BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Application	)	
of PacifiCorp for Approval	)	Docket No. 03-035-14
of an IRP Based Avoided Cost	)	
Methodology for QF Projects	)	Direct Testimony of
Larger than 1 Megawatt	)	Gregory N. Duvall
	)	

May 2005

Q. Please state your name, business address and present position with PacifiCorp (or the "Company").

A. My name is Gregory N. Duvall. My business address is 825 NE Multnomah, Suite 300, Portland, Oregon, 97232. My present position with PacifiCorp is Managing Director, Planning Major Projects.

Qualifications

Q. Briefly describe your educational and professional background.

A. I received a degree from University of Washington in Mathematics in 1976 and an MBA from University of Portland in 1979. I was employed by Pacific Power in 1976 and have held various positions in resource and transmission planning, regulation, resource acquisitions, trading, and major projects. From 1997 through 2000, I lived in Australia where I managed the Energy Trading Department for Powercor, a PacifiCorp subsidiary at that time. Since my return to Portland, I have been involved in direct access issues in Oregon and have been responsible for directing the analytical effort for the Multi-State Process ("MSP").

Q. Have you previously testified in state regulatory proceedings?

A. Yes. I have testified in California, Idaho, Montana, Oregon, Utah, Washington and Wyoming on net power costs, customer class cost of service, avoided costs and direct access. I also sponsored testimony in the Company's Structural Realignment Proposal ("SRP") and MSP proceedings.

Purpose of Testimony

Q. What is the purpose of your testimony?

A. I will describe PacifiCorp's proposed avoided cost methodology for Qualifying Facilities (QFs) from 3 to 99 megawatts. The Company is proposing to use the differential revenue requirement (DRR) method for this purpose.

Proposed DRR Method

Q. Please describe the Company's proposed DRR method.

A. Under the Company's proposed method, the avoided energy cost is determined by running the Company's GRID net power cost (NPC) computer model twice. The first run includes the currently planned 525 MW CCCT resource and the second run includes a 525 MW no-cost QF resource with the operating characteristics of the QF. For the prices presented in my testimony, I have assumed that the no-cost QF is modeled as a non-dispatchable contract with a 100 percent capacity factor. The difference between these two GRID runs, expressed in dollars per megawatt-hour, and capped at the fuel cost of a Combined Cycle Combustion Turbine (CCCT) is the avoided energy cost. We use 525 MW of QF resource and the fuel cap in order to maintain consistency between the avoided energy and avoided capacity cost calculation. The avoided capacity cost is based on the fixed costs of the 525 MW CCCT identified in the Company's 2004 Integrated Resource Plan (IRP) that is located on the east side of the system and is forecast to be in-service on April 1, 2009. For the purposes of this calculation, we assume that 525 MW of new QF resources from 3 to 99 MW in size will be on line by 2009 and that, as a result, we will be able to avoid the need for that 2009 resource.

Q. What are the results of the Company's proposed DRR avoided cost method?

A. The proposed capacity and energy avoided cost prices are shown in Exhibit UP&L___(GND-1). Based on this proposal, the avoided costs are $46.80 per megawatt-hour on a 20-year levelized basis beginning in calendar year 2006.

Q. Why have you proposed a QF block of 525 MW?

A. The first avoidable resource identified in the Company's 2004 IRP is a 525 MW CCCT with an in-service date of April 1, 2009. A 525 MW block of QF power allows that resource to be replaced without changing the remainder of the IRP expansion plan. As a result, the expansion under the avoided cost study remains consistent with the IRP preferred portfolio. In addition, the Commission and other Utah parties have expressed an interest in examining a method that includes a capacity payment within the DRR method in order to reflect the deferral or avoidance of new resource costs. The use of a 525 MW no-cost QF allows the Company to make such a proposal.

Q. Do the proposed avoided costs reflect the deferral of front office purchases and planned wind resources?

A. Yes. Front office purchases are included in the GRID studies so the displacement of front office purchases are captured in the DRR calculation. Planned wind resources are not included in the resource stack in the avoided cost GRID runs since it is expected that many of the wind plants will be QF projects.

