

**Drought Hydropower Questions
Publicly Owned Utilities
2015**

California Energy Commission

DOCKETED

15-HYDRO-01

TN # 75716

MAY 07 2015

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

143 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.

14.95 GWh (2007-2014 only, all purchased – WAPA may be able to provide data for additional years)

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.

9.73 GWh in 2014, all purchased from WAPA

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.

9.73 GWh in 2014

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.

9.85 GWh = 6.9% of firm energy requirement

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:

No, hydro accounts for only 10% of load in a normal year. The balance is provided from market purchases.

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?

Primary risk is fire causing damage to infrastructure.

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.)

While there are financial implications, they are somewhat softened by lower than average market power costs. We are not budgeting for significant increases in power supply costs due to drought. Increases in already high CAISO charges are more concerning than increases caused by drought.

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.

Not known.

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?

Agricultural use of electricity will be higher, as more irrigation water is pumped during drought conditions.

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)?

Please see questions 2-5.

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?

Better answered by WAPA.

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.

N/A