-party default or bankruptcy. The recent spate of credit downgrades for a number of power generators and the bankruptcy filings of a few companies have heightened the concern of the power buyer. Since many of these power generators are involved in merchant power

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markets with uncertain revenue streams and associated uncertain financial prospects, many power purchasers in the industry are focused on assessing counter-party financial risk.

Another recent trend is that price-related criteria have become the predominant final selection criteria since the independent power generation industry is reasonably mature and the success factors for project development are well known. Also, integrated system analysis is more the norm for assessing and evaluating the final portfolio of bids. This allows the utility to attempt to optimize its portfolio based on the established evaluation criteria and to hedge its risk through an array of different contract structures and options. Utilities are still seeking flexibility in the power procurement process and in making resource commitments. This includes requesting and encouraging bids for short and long-term resource options and a variety of project/contract types and bid sizes. Also, flexibility involves contract provisions designed to more closely match supply with requirements. Over the past few years, utility self-build options have become more competitive due to the change in the capital structure of independent power generators (i.e. more equity in projects is generally required by financial institutions) relative to the utility, the higher cost of borrowing for independents with lower credit ratings, cost and access to transmission for independent generators, and an increase in tolling arrangements in which the utility assumes fuel risk. Finally, accounting rules and financial rating agencies are focusing more attention on the implication of treating fixed purchased power obligations as debt. The attendant implications of recent FASB Accounting initiatives and the consensus of the United States Emerging Issues Task Force (EITF) on EIFT issue 01-8 "Determining Whether an Arrangement Contains a Lease" are beginning to get more attention in the resource selection process.

Q: Please describe any other factors that have guided your assessment of PacifiCorp's selection of the preferred bid?

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As noted, in its RFP document and the testimony of its witnesses, PacifiCorp states a need for baseload power supply by June 2007. In the Currant Creek case, that significant requirement for new power supplies by PacifiCorp was affirmed, with concern of a capacity deficiency in the summer of 2005 cited by both the Company and Committee witnesses. The Public Service Commission recognized the considerable need for power in Utah in the Currant Creek Decision (In the Matter of the Application of PacifiCorp for a Certificate of Convenience and Necessity Authorizing Construction of the Currant Creek Power Project, Docket NO. 03-035-29, Report and Order):

Although neither the Division nor the Committee relies upon or refutes this analysis of resource need, it too shows capacity deficiency. This deficiency is expected to be 1,049 megawatts in summer 2005 and increases to over 1,900 megawatts in 2009....

We find the magnitude of deficiency considerable, and as the Division testifies, we realize this is not new. The Company's reliance on the wholesale market for meeting this need since the time it filed its IRP "RAMPP-5" in 1997, has placed the Company and its customers at considerable risk of the high cost of purchases or reduced reliability. (Page 12)

The date on which a proposed project needs to be commercially available to provide power is very important in competitive bidding programs, affecting the schedule for undertaking the bid evaluation process as well as the contract negotiation process. A firm date for power requirements is particularly important if the utility requires firm physical power and does not possess the ability to replace the power through short-term market

purchases. Based on the Decision in the Currant Creek case and the estimated requirements for new power resources in Utah, I have assumed in my assessment that the selected bid needs to be commercially available by June 2007, and the activities and decisions undertaken by PacifiCorp are based on this constraint.

I am also guided by the conclusions reached by Navigant Consulting as the Outside Evaluator. As the Outside Evaluator, Navigant was involved in the entire process and issued several reports on various aspects of the process. The objectivity and credibility of any outside or independent evaluator is at stake in these processes and as a result their opinions and conclusions are important considerations. My objective was not to replicate Navigant's assessment but to determine if the Company's selection was a reasonable decision given the information available to it at the time it made its decisions.

# Q: What conclusions did Navigant reach with regard to the bidding process?

A: Navigant's conclusions are included in the Public Version of Navigant Consulting's Final Report on PacifiCorp's RFP 2003-A dated September 8, 2004. Navigant concludes:

PacifiCorp executed a fair and consistent process throughout the RFP to identify the most cost effective resources for meeting its projected supply needs.

From an operational and design perspective, the RFP process developed and implemented by PacifiCorp functions as expected. It resulted in over 100 offers from the market a few of which were economically competitive with the Company's own internal benchmark options. It satisfied the primary criteria NCI looked for in the process: equal opportunity,

analytical objectivity, reasonableness and consistency.

