

# OP 6: Greenhouse Gas Emissions

## Rationale

This credit recognizes institutions that minimize their greenhouse gas (GHG) emissions from stationary and mobile fuel combustion, on-site equipment and processes, and off-site energy sources.

## Applicability

Applicable to all institutions.

## Points available

A maximum of 16 points are available for this credit.

## Criteria

### 6.1 Greenhouse gas emissions inventory and disclosure

An institution earns 4 points when it has completed one or more inventories within the previous three years to quantify its emissions from at least nine of the sources listed below. Partial points are available and earned as outlined in Table I.

Table I. Points earned for indicator 6.1

| Criterion                       | Points available   |                 | Points earned |
|---------------------------------|--------------------|-----------------|---------------|
| A. Scope 1 and 2 GHG emissions* | 1                  |                 |               |
| B. Biogenic emissions           | 0.25               |                 |               |
| C. Scope 3 GHG emissions        | Partial accounting | Full accounting |               |
| Business travel                 | 0.25               | 0.5             |               |
| Commuting                       | 0.25               | 0.5             |               |
| Purchased goods and services    | 0.25               | 0.5             |               |

|   |       |      |  |
|---|-------|------|--|
| Capital goods   | 0.25  | 0.5  |  |
| Fuel- and energy-related activities not included in scope 1 or scope 2          | 0.125 | 0.25 |  |
| Upstream transportation and distribution  | 0.125 | 0.25 |  |
| Waste generated in operations   | 0.125 | 0.25 |  |
| All other applicable categories identified in the GHG Protocol Scope 3 Standard | 0.125 | 0.25 |  |
| Total points earned →   |       |      |  |

\* Criterion A must be met to earn points for indicators 6.2, 6.3, and 6.4.

**Measurement**

Report the most recent annual GHG emissions data available from within the previous three years. An institution may choose the annual start and end dates that work best with the data available (e.g., fiscal or calendar year), as long as data are reported from a consecutive 12-month period.

To conduct a GHG emissions inventory, an institution may use any methodology or calculator that is consistent with the standards and guidance provided by the World Resources Institute and the World Business Council for Sustainable Development (WRI/WBCSD). Examples include the GHG Protocol Corporate Standard, The Climate Registry’s General Reporting Protocol (GRP), and the Sustainability Indicator Management and Analysis Platform (SIMAP).

For scope 2 GHG emissions, an institution may use a **market-based method**, a **location-based method**, or both (**dual reporting**).

For scope 3 GHG emissions, indicate to what extent all of the institution’s **relevant scope 3 activities** in the category have been accounted for within the previous three years. To qualify as “full accounting”, an institution must have accounted for all relevant scope 3 activities in the category. To qualify as “partial accounting”, an institution must have accounted for at least one relevant scope 3 activity in the category. For example, an institution that has quantified its scope 3 GHG emissions for purchased food and paper, but has excluded other relevant purchased goods and services would report “partial accounting”.

**Documentation**

Report the following information in the online Reporting Tool, with GHG emissions figures in metric tons (tonnes) of carbon dioxide (CO<sub>2</sub>) equivalent.

## Scope 1 and 2 GHG emissions inventory

- Has the institution completed an inventory within the previous three years to quantify its scope 1 and scope 2 GHG emissions? (required)

*If Yes, a copy of the inventory or its online location and the two fields that follow are also required:*

- Copy of the institution's GHG emissions inventory. Upload.
- Online location of the institution's GHG emissions inventory. Website URL.
- Performance year for scope 1 and 2 GHG emissions. The year the performance period captured in the GHG inventory ended.
- Description of the methodology or calculator used to conduct the scope 1 and 2 GHG emissions inventory (required)

## Scope 1 GHG emissions

If claiming points for a scope 1 and scope 2 GHG inventory, the following information is required:

