

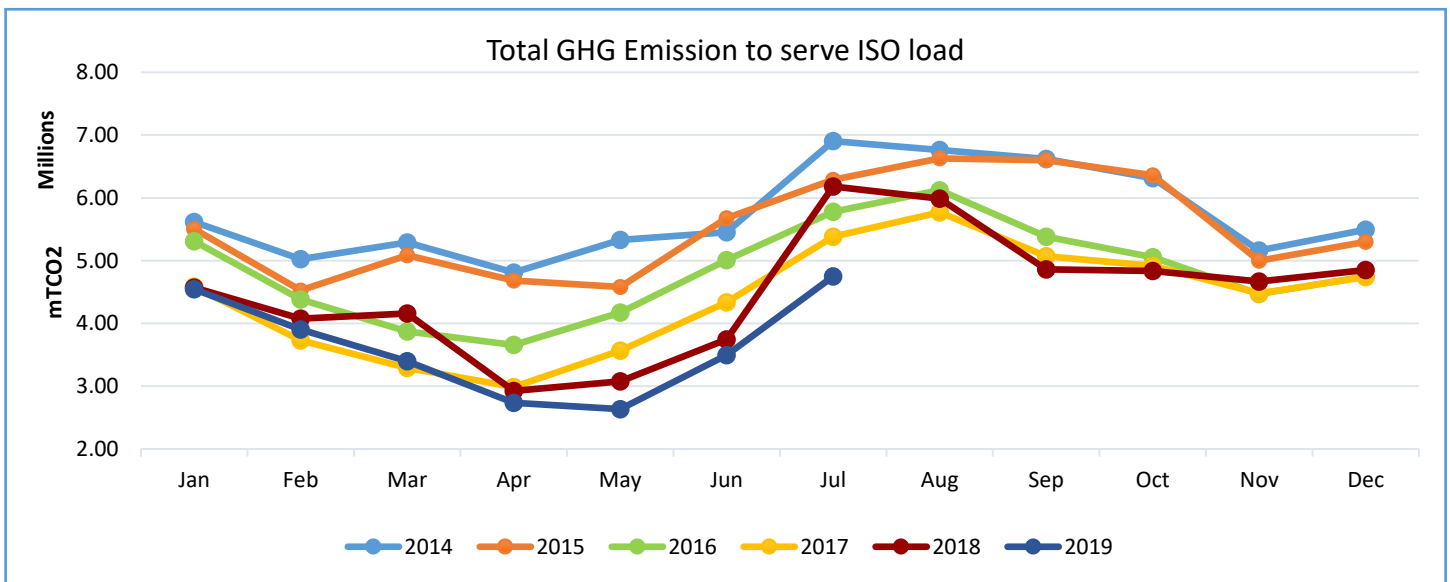
The information contained in this report is preliminary and subject to change without notice. Any questions regarding this report should be directed to CAISO MQRI.

This report depicts greenhouse gas (GHG) emissions for the California Independent System Operator’s (ISO) balancing authority area as a direct result of the dispatch of ISO internal resources and imports, including dynamic resources, serving ISO load.

The report reflects total GHG emissions to serve ISO loads.

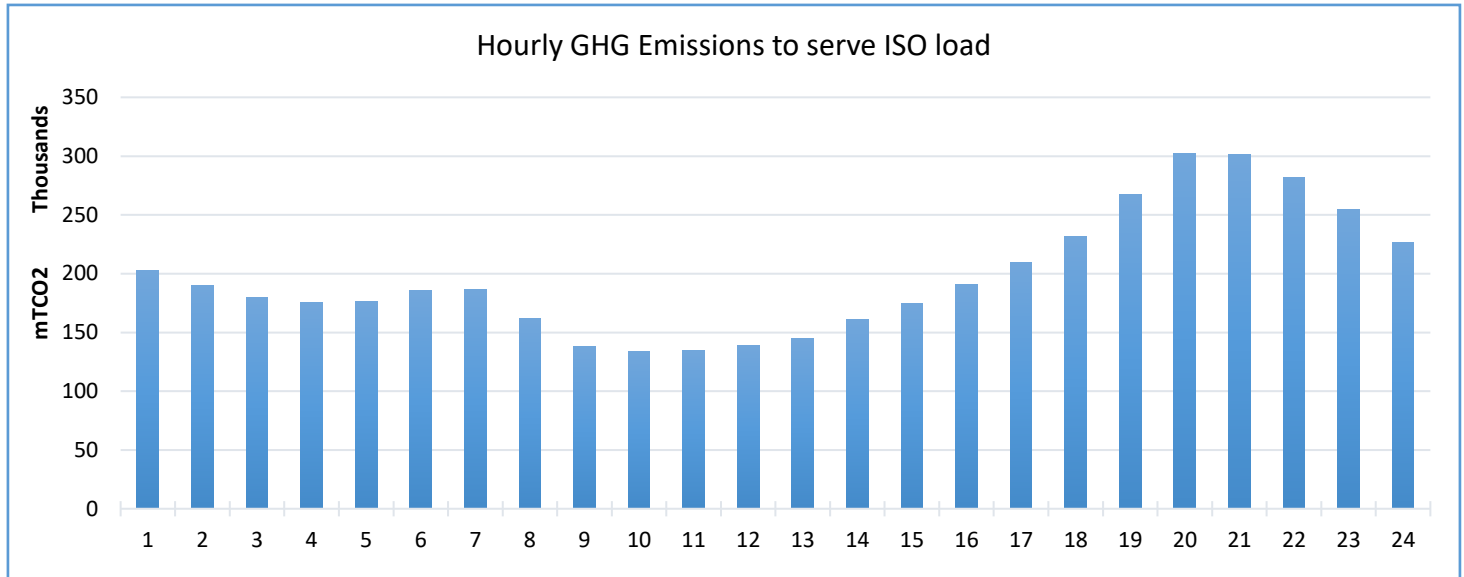
FIGURE 1 – Total GHG emissions to serve ISO load. This figure reflects the sum of GHG emissions from internal ISO dispatches and GHG emissions from imports serving ISO load through July 31, 2019.

YTD (January - July) million mTCO2	2014	2015	2016	2017	2018	2019
GHG Emission to serve ISO load	38.43	36.35	32.18	27.88	28.73	25.46



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FIGURE 2 – Total hourly GHG emissions to serve ISO load. This figure reflects the hourly sum of GHG emissions from internal ISO dispatches and GHG emissions from imports serving ISO load for the month of July 2019.



The ISO has updated the GHG calculations that includes the emissions from Biogas/Biomass and Geothermal resources internal to ISO starting from January 2018 tracking report. The emission factor used for these calculations are from EPA’s GHG Reporting Rule¹. In addition, ISO updated its computation to include the emission factors for the asset – controlling supplier (ACS) approved and registered by CARB. CARB publishes the emission factors for all approved asset – controlling suppliers for every year². The GHG emissions calculations were updated from January 2016 onwards.

¹ EPA – GHG Reporting Rule - https://www.epa.gov/sites/production/files/2015-11/documents/emission-factors_nov_2015.pdf

² CARB ACS Emission Factors - <https://ww2.arb.ca.gov/mrr-ac>