

OP 1: Emissions Inventory and Disclosure

3 points available

Rationale

This credit recognizes institutions that are accounting for and publicly disclosing the greenhouse gas and air pollutant emissions that result from institutional activities.

Applicability

This credit applies to all institutions.

Criteria

Part 1. Greenhouse gas emissions inventory

Institution has completed an inventory to quantify its *Scope 1 and Scope 2 greenhouse gas (GHG) emissions*. The inventory may also:

- Include *Scope 3 GHG emissions* from one or more of the following sources:
 - Business travel (the transportation of employees and students for institution-related activities in vehicles owned or operated by third parties)
 - Commuting (regular commuting to and from the institution by students and employees)
 - Purchased goods and services (e.g., food and paper)
 - Capital goods (e.g., equipment, machinery, buildings, facilities, and vehicles)
 - Fuel- and energy-related activities not included in Scope 1 or 2
 - Waste generated in operations (solid waste and/or wastewater disposal/treatment in facilities owned or operated by third parties)
 - Other sources not included in Scope 1 or 2 (e.g., student travel to/from home)
- Have been verified by an independent, external third party or validated internally by personnel who are independent of the GHG accounting and reporting process.

Part 2. Air pollutant emissions inventory

Institution has completed an inventory to quantify its air pollutant emissions. The inventory includes at least nitrogen oxides (NO_x) and sulfur oxides (SO_x). It may also include other standard categories of toxic air emissions - e.g., carbon monoxide (CO), particulate matter (PM), hazardous air pollutants (HAPs), and so on - from one or more of the following:

- *Major stationary sources* (e.g., combustion-based energy plants, boilers, furnaces, and generators)
- *Area sources* (minor stationary sources such as paint booths, book preservation operations, and wastewater treatment plants)
- *Mobile sources* (e.g., campus fleet, other motorized vehicles, and lawn care equipment)
- Commuting
- Off-site electricity production

Scoring

Each part is scored independently.

Part 1

An institution earns the maximum of 2.5 points available for Part 1 when it has completed an inventory that includes all Scope 1 and Scope 2 GHG emissions, includes Scope 3 GHG emissions from at least six of the sources listed in the criteria, and has been validated internally by personnel who are independent of the GHG accounting and reporting process and/or verified by an independent, external third party. Partial points are earned as follows:

| GHG inventory attributes | Points earned |
|--|-----------------------------------|
| Scope 1 and Scope 2 GHG emissions | 1.25 |
| Scope 3 GHG emissions from: <ul style="list-style-type: none">• Business travel• Commuting• Purchased goods and services• Capital goods• Fuel- and energy-related activities• Waste generated in operations• Other sources | 0.104 for each source up to 0.625 |
| Independent validation/verification | 0.625 |
| Total points earned for Part 1 → | Up to 2.5 |

Part 2

An institution earns the maximum of 0.5 points available for Part 2 when it has completed an inventory of air pollutant emissions that includes at least three of the categories listed. Partial points are earned as follows:

| Air pollutant emissions inventory attributes | Points earned |
|--|-----------------------|
| Air pollutant emissions from: <ul style="list-style-type: none">• Major stationary sources• Area sources• Mobile sources• Commuting• Off-site electricity production | 0.167 for each source |
| Total points earned for Part 2 → | Up to 0.5 |

Reporting Fields

Required

Part 1

- Has the institution conducted a GHG emissions inventory within the previous three years that includes all Scope 1 and 2 emissions?

If yes, provide the following:

- A copy of the most recent GHG emissions inventory (*upload*)
- A brief description of the methodology and/or tool used to complete the GHG emissions inventory
- Has the GHG emissions inventory been validated internally by personnel who are independent of the GHG accounting and reporting process and/or verified by an independent, external third party?

If yes, provide:

- A brief description and/or documentation to support the GHG inventory verification process (text or upload)
 - Gross Scope 1 GHG emissions from stationary combustion (MTCO₂e)
 - Gross Scope 1 GHG emissions from other sources (i.e., mobile combustion, process emissions, fugitive emissions) (MTCO₂e)
 - Gross Scope 2 GHG emissions from imported electricity (calculated using a market-based method, see Measurement) (MTCO₂e)
 - Gross Scope 2 GHG emissions from imported thermal energy (i.e., steam, hot water, and/or chilled water) (MTCO₂e)
 - Gross GHG emissions from biogenic sources (i.e., combustion of biomass) (MTCO₂e)
- Does the GHG emissions inventory include Scope 3 GHG emissions?
- If yes, provide:
- Scope 3 GHG emissions from business travel (MTCO₂e)
 - Scope 3 GHG emissions from commuting (MTCO₂e)
 - Scope 3 GHG emissions from purchased goods and services (MTCO₂e)
 - Scope 3 GHG emissions from capital goods (MTCO₂e)
 - Scope 3 GHG emission from fuel- and energy-related activities not included in Scope 1 or 2 (MtCO₂e)
 - Scope 3 GHG emissions from waste generated in operations (MTCO₂e)
 - Scope 3 GHG emissions from other sources not included in Scope 1 or 2 (MTCO₂e)
 - A brief description of how the institution accounted for its Scope 3 emissions

Part 2

- Has the institution completed an inventory within the previous three years to quantify its air pollutant emissions?

