CITY OF ROSEVILLE CALIFORNIA

Roseville Electric
2090 Hilltop Circle
Roseville, California 95747-9704
Reliable Energy. Dependable Service.

March 19, 2014

California Energy Commission
Dockets Office
1516 Ninth Street
Sacramento, CA 95814-5512

RE: Docket 14-HYDRO-01

Roseville Electric is a department of the City of Roseville and has owned and operated its electric distribution system since 1912. Roseville Electric services an area of approximately 31 square miles, coterminous with the City's borders. As of March 1, 2014, Roseville serves approximately 55,700 residential and business customers.

Roseville has long-term contracts for hydroelectric power with the Western Area Power Administration (Western) and the Northern California Power Agency (NCPA). Roseville's Western contract provides the City with 4.582% of the Bureau of Reclamation's Central Valley Project Base Resource output and consists of both large and small hydroelectric resources. Roseville has an entitlement to 12% of NCPA's 258.7 MW Calaveras hydroelectric project.

Please find answers to the questions submitted to Roseville below. Please call Michael Wardell at 916 774-5622 mwardell@roseville.ca.us if you have any questions on the material in this letter.

Sincerely,

Michael Bloom
Assistant Electric Utility Director

mb/ab
enclosures

Drought Hydropower Questions

Question 1: Please provide your POU's current estimate of total electric firm energy requirements in GWh for 2014.

The City of Roseville's current estimate of total electric firm energy requirements for 2014 is 1,233GWh.

Question 2: Please provide your POU's average annual hydroelectric energy procurement in GWh since 1970. Please differentiate between generated and purchased hydro energy supplies, and specify the timeframe over which these averages were determined if fewer years than from 1970 were used.

Year	Total Hydro Procured (GWh)
2008	152.4
2009	164.2
2010	188.6
2011	309.0
2012	175.2
2013	169.9
2014	9.5

Note: Calendar year 2014 is year-to-date

The average from 2008 to 2013 is 193.2 GWh. This is slightly below the average year expectation of 213 GWh based on long term estimates from Western and internal documents available for Roseville's share of the Calaveras hydroelectric project.

Question 3: Please provide your POU's lowest hydroelectric energy procurement in GWh during the same time period used in Question 2, and identify the year in which this occurred. Please provide figures for both POU-owned/controlled hydroelectric generation and hydroelectric energy supply contracts.

Year	System Load (GWh)	Total Hydro Procured (GWh)	Pct. Hydro Energy of Load
2008	1,303.8	152.4	12%

Question 4: Please provide your POU's most recent estimate of 2014 hydroelectric energy procurement (generation and purchases), both in GWh and as a percentage of this year's firm energy requirement.

Year	System Load (GWh)	Total Hydro Procured (GWh)	Pct. Hydro Energy of Load
2014	1,233.2	140.5	11%

Question 5: Does your POU expect that low hydro conditions (or the drought more generally) will raise any system or local reliability concerns? Please explain.

Roseville expects that the drought and resulting low hydro conditions will reduce available generating capacity and impact system reliability. Reduced hydro capacity in California will reduce available capacity reserves and the ability of the system to recover from unplanned generator outages.

Question 6: Under what circumstances would the effects of the drought create severe or critical operational concerns?

A large generator outage, such as Diablo Canyon, or loss of a major transmission line into California on a peak summer day could reduce reserve levels below the level at which the CAISO implements rolling outages.

The loss of generation at Lake Folsom due to extreme low lake levels can impact the ability of the local transmission grid to restart in the event of a major system outage.

Question 7: At what value of annual hydro generation this year (in GWh) would the effects of drought result in significant or substantial financial concerns? Please estimate additional costs your POU may incur because of low hydro conditions. Please provide the assumptions used.

Roseville estimates that it has incurred about $5.5 million in additional costs due to reduce hydro generation and expects that it may see an additional increase of about $3 million if market prices increase as a result of low generation. Hydro resources also provide much of the regulation reserve in California and will reduce Roseville's ancillary service revenue from the Calaveras generation. Roseville expects to see total additional costs of around $10 million due the cumulative impacts of the drought. Costs for 2016 are also expected to be higher due to the impact of reduced reservoir carryover storage but Roseville has not estimated these costs.

Question 8: Please estimate any additional procurement of GHG allowances, in metric tons, that your POU expects will be necessary because of low hydro conditions. Please provide the assumptions used.

Roseville estimates it will need to procure about 37,000 to 57,000 tons in additional allowances depending on the severity of the drought.

Question 9: Does your POU expect that low hydro conditions (or the drought more generally) will have any other local impacts beyond local reliability? If so, are efforts underway to address these impacts?

As stated above, the drought will cost the utility and ultimately its customers about $10 million in additional power supply costs.

Question 10: Will water curtailments this year, such as by SWRCB, affect your POU's hydroelectric energy procurement or dispatch (either utility-controlled hydro generation or purchases)? If so, to what extent will these supply resources be affected in terms of GWh, and over what timeframe(s)?

Water delivery curtailments by the Bureau of Reclamation will reduce the amount of generation from Western since generation is dependent on having water to deliver.

For 2014 to 2016 Roseville estimates an energy loss of 116 to 368 GWh depending on future rainfall amounts. It is important to note that the effects of the drought began before this year and may continue after this year.

Question 11: Energy Commission staff would like to know about any potential drought related issues that will or could affect system and/or local reliability. For example, are there known or potential issues with water allocations or supplies to thermal plants (e.g., power plant cooling)? This is an open-ended question and we hope that your POU can, to the extent possible, provide us with information regarding your POU's overall assessment regarding how drought conditions may affect reliability in your local communities.

Roseville uses reclaimed wastewater for power plant cooling and does not anticipate any local generation operational issues due to the drought.