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 Currant Creek Power Project	)))))	Docket No. 03-035-29 DIRECT TESTIMONY OF STEVEN SCHLEIMER

FEBRUARY 4, 2004

Q. Please state your name and business address.

A. My name is Steven Schleimer. My business address is 4160 Dublin Boulevard, Dublin, California 94568-3139.

Q. By whom are you employed?

A. I am employed by Calpine Corporation.

Q. Please provide some background on Calpine Corporation.

A. Calpine was formed in 1984. Its headquarters are located in San Jose, California. Calpine is the largest independent power producer in the western U.S. Calpine's generation fleet consists of 99 power plants located in 23 states, 3 Canadian provinces, and the United Kingdom. It expects to produce nearly 30,000 MWs of power by 2005. Calpine has extensive experience in every aspect of natural gas fired power generation, from project development through construction to plant operation.

Of the 30,000 MWs, over 29,000 MWs are natural gas-fired. Of these gas fired plants 1,700 MWs are Simple Cycle Combustion Turbine (SSCT) power plants used in peaking applications and 27,600 MWs are Combined Cycle Combustion Turbine (CCCT) power plants used in intermediate and base load applications. Calpine builds the cleanest, most efficient, most reliable and least cost gas fired power plants for utility ratepayers in the U.S.

Q. Please summarize your educational and professional experience.

A. Prior to joining Calpine, I worked for Pacific Gas and Electric Company for twelve years in various roles. My responsibilities included managing a California Public Utilities Commission ("Commission") administered competitive bid process to acquire new generation on the San Francisco peninsula and assessing and developing proposals for

transmission pricing, interconnection and transmission policies for the restructured California energy market on behalf of the utility.

I have a B.A. in economics, with the highest honors, from the University of California at Santa Cruz ("UCSC"). I also have a Masters in Science in Applied Economics from UCSC.

Q. What is your position with Calpine?

A. Director of Market and Regulatory Affairs.

Q. What are your responsibilities in that position?

A. I am responsible for all regulatory activity within the jurisdictional territory of the Western Electricity Coordinating Council. I advise and participate on behalf of Calpine in state and federal regulatory proceedings that involve electric transmission and other forms of resource planning.

Purpose of Testimony

Q. Why has Calpine intervened in this case?

A. Calpine has intervened in this case because as a bidder to PacifiCorp in RFP 2003-A with our Vineyard Energy Center (VEC) project we must assure that the RFP process is administered in a Fair Manner in both the peaker and base load portions of the RFP as required by the 2003 RFP Stipulation. In Utah, the Integrated Resource Plan (IRP) and RFP processes that have been conducted over the past two years are relied upon by PacifiCorp, this Commission, ratepayer advocates, independent power producers, Legislators and others to assure that ratepayers receive the least cost, lowest risk and cleanest resources to meet their future power needs.

Calpine has spent in excess of $1 million on development of the VEC project with the expectation that the IRP process acknowledged by this Commission would provide guidance on resource acquisitions and that the competitive resource acquisition process would be conducted in a Fair Manner as agreed to in the 2003 RFP Stipulation.

This CC&N Hearing is occurring as a result of those IRP & RFP processes. Had PacifiCorp selected one of the bidders in the Peaking portion of the RFP instead of the Currant Creek Power Project, this CC&N hearing would likely not be held. As such, much of the hearing will revolve around the fairness and legitimacy of the IRP & RFP processes. Calpine, as a bidder in the process, has a direct interest in the integrity of the RFP process and the outcome of this proceeding.

Q. What is the purpose of your testimony?

A The purpose of this testimony is to describe Calpine's response to PacifiCorp's 2003-A RFP. I will also present Calpine's recommendations to the PSC on how to proceed in this case.

