

DOCKETED

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CLARIFICATIONS TO CEC STANDARDIZED REPORTING TABLES

The following comments provide additional information on the inputs to the CEC Standardized Tables.

CAPACITY RESOURCE ACCOUNTING TABLE

Lines 1-7

Peak load calculations (Line 1) are from the IRP (converted from fiscal to calendar year). The effect of customer-side solar, storage, EV usage during peak hours and demand response (Lines 2-5) is minimal. Along with energy efficiency (Line 6), the effect of these activities is included in the IRP's peak demand forecast (Line 1).

Line 8

The reserve margin is set at 15% consistent with Hetch Hetchy Power's Resource Adequacy policy as adopted by the SFPUC on May 23, 2006 in Resolution 06-0087.

Line 11a, 11b

The CAISO assigns the Hetch Hetchy System a Net Qualifying Capacity (NQC) of 307 MW. This NQC is aggregated at the INTKEP_2_UNITS price node and is not broken down by powerhouse. For this table the NQC for each powerhouse is developed as the ratio of the NQC to nameplate capacity (307/381).

Line 11h, 11i

Available generation from WAPA is based on Hetch Hetchy Power's forecasted peak demand (2.9 MW) for service to Treasure Island. The forecast assumes the existing contract with WAPA, set to expire on December 31, 2024, will be renewed at the same levels through the 2030 planning horizon. The amount of WAPA power used to serve retail load varies depending upon Hetch Hetchy generation.

Line 12a

As noted above, NQC for the Kirkwood Powerhouse is based on the ratio of NQC to nameplate capacity. The IRP assumes Unit 3 will be removed for rehabilitation/replacement and will be unavailable from 2028 through 2030.

Line 12b, 12c, 12d, 15a, and 15b

Generation from Moccasin Low-Head, Southeast Cogen, and In-City solar units, given their size and/or availability are modeled as "energy only" resources. In-city solar units are below the CAISO size threshold to be applied to meeting Hetch Hetchy Power's RA obligations.

Line 12o

Sunset's NQC as set by the CAISO varies by month. Highest monthly NQC is 2 MW, but the 12-month average is closer to 1 MW.

ENERGY BALANCE TABLE

Line 1

Retail sales for 2017 are from Hetch Hetchy Power's Power Source Disclosure Report. 2018 retail sales are a combination of actual sales through August and forecasted sales for the remainder of the year. 2019 through 2030 retail sales are from the IRP.

Line 6

The Modesto and Turlock Irrigation Districts (MID and TID) have rights under the Raker Act to a portion of the electrical output of the Hetch Hetchy System subject to availability, a right they are currently not exercising.

Line 9

Light Duty Personal Electric Vehicle (PEV) electricity consumption is currently 600 MW/year (<1% of retail sales) as reflected in the Baseline Scenario. Under a sensitivity scenario of 1,200 fleet EVs (not shown here), Hetch Hetchy Power demand would increase by 8,000 MWh/year.

Line 10

Other transportation electricity consumption includes all electric energy currently provided to Muni to operate their electric public transit fleet and Hetch Hetchy Power's provision of shore-side power to cruise ships. As these are existing sales they are already included in Line 1 (Total Retail Sales to End-Use Customers) and are not incremental sales. Incremental sales from Muni's recently announced proposal to convert the remainder of its public transit bus fleet to electric power will be examined in subsequent updates to the IRP Plan.

Line 12a, 12b, 12h, 13a, and 13b

These are hydroelectric generating units whose output will vary depending upon hydrological conditions. Forecasted generation levels are based on normal hydrological conditions.

Line 12c, 13a

Generation from the Kirkwood Powerhouse can be counted as either RPS-eligible or as "qualifying hydroelectric generation" energy as part of Hetch Hetchy Power's alternative RPS compliance obligation. Hetch Hetchy Power also sells GHG-free Kirkwood generation (including the GHG-free environmental attribute) to others (including CleanPowerSF) at the wholesale level. MID/TID also have rights to a portion of Hetch Hetchy output under the Raker Act subject to availability. Depending upon hydrological conditions, such as drought years, the amount of generation from Kirkwood that may be claimed as "qualifying hydroelectric generation" instead of RPS-eligible generation can vary significantly between years. Additionally, sales of Kirkwood generation to others that include the GHG-free attributes of the generation may not be claimed as RPS-eligible.