- **Scope 1 GHG emissions from stationary combustion.** Metric tons of CO<sup>2</sup> equivalent. Include relevant emissions from the combustion of fuels to produce electricity, steam, heat, or power using equipment in a fixed location such as boilers, burners, heaters, furnaces, and incinerators.
- **Scope 1 GHG emissions from mobile combustion.** Metric tons of CO<sup>2</sup> equivalent. Include relevant emissions from the combustion of fuels by institution-owned cars, tractors, buses, and other transportation devices.
- **Scope 1 GHG process emissions.** Metric tons of CO<sup>2</sup> equivalent. Include relevant methane and nitrous oxide emissions from agriculture, farm animals, and fertilizer applications, as well as any relevant emissions from physical or chemical processing (e.g., of cement, aluminum, adipic acid, ammonia, or waste).
- **Scope 1 GHG fugitive emissions.** Metric tons of CO<sup>2</sup> equivalent. Include relevant refrigerants and chemicals, e.g., from equipment leaks, methane emissions and leakages, and hydrofluorocarbon (HFC) emissions from refrigeration and air conditioning equipment.

## Scope 2 GHG emissions

If claiming points for a scope 1 and scope 2 GHG inventory, the following information is required:

- Which of the following methods were used to quantify the institution's scope 2 GHG emissions? Market-based emissions inform scoring in indicators 6.2 and 6.3 unless a location-based method is used exclusively, in which case location-based emissions inform scoring.
  - Market-based
  - Location-based
  - Both (dual reporting)

*If using a market-based or dual reporting method, the following field is also required:*

- Scope 2 GHG emissions from off-site sources of electricity (market-based). Metric tons of CO<sup>2</sup> equivalent.

*If using a location-based or dual reporting method, the following field is also required:*

- Scope 2 GHG emissions from off-site sources of electricity (location-based). Metric tons of CO<sup>2</sup> equivalent.
- Scope 2 GHG emissions from off-site sources of heating and cooling. Include emissions from district heating and cooling products sourced from a utility or municipal facility (e.g., purchased steam, hot water, and chilled water).

The Reporting Tool will automatically calculate the following figure:

- Annual scope 1 and 2 GHG emissions. Metric tons.

### Biogenic emissions

If claiming points for a scope 1 and 2 GHG inventory, the following information is required:

- Does the institution's GHG emissions accounting method separate out biogenic emissions for disclosure purposes?

*If Yes, the following field is also required:*

- GHG emissions from biogenic sources. Metric tons of CO<sup>2</sup> equivalent.

### Scope 3 GHG emissions

- Within the previous three years, to what extent has the institution quantified its scope 3 GHG emissions from business travel? (required). Report on scope 1 and scope 2 emissions of transportation carriers that occur during use of vehicles ( e.g., aircraft, trains, buses, and passenger cars) for the transportation of employees and students for business-related activities and the transportation of students for study abroad programs (in vehicles not owned or operated by the institution).
  - Full accounting
  - Partial accounting
  - Not at all

*If claiming points for a full accounting, the following field is also required:*

- Scope 3 GHG emissions from business travel. Metric tons of CO<sup>2</sup> equivalent.
- Within the previous three years, to what extent has the institution quantified its scope 3 GHG emissions from commuting? (required). Report on scope 1 and scope 2 emissions of employees, students, and transportation providers that occur during use of vehicles for the transportation of employees between their homes and their worksites, the transportation of students between their homes and campus (in vehicles not owned or operated by the institution).

- Full accounting
- Partial accounting
- Not at all

*If claiming points for a full accounting, the following field is also required:*

- Scope 3 GHG emissions from commuting. Metric tons of CO<sup>2</sup> equivalent.
- Within the previous three years, to what extent has the institution quantified its scope 3 GHG emissions from purchased goods and services? (required). Report on upstream (cradle-to-gate) emissions from the extraction, production, and transportation of goods and services purchased or acquired by the institution (and not included in another category). Examples include food and beverage products, paper products and other office supplies, furniture and furnishings, and IT services.
  - Full accounting
  - Partial accounting
  - Not at all

*If claiming points for a full accounting, the following field is also required:*

