

Mandatory Greenhouse Gas Reporting 2017 Emissions Year Frequently Asked Questions

This document provides questions and answers related to the 2017 greenhouse gas (GHG) emissions reported by entities subject to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (MRR).¹ MRR collects data from the largest GHG emitters to support the Cap-and-Trade Program, the AB 32 Cost of Implementation Fee Regulation, and the statewide GHG Emissions Inventory. Thus, MRR data includes a subset of the statewide GHG emissions sources. The statewide GHG Emissions Inventory establishes historical emission trends and is the primary method for tracking California's progress in reducing GHGs. The GHG Emissions Inventory is a separate program from MRR.² All data sources used to develop the GHG Emissions Inventory are listed in supporting documentation available at www.arb.ca.gov/cc/inventory/data/data.htm.

Question: What sources of GHG emissions must report under MRR?

Answer: The MRR program captures approximately 80 percent of the GHG emissions included in the State's GHG inventory. The MRR program requires annual reporting of GHGs from industrial sources that emit more than 10,000 metric tons of CO₂e, from transportation and natural gas fuel suppliers, and from imported electricity (Figure 1).

Question: What sources of GHG emissions are not reported under the MRR program, but will be included in the official statewide GHG inventory for 2017?

Answer: Agricultural emissions, high global warming potential gases, emissions from landfills and composting, and select fugitive emissions are not captured under the MRR program.

Question: How do total reported GHG emissions for 2017 compare to 2016 emissions?

Answer: Total 2017 GHG emissions reported under MRR decreased by approximately 5.2 million metric tons of CO₂e, or 1.4 percent, in comparison to 2016.^{3,4} Emissions that are covered by the Cap-and-Trade

¹ Mandatory GHG Reporting - Reported Emissions: <https://ww2.arb.ca.gov/mrr-data>

² GHG Inventory Program page - <http://www.arb.ca.gov/cc/inventory/inventory.htm>

³ CARB reposted the 2016 GHG Emissions Data spreadsheet on 11/21/2018 to include one additional reporting entity. Due to this change, the 2017 total emissions decrease was revised from 5.1 million, as originally posted on 11/06/2018, to 5.2 million tons of CO₂e.

⁴ The total 2017 GHG emissions have been adjusted to remove emissions that are double reported by covered facilities and natural gas suppliers. This adjustment is discussed in greater detail in the final FAQ in this document.

Program decreased by approximately 3.5 million metric tons of CO₂e, or 1.1 percent. The data show our climate programs are delivering real GHG reductions.

The reduction in reported GHG emissions is mostly due to a decrease in emissions in the electricity sector. The reasons for these decreases are discussed below.

Emissions from oil and gas production decreased slightly (0.9%). Other sources showed small emissions increases, such as cement plants (0.9%); suppliers of natural gas, natural gas liquids (NGL), or liquefied petroleum gas (LPG) (2.5%); refining and hydrogen production (0.8%); transportation fuels (0.5%); and other combustion sources (3.1%), which includes combustion sources not associated with one of the sectors listed above.

Overall, reported upstream (extraction and refining) and tailpipe emissions from transportation fuels have slightly increased (0.5%). While almost all transportation fuel consumed in California is refined in California, only 31 percent⁵ of crude oil refined in California originates from California wells. Emissions from crude oil production that occur outside of California are not reported under MRR.

Question: Which sources saw the biggest emissions changes in 2017, as compared to 2016?

Answer: The biggest change in reported emissions in 2017 was in the electricity sector. Emissions from in-State electricity generation decreased by 10.7 percent, emissions from imported electricity decreased by 10.0 percent.

In-state electricity generation from GHG-emitting sources (mostly natural gas) decreased in 2017 due to an increase in solar, wind, and hydroelectric power generation. Hydroelectric generation increased by 50 percent in comparison to 2016, due to record levels of precipitation in California. In addition, there was a 22 percent increase in in-State, grid-scale solar electricity generation.⁶ As generation from renewables increases, fossil fuel generation is adjusted down.

Reported emissions from imported electricity decreased due to an overall decrease in the total volume of imported electricity and from a greater proportion of imports from renewable power. Figure 2 illustrates the

⁵ Oil Supply Sources to California Refineries - https://www.energy.ca.gov/almanac/petroleum_data/statistics/crude_oil_receipts.html

⁶ California Electrical Energy Generation - https://www.energy.ca.gov/almanac/electricity_data/electricity_generation.html

change in quantity (MWh) and GHG intensity of electricity imports over the period.

Question: Have continued retirements of, or divestitures from, western US coal plants affected reported emissions?

Answer: There was slightly less electricity imported from coal-fired generation in 2017, although the effect of coal retirement and divestiture on 2017 emissions was smaller than in previous years. LADWP sold its remaining share of Navajo Generating Station in 2016. CARB expects future emissions decreases due to the closure of San Juan Generating Station units 3 and 4 in December 2017, and the planned repowering of Intermountain Power Plant to natural gas, by the year 2025.⁷

Question: When will the GHG Emissions Inventory be updated to reflect calendar year 2017 emissions?

Answer: Consistent with timing in previous years, the updated GHG Emissions Inventory to reflect the 2017 emissions data will be made available in Q2 of 2019.

