

California Clean Energy Future Metrics

Greenhouse Gas Emissions Forecast

The 2020 forecast of greenhouse gas (GHG) emissions is important for tracking California's progress towards the goal of reducing statewide emissions to 1990 levels by 2020. Annual emission forecasts for each year to the year 2020 provide a reference for assessing the effect of greenhouse gas reduction measures. Forecasts developed by Air Resources Board (ARB) staff are used to evaluate the impact of emission reduction measures included in the Scoping Plan and for other planning purposes.

Electricity Sector Forecast

The forecast of electricity sector emissions in the greenhouse gas inventory begins with actual emission data and then projects future emission data points based on projected electricity demand and fuel consumption data through 2020. The forecast of in-state and imported electricity generation emissions through 2020 rely on data from several sources, including the California Energy Commission (CEC) and other state agencies, the U.S Department of Energy, and data reported directly to the ARB pursuant to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions. For the electricity sector in particular, the forecast relies on electricity demand estimates developed for the CEC's biennial Integrated Energy Policy Report (IEPR). Data from interagency collaborative workgroups, such as those formed under the Western Climate Initiative, were also used.

Monitoring Electricity Sector Emissions

The requirements and standards included in the Mandatory Reporting Regulation serve as a primary vehicle for monitoring power generating facility emissions over time. Data reported to the ARB by in-state power generators under the Mandatory Reporting Regulation include greenhouse gas emissions by amount and type of fuel used to generate electric power.

For imported electricity, information on power transactions is reported, including MWh imported from specified and unspecified power generating sources. Reported data, as well as methods used to compile those, are rigorously reviewed by independent third-party verifiers prior to ARB finalizing the emissions. Emissions from power generators below the reporting threshold in Mandatory Reporting are determined from data ARB staff receives from other state and federal agencies.

Figure 1: Electricity GHG Emissions (Option 1)

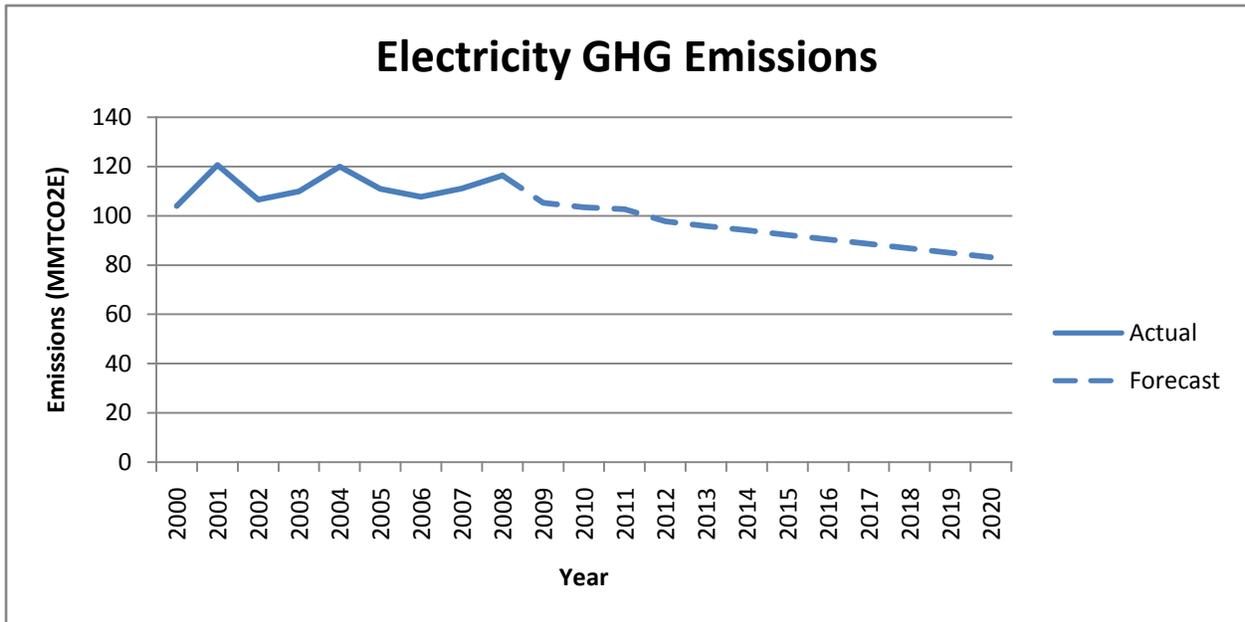


Figure 1: Electricity GHG Emissions (Option 2)