To reflect the above factors, 60% of Kirkwood Powerhouse Generation is assumed for modeling purposes to be used for meeting Hetch Hetchy Power’s retail needs or for the specified sale of GHG-free energy to others. The remaining 40% is assumed to be available as RPS-eligible energy. The actual ratio will vary between years depending upon hydrological conditions. As shown in the RPT Table for 2018, for example, reduced hydroelectric generation will result in all of Kirkwood Powerhouse’s generation for 2018 being used to meet Hetch Hetchy Power’s qualifying hydroelectric generation obligations with no RPS-eligible energy being generated.

Line 16a, 16b

Hetch Hetchy Power plans to add 0.1 to 0.2 MW of In-City Solar per year through 2030, primarily located on municipal facilities. Given the 1 MW size threshold embedded in the spreadsheet, these new resources are modeled as a 1 MW addition in 2023 and an additional 1 MW in 2028, approximating an increase of 0.2 MW per year. This new In-City Solar is expected to produce 2,500 MWh/year for each 1 MW of capacity.

GHG EMISSION ACCOUNTING TABLE

Hetch Hetchy Power’s zero-GHG hydroelectric generation and RPS-eligible resources are sufficient to meet’s retail electric needs on an annual basis throughout the 2019 to 2030 planning horizon with surplus generation being sold on the wholesale market. Under AB1110, Hetch Hetchy Power can receive credit toward the calculation of its annual GHG emissions based on its sale of surplus zero-GHG unspecified power to others.

Lines 9-12

Hetch Hetchy Power’s IRP did not calculate estimated GHG reductions from providing electric energy for transportation-related purposes. GHG reductions reported are based on the approximate number of credits received by SFMTA under CARB’s Low Carbon Fuel Standard program (20,000 metric tons), adjusted upward by 50% to reflect the difference between Hetch Hetchy Power’s zero-GHG emission profile and the statewide-average GHG emissions profile used for calculating LCFS credits. Each LCFS credit is equal to 1 metric ton (MT) of GHG reduction. GHG reductions from the provision of shore-side power to cruise ships are not available at this time.

RPS PROCUREMENT TABLE#

Lines 2-4

The CEC Guidelines state that “retail sales may be adjusted due to hydroelectric procurement or green power programs as allowed under PUC Section 399.11.”¹ Hetch Hetchy Power has an alternative RPS compliance obligation under Public Utilities Code Section 399.30(j) that requires it to procure RPS-

¹ CEC Guidelines, Appendix B, p. B-15.

eligible resources, including renewable energy credits, for the electricity demand unmet by its qualifying hydroelectric generation.

Hetch Hetchy Power is also considering the adoption of a green tariff under Public Utilities Code Section 399.30(c)(4).

Line 2 excludes Hetch Hetchy Power's forecasted hydroelectric generation from its retail sales (Line 1) with the remaining result being Hetch Hetchy Power's retail sales subject to a RPS obligation for 2017-2030 as shown on Line 2.

Results for 2017 are from Hetch Hetchy Power's 2017 RPS Compliance Report. Results for 2018 include a mix of actual (through August) and forecast data.

Line 4

As allowed by the CEC Guidelines Line 4 has been "edited or augmented to reflect how [Hetch Hetchy Power's RPS] procurement requirement is derived."² Unlike other POUs, Hetch Hetchy Power has a yearly RPS compliance obligation which can be calculated by subtracting Line 2 (qualifying hydroelectric generation plus green tariff sales) from Line 1 (retail sales) which equals Hetch Hetchy Power's yearly RPS Procurement Target. Line 4 has been edited to sum this yearly RPS Procurement Target into a total obligation for each RPS compliance period.

Line 5

Hetch Hetchy Power's starting balance of excess RECs is estimated and will not be finalized until after the completion of the CEC's verification process for the 2014-2016 RPS Compliance period. The estimated balance includes only RECs that have been retired in WREGIS and does not include pending RECs from RPS-eligible generation that has already occurred but the associated REC has yet to be retired within the 36-month limit.

Additionally, the use of normal hydrological conditions for every year between 2019 and 2030 results in a significant over-statement of excess RECs. As noted in comments on the EBT Table, during drought years a significant portion of the reporting year Kirkwood Powerhouse Generation is needed to meet Hetch Hetchy Power's "qualifying hydroelectric generation" needs and is not available as RPS-eligible energy. During these drought years, excess RPS-eligible generation from Kirkwood from previous years is often needed to be used to fulfill Hetch Hetchy Power's RPS obligations. The IRP Plan's modeling of consistent normal hydrological conditions between now and 2030, while useful for planning purposes, understates the volatility and amount of Hetch Hetchy Power's RPS needs. This results in the amount of excess RECs calculated in the RPT Table being significantly overstated.

² CEC Guidelines, Appendix B, p. B-15.