Having met these, NCI unequivocally supports the RFP

process as having been managed in an effective manner with

results that are fully supportable. (page 48)

#### PacifiCorp's 2003-A RFP

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- Q: Please summarize the key parameters of the 2003-A RFP considered in your assessment of the RFP process?
- 9 A: The 2003-A RFP contained information to guide bidders in the submission of their proposals and outlined the requirements of the purchaser. The directions/requirements contained in the RFP document are important because they identify the information bidders can assess in deciding whether and how to submit a proposal. The following requirements are among the most important factors in PacifiCorp's competitive bidding process as described in the RFP:
  - 1. PacifiCorp solicited bids for "up to" the following amounts of power: (1) 570 MW of baseload power; (2) 200 MW of peaking power: and (3) 225 MW of superpeak power for delivery into the East control area.
  - 2. A schedule outlining the steps of the process and the timing for each step in terms of dates for bid submission, announcement of the short-list and completion of definitive agreements was included.
  - 3. Adequate credit assurances may be required from a respondent.
  - 4. Bidder/product eligibility options were identified. In general, bids were welcomed for a variety of pricing options and project structures including physical tolling agreements, call options, put

options, virtual tolling arrangements, sales of an existing asset, and construction and lease or sale of an asset.

- 5. Bidders were directed to incorporate costs associated with meeting future air quality requirements in their bids. Bidders were informed that cost assumptions consistent with the IRP base case assumptions would be incorporated.
- 6. Bid terms for baseload and peaking resources would be for up to 20 years.
- 7. The bid evaluation and selection process was outlined, including the short-list and negotiation process, with bidders informed that PacifiCorp intended to pursue definitive agreements with entities that provide PacifiCorp with the best cost/risk balance, including resource characteristics, evaluated resource cost, and credit risk factors.
- 8. The price and non-price criteria to be used in the evaluation process were identified along with the established weights for each criteria. For both the environmental factors and the dispatch criteria tables were provided identifying how the points would be awarded.
- 9. For the price evaluation, the total evaluated cost of the proposal would be compared to PacifiCorp's Next Best Alternative (NBA) for a resource with similar characteristics. The methodology to award points for the price component was also identified in the RFP.
- 10. The post-bid negotiation process was also described. PacifiCorp indicated that it intended to negotiate both price and non-price factors during post-bid negotiations. In this section of the RFP,

1		PacifiCorp also identified several conditions that guided its
2		negotiation process:
3		a. Any factor that impacted the total cost of a resource would be
4		included in the economic and risk evaluation.
5		b. The economic evaluation would be updated until such time as
6		both parties execute a definitive agreement
7		c. The Company reserves the right to negotiate only with those
8		entities who propose transactions that PacifiCorp believes in
9		its sole discretion to have a reasonable likelihood of being
10		executed
11		11.PacifiCorp retained the services of an Outside Evaluator (Navigant
12		Consulting) to ensure that the evaluation process is undertaken in a
13		fair and unbiased manner.
14	Q:	Did the RFP document meet the criteria you identified for an effective
15		competitive bidding process?
16	A:	In general, the RFP document was consistent with the requirements for an
17		effective RFP. The RFP identified the evaluation and selection process,
18		the evaluation criteria, and the requirements of PacifiCorp and the bidder.
19		The RFP also contained Appendix A, which listed the information
20		required of bidders. In addition, PacifiCorp identified issues of
21		importance and the rights it reserved during the negotiation process.
22		The decision to retain an Outside Evaluator should also ensure the process
23		was undertaken in a fair and unbiased manner.
24		Also, as illustrated in the testimony of both Mr. Tallman and Mr. Furman,
25		the response of bidders to the RFP was significant, indicating broad

participation from bidders and the opportunity to achieve competitive benefits for the customers.

There were two issues however, that could have led to more complete bids or different product structures. First, PacifiCorp requested bids for no more than 20 years. However, due to the nature of the Next Best Alternative, bids were initially compared against a 35-year resource. Bidders were not made aware of such a comparison at the time they submitted their bids and could only speculate given the knowledge they would be compared to the NBA. PacifiCorp did allow bidders to offer comparable term options during the negotiation phase, after selection of the short-list.

Second, the inclusion of a model power purchase agreement or Tolling agreement could have provided valuable information to bidders regarding the risk sharing provisions of importance to PacifiCorp. Knowledge of such a risk profile could have led bidders to propose a different structure or decide whether and how to bid and could have served to facilitate negotiations.

- Q: Do you believe failure to include the model contract or the requirement that bidders submit proposals based on a different term than the NBA could have biased the results of the bid evaluation and selection process?
- A: It is not possible to determine definitively if these issues biased the final evaluation of bids and one can only speculate how bidders may have responded. However, I would not expect that the structure of the RFP unduly biased the results of the evaluation and selection process, especially since final short-listed bidders did have the opportunity to revise their bid term and were aware of the risk sharing requirements of PacifiCorp through the negotiation process. However, if bidders were aware they would be compared against a 35-year resource they may have

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offered creative options such as an option for PacifiCorp to buy the plant after the 20-year contract term or could have structured their pricing differently. The issue of the comparison of bids with different terms is a common issue in many RFP processes, since utilities are generally encouraging a range of resource/contract options and bidders are offering a variety of product terms and structures.