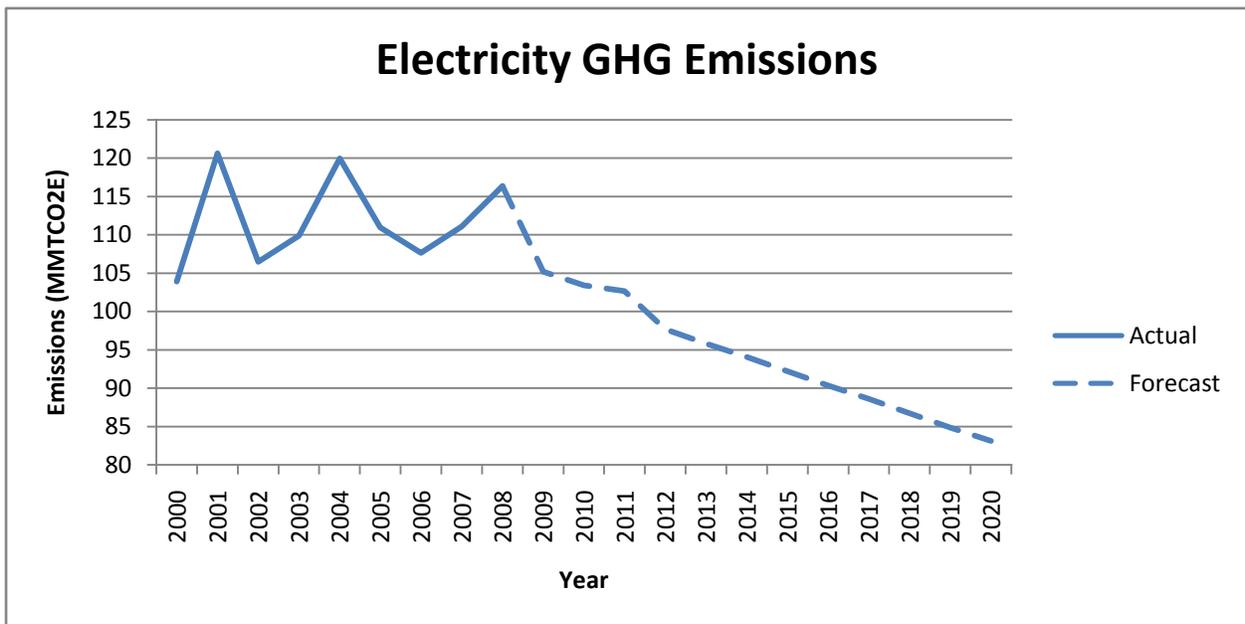


Figure 1: Electricity GHG Emissions (Option 3)

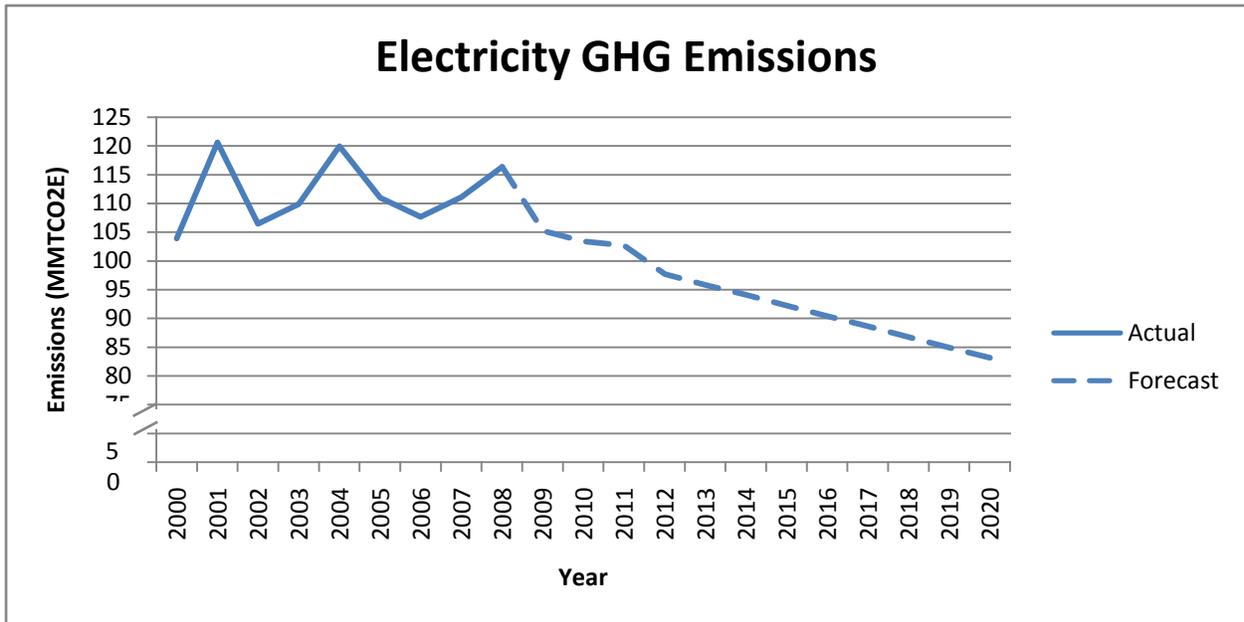


Figure 2: Electricity GHG Intensity (Option 1)