If yes, provide:

- Annual weight of emissions (tonnes or short tons) for:
 - Nitrogen oxides (NO_x)
 - Sulfur Oxides (SO_x)
 - Carbon monoxide (CO)

- Particulate matter (PM)
- Ozone (O3)
- Lead (Pb)
- Hazardous air pollutants (HAPs)
- Ozone-depleting compounds (ODCs)
- Other standard categories of air emissions identified in permits and/or regulations
- Do the air pollutant emissions figures provided include the following?
 - Major stationary sources
 - Area sources
 - Mobile sources
 - Commuting
 - Off-site electricity production
- A brief description of the methodology(ies) the institution used to complete its air emissions inventory

Optional

- Location-based Scope 2 GHG emissions (MTCO2e):
 - Gross Scope 2 GHG emissions from imported electricity (location-based)
 - Gross Scope 2 GHG emissions from imported thermal energy (location-based)
- Website URL where information about the institution's emissions inventories is available
- Additional documentation to support the submission (upload)
- Data source(s) and notes about the submission
- Contact information for a responsible party (an employee who can respond to questions regarding the data once it is submitted and available to the public)

Measurement

Timeframe

Report inventories of annual emissions completed or updated within the three years prior to the anticipated date of submission.

Sampling and Data Standards

Part 1

To conduct a GHG emissions inventory, campuses may use the The Climate Registry, the Sustainability Indicator Management & Analysis Platform (SIMAP), the Scope 3 Evaluator tool, and/or any methodology or calculator that is consistent with the World Resources Institute (WRI) Greenhouse Gas Protocol Corporate Standard and the Scope 3 calculation guidance provided by WRI.

This credit is based on GHG emissions calculated using a market-based method that reflects emissions from electricity that the institution has purposefully chosen, including contractual instruments such as RECs, GOs, and I-RECs. An institution that wishes to disclose its Scope 2 GHG emissions calculated using a location-based method that does not consider such contractual arrangements may do so in the

optional reporting fields provided. Note that GHG emissions calculated using a market-based method may be the same as GHG emissions calculated using a location-based method, e.g., when an institution does not have supplier-specific emissions factors.

Part 2

There are a number of methodologies for measuring air emissions, including direct measurement, calculation based on site-specific data and/or published criteria, and estimation (see for example, U.S. EPA document AP-42 and associated tools). If data for all sources and/or an entire year are not available, an institution may use representative samples.

Standards and Terms

Area sources of air emissions

Consistent with the U.S. Environmental Protection Agency, "area" sources of air emissions are defined as stationary sources that "emit less than 10 tons [9 tonnes] per year of a single air toxic or less than 25 tons [23 tonnes] per year of a combination of air toxics. Though emissions from individual area sources are often relatively small, collectively their emissions can be of concern - particularly where large numbers of sources are located in heavily populated areas".

Emissions inventory

An emissions inventory is a list of emissions sources and estimates of emissions from these sources.

Greenhouse Gas Protocol Corporate Standard

The GHG Protocol Corporate Standard, developed by the World Resources Institute and the World Business Council for Sustainable Development, is the most widely used international accounting tool for quantifying GHG emissions. It provides the accounting framework for nearly every GHG program and standard in the world, including the Chicago Climate Exchange and the California Climate Action Registry.

Major stationary sources of air emissions

Consistent with the U.S. Environmental Protection Agency, major stationary sources of air emissions include combustion-based energy plants (e.g., steam plants), boilers, furnaces, generators, and other non-moving sources that emit 9 tonnes (10 tons) per year of any listed toxic air pollutants or 23 tonnes (25 tons) per year of a mixture of air toxics.

Mobile sources

Mobile sources of air pollutants includes emissions from cars, buses, tractors, lawn care equipment, and other motor vehicles, engines and equipment that can be moved from one location to another.

Scope 1 and Scope 2 GHG Emissions

Scope 1 GHG emissions are direct GHG emissions occurring from sources that are owned or controlled by the institution. Scope 1 emission sources include:

- Combustion of fuels to produce electricity, steam, heat, or power using equipment in a fixed location such as boilers, burners, heaters, furnaces, incinerators
- Combustion fuels by institution-owned cars, tractors, buses, and other transportation devices

Scope 2 GHG emissions are indirect GHG emissions that are a consequence of activities that take place within the organizational boundaries of the institution, but that occur at sources owned or controlled by another entity. Scope 2 emission sources include purchased electricity, purchased heating, purchased cooling, and purchased steam.

Scope 3 GHG Emissions

Scope 3 GHG emissions are all indirect emissions not covered in Scope 2. Consistent with the WRI Corporate Value Chain (Scope 3) Standard, Scope 3 GHG emissions sources include:

Upstream Scope 3 emissions

- Purchased goods and services
- Capital goods
- Fuel- and energy-related activities (not included in Scope 1 or Scope 2)
- Upstream transportation and distribution
- Waste generated in operations
- Business travel
- Commuting (employee and student)
- Upstream leased assets

Downstream Scope 3 emissions

- Downstream transportation and distribution
- Processing of sold products
- Use of sold products
- End-of-life treatment of sold products
- Downstream leased assets
- Franchises
- Investments