# Q: Are the non-price criteria included in PacifiCorp's RFP consistent with the non-price criteria used in other utility processes?

PacifiCorp includes only two non-price criteria in the screening phase of its evaluation process: dispatchability and environmental attributes. Most utility RFP processes generally contain a much broader number and array of non-price criteria, particularly for the procurement of long-term resources from new units. Non-price factors have been used to distinguish proposals on the basis of the development feasibility of the project (i.e. site control, environmental permitting status, financial capability of the sponsor, bidder experience, critical path schedule, etc.); operational viability (i.e. O&M plan, debt service coverage, acceptance of contract terms, fuel contract provisions, etc,); reliability of the proposal (financial support, contract security, credit assurance, etc.), flexibility offered (i.e. delay option, expansion option, bid size, etc.); operational quality (i.e. dispatchability, scheduling flexibility, ramp rates, black start capability, etc.); and environmental impact. The use of broader non-price criteria can often lead the purchaser to more clearly distinguish between bidders and can sometimes identify risks with the bid prior to contract negotiations. PacifiCorp's selection of the non-price criteria reflects the criteria of most importance to PacifiCorp for screening purposes. Some of the other criteria I listed are utilized by PacifiCorp in the final evaluation and negotiations process. This application should still allow PacifiCorp to distinguish effectively between bids.

- Q: PacifiCorp's RFP identifies the importance of credit assurances in evaluating and selecting the counter-party from the bidding process.

  Is this typical of RFPs in the industry today?
- Credit assurance is now one of the most important criteria in evaluating 5 A: 6 the bids submitted and in selecting the preferred options. Utilities have 7 been conducting thorough credit assessments of bidders as part of their non-price evaluation and contract negotiations due to the lower credit 8 9 quality of many independent power generators. Also, utilities are 10 generally requiring higher levels of security and collateral from bidders 11 due to the concern over possible bidder default or bankruptcy. Likewise, contract provisions reflect such risk. Utilities that need physically firm 12 13 power within a certain timeframe or have a system with limited outside 14 access are requiring greater credit assurance from counter-parties.

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#### **Bid Evaluation and Selection Process**

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- 18 Q: Please describe the bid evaluation and selection process undertaken by
  19 PacifiCorp for the baseload RFP?
- PacifiCorp followed a multi-step process in the bid evaluation and 20 A: 21 selection process. Once the bids were received, PacifiCorp conducted an 22 initial price and non-price assessment of all the bids. Mr. Tallman refers 23 to this step as the screening process (page 6 of his direct testimony). Bids 24 were then ranked according to their total scores for price and non-price 25 criteria. Both Mr. Furman and Mr. Tallman indicate in their testimony that 26 twenty of the offers were short-listed for initial consideration. These 27 offers were provided from nine individual counterparties, thus illustrating 28 the presence of a competitive process.

All the bids selected for the preliminary short-list "beat" (provided net benefits) the initial Next Best Alternative (NBA) used for the price screen. PacifiCorp (through Navigant Consulting) then initiated the validation process by contacting short-listed bidders to clarify their proposals and further understand the details of the bids. The terms and conditions offered by bidders were clarified and the economics were revised based on the clarifications provided by the bidders. One of the key issues at this stage of the process was whether bidders had included carbon dioxide (CO2) liability costs in their bid prices. For those bids that did not include this liability, PacifiCorp imputed the cost based on the assumption developed in its Integrated Resource Plan.

During the bid evaluation process, PacifiCorp revised the NBA to represent an expansion of Currant Creek once this project was selected in the peaker phase of the evaluation. Based on the revised NBA, only three bids (with multiple offers) beat the NBA. These bids were number 213, 493, and 922.

During the preliminary negotiation stage, one bid (922) was eliminated. PacifiCorp then began negotiations with one of the two remaining bids initially and subsequently with both bids.

### Q: How would you characterize PacifiCorp's competitive bidding or RFP process?

A: PacifiCorp's competitive bidding or RFP process can be characterized as a "competitive negotiations" process. Under this approach, the utility uses an RFP to solicit bids and evaluates the bids based on the pre-established criteria. The evaluation process results in the selection of a short-list of bids. Once the short-list is identified, the utility negotiates with short-listed bidders to effectively "weed out" the bids and select the preferred

bid(s) from those that offer the highest value. This process is generally an iterative process, whereby the utility ensures a competitive process is maintained until final contract execution.

# 4 Q: Is the competitive negotiation process an effective approach for resource selection and contracting?

A: While this approach can result in significant value-added benefits to the utility through the negotiation process, it is generally a time consuming process that requires constant evaluation and revisions to price, contract provisions and commercial conditions. It is no surprise that negotiations have exceeded the schedule outlined in PacifiCorp's RFP (i.e. approximately 6 weeks for negotiations allotted after selection of the short-list).

### 13 Q: Are there other approaches used in the power industry for evaluating 14 and selecting proposals from among those received?

