



DEPARTMENT OF HEALTH

DAVID Y. IGE
GOVERNOR

BRUCE S. ANDERSON, Ph.D.
DIRECTOR

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State on target to beat 2020 greenhouse gas emissions goal *New report projects continued decline in emissions* *Below 1990 levels for 2020 and 2025*

HONOLULU — Rising sea levels and other effects of climate change are threats to the health and environment of the Hawaiian islands, but Hawai'i is making progress to mitigate the effects of these threats, based on findings in the Hawai'i Greenhouse Gas Emissions Report for 2016, which contains the most recent data released by the Hawai'i Department of Health's Clean Air Branch.

The report, dated December 2019, and a summary of key findings are available on the Clean Air Branch's Hawai'i greenhouse gas program webpage at: <https://health.hawaii.gov/cab/hawaii-greenhouse-gas-program/>.

Projections in the report, prepared by ICF, a global consulting and digital services provider, and the University of Hawai'i Economic Research Organization (UHRO) for the Department of Health, indicate Hawai'i is on target to meet the state's goal established by the legislature in 2007 to reduce greenhouse gas emissions to be equal to or below 1990 levels.

"Because of our ambitious goals and the collective actions as a state to address climate change, Hawai'i is on target to meet its statewide greenhouse gas emission milestones this year. For the next few years, we will track and report our progress as we continue to move rapidly to decarbonize our economy, especially in our transportation and power sectors—to meet our 2045 clean energy goals," said Gov. Ige.

"Hawai'i remains on the right path to mitigate the effects of climate change, and we must continue to stay on track," said Dr. Bruce Anderson, health director. "The Department of Health requires greenhouse gas emission caps for the largest stationary sources of air pollution, and major sources of greenhouse gas emissions are taking responsibility for implementing the reductions. Everyone must do their part to continue these efforts."

The state met its greenhouse gas emission limit of 10.84 million metric tons (MMT) in 2016, and statewide greenhouse gas emission projections of 8.37 MMT and 6.43 MMT for 2020 and 2025, respectively, indicate Hawaii is on target to meet its statewide

greenhouse gas emissions limit this year. This finding will be reassessed and updated in next year's report.

Data for 2016 on greenhouse gas emissions, primarily carbon dioxide, combined with data on "sinks" that remove carbon dioxide from the atmosphere, were captured in the report. Sinks include such carbon offset activities as reforestation and urban trees. The report provides a number of key findings:

- The energy sector makes up the majority—87 percent—of the state's greenhouse gas emissions. Approximately 51 percent of the energy sector emissions are from transportation, excluding international bunker fuel, and 46 percent are from stationary combustion.
- The decrease in transportation emissions, about 33 percent from 2007 to 2016, was primarily the result of decreases in domestic marine, ground transportation, and military nonaviation emissions. The 2007 base year is when Hawai'i Act 234 passed for reducing greenhouse gas emissions to 1990 levels. Also, in 2007, the Energy Independence and Security Act was passed requiring new fuel economy standards for all passenger vehicles and light trucks.
- Stationary combustion emissions from electrical power plants and petroleum refineries decreased by about 12 percent over the six-year period from 2010 to 2016. Operating year 2010 was used as a baseline for establishing state rules specifying greenhouse gas emission caps for large stationary sources.
- Industrial processes and product use, which includes emissions from substitution of ozone depleting substances, electrical transmission and distribution, and cement production accounted for 4 percent of the state's emissions in 2016.
- Agriculture, forestry, and other land use, which included emissions and sinks from agricultural activities, land use, changes in land use, and land management practices made up 6 percent of the statewide emissions in 2016.
- Waste, including emissions from waste management and treatment activities such as landfills, composting, and wastewater treatment, accounted for 4 percent of statewide emissions in 2016.

These positive trends are expected to continue, primarily because of the Hawai'i Clean Energy Initiative, whose goal is to achieve 100 percent clean energy by 2045.

- Total state emissions are projected to decrease largely because of the combined decrease in emissions from electric power plants and petroleum refineries.
- Electric utilities, specifically, are seeking to meet the state's "renewable portfolio standard" mandates which require increasing use of renewable energy sources to generate electricity until Hawai'i is no longer dependent on fossil fuels and uses 100 percent of renewable energy sources by 2045.
- The state's "energy efficiency portfolio standard" target mandates a reduction in energy use—a decrease of 4,300 gigawatt-hours of electricity use by 2030. Based on the average efficiency of fossil fuel electricity generation in Hawai'i, this would be equivalent to about 3.7 million metric tons of greenhouse gas removed.

Background

In the 2007 legislative session, Act 234 established a policy to reduce greenhouse gas emissions in the state to 1990 levels by 2020. The Department of Health established the Hawai'i greenhouse gas program to track the state's progress in reducing emissions to combat the threats of climate change. Hawai'i Administrative Rules governing the Hawai'i greenhouse gas program were amended in June 2014.

State rules require the Clean Air Branch to assess the state's progress in achieving the reduction goal by determining statewide levels for the 2020 target date as well as the years leading up to and following it.

The report is based on data captured in 2016, the most recent figures available, and previous years. The greenhouse gas emission inventories are critical as they are used for decision making and to provide direction on the state's future efforts to reduce greenhouse gas emissions. The report updates statewide greenhouse gas emission inventory estimates in the department's greenhouse gas emission report for 2015 (dated January 2019), and documents the scope, methodologies, data sources, quality assurance and quality control, uncertainty estimates, updates to emission estimates in the 2015 report, and county level emissions. The report also identifies areas for improvement in report subsections (e.g., 3.1. Stationary Combustion) and presents prioritized lists by sector in Appendix I. Areas for Improvement.

A third Hawai'i Greenhouse Gas Emissions Report is currently being worked on and is anticipated to be released in approximately one year. This report will include a new 2017 statewide greenhouse gas emissions inventory and updated prior year inventories and projections. The 2017 report effort will also further investigate areas for improvement identified in the 2016 report and implement them as appropriate considering available resources and data.

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