

Corporate GHG Inventorying and Target Setting Self-Assessment Beta V1.0

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 EPA CENTER FOR CORPORATE
**CLIMATE
LEADERSHIP**
U.S. Environmental Protection Agency

Welcome

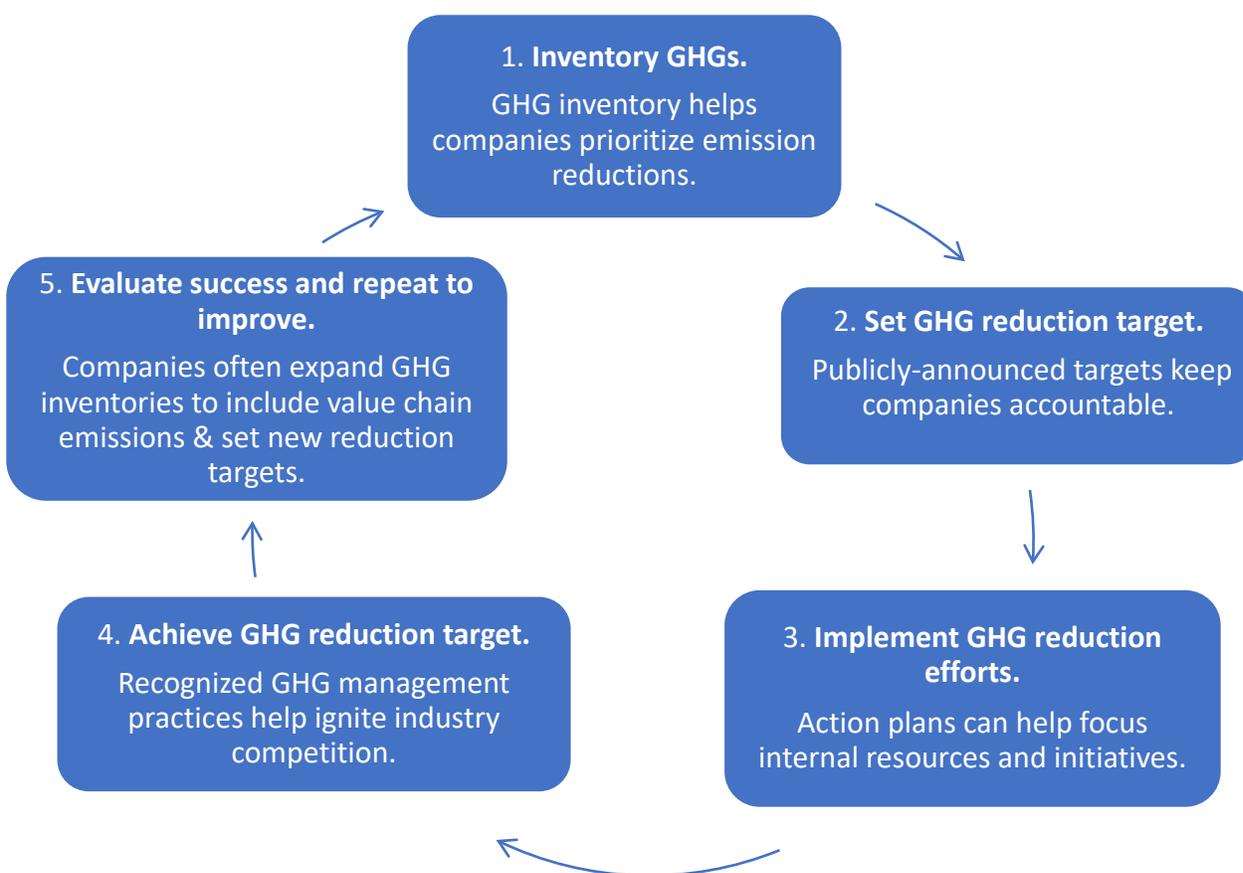
Purpose of this Self-Assessment

Companies are often in a stronger position to improve their greenhouse gas (GHG) management efforts once they understand their relative performance compared to their peers. This Beta Version 1.0 Self-Assessment is designed to help companies evaluate, at a high level, how their GHG inventorying and target-setting approaches compare to large peer companies representing different industry sectors.

