

State Agency GHG Emissions Reporting Instructions

Background

In 2020, the Legislature and Governor updated the State Agency Climate Leadership Act codified in RCW 70A.45.050. The Act directs state agencies, including universities, colleges, and community and technical colleges to lead by example in reducing their greenhouse gas (GHG) emissions to:

- 15% below 2005 level by 2020
- 45% below 2005 by 2030
- 75% below 2005 by 2040
- 95% below 2005 by 2050, and achieve net zero

To track state agencies' progress toward meeting these limits, each covered agency must meet the following reporting requirements:

1. By June 1st of each year, estimate emissions using an emissions calculator provided by the Department of Ecology, and;
2. By June 1st of every even-numbered year, report on the following to the State Efficiency and Environmental Performance Office (SEEP) at the Department of Commerce:
 - a. Actions taken over the last biennium to meet these emission reduction targets
 - b. Actions planned for the next two biennia to meet emission limits;
 - c. Long-term strategy for meeting the emission limits.

This document includes:

- Instructions for completing Ecology's GHG emissions reporting calculator
- Instructions for completing SEEPS's GHG emission reduction strategy template (covering both planned and past actions)
- How to submit both Ecology and SEEP documents to Ecology's SAGE portal
- Training dates and contact information

Emissions data is collected from state agencies every year, and on even-numbered years Ecology and SEEP submit a report to the Governor and Legislature. Past reports are posted on [Ecology's website](#).

**ALL REPORTS MUST BE UPLOADED TO SAGE BY
MAY 20TH 2022.**

This allows time for catching errors prior to the hard June 1st deadline. No submissions will be accepted after June 1st.

Collecting Data to Prepare for Greenhouse Gas Reporting

Before completing the GHG emissions calculator tool and the state agency GHG reduction strategy template, agencies will need to collect data on GHG emissions from facilities, fleets, and other emissions sources. The following resources may help agencies collect the necessary information:

- Access to FPMT or your owned and leased square footage
- Utility bills
- Energy Star Portfolio Manager
- Asset management software
- Vehicle fuel card data (for M-plate vehicles, this is provided by DES)
- Vehicle fuel data (jet fuel, propane)

Agency reporters should work with their facility and fleet managers, fiscal departments, and representatives in SEEP working groups to support data collection efforts.

Completing the Greenhouse Gas Emissions Calculator

Begin by downloading the [GHG emissions calculator tool](#) at the Dept of Ecology website for state agency emissions reporting.

This tool includes the following four tabs:

- **Instructions** – Provides background and contact information. No data are entered on this tab.
- **Report** – All of the required data are entered on this tab. Detailed instructions are below in this document.
- **Reference** – This tab provides emissions factors, unit conversion factors and other data references. No data are entered on this tab.
- **Emissions Reduction Estimates** – This tab provides a simple tool for estimating emission reductions from projects. This information is voluntary and for your own internal information. You are not required to submit any data on this tab with your calculator. Information from this tab is not included in summary reports to the Legislature. This tab is not protected to allow flexibility for your own analysis. It is recommended to save a backup and make copies for each analysis you may run.

Instructions for Completing the Report

In the Report tab, data may only be entered in the yellow cells.

Section 1: Agency Information

- Select your agency name from the drop-down list. The date will auto-populate using the last date the spreadsheet was saved. Enter your name and contact. Enter the name of your agency's executive lead.
 - For SEEP agencies, this will be your Governing Council lead.
 - For other agencies, this is the executive leader responsible for ensuring the GHG limits are met.

Section 2: Building Energy Use

This section is for reporting stationary fuel sources, including natural gas, fuel oil and other fuels, in addition to purchased electricity, and steam. Include electricity purchased from 'green' contracts. For most agencies, this data will align with Energy Star Portfolio Manager, but utility bills should be the definitive source of energy use data.

