

Mandatory Greenhouse Gas Reporting 2021 Emissions Year Frequently Asked Questions

This document provides questions and answers related to the 2021 greenhouse gas (GHG) emissions reported by entities subject to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (MRR).¹ MRR requires data reporting and third-party data verification from the largest GHG emitters. Thus, MRR data includes a subset of the statewide GHG emissions sources. MRR data supports the Cap-and-Trade Program, the AB 32 Cost of Implementation Fee Regulation, and the statewide GHG Emissions Inventory. The statewide GHG Emissions Inventory establishes historical emission trends and supports 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 by industrial sources that emit more than 10,000 metric tons of CO₂e, transportation and natural gas fuel suppliers, and electricity importers (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 2021?

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 2021 compare to 2020 emissions?

Answer: Total 2021 GHG emissions reported under MRR increased by approximately 16,714,000 metric tons of carbon dioxide equivalent (CO₂e), or 5.3 percent, in comparison to 2020.³ Emissions covered by the Cap-and-Trade Program increased by approximately 13,536,000 metric tons of CO₂e, or 4.9 percent. This increase in emissions is likely due in large part to economic recovery from

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

² GHG Inventory Program page - <https://ww2.arb.ca.gov/our-work/programs/ghg-inventory-program>

³ For this analysis, the total GHG emissions provided in the public data spreadsheets are adjusted to remove emissions that are reported by both covered facilities and natural gas suppliers. The final FAQ in this document discusses this adjustment in detail.

the impacts of the COVID-19 pandemic. As stated in the *Mandatory Greenhouse Gas Reporting 2020 Emissions Year Frequently Asked Questions*, 2020 reported emissions were likely an anomaly and any near-term increases in annual emissions should be considered in the context of the pandemic.

2021 GHG emissions increased relative to 2020 emissions for all source categories except oil and gas production and cogeneration. Tailpipe GHG emissions from transportation fuels showed the greatest absolute and relative increase in 2021 relative to 2020, rising by approximately 13,344,000 metric tons of CO₂e, or 9.1 percent. GHG emissions from the electricity sector, which includes electricity imports, in-state electricity generation, and cogeneration sources, accounted for the next largest absolute and relative increase in emissions, with an increase of approximately 1,996,000 metric tons of CO₂e, or 3.5 percent. Within the electricity sector, emissions from in-state electricity generation increased approximately 1,458,000 metric tons of CO₂e, or 4.3 percent, emissions from imports increased by approximately 874,000 metric tons of CO₂e, or 4.7 percent, and emissions from cogeneration declined by 336,000 metric tons of CO₂e, or 6.2 percent. It should be noted that the decrease in cogeneration emissions and increase in in-state electricity emissions is partially due to former cogeneration facilities switching to electricity-only generation.

GHG emissions from supplied natural gas, natural gas liquids (NGLs), and liquefied petroleum gas (LPG) fuels increased by approximately 842,000 metric tons of CO₂e, or 1.8 percent, and GHG emissions from combustion sources not included in other source categories increased by approximately 224,000 metric tons of CO₂e, or 1.9 percent. GHG emissions from cement plants rose by approximately 170,000 metric tons of CO₂e, or 2.2 percent. GHG emissions from oil and gas production declined by approximately 278,000 metric tons of CO₂e, or 1.9 percent, and emissions from refinery and hydrogen plants increased by approximately 416,000 metric tons of CO₂e, or 1.3 percent.

Question: When will the GHG Emissions Inventory be updated to reflect calendar year 2021 emissions?

Answer: An updated GHG Emissions Inventory that incorporates 2021 MRR emissions data will be published in 2023.

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?