Framework for Establishing Corporate Climate Leadership

Leading companies often embed GHG measurement approaches into their business practices to establish a GHG emissions baseline that helps them reduce GHG emissions from their facilities, energy use, and entire value chain. Developing a corporate GHG inventory as a first step helps companies focus investments in GHG reduction efforts. Publicly stated GHG reduction targets, based on corporate GHG inventories, help galvanize internal support and external awareness for near- and mid-term actions and investments that drive innovation and GHG emission reductions. Once companies achieve their GHG emissions reduction targets, successes can often help validate corporate GHG management efforts and help drive a cycle of continuous improvement. (See Figure 1: GHG Management Framework for Corporate Climate Leadership).

Figure 1. GHG Management Framework for Corporate Climate Leadership



How to Use the Self-Assessment

This self-assessment is designed to be read in under 30 minutes and can be used as an internal communication and management resource, a proxy benchmarking assessment, and an educational tool. Some GHG management activities described are commonplace for all organizations included in the dataset, while others are more innovative and reflect emerging trends seen in fewer companies and sectors. Companies can use the self-assessment results in their stakeholder engagement efforts by sharing progress on their GHG inventorying and target-setting efforts and highlighting gaps and opportunities for continuous improvement.

The various levels of ambition highlighted in this self-assessment are informed by data from large U.S.-based companies publicly disclosed to CDP via CDP's Climate Change questionnaire, insights from EPA programs, and discussions with key organizations working with companies on GHG inventorying and target setting (i.e., CDP, Science Based Targets Initiative, The Climate Registry). A description of the methodology used to assess the data and a list of all companies included in the dataset are available in the Appendix.



How the Self-Assessment Can Lead to Action

For some companies, understanding their GHG inventorying and target-setting efforts within the broader market may spur competition and garner internal support for widening the scope of their GHG inventories or setting more aggressive GHG reduction targets. Results from this self-assessment can also direct companies to examine in greater detail how other companies develop their inventories and set ambitious GHG reduction targets, and where they can reach out for help in navigating this journey.

This self-assessment applies to companies at different levels of ambition:

- **Entry-level:** For companies beginning to address their GHG emissions, this resource aims to help them identify which inventorying and target-setting actions reflect common business practices today and provide them with a roadmap for developing their own inventories and setting targets.
- **Intermediate:** For companies further along their sustainability journey, this self-assessment can validate more advanced inventorying and target-setting behaviors that position them to deepen GHG emission reductions.
- **Advanced:** For leading companies, this resource can also validate their efforts and encourage them to explore implementing more cutting-edge GHG management efforts, eventually pushing such innovations into the mainstream and sharing practices with others.

As more companies inventory the full breadth of their GHG emissions, set ambitious targets, and implement strategic and management decisions that drive down emissions, more companies can leverage lessons learned and become leaders themselves.

Definitions

Greenhouse Gases (GHGs): Gases that trap heat in the atmosphere are called greenhouse gases. They include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride.¹

The GHG Protocol Corporate Standard² divides GHG emissions into three categories, or “scopes,” using the following definitions:

Scope 1: Scope 1 emissions are **direct emissions from a company’s owned or controlled sources**. Common examples include fuel combustion at company facilities or in company-owned cars.

Scope 2: Scope 2 emissions are **indirect emissions from the generation of purchased energy**. Purchased energy includes purchased electricity, steam and heating/cooling.

Scope 3: Scope 3 emissions³ **are all indirect emissions (not included in scope 2) that occur in the value chain of the reporting company**. In the Greenhouse Gas Protocol Corporate Value Chain (Scope 3) standard, “**value chain**” refers to all of the upstream and downstream activities associated with the operations of the reporting company, including the use of sold products by consumers and the end-of-life treatment of sold products after consumer use. Emissions from purchased goods and services, outsourced activities, employee business travel, and employee commuting are all examples of scope 3 emissions.