Q. What recommendations does Calpine have to make to the PSC in this case?

A. If the Commission determines that the RFP process conducted to date by PacifiCorp was conducted in a Fair Manner as required by the Stipulation and that this process led to confirmation that the peaking portion of the Currant Creek Project is the lowest cost Peaking resource, then the Commission should approve only the first 280 MW "peaker" portion of the Currant Creek project, and approve only those costs associated that portion of the project, since that is what PacifiCorp requested in the peaking RFP. Calpine also recommends that the Commission allow the RFP process for the base load segment of the RFP to continue unaffected by the decision in this proceeding. Finally, Calpine

recommends that the base load RFP process should be concluded before approval of any subsequent phases of development of the Currant Creek project.

Description of Calpine's RFP 2003-A Response

Q. Can you describe the proposals Calpine submitted to PacifiCorp's RFP?

A. Yes. Calpine submitted three bids in response to the RFP. These responses were designated as Bid Numbers 460, 213, and 839. Bids 213 and 460 were located in Utah at the Geneva Steel site. Bid 839 was located in Nevada. In Bids 213 and 460, Calpine offered "to provide base load and peaking capacity" to PacifiCorp under a phased construction approach. In this testimony I will describe the VEC project (Bid 213) in detail. Calpine is currently in negotiations with PacifiCorp on this bid.

Description of Plant

Q. Please describe Calpine's proposed VEC Project.

A. Bid Number 213, the VEC Project consists of an 817 MW natural gas-fired "three-by-one" ("3x1") combined cycle combustion turbine (CCCT) power plant. The VEC Project will be located on the northwest corner of the Geneva Steel plant property immediately adjacent to PacifiCorp's 345 kV transmission line east of Utah Lake. The Geneva site is approximately 40 miles due south of Salt Lake City. The Project is located within what is known as the Tier 1 transmission-constrained "Utah bubble". Exhibit CAL-___ (SS-1) is a copy of a map which illustrates the Utah Bubble and identifies the location of the VEC Project.

In Bid 213 Calpine offered PacifiCorp the option of a staged construction approach that would provide 450 MWs of simple cycle peaking capacity by June of 2005. This offer was made to accommodate PacifiCorp's stated need for additional peaking

capacity (see Exhibit UPL-___ (MRT-3). Calpine could construct Phase 2 to be available by April 2006 if requested by PacifiCorp or April 2007 as requested in the RFP. Either PacifiCorp or its consultant (Navigant) determined that Calpine's bid should be evaluated in the Base Load bid category and did not include Calpine's bid among the peaker options considered for 2005.

Q. Please describe the VEC Project in more detail.

A. In the first phase of construction, three Siemens-Westinghouse 501 FD2 natural gas-fired combustion turbine-generators could be installed. Each gas turbine will provide a nominal 150 MW of capacity for a total of 450 MW. During this first phase, the three gas turbines would be operated by Calpine but dispatched by PacifiCorp in simple cycle mode and would have a net average heat rate of 10,500 Btu/kWh (HHV).

In the second construction phase, the three simple cycle combustion turbines would be converted to a 3x1 combined-cycle configuration and will have a nominal total capacity of 817 MW. The 3x1 plant would consist of three gas turbine-generators, three heat recovery steam generators (HRSGs), and a single steam turbine generator driven by steam produced by the three HRSGs. The HRSGs will be equipped with gas-fired duct burners, which provide the capability to generate additional steam in the HRSGs and, consequently, 145 additional MWs of power that can be generated by the steam turbine generator. The timing and level of duct firing is controllable and can be made available to PacifiCorp at their request as a peaking resource with less than one-hour's notice.

When converted to its final 3x1 configuration, the VEC Project will consist of 672 MW of combined cycle capacity with an expected heat rate of 6,887 Btu/kWh and 145 MW of duct-fired peaking capacity with an expected heat rate of 8,417 Btu/kWh, for a

total of 817 MW.