- Scope 3 GHG emissions from purchased goods and services. Metric tons of CO<sup>2</sup> equivalent.
- Within the previous three years, to what extent has the institution quantified its scope 3 GHG emissions from capital goods? (required). Report on upstream (cradle-to-gate) emissions from the extraction, production, and transportation of capital goods purchased or acquired by the institution. Examples include equipment, machinery, buildings, facilities, and vehicles.
  - Full accounting
  - Partial accounting
  - Not at all

*If claiming points for a full accounting, the following field is also required:*

- Scope 3 GHG emissions from capital goods. Metric tons of CO<sup>2</sup> equivalent.
- Within the previous three years, to what extent has the institution quantified its scope 3 GHG emissions from fuel- and energy-related activities not included in scope 1 or scope 2? (required). Report on upstream (cradle-to-gate) emissions from the extraction, production, and transportation of fuels and energy purchased or acquired by the institution (and not already accounted for in scope 1 or scope 2). Examples include purchased fuels, purchased electricity, and transmission and distribution (T&D) losses.
  - Full accounting
  - Partial accounting
  - Not at all

*If claiming points for a full accounting, the following field is also required:*

- Scope 3 GHG emissions from fuel- and energy-related activities not included in scope 1 or scope 2. Metric tons of CO<sup>2</sup> equivalent.

- Within the previous three years, to what extent has the institution quantified its scope 3 GHG emissions from upstream transportation and distribution? (required). Report on scope 1 and scope 2 emissions of transportation and distribution providers that occurred during use of vehicles and facilities (e.g., from energy use). Examples include the transportation and distribution of products purchased by the institution between its tier 1 suppliers and its own operations (in vehicles and facilities not owned or controlled by the institution) and transportation and distribution services purchased by the institution, including inbound logistics, outbound logistics (e.g., of sold products), and transportation and distribution between an institution’s own facilities (in vehicles and facilities not owned or controlled by the institution).
  - Full accounting
  - Partial accounting
  - Not at all

*If claiming points for a full accounting, the following field is also required:*

- Scope 3 GHG emissions from upstream transportation and distribution. Metric tons of CO<sup>2</sup> equivalent.
- Within the previous three years, to what extent has the institution quantified its scope 3 GHG emissions from waste generated in operations? (required). Report on scope 1 and scope 2 emissions of the institution’s waste management suppliers that occur during the disposal and treatment of solid waste and wastewater in facilities not owned or controlled by the institution.
  - Full accounting
  - Partial accounting
  - Not at all

*If claiming points for a full accounting, the following field is also required:*

- Scope 3 GHG emissions from waste generated in operations. Metric tons of CO<sup>2</sup> equivalent.
- Within the previous three years, to what extent has the institution quantified its scope 3 GHG emissions in all other applicable categories identified in the GHG Protocol Scope 3 Standard? (required). Report on upstream leased assets, downstream transportation and distribution, processing of sold products, use of sold products, end-of-life treatment of sold products, downstream leased assets, franchises, and investments. See the GHG Protocol Technical Guidance for Calculating Scope 3 Emissions for definitions and examples. If the institution has determined that one or more of these categories are not applicable (e.g., because no sold products, leased assets, or franchises exist), it may consider them accounted for as long as this is documented in the “Data sources and notes” field in the Reporting Tool.
  - Full accounting
  - Partial accounting
  - Not at all

*If claiming points for a full accounting, the following field is also required:*

- Scope 3 GHG emissions from other applicable categories identified in the GHG Protocol Scope 3 Standard. Metric tons of CO<sup>2</sup> equivalent.

*If any scope 3 activities have been quantified, the following field is also required:*

- Description of the methodologies used to identify and account for the institution’s relevant scope 3 activities. Include information about any notable exclusions.

## 6.2 Greenhouse gas emissions per square meter

An institution earns 4 points when it has achieved zero scope 1 and 2 GHG emissions. Incremental points are available based on the institution’s performance, normalized by gross floor area of building space, between a maximum threshold and the zero emissions target and earned as outlined in Tables II through IV.