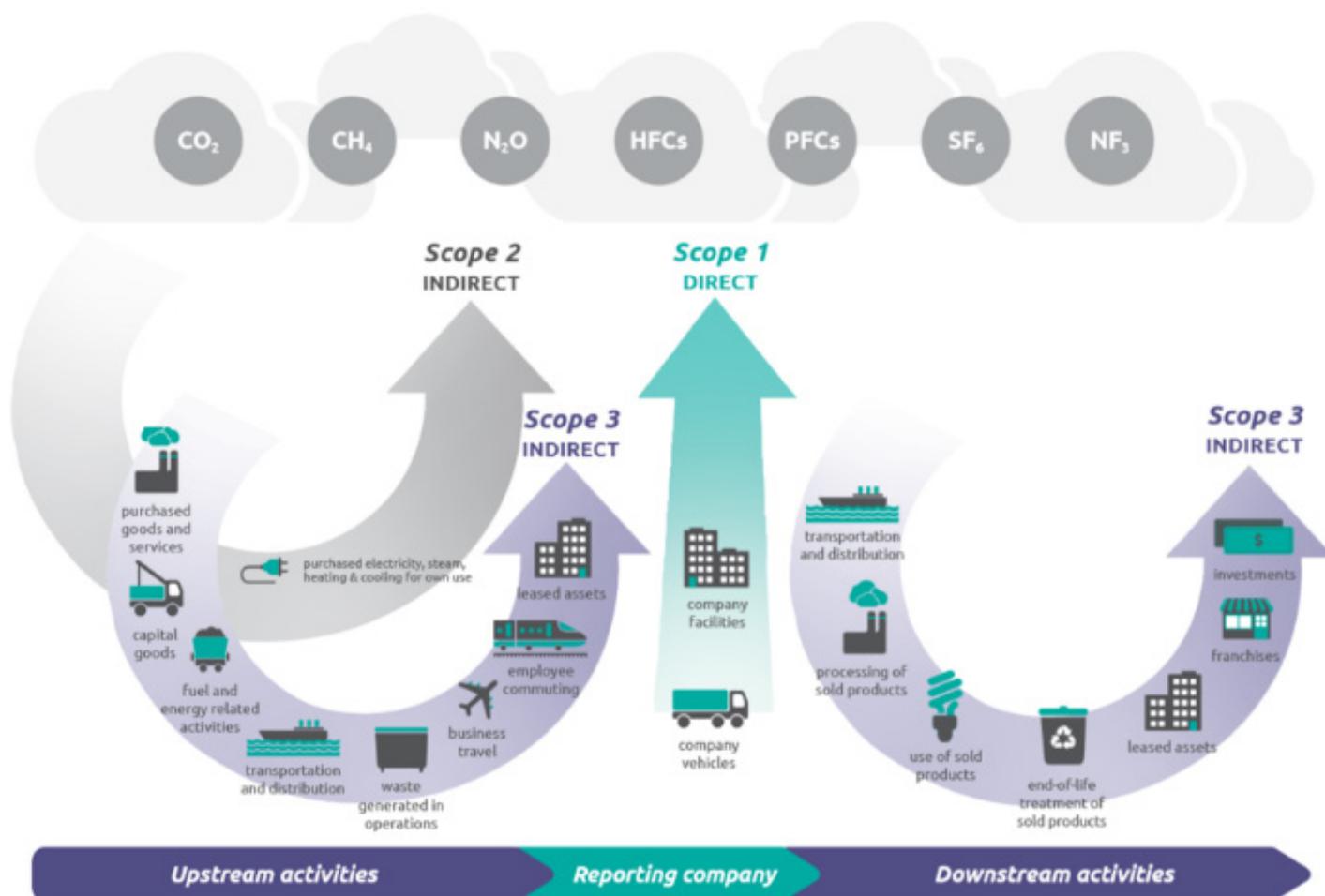
¹ U.S. Environmental Protection Agency Overview of Greenhouse Gases: <https://www.epa.gov/ghgemissions/overview-greenhouse-gases>

² The Greenhouse Gas Protocol. A Corporate Accounting and Reporting Standard: <https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf>

³ GHG Protocol Corporate Value Chain (Scope 3) Standard: <https://ghgprotocol.org/standards/scope-3-standard>

The following diagram from the Greenhouse Gas Protocol demonstrates the activities that fall under scope 1, 2, and 3.²

Figure 2. GHG Emissions Scope 1, 2, and 3





Inventorying and Reporting

Please complete the following questions regarding GHG Inventorying and Reporting.

