BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Petition of Desert Power, L.P., for Approval of a Contract for the Sale of Capacity and Energy from its Proposed QF Facilities	)))))	Docket No. 04-035-04

REBUTTAL TESTIMONY OF DOUGLAS N. BENNION

August 25, 2006

Q. Please state your name, business address, and position with the Company.

A. My name is Douglas N. Bennion. My business address is, 1407 West North Temple, Suite 275, Salt Lake City, Utah 84116. I am Managing Director of Network Reliability and Investment Delivery in the Company's Rocky Mountain Power Division (PD).

Qualifications

Q. Please describe your educational background and work experience.

A. I received a Bachelor of Science Degree in Electrical Engineering from the University of Utah and am a registered professional engineer in electrical engineering in the state of Utah. In addition to formal education, I have attended various educational, professional and electric industry seminars. I joined the Company in 1978, and during those 28 years I have held various engineering positions of increased responsibility providing extensive experience working across PacifiCorp's service territory prior to assuming my current position.

Q. What are your responsibilities as Managing Director of Network Reliability and Investment Delivery?

A. I am responsible for investment planning for transmission and distribution (T&D) networks to ensure safe, economic and reliable energy delivery systems for customers. This includes prioritizing investments to manage risk across Rocky Mountain Power. I am also accountable for future T&D investment planning to accommodate load growth and meet reliability and operability standards.

Purpose of Testimony

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to respond to the direct testimony of Charles Darling and Roger J. Swenson that suggest PacifiCorp was not able to adequately meet its responsibilities in order to allow a successful June 1, 2006 on-line date. Desert Power's testimony is wrong in this suggestion. PacifiCorp took the steps necessary to meet the on-line date and was not responsible for Desert Power's failure to be on-line as planned. My discussion will focus on completing engineering design, procurement of materials, and constructing pieces at the interconnection point as outlined in the scope of work between PacifiCorp and Desert Power.

Q: **When did PacifiCorp begin engineering design and procurement of material for the Desert Power project?**

A: In Mr. Swenson's testimony beginning on page 2 and ending on page 7, he has outlined the interconnection request process and when PacifiCorp would have been expected to secure material. With Mr. Swenson's background he would be in a position to understand that certain material for projects like this require a longer lead time to secure, thus influencing the critical path of any construction schedule and potentially impacting in-service dates. PacifiCorp is limited in performing any engineering design or securing material until Desert Power has completed the interconnection agreement process and provides money to cover associated interconnection costs. At that point the hand-off from PacifiCorp Transmission to the PacifiCorp construction services team that is responsible for engineering design, material procurement, and installation would occur. The construction services team was contacted on November 9, 2005 with specific project information that was made available when the system impact and facility study were forwarded. Also, at this time a project manager was assigned. Again, however, at this point we would have been limited in performing any engineering design or securing material

until Desert Power had completed the interconnection agreement process and provided money to cover associated interconnection costs.

Q: When were funds authorized to be spent on the Desert Power project?

A: The project manager was notified on January 30, 2006 that a payment of $100,000 was received from Desert Power to cover engineering design costs to begin this process. As of this date the Qualifying Facility Large Generator Interconnection Agreement had still not be signed, which would have been necessary to allow PacifiCorp to begin procuring material as well.

Q: What was included in the initial scope of work that was the responsibility of PacifiCorp?

A: PacifiCorp was initially responsible for the engineering design, procurement and installation of protection systems, supervisory control and data acquisition (SCADA) equipment, and communication systems. The engineering design department was to begin design work and prepare purchase requisitions for this equipment. Once Desert Power provided funds to cover the cost of ordering this equipment then the purchase orders would be submitted for processing.

Q: After January 30, 2006 were there any changes to the original scope of work that was agreed between PacifiCorp and Desert Power?

A: Yes, during a March 9, 2006 conference call with Desert Power PacifiCorp agreed to secure metering equipment in an attempt to help Desert Power meet the on-line date. This was a significant responsibility, but PacifiCorp was willing to bear it in order to accommodate Desert Power's tight schedule.

Q: Did this affect the PacifiCorp delivery schedule?

A: Yes. As noted in Mr. Swenson's testimony on page 7, the metering is considered a long lead item and presented challenges for PacifiCorp, but as will be seen later in my testimony we had other options available to us to resolve this situation.

Q: Mr. Swenson indicated that specialized equipment to be purchased by PacifiCorp could not be acquired until late summer 2006.

A: In Mr. Swenson's testimony noted on page 6, he highlighted that equipment in question is the metering potential transformers and current transformers and acquiring licenses from the Federal

Communication Commission (FCC) to put in place the required communication links.

Q: What steps were taken by PacifiCorp to secure metering to meet the June 1, 2006 on-line date?

A: Given the urgency to meet Desert Power's aggressive schedule the Company looked at five options to supply metering to meet the interconnection date. These included:

1. Request the metering vendor to accelerate the order and pay a premium price
2. Accept the delivery schedule provided by the metering vendor
3. Search the market for used metering potential and current transformers
4. Utilize the metering potential and current transformers already in inventory at PacifiCorp that were targeted towards another project that is under construction
5. A temporary solution would be to install metering on the low voltage side of the customer owned transformer and manually calculate the transformer losses when reconciling monthly billing statements

Among these, options 4 or 5 were viable to meet the June 1, 2006 on-line date.

Q: What steps were taken by PacifiCorp to secure the necessary Federal Communication Commission license to meet the June 1, 2006 on-line date?