Q. Would PacifiCorp have control over the dispatch of VEC?

A. Yes, VEC will be designed for daily cycling to provide maximum flexibility as requested in the RFP by PacifiCorp. Calpine has successfully developed numerous power plants designed specifically to allow a utility to optimize plant dispatch. VEC will have the capability to be started as needed to meet the base load, intermediate load, heavy load and super peak load requirements of PacifiCorp. The plant can then either be taken off-line completely or be brought down to a reduced load depending on then prevailing energy prices and load conditions during the low load period of a day or month. PacifiCorp will be in total control of when the plant is dispatched, as requested in the RFP

Q. When proposing such a plant how does Calpine typically protect ratepayers from various plant risks?

A. PacifiCorp's ratepayers will enjoy the substantial benefits associated with the allocation of development, construction, operation and life-cycle risk to Calpine. For example, Calpine, not Utah ratepayers, bears the risk of project cost overruns and future plant major maintenance and capital upgrades. Ratepayers benefit from the price and performance certainty that long-term contractual commitments provide, and the incentives for Calpine to be cost efficient that are an inherent component of Calpine's proposal. Calpine will also bear the risks of changes to environmental regulations in the future. At the end of the contract term Calpine will bear the risk of environmental clean up costs associated with the plant or with the plant technology being obsolete. Furthermore, Calpine's heat rate and availability guarantees will insulate ratepayers from risks they bear if a utility constructs and owns a project itself. Finally, unlike a utility

rate base plant, if Calpine's project does not perform Calpine simply does not get paid and ratepayers save those costs.

Q. What other attributes will VEC provide ratepayers?

A. VEC will be the most efficient power plant in Utah. As a result, if a PPA is successfully negotiated between PacifiCorp and Calpine, it should be dispatched by PacifiCorp before Currant Creek, and the Gadsby and West Valley peaking turbines, thus saving ratepayers significant additional amounts of money.

Because VEC is water-cooled and because of the elevation of the site it will provide up to 15 percent more output per unit cost than air-cooled projects built at higher elevations. The advantage is greatest during hot summer months, which are particularly important to ratepayers because peak demands coincide with higher summer temperatures.

Q. Please describe the proposed site for the VEC Project.

A. The VEC Project will be located on a 40-acre site approximately 40 miles south of Salt Lake City. The site is located in the far northwest corner of 1,800 acres owned by Geneva Steel. The 40 acres parcel is a clean site that has never been used as part of Geneva's or its predecessor's historic steel making operations. As part of Calpine's development activities it has negotiated an exclusive purchase agreement with Geneva Steel for land, water and emission reduction credits (ERCs). As part of the property acquisition process, Calpine has spent significant amounts of money and has performed extensive environmental due diligence on the site.

VEC will be interconnected to the PacifiCorp transmission system within the Wasatch Front South (the transmission-constrained Utah Bubble) load center to a 345 kV

line that physically runs across the VEC site.

Q. Please describe why the Geneva Site was selected.

A. After the RFP 2003-A pre-bidders meeting in March 2003, which outlined PacifiCorp's need for 200 MWs of Peaking and 570 MWs of Base Load capacity, Calpine determined that it would look for sites on which a large plant could be built.

Calpine identified potential sites at Mona, Elberta, on the west side of the Salt Lake Valley and other locations. For a number of reasons outlined below, these sites were rejected in favor of the Geneva site.

As management's interest grew in responding to the RFP, Calpine opened discussions with Geneva and initiated a siting study. Calpine's siting study determined that a plant could be permitted and constructed within the time frame that would make the project capable of meeting PacifiCorp's growing needs in 2005 and beyond.

After completing its preliminary project development activities and siting study, Calpine was convinced the Geneva site was a prime location for its power plant for the following reasons:

1. The site is located immediately adjacent to a 2-circuit 345 kV transmission line allowing power to move to the Wasatch Front load center or to flow south to other markets.
2. The site is located inside the import transmission constraint referred to as the Wasatch Front South as identified by PacifiCorp in its IRP.
3. Natural gas supply from both the Questar and Kern systems can be made available at the required pressures and volumes.

4. Sufficient land is available at the former steel plant and the land has been determined to be clean as a result of Calpine's efforts.
5. Sufficient air emission allowances were available for plant operation.
6. Ample water supplies exist from Geneva and other sources to allow Calpine to construct an efficient water-cooled combined cycle plant. Calpine is particularly interested in using recycled waste water for this plant.
7. Economic development could take place in an area suffering from the demise of a large industrial employer in Utah County.
8. There is significant Utah County and Vineyard community support for a project sited at Geneva. Calpine has presented the project profile to the Vineyard Mayor, the Mayor and senior staff of Orem City, Utah County Commissioners, several Utah County Legislators and business leaders.