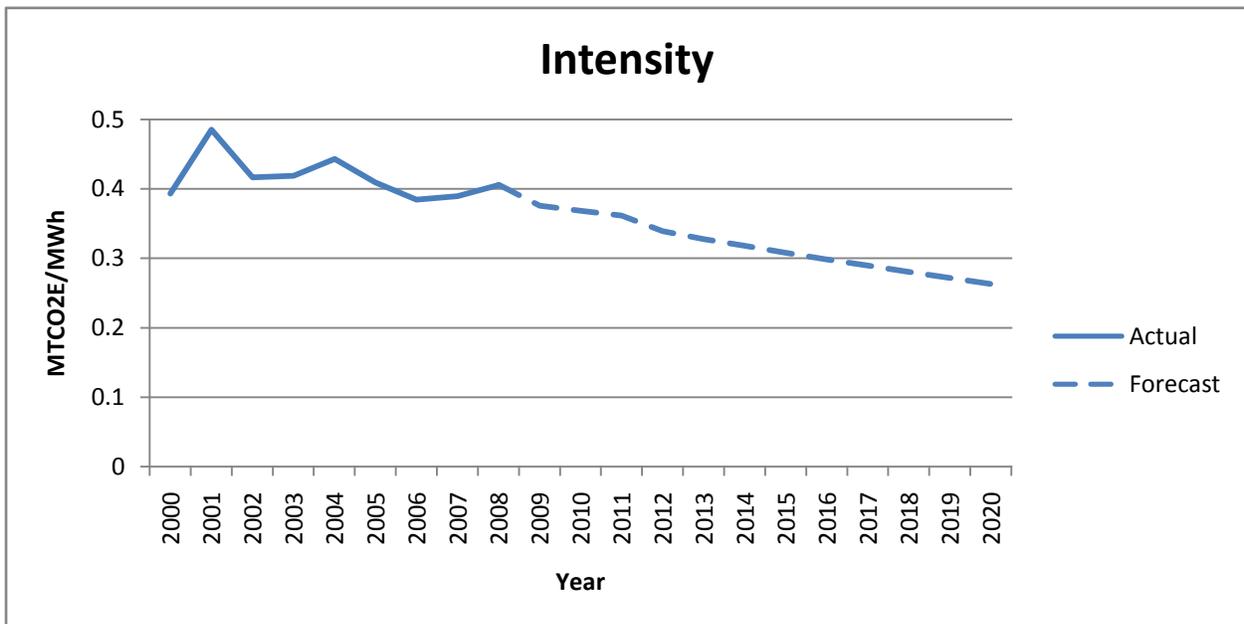


Figure 2: Electricity GHG Intensity (Option 2)

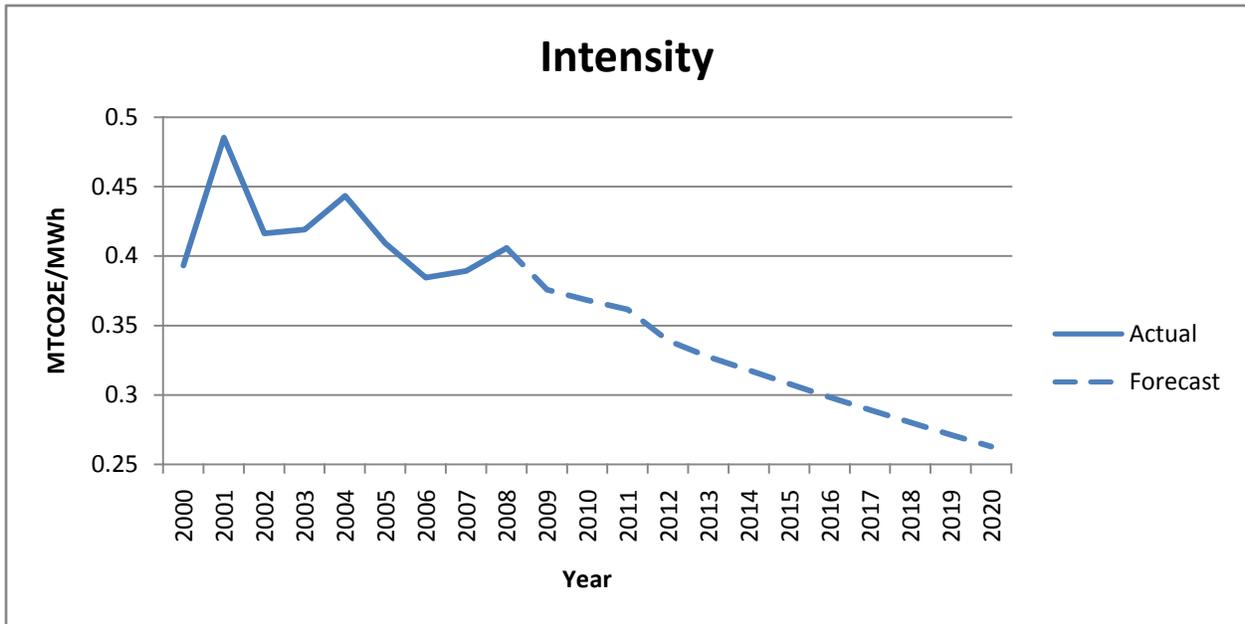


Figure 2: Electricity GHG Intensity (Option 3)