15 A: There have been a number of methodologies used by utilities to evaluate and select bids. Some of the more common include:

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- 1. Price-Driven approach whereby a price-screen is used for a first cut screen or analysis. Non-price evaluation is undertaken for the remaining bids. Price and non-price scores are combined and bids are ranked for the purposes of selecting a short-list. The final contract awards or negotiations are based on the overall price evaluation based on the bid(s) that has the lowest system cost.
- 2. Combination price and non-price approach whereby bids are evaluated based on a price and non-price analysis for each bid. The price and non-price scores are combined and

the bid(s) with the highest score is selected for contract negotiations first.

3. Portfolio evaluation whereby a price screen and non-price analysis is undertaken on all bids. Bids are ranked on the basis of total points and a short-list is selected. The short-listed bidders are then included in portfolios and evaluated to determine the preferred portfolio of resources based on the lowest system cost. Contracts are then negotiated with the preferred bidders.

The third approach is the most common in the industry today as utilities have attempted to select a portfolio of resource options to meet requirements and pursue contract negotiations with the selected options first, with back-up projects identified if contract negotiations fail or the bidder elects to terminate its project.

- Q: Is it common practice that a low cost resource (selected in the first phase of the process) may not be the project that is awarded a contract at the end of the process or may fail to reach commercial operation even after a contract is awarded?
- A: While cost minimization is generally an objective of the utility in undertaking a competitive bidding program, there are a number of instances in which the low cost bid(s) may not ultimately be the resource that completes a contract with the utility or goes into service. Projects may fail or change their status for a number of reasons. In the current environment where access to credit is such an important factor, a bidder may not know the terms and conditions of debt until the contracts underlying the transaction are subject to detailed due diligence by the lender. As a result, the bid evaluation and selection process needs to be fully integrated with the negotiation process. In many cases, utilities

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either maintain a back-up list of bids or negotiate with multiple bidders to hedge the risk of project failure.

For example, there have been cases in competitive bidding programs where the utility selects the lowest cost option but during the negotiation process the bidder decides to terminate negotiations either because the market has changed against the bidder or the bidder and its financial advisors realize the bid price was too low and the project cannot meet its financial covenants. Also, in recent RFPs bidders may seek to negotiate more favorable terms due to the more stringent credit requirements imposed by utilities. In many cases, a utility will decide to terminate the contract negotiations if it appears that the parties cannot resolve differences. In some cases, bidders may seek to extend the contract negotiation process as long as possible to gain leverage if the utility needs resources in the near term for reliability purposes. Finally, it is possible that a bid may be the lowest cost individually but may not fit into a portfolio of other resources economically. Thus, the counter-party for a power contract may not actually be the lowest cost individual bid.

# Q: Please describe how the initial short-listed bids were selected by PacifiCorp?

PacifiCorp combined the price and non-price scores for each bid and ranked the bids based on the scores. It is my understanding that many of the bids had the same or similar non-price scores since most offers were for gas-fired combined cycle projects. Thus, the level of dispatchability (based on technology) and environmental impacts (based on fuel type) were the same or similar for many proposals. As a result, price became the distinguishing characteristic even during the screening phase, which is not consistent with PacifiCorp's original scoring and evaluation process.

- Q: Please describe the modeling methodology used by PacifiCorp in undertaking the pricing analysis during the screening phase of the evaluation.
- 4 A: PacifiCorp developed a detailed spreadsheet model with the capability of 5 conducting analysis of a number of bid options consistent with the types 6 of products/alternatives solicited in the RFP, including power purchase 7 agreements, turnkey arrangements, call and put options, etc. 8 Conceptually, the model compares the bid pricing components of a 9 specific bid with the potential revenues the project could achieve if it sold 10 the power into the market at projected market prices on a monthly basis. 11 In effect, the net present value of the revenue stream over the project term is compared to the net present value of the cost streams over the same 12 13 term. The base model includes the cost proposed by the bidders including 14 capacity costs, fixed O&M, variable O&M, fuel costs, and adds 15 transmission costs, if applicable. The calculated difference between costs 16 and revenues is then divided by the real levelized contract capacity to 17 estimate a Present Value Revenue Requirements (PVRR)\$/MW-month for 18 each bid.
  - In the initial screening phase of the evaluation, it is my understanding that the economics of each bid were compared to PacifiCorp's forward curve.

#### 22 Q: Is this modeling methodology consistent with industry standards?

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23 A: The modeling methodology is consistent with other models used in the
24 industry for conducting price-screening analysis of bids. Since the power
25 market has become more liquid, the value of power to the utility can be
26 estimated by the Company's projection of market price at various delivery
27 points. Models that calculate the value of a bid based on the difference
28 between the cost and revenue streams of the bid are becoming more
29 common in the industry for price screening purposes. However,

PacifiCorp has used the model for both price screening and final bid selection. While such a model is consistent and reasonable for comparing the pricing of like-proposals (baseload options with similar characteristics), they are not effective for developing a resource portfolio from the bids received.