Table II. Performance range by peer group

| Peer group   | A. Maximum threshold                                 |   | B. Target |   | C. Range |
|--|--|---|-----------|---|----------|
| Associate’s colleges, short-cycle institutions, and pre-tertiary schools | 128 kg of carbon dioxide equivalent per square meter | - | 0         | = | 128      |
| Baccalaureate colleges and boarding schools                              | 131 kg per square meter                              | - | 0         | = | 131      |
| Master’s colleges and universities                                       | 141 kg per square meter                              | - | 0         | = | 141      |
| Doctoral universities and research institutions                          | 199 kg per square meter                              | - | 0         | = | 199      |

Table III. Annual scope 1 and 2 GHG emissions per square meter (kg)

| Annual scope 1 and 2 GHG emissions (calculated in indicator 6.1) |   | Conversion factor |   | Gross floor area of building space |   | Annual scope 1 and 2 GHG emissions per square meter |
|--|---|-------------------|---|------------------------------------|---|---|
|  | × | 1,000             | ÷ |                                    | = |   |

Table IV. Points earned for indicator 6.2

| Maximum threshold<br>(Table II, column A) |   | Annual scope 1 and 2 GHG emissions per square meter<br>(Table III) |   | Range<br>(Table II, column C) |   | Points available |   | Points earned |
|---|---|--|---|-------------------------------|---|------------------|---|---------------|
|   | - |  | ÷ |                               | × | 4                | = |               |

## Measurement

Report floor area from the same time period as that from which GHG emissions data are drawn, e.g., an average from throughout the performance period or a snapshot at a single representative point.

## Documentation

Report the following information in the online Reporting Tool. If claiming points for a scope 1 and scope 2 GHG inventory, the following two fields are required:

- Peer group
  - Associate’s colleges, short-cycle institutions, and pre-tertiary schools
  - Baccalaureate colleges and boarding schools
  - Master’s colleges and universities
  - Doctoral universities and research institutions
- **Gross floor area of building space.** Square meters. Parking structures are excluded. To convert square feet to square meters, multiply by 0.09290304.

The Reporting Tool will automatically calculate the following figure:

- Annual scope 1 and 2 GHG emissions per unit of floor area. Kilograms per square meter.

## 6.3 Greenhouse gas emissions per person

An institution earns 4 points when it has achieved zero scope 1 and 2 GHG emissions. Incremental points are available based on the institution’s performance, normalized by **full-time equivalent** students and employees, between a maximum threshold and the zero emissions target and earned as outlined in Tables V through VIII.

Table V. Performance range by peer group

| Peer group                                      | A. Maximum threshold                             |   | B. Target |   | C. Range |
|---|--|---|-----------|---|----------|
| Associate’s colleges, short-cycle institutions, | 1,668 kg of carbon dioxide equivalent per person | - | 0         | = | 1,668    |



|   |                     |   |   |   |       |
|---|---------------------|---|---|---|-------|
| and pre-tertiary schools                        |                     |   |   |   |       |
| Baccalaureate colleges and boarding schools     | 7,276 kg per person | - | 0 | = | 7,276 |
| Master's colleges and universities              | 4,699 kg per person | - | 0 | = | 4,699 |
| Doctoral universities and research institutions | 8,168 kg per person | - | 0 | = | 8,168 |

Table VI. Full time equivalent students and employees

|   |   |                                   |   |   |
|---|---|-----------------------------------|---|---|
| Full-time equivalent student enrollment |   | Full-time equivalent of employees |   | Full-time equivalent students and employees |
|   | + |                                   | = |   |

Table VII. Annual scope 1 and 2 GHG emissions (kg) per person

|  |   |                   |   |  |   |   |
|--|---|-------------------|---|--|---|---|
| Annual scope 1 and 2 GHG emissions (calculated in indicator 6.1) |   | Conversion factor |   | Full-time equivalent students and employees (Table VI) |   | Annual scope 1 and 2 GHG emissions per person |
|  | × | 1,000             | ÷ |  | = |   |