Q. Can you be certain that the Company will acquire enough QF power to avoid adding the 2009 CCCT?

A. No. There is a risk that not enough QF power will be acquired to avoid the 2009 CCCT. However, if the 2009 CCCT is avoided, customers will be neutral.

Unfortunately, there is no way to predict how much QF power the Company will acquire under its proposed avoided cost rates.

Q. What would happen if less that 525 MW of QF power is acquired?

A. Depending on the amount of QF power that is acquired, the 2009 CCCT or other planned resource additions could possibly be deferred as opposed to replaced. This would result in the Company avoiding some costs, but not the full fixed costs of the CCCT. Of course, it is also possible that not enough QF power would be acquired to allow a deferral of any planned resource additions.

Q. Why has the Company used GRID rather than the IRP production cost model for use in the DRR computations?

A. Throughout the taskforce process, certain parties, including the Division of Public Utilities (DPU) and Committee of Consumer Services (CCS), have recommended the use of a production cost model. PacifiCorp considered the use of both models. Both models simulate the hourly operation of PacifiCorp's system and either model could be used for calculating the DRR. The two models are expected to produce similar results under the DRR given the same inputs for market prices, natural gas prices and coal prices and the same underlying load and resource balance and topology. However, PacifiCorp proposes using the GRID model for several reasons. The GRID model works well, has been approved by the UPSC for use in setting retail rates, there are no licensing issues concerning the use of GRID and the parties have experience using the GRID model.

Q. Please describe the input data included in the GRID studies.

A. The following input data are included in the GRID studies:

- 21 year studies from calendar year 2005 through 2025;
- Most recent Company forward price curves (CG27);
- Load forecast consistent with the IRP (March 2004);
- Most recent natural gas forecast (CG27);
- Resource additions and DSM consistent with the 2004 IRP;
- Termination of West Valley lease (2008), Hermiston Purchase (2016), Gadsby (2017), and Carbon (2020);
- Continuation of all other owned resources through the study horizon;
- Heat rate curves and planned / forced outages consistent with most current Regulation values (48 months ended September, 2004);
- Addition of Spring Canyon 100 MW QF (2007);
- US Magnesium, Kennecott Utah Copper and Tesoro QF contracts substituted for 100 MW generic QF included in IRP;
- All other contracts updated to most current information;
- Most current hydro forecast (February 2005);
- Most current topology (19 bubble); and
- Market depth assumptions consistent with Regulation.

Q. How do you propose that parties will be able to fully review and vet the input assumptions and the GRID modeling?

A. The Company has already contacted the Utah Public Service Commission Staff, DPU, CCS and Utah Association of Energy Users (UAE) and asked them to return their GRID computers to the Company. Once received, the Company will load the computers with the GRID DRR studies and return them to each party

within one week of receipt. Additional information will be available through discovery and technical conferences.

Q. During the March 2005 hearings in this proceeding, the Company committed to undertake a review and comparison of the inputs to the GRID and IRP models. Please summarize the results of that review.

A. The review has not been completed, but the Company is continuing to work through the process of reviewing and comparing the inputs to the two models. A large amount of the differences identified before were due to differences in fixed costs that are included in the GRID model and not the IRP model because the IRP is used only to evaluate differences in resource portfolios. This includes such items as firm wheeling expense and the fixed portion of long-term purchase and sales contracts. Additionally, some input data varies due to the timing of the studies. This would include forecasts for loads, fuel and market prices as well as up to date contract information. The Company intends to provide the results of its review to parties as soon as it is complete. For purposes of this filing, we believe that the inputs and assumptions use in GRID are either consistent with IRP or reflect more current information, for example with respect to current contracts.

Q. How will the DRR method be applied to individual QF projects?

A. For each QF, a GRID study will be run in which the 525 MW no-cost QF is reduced by the size of the new QF and replaced by the expected output of the actual QF. The GRID run would model the specific characteristics of the QF, such as availability, capacity factor and dispatchability. Modeling each specific

QF in GRID will eliminate the adjustment for operating reserves and dispatchability outside the model formerly proposed by the Company.

Q. Does this conclude your testimony?

A. Yes.