Question: The 2016 GHG Emissions Inventory showed 429.4 million metric tons of emissions. With approximately 5.2 million metric tons of CO₂e reductions in the MRR data from 2016 to 2017, what does this say about the State's progress towards meeting its GHG reduction goals?

Answer: The primary tool for assessing progress towards the State's GHG reduction targets is the GHG Emissions Inventory. The MRR data shows that we continue to make positive progress toward achieving the State's targets.

Question: What is the difference between total CO₂e (i.e., total emissions), total covered emissions, and non-covered emissions values found in the public data spreadsheets posted on the MRR webpage?

Answer: For entities subject to the Cap-and-Trade Program, total covered emissions (column R in the spreadsheet) are equal to total emissions (column F) minus non-covered emissions (column S). Non-covered emissions include emissions that are exempt from a compliance obligation under the Cap-and-Trade Program, such as biogenic emissions from exempt biomass fuels and certain fugitive emissions.

⁷ Current Expected Energy from Coal - https://www.energy.ca.gov/renewables/tracking_progress/documents/current_expected_energy_from_coal.pdf

For entities that are subject to MRR, but not the Cap-and-Trade Program, the covered emissions are zero regardless of the emissions source.

In the case of natural gas suppliers, emissions from natural gas supplied to covered facilities are subtracted from the supplier's covered emissions to avoid double counting. In figure 1, the total CO₂e emissions for the Supplier of Natural Gas, NGL, or LPG category reflect this accounting.

Figure 1. 2011-2017 Total Emissions by Source Category

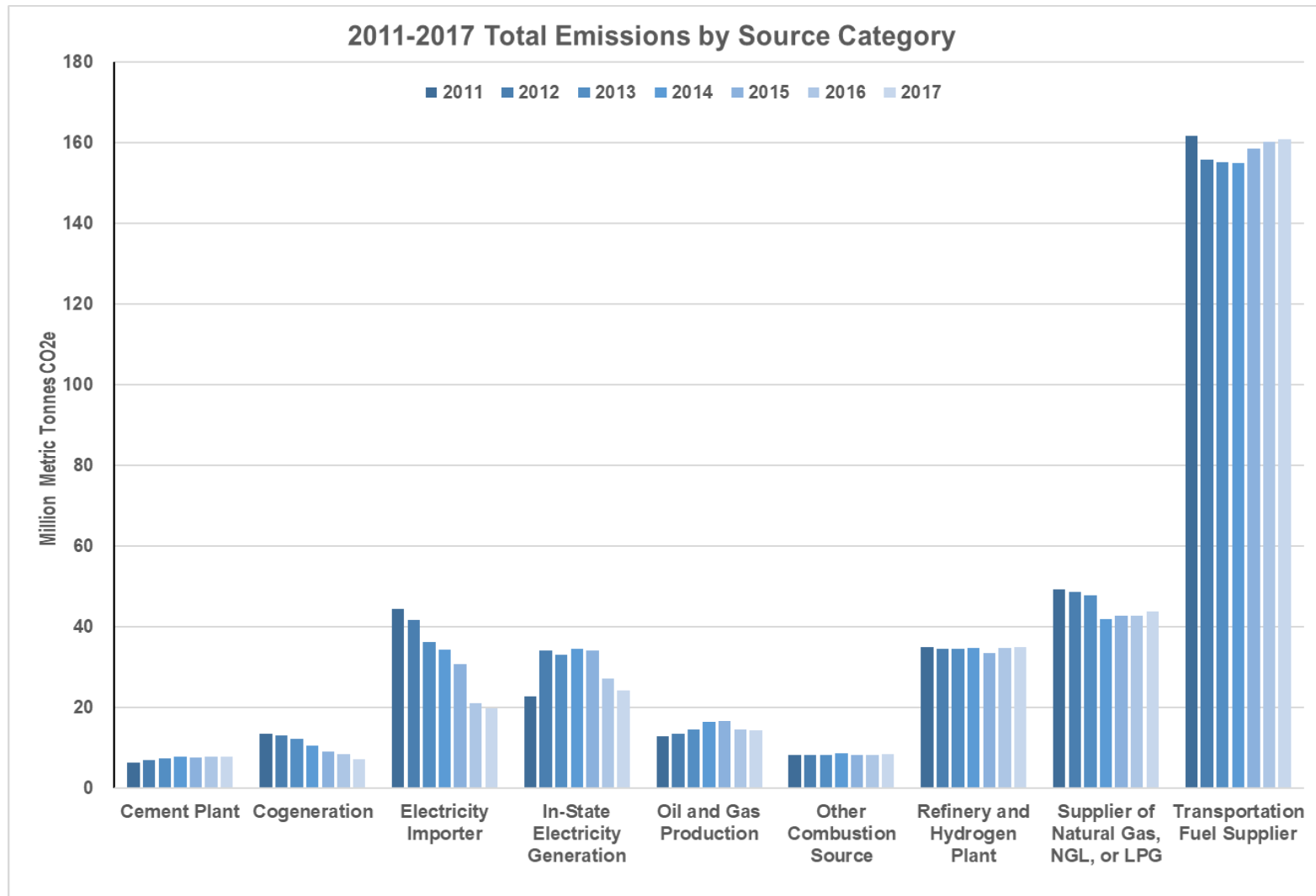


Figure 2. Quantity and GHG Intensity of Electricity Imports (2011-2017)