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# Q: What other approaches are used by utilities for price screening purposes?

9 A: A common methodology used by utilities for price screening purposes is a 10 real levelized cost analysis that evaluates the cost components of the bid 11 based on the estimated dispatch of the unit. The real levelized cost is that 12 cost (in \$/Mwh), which if escalated by inflation, results in the same net 13 present value as the proposed cost stream for the project. As with the methodology used by PacifiCorp, this methodology is effective for 14 screening bids only and is most effective for screening similar types of 15 bids (i.e. combined cycles vs combined cycles). 16

#### QUANTITATIVE EVALUATION and FINAL SELECTION

- Q: You indicated previously that PacifiCorp eventually reduced the number of bidders it negotiated with to two bidders. How did PacifiCorp reduce the number of bidders for negotiations down to two?
- A: It is my understanding that PacifiCorp sought clarification from bidders whose proposals were included on the initial short-list. PacifiCorp conducted additional analysis to reflect the changing value of each bid through the evaluation and selection process. This included adding a CO2 liability value to any bid which PacifiCorp learned did not include such a

cost in its bid price. After this process and based on revisions to the NBA, three bids remained.

Bidder 922 was subsequently eliminated from negotiations. While this bidder had the lowest cost during the screening phase, during clarification and negotiations, PacifiCorp determined that the bid did not include CO2 liability costs. In addition, PacifiCorp commissioned a study by an independent engineering firm, Black & Veatch, to assess whether the project could be constructed on time to meet a June 2007 in-service date. The study identified significant risks associated with completion of the project. The combination of these two factors along with concerns over the credit assurances by the bidder led PacifiCorp to pursue negotiations with the other two remaining bidders. In this case, PacifiCorp supported and documented its decision to eliminate this bid from further negotiations even though it was originally ranked highly in the screening phase due to the undue risk associated with project completion.

- Q: Besides the direct costs proposed by bidders and the projected revenues from the output of the project, were any other risk factors considered in the price evaluation of the final two bidders?
- **A**: At this stage, one of the bids remaining was for a turnkey project and the other was for a tolling services agreement. Both bids offered 35 year terms and were evaluated over this term. As Mr. Tallman testified (page 14), the Company applied a cost associated with the direct debt due to the impact of the tolling services agreement for bid 213 on the Company's capital structure. Mr. Tallman also describes the methodology used by the Company to estimate the cost and classifies the methodology as being conservative. Effectively, this methodology imputes cost to bid 213 based on the classification of the bid as a capital lease arrangement. Bid 493 is not subject to such a "cost" since the project is a turnkey arrangement,

which will be owned and operated by PacifiCorp after construction.

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PacifiCorp's methodology is an attempt to put the bids on a level playing

field by recognizing the impacts of the capital lease in its analysis.

### 4 Q: How was this adjustment applied in the economic evaluation of bid 5 213?

Bid 213 is for a long-term tolling service arrangement in which A: PacifiCorp is obligated to make long-term fixed cost payments to the project for the option to convert fuel to electricity. PacifiCorp was informally advised by its external auditors that the proper accounting treatment for the Bid 213 tolling agreement was to recognize the net present value of the minimum fixed payments under the agreement (net of executory costs such as taxes, insurance and the like) as "direct debt" which would be placed on their balance sheet for book purposes. Similarly, rating agencies treat long-term fixed obligations, such as purchased power arrangements, capital and operating leases, and other fixed contracts as "inferred debt" in assessing the utility's capital structure (i.e. debt/equity ratio) and financial ratios for establishing the credit ratings for the utility. To address this issue, PacifiCorp developed a methodology to calculate the cost of rebalancing its capital structure to account for the inclusion of this "direct or inferred debt".

# Q: Is it common practice for utilities to include this direct or inferred debt ("debt equivalence") into the cost of evaluating resource options?

A: While this is certainly an emerging issue in the utility business due to new FASB accounting initiatives and the consensus reached by the Emerging Issues Task Force associated with the accounting treatment of leases, I am not aware of any public utility commission that has approved a methodology for calculating debt equivalence measures in evaluating power supply proposals. However, several states have recently addressed suggestions by utilities to include a debt equivalence adjustment in the

bid evaluation process and I would expect there will be more attention paid to this issue in future regulatory proceedings.

For example, in a draft of its 2003 RFP, Portland General Electric stated it would add the costs associated with the fixed obligation for purchased power into its bid price analysis as debt equivalents. However, the Oregon Public Utility Commission ruled in UM 1080, Order NO. 03-387:

The leverage adjustment described on page 22 of the RFP will not take place. Instead, a leverage adjustment will be considered during the post-bid process. (page 2).

 While the Commission did not approve the use of a debt equivalence or leverage adjustment during the bid evaluation stage, the Commission recognized that some consideration for use of such an adjustment may be warranted.