- Conditioned Space Details: the source for this data is OFM's Facilities Inventory System <https://ofm.wa.gov/facilities/facilities-inventory>
- Electricity Consumption: enter data for standard utility electricity purchases, purchases through a green power program and agency-owned or on-site renewable electricity production.
 - o Definition of Renewable Resources (RCW 19.285.030) "Renewable resource" means: (a) Water; (b) wind; (c) solar energy; (d) geothermal energy; (e) landfill gas; (f) wave, ocean, or tidal power; (g) gas from sewage treatment facilities; (h) biodiesel fuel that is not derived from crops raised on land cleared from old growth or first-growth forests where the clearing occurred after December 7, 2006; or (i) biomass energy.
 - o If renewable energy credits (RECs) are sold, the electricity may not be reported as renewable and should instead be added to the standard utility purchases.
- Thermal Energy Consumption
 - o Stationary Fossil Fuel Combustion. Examples: boilers, furnaces, generators or any other on-site combustion from non-mobile sources.
 - o Stationary Renewable Thermal Energy. Examples: geothermal/ground source heat pumps, solar hot water, renewable gas such as biogas or landfill gas, or biomass. If kBtu production data is not available, report system design size and/or projected energy reductions in the comment space provided. If this is also not possible, please share what information you can. This data is not required for GHG reporting, but it will be part of cataloguing existing renewable resources in state use.
 - o Steam from fossil fuel resources. Enter the klbs of purchased steam.

Section 3: Fleet Energy Use

Enter information about fleet and mobile equipment owned by the agency or leased from the state motor pool. For vehicles that refuel at WSDOT pumps, the percentage of biofuels is provided. If you use a different percentage of biofuel used, it may be enter here as well.

There is a new, voluntary option for reporting fuel used for landscape equipment, off-road vehicles, construction vehicles and equipment, agricultural or other uses not reported elsewhere. Agencies may provide fuel quantities and fuel type for each vehicle/equipment category in the comment box. This data will not be included in agency-level reports but may be aggregated for a statewide estimate.

Section 4: Fossil GHG Emissions Summary

This section shows the GHG emissions from the reported energy use. The energy use data are converted to emissions using factors listed on the Reference tab. Biogenic emissions are excluded from the total but can be viewed in the detailed emission tables below the summary.

The Reference Tab

This tab is locked but visible for your reference. It contains the emission factors and documentation used to make the calculations in this worksheet.

The Emission Reduction Estimates Tab

This tab provides a variety of simple tools for roughly estimating GHG reduction and cost savings for mitigation projects. **This tab is available for your agency's internal use and is not required for reporting.** This tab is not locked so copies can be saved and cells altered to meet your needs.

NOTE REGARDING ELECTRICITY EMISSIONS FORECAST:

As agencies plan future emission reduction projects, keep in mind that the electricity grid is moving toward carbon neutrality by 2030, making all-electric buildings and vehicles zero GHG emissions. The transformation away from fossil fuels requires that all energy be used as efficiently as possible and remaining energy use come from clean electricity and renewable fuels. **This simple calculator does not include a projection of declining future emissions from electricity - it holds current emission levels steady into the future.**

The Clean Energy Transformation Act (CETA) (SB 5116, 2019) requires that electricity providers eliminate coal by 2025, be GHG neutral by 2030 and 100% clean by 2045. The intent of this law is to eliminate fossil fuels from the electricity supply.

<https://www.commerce.wa.gov/growing-the-economy/energy/ceta/>

Estimate Emission Reductions: In the orange cells, enter the annual fuel use before the project is implemented and the expected reduced fuel use after the project is implemented. The chart on the right will show the emissions baseline, the emissions after the project is implemented, and the cumulative emissions avoided. This is projected for 10 years.

Estimate Cost Savings: Average fuel costs are pre-populated in the orange cells. You may enter your own data here. The chart will show the baseline costs, the new annual costs after the project is implemented and the cumulative savings over 10 years. Note that fuel costs are held steady over this period.

