MERCED IRRIGATION DISTRICT
WATER & POWER

June 1, 2015

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

Dear Mr. Oglesby,

Re: May 1, 2015 Energy Commission Letter on Drought Conditions Docket Number 15-HYDRO-01

This letter is in response to your letter of May 1, 2015. The Merced Irrigation District (MelD) has prepared specific responses to each of the questions contained in your letter. While reviewing these responses, special consideration should be given as described below.

MelD's Energy Resources Department supplies electric service to residential, commercial and industrial customers within the District's boundary. Energy for the District's 100 MW peak load is supplied from the Turlock Irrigation District through a power purchase agreement. The District's hydroelectric power production is separately marketed through a Power Purchase Agreement with PG&E. The District does not serve any of its electric loads with energy from MelD's hydroelectric power plants.

Should you have questions related to these responses please contact William M. Cochran, Hydro Manager at (209) 354-2971 or you may reach me directly at (209) 354-2811.

Sincerely,

Don Ouchley
Deputy General Manager Energy Resources
Merced Irrigation District

Attachment

cc: Jim Woodward, CEC
Marc Pryor, CEC

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Drought Hydropower Questions
Public Owned Utilities
2015

Question 1: Please provide your publicly owned utility's (POU) current estimate of total electric firm energy requirements in gigawatt hours (GWh) for calendar year 2015.

The total estimated electric firm energy requirement for MeID's electric system in 2015 is 502.8 GWh.

Question 2: Please provide your POU's average annual hydroelectric energy procurement in GWh since 1970, including 2014. 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.

MeID's hydro plants, which are not physically connected to its electric system, generate on average 324.8 GWh/yr.

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.

MeID's lowest hydroelectric generation output was 61.2 GWh and occurred in 1977.

Question 4: Please provide your POU's hydroelectric energy procurement in GWh during 2014, if different
from that shown in Question 2. If the same, please state so explicitly.

MeID's hydroelectric generation in 2014 was 89.0 GWh.

Question 5: Please provide your POU's most recent estimate of 2015 hydroelectric energy procurement (generation and purchases), both in GWh and as a percentage of this year's firm energy requirement.

MeID's hydroelectric generation for 2015 is estimated to be 6.6 GWh.

Question 6: Does your POU expect that low hydro conditions (or the drought more generally) will raise any system or local reliability concerns? Please explain:

MeID does not expect the drought to raise any system or local reliability concerns within MeID's electric system. The electric transmission system connecting MeID's hydroelectric generation resources are operated by the CAISO and PG&E. MeID is not aware of any system or local reliability concerns associated with the CAISO and PG&E systems.

Question 7: Under what circumstances would the adverse effects of the drought create severe or critical operational concerns for your system's electric generation or for electricity deliveries in your service area?

The adverse effects of the drought have created operational issues at MelD's hydroelectric power plants. The declining water elevation at Lake McClure has had an adverse impact on electric generation at Exchequer PH: the generator is limited to only 25 MW of the 94.5 MW rating due to low head. MelD's McSwain Powerhouse, a run of the river facility, is unable to run due to drought caused low flows below 500 cfs on the Merced River.

Question 8: 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. (Please highlight in yellow any information about specific costs, projected or potential, that are considered confidential or commercially sensitive. This could include potential impacts on rates that have not yet been considered for adoption by your local governing board. Such information, if provided and marked as confidential will be protected from public disclosure through December 31, 2016.)

Hydroelectric revenue is used to offset the cost of the operations and maintenance of hydroelectric facilities, FERC mandated recreation facilities and relicensing bond debit service. Combined, the revenue requirements are 11.7 million dollars for the 2015/2016 Fiscal Year. While the value of hydroelectric energy in the market varies, and is difficult to predict, it is estimated that 243 GWh's of hydroelectric production would be required to satisfy these financial requirements. This year, MelD expects a net deficit of 9.7 million dollars due to lost hydroelectric power production.

Question 9: Please estimate any additional procurement of greenhouse gas allowances, in metric tons, that your POU has already incurred or that your POU expects will be necessary because of low hydro conditions in 2015. Please provide the assumptions used.

No additional procurement of greenhouse gas allowances is anticipated due to low hydro conditions since MelD does not serve its electric load with its hydroelectric energy production.

Question 10: 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?

No energy supply or electric reliability issues are anticipated as a result of the drought conditions. As MID's Hydroelectric revenue is used to offset the cost of the District's water operations, low hydro conditions may increase the rate our water customers are charged.

Question 11: Will water curtailments this year, such as by the State Water Resources Control Board, 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)?

To date, MelD has not been affected by State Water Quality Control Board curtailments in 2015.

Question 12: Did water curtailments in 2014 affect your POU's hydroelectric energy procurement or dispatch? If so, to what extent were supply resources affected and over what timeframe(s)? Did curtailments derate the capability to generate in megawatts (MW), and if so during what timeframes?

MelD was not affected by State Water Quality Control Board curtailments in 2014.

Question 13: Energy Commission staff would like to know about any potential drought related issues that will or could affect electric systems and /or local reliability. For example, are there known or potential issues with water allocations or supplies to thermal plants (for example, 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.

MelD does not anticipate any electric system or local reliability issues resulting from drought conditions.