Likewise, the California Public Utilities Commission addressed the debt equivalence issue in a recent Interim Opinion (Decision 04-01-050), in Order Instituting Rulemaking to Establish Policies and Cost Recovery Mechanisms for Generation Procurement and Renewable Resource Development, January 22, 2004:

Preliminarily, we note that AB57 (as per Public Utilities Code Section 454.5(a)(b)(1)) requires "an assessment of the price risk associated with the electrical corporation's portfolio, including any utility-retained generation, existing power purchase and exchange contracts, and proposed contracts or purchases." Thus, we take the emerging issue of debt equivalency, and its potential impact on the utilities' financial viability to serve its customers, quite seriously.

We also note that the debt equivalency issue has gained prominence recently, and we wish to examine its impact on utilities carefully. It appears that the three rating agencies have varying methodologies for assessing debt equivalency and there is some subjectivity in this process which is not transparent, adding to the difficulty of this assessment by the Commission. In addition, we note that debt equivalency is only one of the many factors affecting a utility's credit rating and therefore its cost of borrowing.

Nonetheless, SCE's concern with this issue is warranted, and we intend to examine it carefully. However, this proceeding is primarily concerned with setting overall policy for resource procurement, and not addressing capital costs for utility investments owing to debt-equity ratios or credit ratings. The more appropriate venue for handling the potential costs associated with additional debt equivalency attributed to a utility for its PPAs is in each utility's cost of capital proceeding. (See D.92-11-049 and D.93-12-022). Therefore, the utilities should present detailed evidence about the treatment of debt equivalency by the rating agencies in their upcoming cost of capital filings. The Commission will consider these issues therein and develop a more robust evidentiary record on this subject before reaching a conclusion based on each utility's unique financial situation.

In a September 2, 1999 Order (Order Denying Florida Power & Light Compnay's Petition For Approval of Standard Offer Contract and Granting Request For Variance; Docket NO. 990249-EG; Order NO. PSC-99-1713-TRF-EG), the Florida Public Service Commission addressed Florida Power & Light's equity adjustment proposal as follows:

We find it appropriate to include an equity adjustment when determining FPL's proposed standard offer contract payments. However, FPL should recalculate the capacity payments to reflect an equity adjustment based on a 10% risk factor. (page 7)

The discussion of the perceived need for utilities to increase the level of equity in the capital structure to offset the adjustment made to the financial ratios by rating agencies and how this affects the overall cost of capital has not been specifically addressed. We note, however, that there are persuasive arguments on both sides of the issue of who should be responsible for the incremental cost of additional equity to compensate for these contracts. Given the terms of the recently approved Stipulation and Settlement (Stipulation) involving FPL, we believe FPL's current cost of capital includes recognition of this cost. (page 9)

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#### Q: Is the debt equivalence issue new in the industry?

No. The debt equivalence issue was addressed by several utilities and utility commissions in the 1990's. I am also aware that the Energy Policy Act of 1992 (Section 712) contained a requirement for state commissions to consider the effects of long-term wholesale power purchases on the financial structure of the electric utilities. The Department of Energy published a report on this issue in June 1994 entitled "Financial Impacts of Non-Utility Power Purchases on Investor-Owned Electric Utilities". However, I am not aware of widespread application in states in which the utility imputed a debt equivalence adjustment in the evaluation of electric supply resource options.

#### Q: Why is this issue gaining renewed attention at this time?

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2 A: While I am not an Accountant or a Credit Analyst, it is my understanding that the United States Emerging Issues Task Force (EITF) reached a 3 consensus in 2003 on EITF Issue 01-8 whereby "arrangements or contracts 4 5 that traditionally have not been viewed as leases may contain features 6 which would require them to be accounted for as leases under Financial 7 Accounting Standard 13, Accounting for Leases". Examples 8 arrangements that may fall under these rules include power purchase 9 arrangements.

# 10 Q: How have you addressed the debt equivalency issue in your analysis of PacifiCorp's bid evaluation and selection process?

While the debt equivalency issue is certainly an emerging issue that can have an impact on a utility's resource selection decisions, to the best of my knowledge there are currently no precedents in other jurisdictions for the appropriate methodology to apply in analyzing the impacts of this issue. PacifiCorp developed a methodology based on its interpretation of the appropriate way to measure such imputed costs, but PacifiCorp has not been able to demonstrate that this methodology has been accepted by the accountants or credit analysts. Even Navigant raise some concern about the methodology used by PacifiCorp in its Final Report – Addendum (Confidential), August 24,2004, and why it did not literally apply the guidance of its accountants to recognize all of the "direct debt".