Q. Please describe how fuel will be provided to the VEC Project.

A. As proposed, the VEC Project would be under a tolling agreement/PPA between Calpine and PacifiCorp. Under this tolling arrangement, PacifiCorp would be responsible to deliver natural gas to the Project, thus the fuel supply for the VEC Project would be managed by PacifiCorp. Calpine has proposed to construct gas laterals from the plant to either Questar Gas or the Kern River Pipeline for the physical delivery of gas. Questar Gas has an existing lateral that supplied the furnaces at the Geneva Steel plant, for years the largest user of natural gas in Utah. An alternate source of gas for the VEC Project is a direct tap to the Kern River Gas Transmission System. Because both the Questar and Kern River systems are high-pressure gas transmission lines, no on-site natural gas compression will be required.

Q. What other fuel attributes is Calpine willing to provide at the VEC site?

A. Calpine has designed and constructed gas-fired projects to be able to be converted from natural gas to gasified coal gas in the future. While coal gasification is not economic today, Calpine believes it is prudent to be sure that, when it is economic, ratepayers are not precluded from taking advantage of a potentially lower cost and less volatile fuel which is derived from coal. In this project Calpine is willing at its cost to design and construct this project to have the capability to later utilize fuel gas from coal without major modifications.

VEC Project Permit Status

Q. What is the status of permits required for construction of the VEC Project?

A. The key permit is the Approval Order to Calpine's Notice of Intent that is issued by the Utah Department of Air Quality. The application was filed in November 2003, and we expect the final approval to be issued soon. We believe the application is materially complete and meets "Best Available Control Technology" requirements. All necessary ERCs have been secured pursuant to our agreement with Geneva. The National Park Service has confirmed in writing that, following its initial review of the application, it does not expect any significant impacts on Class I areas and has indicated it will not require any further review of the Calpine's application. Other various permits and approvals are pending, and are expected to be granted in due course. These include (but are not limited to) the Army Corp of Engineer concurrence of the wetlands study, water discharge approvals by DEQ, and completion of the subdivision process by the City of Vineyard.

Calpine's Request and Recommendation to the Utah PSC

Q. In light of the foregoing testimony, what request and recommendation does Calpine make to the Utah PSC?

A. Calpine wants to provide Utah ratepayers with the least cost, lowest risk, and cleanest power plant possible. In this proceeding PacifiCorp has requested that the Currant Creek Project should be approved by the PSC to meet the 200 MW Peaking requirements outlined in the 2003-A RFP. Calpine's proposal was not included by PacifiCorp or Navigant for evaluation in the peaker portion of the RFP.

If the Commission determines that the RFP process conducted to date by PacifiCorp was conducted in a Fair Manner as required by the Stipulation and that this process led to confirmation that the peaking portion of the Currant Creek Project is the lowest cost Peaking resource then the Commission should approve the first 280 MW "peaker" portion of the Currant Creek project, and only those costs associated that portion of the project, since that is what PacifiCorp requested in the RFP. Calpine also recommends that the Commission allow the RFP process for the base load segment of the RFP to continue unaffected by the decision in this proceeding. Finally, Calpine recommends that the base load RFP process should be concluded before approval of any subsequent phases of development of the Currant Creek project.

Calpine is concerned that if Currant Creek is approved as both a peaker and a base load project, with the capability to expand even further, that such approval could effectively preempt consideration of other competing Greenfield base load projects. A new base load project could be preempted because a fair comparison cannot be made between a new Greenfield project and the expansion of the then existing Currant Creek peaking plant which would already have infrastructure that could be shared.

In addition, approval of the Currant Creek base load portion could obviate the need for future lower cost base load resources due to changes in loads forecast or other events.

Calpine believes that either scenario described above would not be in the best interests of Utah ratepayers.

Q. Does that conclude your direct testimony?

A. It does.