Table VIII. Points earned for indicator 6.3

|                                       |   |   |   |                           |   |                  |   |               |
|---------------------------------------|---|---|---|---------------------------|---|------------------|---|---------------|
| Maximum threshold (Table V, column A) |   | Annual scope 1 and 2 GHG emissions per person (Table VII) |   | Range (Table V, column C) |   | Points available |   | Points earned |
|                                       | - |   | ÷ |                           | × | 4                | = |               |

## Measurement

Report population figures from the same time period as that from which GHG emissions data are drawn, e.g., an average from throughout the performance period or a snapshot at a single representative point.

## Documentation

Report the following information in the online Reporting Tool. If claiming points for a scope 1 and scope 2 GHG inventory, the following two fields are required:

- Full-time equivalent student enrollment
- Full-time equivalent of employees

The Reporting Tool will automatically calculate the following two figures:

- Full-time equivalent students and employees
- Annual scope 1 and 2 GHG emissions per person. Kilograms.

## 6.4 Adjusted net greenhouse gas emissions

An institution earns 4 points when it has achieved zero **adjusted net scope 1 and 2 GHG emissions**. Incremental points are available based on the institution's performance between a baseline and the net zero emissions target and earned as outlined in Tables IX through XI:

Table IX. Net carbon sinks that offset scope 1 and 2 GHG emissions

|                                      |   |  |   |                            |   |                  |
|--------------------------------------|---|--|---|----------------------------|---|------------------|
| Third party certified carbon offsets |   | Carbon storage from on-site composting |   | Carbon sold or transferred |   | Net carbon sinks |
|                                      | + |  | - |                            | = |                  |

Table X. Adjusted net scope 1 and 2 GHG emissions

|  |   |                             |   |  |
|--|---|-----------------------------|---|--|
| Annual scope 1 and 2 GHG emissions (calculated in indicator 6.1) |   | Net carbon sinks (Table IX) |   | Adjusted net scope 1 and 2 GHG emissions |
|  | - |                             | = |  |

Table XI. Points earned for indicator 6.4

|                                      |   |  |   |                                      |   |                  |   |               |
|--------------------------------------|---|--|---|--------------------------------------|---|------------------|---|---------------|
| Baseline scope 1 and 2 GHG emissions |   | Adjusted net scope 1 and 2 GHG emissions (Table X) |   | Baseline scope 1 and 2 GHG emissions |   | Points available |   | Points earned |
|                                      | - |  | ÷ |                                      | × | 4                | = | Up to 4       |

## Measurement

For carbon sinks, report on the same performance period used in indicator 6.1.

For baseline emissions, an institution may choose annual start and end dates that work best with the historic data available (e.g., fiscal or calendar year), as long as data are reported from a consecutive 12-month period. This may be, for example, a baseline year that the institution has adopted as part of its sustainability plans or policies or in the context of other reporting obligations.

## Documentation

Report the following information in the online Reporting Tool, with carbon sink and baseline GHG emissions figures provided in metric tons (tonnes) of carbon dioxide equivalent. Non-additional sequestration does not qualify as a carbon sink for scoring purposes, but may be reported in the optional field provided.

### Carbon sinks

If claiming points for a scope 1 and scope 2 GHG inventory, the following three fields are required:

- **Third party certified carbon offsets.** Metric tons of CO<sup>2</sup> equivalent. To qualify, a carbon offset must be certified by the Green-e® Climate program, a Green-e® endorsed project-level certification program, or AASHE-approved equivalent.

*If the amount of certified carbon offsets is greater than zero, the following field is also required:*

- Description of the institution's third party certified carbon offsets. Include information about the specific programs under which the offsets are certified.
- **Carbon storage from on-site composting.** Metric tons of CO<sup>2</sup> equivalent. To qualify, composted materials must originate and be applied on-site, thereby sequestering the carbon within the institutional boundary and avoiding the potential for double-counting by other entities. The compost may be produced off-site, but must originate from on-site materials and be returned to the campus for use as a soil amendment.

