

Greenhouse Gas Inventory

Focus on: The Washington Report

What is the Greenhouse Gas Inventory?

The greenhouse gas (GHG) inventory is the historical record of Washington's contribution to global climate change and measures the state's progress in reducing greenhouse gases compared to a 1990 baseline. This inventory helps us design policies to reduce GHG emissions and track progress toward meeting Washington's emission reduction limits. This estimate is based on data from the Washington Department of Commerce and Environmental Protection Agency (EPA). The most recent report was published in December 2022 with data current through 2019. All GHG inventories are retrospective.

How is the Washington inventory developed?

Ecology is required to submit a report to the legislature every two years with a comprehensive inventory of emissions of greenhouse gases from all significant sectors of the Washington economy.

Since 2008, Washington has relied on the use of EPA's interactive spreadsheet model, the [State Inventory Tool](#)¹ (SIT), to develop the state GHG emissions inventories. The SIT provides pre-loaded default data but allows states to customize variables or emission factors and only provides estimates for the most recent data available. Ecology staff reviews, verifies, and aggregates the data. Following a rigorous review process, a final report is published.

Why the delay in data and reports available?

EPA's SIT tool incorporates a variety of large federal data sets which require time to verify and aggregate. The SIT is only published when complete data for all sectors and states is available. Data processing slowed significantly during COVID, and publication of the updated SIT was delayed. When Ecology was preparing the 2022 publication, 2019 was the most current data available. By the end of 2023, EPA is expected to release updated data through 2022. Ecology will publish an updated report in 2024, as required by law.

¹ <https://www.epa.gov/statelocalenergy/state-inventory-and-projection-tool>

How are we improving the process?

Washington is increasing its own data collection through new regulatory programs. Ecology plans to build an inventory data system which will incorporate in-state data sources wherever possible. This allows us to link the inventory directly to our emissions reporting programs, which will allow the inventory to track program effectiveness and overall progress meeting emission limits.

Though it will take time to build a system using in-state data, it is expected to reduce the lag significantly and the data we collect may be more accurate and timely than the federal SIT data. The new data must be carefully analyzed for differences between the new and old data to ensure historical continuity. Additionally, the SIT tool calculates some data based on general population or manufacturing capacity, which may not give an accurate picture of Washington's emissions, or show the results of efforts we may be taking to reduce them.

Ecology received funding from the Legislature to expand the inventory team to develop the inventory data system framework and continue GHG reporting for state agencies. The next publication is scheduled for Dec 2024 and analysis will begin late spring 2024. We plan to incorporate as much state-level data as we can for that publication, but the process is expected to take several years to fully complete.

Related Information

- [GHG inventories - Washington State Department of Ecology](#)²



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² <https://ecology.wa.gov/air-climate/reducing-greenhouse-gas-emissions/tracking-greenhouse-gases/ghg-inventories>