A. GHG Inventorizing and Reporting: Scope 1 and Scope 2

1. Does your company calculate and publicly disclose⁴ scope 1 and scope 2 emissions?

No activity	Company does not calculate and publicly disclose any scope 1 or scope 2 emissions.	<input type="checkbox"/>
Entry-level	Company calculates and publicly discloses all major sources of scope 1 and scope 2 emissions.	<input type="checkbox"/>
Intermediate	Company calculates and publicly discloses all scope 1 and scope 2 emissions (full inventory) and has created year-to-year processes to continue disclosing scope 1 and scope 2 emissions.	<input type="checkbox"/>
Advanced	Company has calculated and publicly disclosed all scope 1 and scope 2 emissions for at least five years.	<input type="checkbox"/>

2. Does your company track and publicly disclose energy usage?⁵

No activity	Company does not track and publicly disclose energy usage.	<input type="checkbox"/>
Entry-level	Company tracks and publicly discloses major sources of energy usage.	<input type="checkbox"/>
Intermediate	Company tracks and publicly discloses all energy use and has created year-to-year processes to continue tracking energy usage.	<input type="checkbox"/>
Advanced	Company has tracked and publicly disclosed all energy usage for at least five years and has created year-to-year processes to continue tracking energy usage.	<input type="checkbox"/>

⁴ Examples of public disclosure include reporting to a public reporting platform (e.g., CDP, GRI), on an organization's website, and/or annual sustainability report.

⁵ Energy use includes consumption or generation of fuel, electricity, heat, and steam.



Resources to Assist Companies with Scope 1 & Scope 2 Inventorizing and Reporting

- EPA's Cross-Sector [Guidance](#) on Direct and Indirect Emissions
- EPA's [Emissions Factor Hub](#) to provide emissions factors for GHG emissions estimations
- EPA's Simplified [Tools](#) for Small and Medium-sized Companies
- EPA's [Greenhouse Gas Reporting Program](#) for Sectors Required to Report on Facility Emissions
- Greenhouse Gas Protocol [Corporate Accounting and Reporting Standard](#) and [ISO Standard 14064-1: 2018](#) Greenhouse gases — Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals
- The Climate Registry's [General Reporting Protocol](#)
- For benchmarking energy use: EPA's ENERGY STAR [Portfolio Manager](#)
- Additional [Calculation Tools](#) "Built on the GHG Protocol"
- CDP [Disclosure Guidance](#) for Companies
- CDP [Organizational Guide for Environmental Action](#)

B. Inventorying & Reporting Scope 3 Emissions & Supplier Engagement

3. Does your company calculate and publicly disclose at least some scope 3 emissions?⁶

No activity	Company does not calculate and publicly disclose any scope 3 emissions.	<input type="checkbox"/>
Entry-level	Company calculates and publicly discloses at least some scope 3 emissions.	<input type="checkbox"/>
Intermediate	Company calculates and publicly discloses more than two categories of scope 3 emissions that are considered relevant in their value chain.	<input type="checkbox"/>
Advanced	Company calculates and publicly discloses all relevant categories ⁶ of scope 3 emissions.	<input type="checkbox"/>

4. Does your company assess the climate impacts of major suppliers and engage them on climate-related issues?

No activity	Company does not assess the climate impacts (both actual and significant potential impacts) of major suppliers or engage them on climate-related issues.	<input type="checkbox"/>
Entry-level	Company assesses the climate impacts (both actual and significant potential impacts) of major suppliers and engages them on climate-related issues.	<input type="checkbox"/>
Intermediate	Company assesses the climate impacts (both actual and significant potential impacts) of their major suppliers and engages them to report and reduce their GHG emissions.	<input type="checkbox"/>
Advanced	Company assesses the climate impacts (both actual and significant potential impacts) of their major suppliers, engages them to report and reduce their GHG emissions, and considers supplier GHG management in business decisions.	<input type="checkbox"/>

⁶ Scope 3 consists of 15 emissions categories: Purchased goods and services, capital goods, fuel- and energy-related activities (not included in scope 1 or 2), upstream transportation and distribution, waste generated in operations, business travel, employee commuting, upstream leased assets, downstream transportation and distribution, processing of sold products, end-of-life treatment of sold products, downstream leased assets, franchises, and investments. See [Greenhouse Gas Protocol Corporate Value Chain \(Scope 3\) Standard](#).