It is important to note that PacifiCorp made the judgment that issuing equity sufficient to offset the debt associated with the NPV of the capacity payments would be excessive. Instead, PacifiCorp assumed that an amount of equity would be issued to offset the total capital cost of the project net of the equity associated with the Summit Power purchase only. This subjective decision made by

PacifiCorp greatly benefited the economics of the Bidder 213 proposal. (page 22)

In its recommendations, Navigant further recognized the "latitude" that utilities continue to have on the issue of "inferred debt".

A section in future solicitations should be dedicated to addressing some of the less obvious costs associated with different types of proposals. Here, we are referring to the issue of debt and its impact on the Company's balance sheet. This has become an increasingly common issue that has become part of competitive bidding processes, but it is not well understood by the majority of market participants. Furthermore, utilities have latitude in how they interpret the guidance that has been provided by Standard and Poors ("S&P"). If it is going to be a part of the economic valuation prepared by PacifiCorp, bidders should be made aware of how this calculation is made and what it means to the competitiveness of their offer. (page 30)

As a result, it is my view that the appropriate methodology for incorporating debt impacts in assessing resource options needs further consideration. While PacifiCorp has made a "best efforts" to incorporate a methodology consistent with the approach discussed by the credit rating agencies, there is a lack of precedent at the regulatory level regarding the appropriate methodology.

- Q: What is the implication on the economics of the two bids if the debt impacts are not included in the evaluation?
- A: DPU Exhibit 2.2 contains a summary of the economics of the cases presented in the testimony filed by PacifiCorp's witnesses Furman (page

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9-11) and Tallman (page 14-17) with the debt adjustment included as well as cases with the debt adjustment eliminated. Each bid is compared on a \$/Kw-month basis, which reflects the methodology used by PacifiCorp and described on pages 19-20 of my testimony. As illustrated, elimination of the debt adjustment results in an increase in the economic value of Bid 213 by approximately \$.92/Kw-month. As this Exhibit illustrates, the economic value of Bid 213 varies significantly depending on the scenario evaluated and highlights the potential risks and variability of results associated with this project, as measured by the range of economic value based on the assumptions about CO2 liability cost, commercial operations delay and debt impact. As illustrated in DPU Exhibit 2.2, the economic value of this bid ranges from a low of \$.77/Kw-month if CO2 liability costs are added to the project cost and a high of \$3.99 if the bidder absorbs the CO2 costs for the first 20 years and no inferred debt adjustment is included. With such a wide range of outcomes and significant risk associated with each outcome, the economic value of this bid is less certain than bid 493.

In my view, the best-case scenario for Bid 213 is the four month delay Case, with inferred debt impacts eliminated. Based on my review of Mr. Selgrade's testimony, I have concluded that a likely outcome of negotiations for Bid 213 would result in at least a four-month delay in the in-service date of the project. Therefore, the economics of this scenario as presented by PacifiCorp, adjusted for elimination of the direct debt adjustment is, in my view, a best-case scenario.

While bid 213 would have favorable economics relative to bid 493 with the exclusion of the direct debt adjustment, given the risks associated with this project and the complexities of the contract negotiation process, the final decision rendered by PacifiCorp to negotiate a final contact with bid 493 is a reasonable solution.

- Q: Should the assumptions about the timing of CO2 liability (i.e. 2008) or the cost of CO2 liability (\$8/ton) end up being aggressive which of the remaining two proposals would benefit the most?
- 4 A: In a case where the CO2 liability is imposed after 2008 and the actual cost 5 is lower than the value estimated by PacifiCorp, bid 493 would benefit 6 relative to bid 213. This is because PacifiCorp has imputed the full cost of 7 CO2 liability throughout the 35-year term of the project to bid 493. On 8 the other hand, bid 213 absorbed CO2 liability for the first 20 years of the 9 contract and wanted to limit its exposure to the equity in the plant. Any 10 delay in the implementation date or reduction in the cost below the \$8/ton assumption would therefore benefit bid 493 relative to 213. Since bid 213 11 has agreed to absorb a portion of the CO2 cost in its bid price, and a 12 13 reduction in the CO2 liability cost would benefit the bidder not 14 PacifiCorp or its customers.

### 15 Q: Are there other risks associated with these options that PacifiCorp has 16 not addressed in its evaluation process?

17 A: In my view, the size of a project should be considered in the risk analysis 18 process, and, in fact, some utilities include this criterion in their selection 19 process. For example, Project 213 is an 817 MW combined cycle project 20 while Project 493 is 534 MW. While project 213 may have economies of 21 scale benefits associated with the larger size, the failure of such a project 22 will have more significant risk and reliability implications on PacifiCorp. 23 Many utilities are now incorporating size considerations, contract structure, and fuel price risk in their portfolio decisions. 24

#### Conclusions and Recommendations

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### Q: What are your conclusions based on your assessment of PacifiCorp's competitive bidding process?