*If the amount of carbon storage from composting is greater than zero, the following field is also required:*

- Description of the institution's carbon storage from on-site composting. Include information about the specific composting projects and the accounting methodologies or protocols used.
- **Carbon sold or transferred.** Metric tons of CO<sup>2</sup> equivalent. For example, in the form of carbon offsets or **verified emission reductions**.
- **Carbon storage from non-additional sequestration on institution-owned land (optional).** Metric tons of CO<sup>2</sup> equivalent. If quantified, report carbon storage resulting from land management (i.e., carbon that would be released to the atmosphere if the land were managed differently). This data is for informational purposes only and does not contribute to scoring.

## Baseline emissions

- Does the institution have baseline scope 1 and 2 GHG emissions data? (required). I.e., annual data drawn from an earlier period than that reported in indicator 6.1.

*If Yes, a copy of the baseline GHG emissions inventory or its online location and the three subsequent fields are also required:*

- Copy of the institution's baseline GHG emissions inventory. Upload.
- Online location of the institution's baseline GHG emissions inventory. Website URL.
- Baseline year for scope 1 and 2 GHG emissions. The year the period captured in the baseline GHG emissions inventory ended.
- Narrative outlining when and why the GHG emissions baseline was adopted
- Baseline scope 1 and 2 GHG emissions. Metric tons of CO<sup>2</sup> equivalent.

The Reporting Tool will automatically calculate the following three figures:

- Net carbon sinks. Metric tons of CO<sup>2</sup> equivalent.
- Adjusted net scope 1 and 2 GHG emissions. Metric tons of CO<sup>2</sup> equivalent.
- Percentage reduction in scope 1 and 2 GHG emissions from baseline

## Glossary

**Adjusted net scope 1 and 2 greenhouse gas emissions** – An institution's direct greenhouse gas emissions occurring from sources that are owned or controlled by the institution (scope 1 and scope 2) minus its net carbon sinks.

**Biogenic emissions** – Carbon emissions from wood, paper, grass trimmings, and other biofuels that were originally removed from the atmosphere by photosynthesis and, under natural conditions, would eventually cycle back to the atmosphere as CO<sub>2</sub> due to degradation processes. [Adapted from the definition used by the Greenhouse Gas Protocol and SIMAP.]

**Carbon offset** – A metric ton of carbon equivalent greenhouse gas emissions reductions or sequestration that may be used to offset an institution's greenhouse gas emissions. To qualify as a legitimate offset, a project must be third party verified using a credible protocol to ensure that it meets **PAVER requirements**. Credible project-level protocols include those approved or endorsed by the Gold Standard, the Verified Carbon Standard (Verra), the Climate Action Reserve, or the American Carbon Standard.

**Dual reporting** – Reporting scope 2 GHG emissions in two ways and labeling each result according to the method: one based on the location-based method and one based on the market-based method. [Adapted from the World Resources Institute's GHG Protocol Scope 2 Guidance.]

**Full-time equivalent (FTE)** – A unit used to measure employed persons or students in a way that makes them comparable although they may work or study a different number of hours per week. An

institution should report its best estimates for FTE figures, annualized as feasible and calculated according to relevant national, regional or international standards. IPEDS, for example, calculates the number of FTE staff by summing the total number of full-time staff and adding one-third of the total number of part-time staff. [Adapted from the definition used by Eurostat.]

**Gross floor area of building space** – The total amount of building space included within the institutional boundary. Any standard definition of building space may be used (e.g., ASHRAE, ANSI/BOMA, IECC) as long as it is used consistently. Unless otherwise specified, parking structures are excluded. Buildings within the overall STARS boundary that the institution leases entirely (i.e., the institution is the only tenant) should be included. Buildings that are not owned by the institution, but for which the institution is one of multiple tenants may be excluded. If the institution chooses to include such buildings, it should include all multi-tenant buildings that are within the institution’s overall STARS boundary and for which the institution is a tenant. If an institution chooses to include leased spaces, the institution should count only the square footage of building space it occupies and not the entire building.