Completing the Greenhouse Gas Emissions Reduction Strategy Template

Begin by downloading the template from the SEEP website [here](#):

The template has three sections:

1. Actions taken to reduce GHG emissions during the 2020 and 2021 calendar years

2. Priority GHG emissions reduction actions planned for 2023-25 and 2025-27 biennia (items described in this section should correspond to decision packages the agency plans to submit in the corresponding biennium).
3. Long-term strategy for meeting GHG emissions limits in RCW 70A.45.050

For section 3 (long-term strategy for meeting GHG emissions limits), the template is broken down into the following sections:

- Executive summary
- Transportation
- Facilities
- Clean and renewable electricity
- Equity and environmental justice
- Planning and budget development
- Agency-specific or other strategies
- Challenges and barriers

Please complete the template by adding text in each section. If your agency has associated plans or documents (like an electrification plan or sustainability action plan), please consider providing this as an attachment to your report.

NOTE: Before submitting the completed template, please make sure to fill out the top section that notes your agency and the names and contact information for the agency reporter and the person approving your report. We recommend meeting with your agency approval contact to review the template and completed GHG calculator before submitting to SEEP and Ecology as this information will be reported to the legislature.

Submitting Documents to Ecology

Ecology has created the State Agency Greenhouse Gas Emissions (SAGE) portal for agencies to upload their documents. **The Emission Reduction Strategy documents required for the Dept of Commerce SEEP reporting may be uploaded here as well.** This includes the State Agency Emission Reduction Strategy report and any supplemental documents. Note that SAGE only accepts Excel, Word and Pdf documents. Documents in other formats must be emailed directly to Ecology or SEEP contacts.

Before starting, save all files using the following naming conventions.

- **GHG emissions calculator spreadsheet** using the following naming convention:

[year of data]_[agency acronym]_GHG.xlsx

Example: 2021_ECY_GHG or 2021_WWU_GHG.xlsx

The emissions calculator must be saved as an Excel file.

- **The GHG Emissions Reduction Strategy** using the following naming convention:

[year]_[agency acronym]_Plan.doc

Example: 2021_ECY_Plan or 2021_WWU_Plan.doc

The Emission Reduction Strategy report may be saved as a Word Doc or Pdf.

- Optional or supporting documents name as follows:
 [year]_[agency acronym]_[short description].doc
Example: 2021_ECY_FleetElect.doc or 2021_COM_FacilPlan.pdf
 Additional documents may be saved as a Word Doc or Pdf.

When your documents are ready, go to the State Agency GHG Emissions (SAGE) portal:

<http://ecyapaq/aqportal/SAGE/Default.aspx>

Figure 1 shows the SAGE home screen. Select your state agency from the drop-down list. Then click “Next.”

Figure 1 Initial SAGE Home Screen

The screenshot shows the SAGE home screen with the following content:

- Header: WASHINGTON STATE Department of Ecology, State Agency Greenhouse Gas Emissions (SAGE), PRODUCTION
- Navigation: Home, Admin, ELMAH, Welcome: ECY\swat461
- Text: Submit your Greenhouse Gas (GHG) data to the Department of Ecology by entering the required information using this online tool.
- Text: Washington agencies who are required to report GHG emissions to the Washington State Department of Ecology must use this tool to upload the GHG calculator tool in MS-Excel spreadsheet format or their Mitigation Activity Report in a Word or PDF format. Begin by entering your basic agency and user information.
- Form Fields:
 - Agency Information:** Agency Name (Ecology, Department of (ECY)), Agency GHGRP ID (4610), Mailing Address (300 Desmond Dr SE), City (Lacey), State (WA), ZIP Code (98503), Reporting Year (2020).
 - User Information:** First Name (Stacey), Last Name (Waterman-Hoey), Email (swat461@ecy.wa.gov), Comments (New record).
- Footer: Ecology Home | SAGE Home | Disclaimer | Privacy Notice | Accessibility | Contact Us | Bug Report, Next button.

Figure 2 shows the agency and user information. Review and edit this information. Make sure the box called “Reporting Year” is set to **2021**. Click “Next.”