A: Given the urgency to meet Desert Power's aggressive schedule the Company looked at three options to address the communication link necessary to meet the customer interconnection date. These included:

1. Utilize an existing communication path between Rowley, Utah (U S Magnesium) to their Salt Lake City, Utah office, and then lease a communication path between U S Mag offices in Salt Lake City to the Company operation dispatch center that is located in Salt Lake City at the North Temple Office.
2. Make application to the Federal Commission for temporary use of a communication path until the permanent application is processed.
3. Proceed with construction of facility without a communication path and equipment in-service and develop an operating agreement that would be used as a temporary solution.

With these options available, option 1 was viable to meet the June 1, 2006 on-line date.

Q: When did PacifiCorp receive funds to continue the engineering design and proceed with procuring equipment that was the responsibility of PacifiCorp?

A: Desert Power signed an agreement and provided remaining funds on March 24, 2006. At this time PacifiCorp moved forward to order all equipment listed in the scope of work that remained its responsibility. Material orders began in April 2006 for PacifiCorp procurement orders on this project.

Q: Given the urgency by Desert Power to be ready on June 1, 2006 for in-service was PacifiCorp in a position to meet this schedule?

A: Yes. Once Desert Power agreed on the scope of work and provided funds to purchase material, PacifiCorp went to considerable effort and utilized all available engineering resources to finalize designs, order project material, and in the case of long lead items temporary solutions were identified and/or replacement equipment was identified that had been targeted for other projects. However, Desert Power did not have the control building in place and it had failed to provide equipment that was necessary before PacifiCorp could

complete the scope of work that it was responsible for. For example, Desert Power did not even schedule to order substation equipment until May 11, 2006.

Q: **Did PacifiCorp assist Desert Power in locating equipment that was Desert Power's responsibility but also had long lead times?**

A: Yes. PacifiCorp scoured our inventory for a three-way transmission switch, circuit breaker, and steel transmission towers on behalf of Desert Power. Unfortunately, the steel towers that require unique design criteria were not available. Given this situation, it was clear Desert Power would not be ready for a June 1, 2006 in-service date.

Q: Mr. Darling and Mr. Swenson both commented about the design of the interconnection point which had a direct impact in their construction schedule. Do you have any comments on the change in interconnection design?

A: Yes. I will leave the discussion of the timing of the change in interconnection design to Mr. Houston, although I would briefly note that it is my understanding that the change could not be responsible for the delays attributed to it by Desert Power. However, I would like to discuss the environment that exists in the Rowley, Utah area where Desert Power and U S Mag coexist as PacifiCorp customers. I will

also discuss the advantages to Desert Power and U S Mag of the preferred design. Historically, the environment at Rowley, Utah was extremely high in contaminants that are harmful to the electrical equipment commonly found in substations. Chlorine gas is a by-product of producing magnesium at U S Mag. The chloride emissions from U S Mag's plant are emitted into the atmosphere by way of the various stacks. When the chloride gas finds its way to rest on electrical equipment inside the Rowley substation, further mixed with water (via natural weather events, i.e. rain and or snow), then hydrochloric acid is created. The hydrochloric acid proceeds to deteriorate all metals. Furthermore, PacifiCorp employees who performed operations or maintenance in this area were directed to wear fitted filtering masks to prevent respiratory problems caused by the chloride gas. Prior to the sale of Rowley substation in June 2001 to U S Mag, PacifiCorp installed a permanent chloride gas detection system that alarmed employees that unacceptable levels of chloride gas exist and they should quickly leave the area to prevent employee harm. As a result of the hydrochloride acid residing on the electrical equipment in Rowley substation, PacifiCorp employees were required at least two times a year to clean the insulators on the 138 kilovolt

and 13.8 kilovolt substation buss work. At this time a special wax coating would be applied to the insulators for their protection and also allowed for longer periods between maintenance. During this period of maintenance the Rowley substation would be required to be de-energized while work is being performed (which generally lasts between 4-8 hours). The hydrochloric acid also destroyed any metal that was exposed such as name plates on transformers, substation copper ground wire, manual air-break switches and their moving parts, cooling fans on the transformers, and chain link fence to name some. At the time PacifiCorp owned Rowley substation, this type of maintenance and working condition was not found anywhere else in the PacifiCorp system.

I would now like to discuss the preferred interconnection design that Mr. Swenson provided as exhibit 2.3 in his testimony. The existing 138 kilovolt bus configuration at Rowley substation has three separate 138 kilovolt transmission taps, one to each of two transformers that serves U S Mag and one to serve Desert Power. This configuration is such that a line fault or a bus fault will clear the substation bus at Rowley causing the loss of all load and generation to these three connections. This also means that the Desert Power

generation facility is not directly connected to the PacifiCorp transmission system.

The new configuration was designed to provide a separate transmission connection from the PacifiCorp 138 kilovolt transmission system to the Desert Power generation facilities without a direct connection to the Rowley substation. The Federal Energy Regulatory Commission (FERC) has issued Order No 2003, Docket No. RM02-1, that describes the procedures required to make interconnections to generators larger than 20 megawatts. The FERC procedures indicate that any new generation connection shall not decrease the reliability of other existing customers. That said, by providing a separation point between the transmission line going to Desert Power and the line going to U S Mag, PacifiCorp has effectively met the intent of the FERC interconnection order, which is a benefit to both Desert Power and U S Mag. The three-way switch is designed to allow U S Mag the ability to work on its electrical facilities without affecting the Desert Power system, and the ability of Desert Power to work on its electrical facilities without affecting the U S Mag system. The third leg of the switch will give PacifiCorp the ability to isolate the transmission line from both customers. This

switch will also provide PacifiCorp maintenance crews working in the area a visible air gap, and facilitate safely isolating the 13.7 mile transmission line, while doing repairs or maintenance.

Q: Does this complete your testimony?

A. Yes, it does.