Resources to Assist Companies with Scope 3 Inventorizing & Reporting and Supplier Engagement

- EPA's Scope 3 [Inventory Guidance](#) (references the Greenhouse Gas Protocol)
- EPA's [Emissions Factor Hub](#) to provide emissions factors available for certain scope 3 categories
- EPA's [Guidance](#) on and [Trends](#) in Supplier Engagement
- Greenhouse Gas Protocol [Corporate Value Chain \(Scope 3\) Standard](#)
- Greenhouse Gas Protocol Corporate [Technical Guidance for Calculating Scope 3 Emissions](#)
- Greenhouse Gas Protocol Corporate [Product Lifecycle Accounting and Reporting Standard](#)
- Additional [Calculation Tools](#) "Built on the GHG Protocol"
- World Resources Institute Scope 3 [Evaluator](#)
- Science-Based Targets Initiative: [Best Practices in Scope 3 GHG Management](#)
- [ISO 14067](#): Carbon Footprint of Products: Requirements and Guidelines for Quantification
- CDP [Supply Chain](#) initiative
- CDP [Organizational Guide for Environmental Action](#)

C. Third-Party Verification

5. Does your company receive third-party verification for its scope 1 and 2 emissions and publicly disclose the results?

No activity	Company does not receive third-party verification for its scope 1 and 2 emissions or publicly disclose the results.	<input type="checkbox"/>
Entry-level	Company receives third-party verification for a portion of its scope 1 and 2 emissions and publicly discloses the results; third party verification is done to a limited level of assurance.	<input type="checkbox"/>
Intermediate	Company receives full third-party verification for all its scope 1 and 2 emissions and publicly discloses the results; third party verification is done to a limited level of assurance.	<input type="checkbox"/>
Advanced	Company receives third-party verification for all its scope 1 and 2 emissions and publicly discloses results; third-party verification is done to a reasonable level of assurance, preferably from an accredited verification body.	<input type="checkbox"/>

6. Does your company receive third-party verification for its scope 3 emissions and publicly disclose the results?

No activity	Company does not receive third-party verification for its scope 3 emissions or publicly disclose the results.	<input type="checkbox"/>
Entry-Level	Company receives third-party verification for a portion of its scope 3 emissions and publicly discloses the results.	<input type="checkbox"/>
Intermediate	Company receives third-party verification for all its scope 3 emissions and publicly discloses the results.	<input type="checkbox"/>
Advanced	Company receives third-party verification for all its scope 3 emissions to at least a level of limited assurance and publicly discloses results.	<input type="checkbox"/>



Resources to Assist Companies with Third-Party Verification

- ANSI National Accreditation Board (ANAB) [Accreditation](#) Program for Greenhouse Gas Verification/Validation Bodies
- [ISO 14065](#): Greenhouse Gases: Requirements for Greenhouse Gas Validation and Verification Bodies for Use in Accreditation or Other Forms of Recognition
- CDP [Verification Guidance](#) and Accepted Standards
- The Climate Registry's [General Verification Protocol](#)

D. Analysis of Business Impacts

7. Has your company analyzed climate-related opportunities^{7,8} with the potential to have a substantive financial or strategic impact on your business?

No activity	Company has not analyzed and publicly disclosed climate-related opportunities with the potential to have a substantive financial or strategic impact on its business.	<input type="checkbox"/>
Entry-level	Company has analyzed but not publicly disclosed climate-related opportunities with the potential to have a substantive financial or strategic impact on its business.	<input type="checkbox"/>
Intermediate	Company has analyzed and publicly disclosed climate-related opportunities with the potential to have a substantive financial or strategic impact on its business.	<input type="checkbox"/>
Advanced	Company has analyzed and publicly disclosed climate-related opportunities with the potential to have a substantive financial or strategic impact on its business and incorporates findings into its business strategy and decisions.	<input type="checkbox"/>



Resources to Assist Companies with Analyzing Business Impacts of GHG Emissions

- [Sustainability Accounting Standards Board \(SASB\)](#) for tools and resources on financial impacts of sustainability
- [Task Force on Climate-Related Financial Disclosure \(TCFD\)](#) for [recommendations](#) and [status report](#) on financial disclosure of climate impacts
- CDP [Organizational Guide for Environmental Action](#)
- CDP [Report: Major Risk or Rosy Opportunity: Are Companies Ready for Climate Change](#)

⁷ Climate-related opportunities can include opportunities involving resource efficiency, energy source, products and services, markets, resilience.

