



Overview

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- Results
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GHG Basics

Definition:

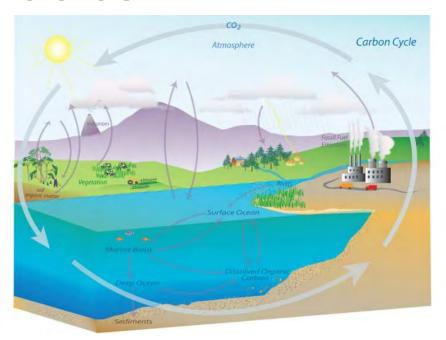
Greenhouse gases are substances that contribute to climate change by trapping heat in the atmosphere. The four (4) main GHG's are: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂0), and fluorinated gases (hydrofluorocarbons [HFCs], perfluorocarbons, and sulfur hexafluoride). (Washington State Department of Ecology).

Primary Sources (US):

Electricity production, Transportation, Industry, Agriculture, Land use change.



GHG Basics



Source: National Oceanic and Atmospheric Administration. http://www.noaa.gov/resource-collections/carbon-cycle



Methodology

US EPA GHG Emissions Classifications:

Scope 1: Direct GHG emissions from sources that are owned or controlled by the entity (fossil fuels burned on-site, emissions from owned or leased vehicles, other direct sources)

Scope 2: Indirect GHG emissions associated with the consumption of purchased or acquired electricity, heating, cooling, or steam.

Scope 3: Indirect GHG emissions from sources not owned by the entity but related to the entities activities (employee travel/commuting, solid waste disposal, end use of product being handled)



Methodology

Washington State (Statute/Methods/Guidance):

Chapter 70.235:

Requires annual GHG reporting by:

- State agencies.
- Facilities that emit at least 10,000 MT CO₂e per year.
- Suppliers of liquid motor vehicle fuel, special fuel or aircraft fuel that create at least 10,000 MT CO₂e per year.

Method:

- Downtown properties & Airport properties.
- Ecology calculator tool.

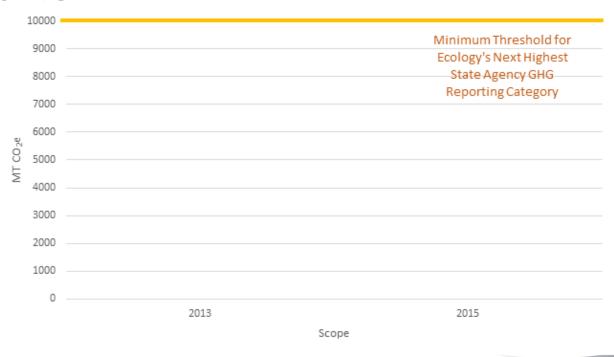


Scope of study:

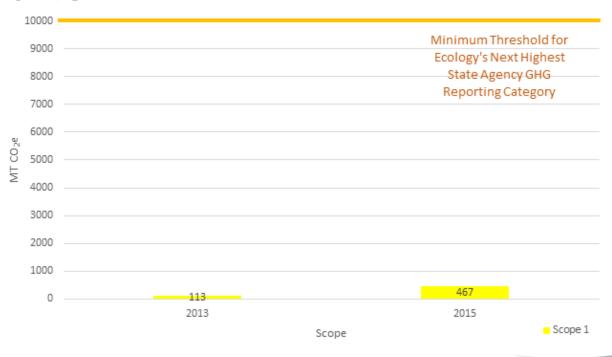
- Scope 1 Emissions (per Ecology mandate)
 - Port-owned vehicles, motorized equipment, boats.
- Scope 2 Emissions
 - Port-owned buildings.



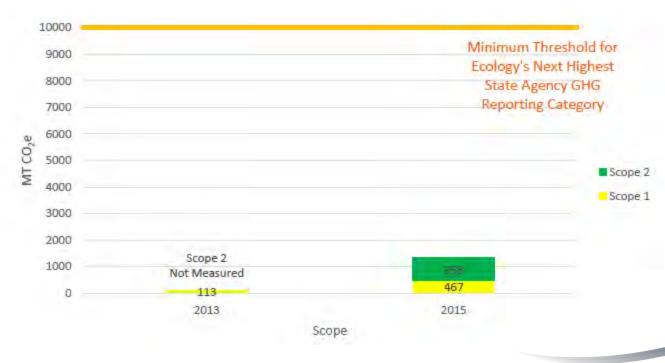






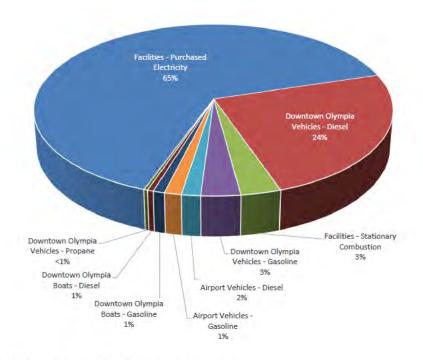








Results: Scope 1 & 2 Port-wide





Next Steps

1. Identify opportunities for GHG reduction.

Scope 1:

- Replace older vehicles with more fuel efficient vehicles.
- Determine if total number of Port-owned vehicles could be reduced.

Scope 2:

- Work with tenants on energy use reduction strategies.
- Work with developers to encourage construction of energy efficient buildings (LEED, Green Globes, etc.).
- 2. Develop reduction targets and action plan to achieve targets.



Questions/Discussion

