Exhibit No.___(DMR-1T)
Docket UE-14____
Witness: Dana M. Ralston

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, Complainant, v. PACIFIC POWER & LIGHT COMPANY, a division of PacifiCorp Respondent.	Docket UE-14____

PACIFIC POWER & LIGHT COMPANY

DIRECT TESTIMONY OF DANA M. RALSTON

May 2014

Q. Please state your name, business address, and present position with Pacific Power & Light Company (Pacific Power or Company), a division of PacifiCorp.

A. My name is Dana M. Ralston. My business address is 1407 West North Temple, Suite 320, Salt Lake City, Utah 84116. My present position is Vice President of Thermal Generation for PacifiCorp Energy. I am responsible for the coal, gas, and geothermal resources owned by the Company.

QUALIFICATIONS

Q. Please describe your education and professional background.

A. I have a Bachelor of Science degree in Electrical Engineering from South Dakota State University. I have been the Vice President of Thermal Generation since January 2010. Before 2010, I held a number of positions of increasing responsibility with MidAmerican Energy Company for 28 years in the generation organization, including the plant manager position at the Neal Energy Center, a 1600-megawatt generating complex located in Sioux City, Iowa. In my current role, I am responsible for the operation and maintenance of the thermal generation fleet.

PURPOSE OF TESTIMONY

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to provide information supporting the prudence of the cooling tower replacement project at Unit 1 of the Jim Bridger generating plant. I describe the scope of the project and discuss the Company's economic analysis.

PROJECT DESCRIPTION

Q. Please describe the Jim Bridger Unit 1 cooling tower replacement project.

A. The cooling tower is used to reject the heat absorbed by the cooling water used in the

steam condensing process. The cooling water passes though the tubes of the condenser, and the steam flows around the outside of the tubes after it passes though the turbine. This process condenses the steam back into water so that it can be reused. The cooling water needs to reject the heat absorbed before it is returned to the condenser for reuse. The existing Jim Bridger Unit 1 cooling tower (cells 1–9) has been in service since 1990 and is supported by a structure made of wood. Cells 10 and 11 were replaced with fiberglass construction in 2005. Based on design life and condition of the wood structure, the existing cooling tower needs to be replaced.

Q. Why does the cooling tower need to be replaced?

A. Cooling tower manufacturers design wood cooling towers for a useful life of approximately 30 years. But the actual service life of the material is dependent on the quality of the water used in the process. In some cases, the actual service life of a cooling tower can be as low as 20 years. Experience at the Jim Bridger plant indicates that cooling tower service life is approximately 25 years for wood structures. To confirm the condition of the Jim Bridger Unit 1 cooling tower, several lumber samples of the support structure were removed and replaced with new lumber. The samples were then sent to a third-party engineering lab to determine strength and remaining life. The evaluation of lumber samples taken in 2010 and 2013 provided a range for the remaining useful life of the lumber structure supporting the Jim Bridger Unit 1 cooling tower. The high end of the range indicates that the lumber will reach or exceed its useful life in 2018; the low end of the range indicates that the lumber will reach or exceed its useful life in 2014. Based on the low end of the range, the

Jim Bridger Unit 1 cooling tower is scheduled to be replaced during the 2014 planned maintenance outage to minimize costs and unplanned outage time.

Q. What are the consequences if the tower is not replaced?

A. If it is not replaced, eventually the lumber in the support structure degrades to the point that the entire cooling tower can collapse. This type of collapse has occurred at several plants—not owned by the Company—across the country, causing a safety risk to employees that need to work on the cooling tower and causing extended outages of the plant to remove and replace the cooling tower on an emergency basis.

Q. Can the Jim Bridger Unit 1cooling tower be repaired and replaced at a later date?

A. Replacement of the Jim Bridger Unit 1 cooling tower at this time is the most cost-effective option. Planned maintenance outages are scheduled on a four-year cycle. The next two planned maintenance outages are scheduled in 2014 and 2018. The Company analyzed the option of temporarily repairing the tower by replacing several structural elements in 2014 and delaying full replacement until the 2018 planned maintenance outage. When the present value revenue requirement (PVRR) for a full replacement in 2014 was compared to the PVRR of the two-step process of making repairs in 2014 followed by a full replacement in 2018, the full replacement in 2014 was the most cost-effective option and provided assurance that the tower would not collapse. The PVRR benefit of a full replacement of the cooling tower in 2014 versus a repair in 2014 and replacement in 2018 is $426,000.

Q. What is the capital investment associated with the Jim Bridger Unit 1 cooling tower replacement project?

A. The Jim Bridger Unit 1 cooling tower replacement project is expected to cost approximately $5.9 million on a total-company basis, or approximately $1.4 million on a Washington-allocated basis. These costs are included in this case as reflected in the testimony and exhibits of Ms. Natasha C. Siores.

Q. When will the Jim Bridger Unit 1 cooling tower replacement project be placed in service?

A. The project is expected to be placed in service in May 2014.

Q. Does this conclude your direct testimony?

A. Yes.