Figure 2 SAGE Screen - Agency and User Information

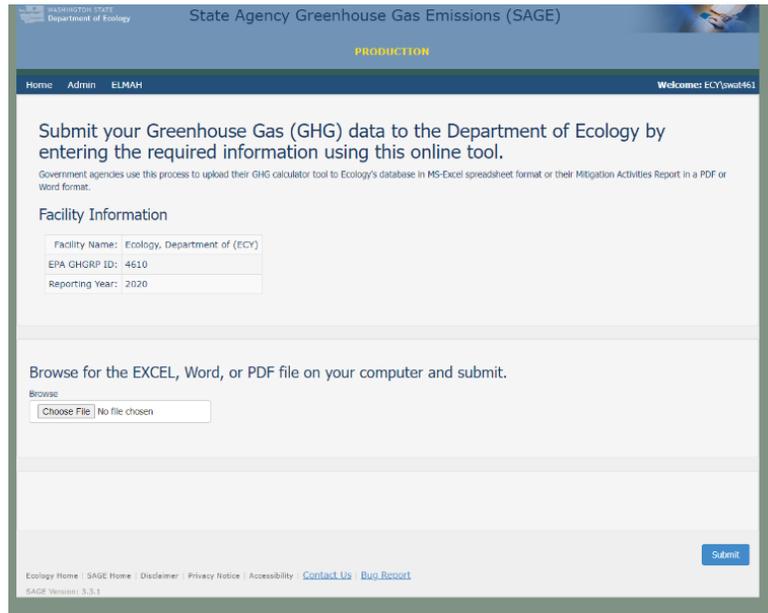
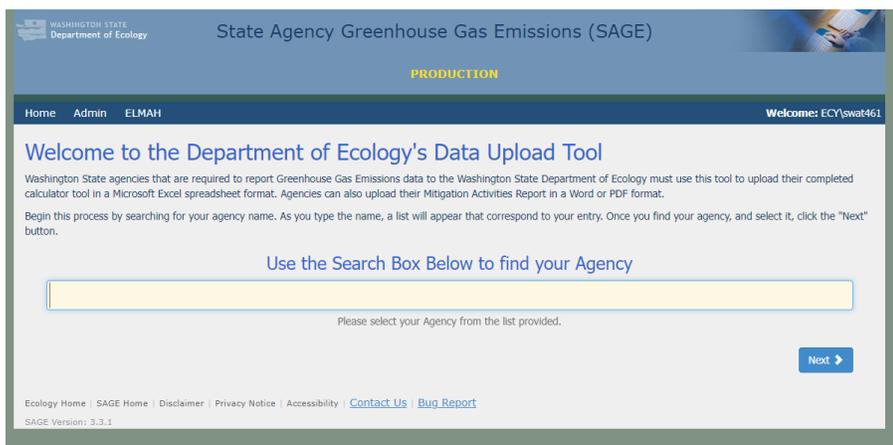


Figure 3 shows the final SAGE screen. Click “Choose File” then select the file from your computer.

- Make sure your files are named using the naming convention.
- The system will allow selection of only one document at a time. Upload the GHG calculator excel file, then hit “submit,” then upload the strategy document, then any remaining documents. You are done!

Figure 3 – SAGE Screen - Upload Documents



Training Dates

Training events scheduled for the following dates:

- Wed Feb 9, 10am-11:30am: “Gathering Data,” hosted by Hanna Waterstrat (SEEP) and SEEP Guidance Team
- Wed March 9th 10am-11:30am: “Completing the Calculator,” hosted by Stacey Waterman-Hoey (ECY)
- Wed April 13th, 10am-11:30am: “Developing Emission Reduction Strategies and Completing the Template” Hanna Waterstrat (SEEP)

These events will be held on Zoom and will be recorded. Links to the live events will be shared via email to agency reporting contacts. Links to the recordings will be posted on ECY and SEEP websites.

Contacts

GHG Emissions Reporting, Emissions Calculator and SAGE:

Stacey Waterman-Hoey, Greenhouse Gas Emissions Analyst, Air Quality Program, Washington Department of Ecology, swat461@ecy.wa.gov, cell: 360-764-6178

Emission Reduction Strategy:

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