Based on my assessment of PacifiCorp's evaluation and selection process for the bids received in response to the baseload component of its 2003-A RFP, it is my view that the selection of bid 493 was a reasonable choice given the parameters of the competitive bidding process. This is based largely on the risk associated with the completion of the project to meet the June 2007 required in-service date. The analysis showed that under a number of scenarios bid 213 was a lower cost option and PacifiCorp rightfully attempted to negotiate a contract with that bidder first. Upon recognizing that the probability of completing agreements with this bidder coupled with concerns that the bidder had the financial wherewithal to complete the project, the Company began negotiations with the next best bidder. This bidder was viewed to offer more certain and secure financial backing with little chance of project failure. Even though bid 213 was a lower cost option under several scenarios, the probably of project default was viewed to be fairly significant. The Company's decision to terminate negotiations and pursue negotiations and contract approval with the second bidder is reasonable and is consistent with sound utility practice.

Also, the competitive bidding process undertaken by PacifiCorp meets a number of the characteristics of an effective competitive bidding program as outlined beginning on page 5 of this testimony. Furthermore, Navigant Consulting, as the Outside Observer, has concluded that the process was fair and equitable. I have found no evidence to refute Navigant's conclusions.

Finally, there are a number of potential revisions to the competitive bidding process that could result in a more effective process for future solicitations.

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#### 1 Q: Do you have any recommendations for improving the competitive 2 bidding process for future solicitations

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- A: There are a number of potential improvements that could be made to PacifiCorp's competitive bidding process and RFP to ensure the potential benefits from competitive bidding can be further realized in future solicitations. These include:
  - 1. PacifiCorp should undertake a portfolio evaluation process in its next RFP, similar to the approach followed by a number of other utilities. Under this approach, the price screening and non-price assessment is used to determine a short list of bids and those bids are then combined into portfolios to assess the preferred combination of options. PacifiCorp can still use the basic approach it took in this RFP as a starting point but could conduct a more thorough analysis to select the portfolios. For example, in RFP 2003-A, PacifiCorp identified three products it was soliciting bids for, and upon receipt of bids classified the bids by product. PacifiCorp then evaluated the bids within each category to select the preferred bid for that product. With a portfolio approach, PacifiCorp could classify the bids into categories, screen the bids and select a short-list from each category. From that point the bids would be combined into portfolios and run through production cost or a simulation model to evaluate the lowest cost portfolio. Debate over whether the Currant Creek project should have been compared to peaking units or baseload options would be eliminated. Furthermore, any revisions to the NBA, size variations, term, etc. would be moot. Under this approach, the lowest cost options for meeting load requirements within the risk parameters of the utility

can be directly determined. In PacifiCorp's case, the Company bases its resource requirements on its Integrated Resource Plan. In this case, the RFP could be closely integrated with that process.

- 2. Most utilities include a Model Power Contract (or multiple model contracts) in their RFP. This allows the bidders to assess the risk in the contract and reflect such risk in their bids. In my discussion of the characteristics of an effective competitive bidding process, the integration of the RFP, response package or information provided by bidders is an important characteristic. In addition to providing bidders the opportunity to reflect the contract risk in their bids, the utility can also assess the exceptions which the bidder takes to the contract and assess whether such exceptions will create difficulty in negotiating a final contract. If PacifiCorp intends to use a competitive negotiations process in future RFPs, including the contract in the RFP can facilitate negotiations.
- 3. PacifiCorp relied on only two non-price criteria that resulted in little opportunity to distinguish bids on the basis of any criteria other than price. The development of broader and more detailed non-price evaluation criteria and/or threshold criteria would not only provide the opportunity to more clearly distinguish the maturity and status of bids, but could also "raise flags" about any potential fatal flaws in the proposal. In addition, detailed non-price assessment can assist in defining the issues for contract negotiations. PacifiCorp requested information of bidders in Appendix A of the RFP that could be used for this assessment.

- 1 4. PacifiCorp's RFP recognized the importance of credit 2 assurance and credit quality in the bid evaluation process. 3 However, the credit issue was addressed only at the 4 negotiation stage. There were no non-price or threshold 5 criteria dealing with credit. Other utilities are beginning to include credit assurance as a primary non-price 6 criterion and are using their credit evaluation processes 7 8 and methodologies to assess the collateral requirements of 9 counter-parties. PacifiCorp should consider such a 10 criterion in future solicitations as a non-price factor to 11 evaluate bids received.
  - 5. If PacifiCorp continues to implement a competitive negotiations process, the Company should allot more time for negotiations within the RFP schedule.
  - 6. In this RFP, PacifiCorp limited bid terms to 20 years but conducted a 35-year analysis. Also, PacifiCorp applied a debt equivalence adjustment in the evaluation of the final two bids. It is important in future RFPs that bidders are made aware of any important factors that could determine its bidding strategy and opportunity to compete. Failure to identify such key factors influencing the evaluation of proposals submitted could dissuade companies from submitting a valid proposal.
- 24 Q: Does this conclude your direct testimony?
- 25 A: Yes.

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