**Location-based method** – A method to quantify scope 2 GHG emissions based on average energy generation emission factors for defined geographic locations, including local, subnational, or national boundaries. The location-based method does not account for renewable energy purchases or sales. [Adapted from the World Resources Institute’s GHG Protocol Scope 2 Guidance and SIMAP.]

**Market-based method** – A method to quantify the scope 2 GHG emissions of a reporter based on GHG emissions emitted by the generators from which the reporter contractually purchases electricity bundled with contractual instruments such as energy attribute certificates, or contractual instruments on their own. Unlike the location-based method, the market-based method accounts for renewable energy purchases and sales. [Adapted from the World Resources Institute’s GHG Protocol Scope 2 Guidance and SIMAP.]

**PAVER requirements** – The minimum criteria that all carbon offsets must meet:

- Permanent. The emissions reductions must last in perpetuity; they cannot be reversed.
- Additional. The carbon offset project must be “beyond business as usual.” In other words, it has to represent a change in behavior spurred by buyers in the offset market in order for those buyers to claim to be reducing carbon emissions equivalent to reductions they would undertake themselves.
- Verified. Emission reductions must be demonstrated to have occurred in the amount reported, with supporting evidence, and project performance must be consistently and credibly monitored by a third-party verifier.
- Enforceable. Emissions reductions must be backed by contracts or legal instruments that define their creation and ensure exclusive ownership.
- Real. Carbon offsets must not be artifacts of incomplete or technically flawed accounting. From a global perspective, there’s a real reduction of emissions in the amount specified.

**Relevant scope 3 activities** – A complete and relevant GHG report appropriately reflects the emissions of the institution and contains the information that internal and external stakeholders need to inform their decision making. Therefore, relevant scope 3 activities include those:

- That contribute significantly to the company’s total anticipated scope 3 emissions.
- For which there are potential emissions reductions that could be undertaken or influenced by the institution.

- That contribute to the institution’s risk exposure (e.g., climate change related and reputational risks)
- That are deemed critical by key stakeholders (e.g., students, suppliers, trustees, or civil society)
- That are outsourced activities previously performed in-house or activities outsourced by the institution that are typically performed in-house by other higher education institutions.
- That have otherwise been identified as significant by the institution or the higher education sector.

[Adapted from the Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Standard.]

**Scope 1 and 2 GHG emissions** – Scope 1 GHG emissions are direct greenhouse gas emissions occurring from sources that are owned or controlled by the institution and 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
- Methane and nitrous oxide emissions from agriculture, farm animals, and fertilizer applications, as well as any relevant emissions from physical or chemical processing (e.g., of cement, aluminum, adipic acid, ammonia, or waste).
- Fugitive emissions, e.g., equipment leaks, methane emissions and leakages, and hydrofluorocarbon (HFC) emissions from refrigeration and air conditioning equipment.

Scope 2 GHG emissions are indirect greenhouse gas 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 sources include purchased electricity, purchased heating, purchased cooling, and purchased steam.

[Adapted from the Greenhouse Gas Protocol Corporate Standard.]

**Scope 3 GHG emissions** – All indirect emissions not included in scope 2 that occur in the value chain of the reporting institution, including both upstream and downstream emissions. The scope 3 categories are:

1. Purchased goods and services
2. Capital goods
3. Fuel and energy related activities
4. Upstream transportation and distribution
5. Waste generated in operations
6. Business travel
7. Commuting
8. Upstream leased assets
9. Downstream transportation and distribution
10. Processing of sold products
11. Use of sold products
12. End-of-life treatment of sold products
13. Downstream leased assets
14. Franchises
15. Investments

[Adapted from the Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Standard.]

**Verified emission reduction (VER)** – A carbon offset created by a project that has been verified outside of the Kyoto Protocol and exchanged in the voluntary market for carbon credits.