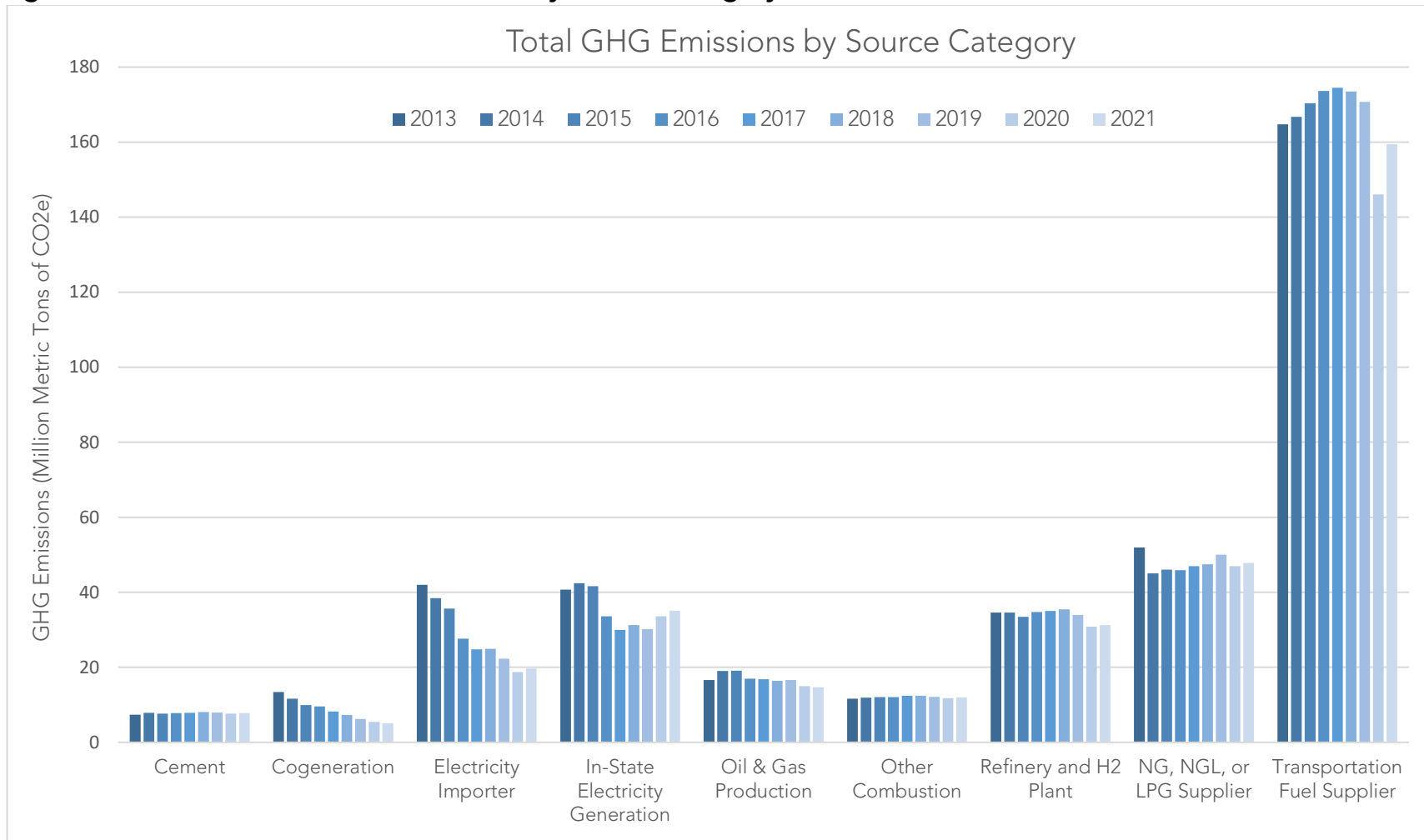
Answer: For entities subject to the Cap-and-Trade Program, total covered emissions (column R in the spreadsheet) are equal to total emissions (column F) minus

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.

For entities who 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 (approximately 48.1 million metric tons) are subtracted from the supplier's total and covered emissions to avoid double counting. In Figure 1, the total CO_{2e} emissions of 47.8 million metric tons for the Supplier of Natural Gas, NGL, or LPG source category reflect this accounting.

Figure 1. 2013-2021 Total GHG Emissions by Source Category



Notes: The NG, NGL, or LPG Supplier category does not include emissions from natural gas supplied to covered entities to avoid double counting, as described in the last FAQ. The Oil & Gas Production category includes only facility emissions (i.e., stationary combustion, fugitive, and process emissions); supplier emissions reported by Oil & Gas Production entities are included in the NG, NGL, or LPG Supplier category.