⁸ Many companies are also beginning to reference climate-related transition risks in accordance with accepted reporting frameworks (i.e. Task Force on Climate-related Financial Disclosure (TCFD) recommendations). Future versions of this self-assessment can examine corporate disclosure on climate-related transition risk.



Target Setting

Please complete the following questions regarding GHG emissions reductions target setting.

A. Scope 1 and 2 Absolute Emissions Reduction Targets

8. Has your company set a combined scope 1 and scope 2 emissions reduction target?

No activity	Company does not have a GHG emission reductions target for full scope 1 and 2 emissions.	<input type="checkbox"/>
Entry-level	Company has a GHG emissions reduction target that covers all scope 1 and 2 emissions. Target can be an absolute or intensity-based reduction target.	<input type="checkbox"/>
Intermediate	Company has an absolute reduction target or an intensity-based target that results in absolute reductions that covers all scope 1 and 2 emissions. Reduction targets are consistent with the level of decarbonization required to keep global temperature increase to 2°C compared to preindustrial temperatures.	<input type="checkbox"/>
Advanced	Company has an absolute reduction target or an intensity-based target that results in absolute reductions that covers all scope 1 and 2 emissions. Reduction target is consistent with the level of decarbonization to limit global temperature increases to well below 2°C or 1.5°C compared to preindustrial temperatures ⁹ or exceeds this ambition e.g. net zero. ¹⁰ Target may also be third-party approved.	<input type="checkbox"/>



Resources to Assist Companies with Setting Absolute Reduction Targets

- [Science Based Targets Criteria and Recommendations \(Version 4.0\)](#)
- CDP [Organizational Guide for Environmental Action](#)

⁹ According to Science-Based Targets initiative (SBTi), as of 2019 targets adopted by companies to reduce greenhouse gas (GHG) emissions are considered “science-based” if aligned with climate science to limit global warming to well-below 2°C above pre-industrial levels. Companies setting SBTi-approved targets are encouraged to pursue targets that limit warming to 1.5°C.

¹⁰ At the time of this writing, some companies began announcing net zero and carbon negative targets. More clarification is needed in the market on terms such as net zero, carbon neutral, carbon negative, etc.

B. Scope 3 Emissions Reduction Target

9. Has your company set a scope 3 reduction target?

No activity	Company has not set a scope 3 reduction target.	<input type="checkbox"/>
Entry-level	Company has developed a scope 3 reduction target and/or supplier engagement target ¹¹ for at least one relevant source of scope 3 GHG emissions.	<input type="checkbox"/>
Intermediate	Company has developed a scope 3 reduction target and/or supplier engagement target for more than two relevant scope 3 categories.	<input type="checkbox"/>
Advanced	Company has developed a scope 3 reduction target and/or supplier engagement target that collectively covers at least two-thirds of its total scope 3 emissions. Reduction targets are consistent with the level of decarbonization required to keep global temperature increase to 2°C compared to preindustrial temperatures.	<input type="checkbox"/>



Resources to Assist Companies with Setting Scope 3 Reduction Targets

- [Science Based Targets Criteria and Recommendations: V 4.0](#)
- CDP [Organizational Guide for Environmental Action](#)

¹¹ Companies seeking to reduce their Scope 3 emissions may elect to set supplier engagement targets, whereby suppliers would themselves measure their GHG inventories and set their own GHG scope 1 and 2 reduction targets, effectively reducing a company's scope 3 emissions.

C. Renewable Energy

10. Has your company established a 100% renewable energy (green power) use target?^{12,13,14}

No activity	Company does not have a renewable energy use target.	<input type="checkbox"/>
Entry-level	Company has established a renewable energy use target of less than 50% renewable energy.	<input type="checkbox"/>
Intermediate	Company has established at least a 50% renewable energy use target.	<input type="checkbox"/>
Advanced	Company has set a 100% renewable energy use target.	<input type="checkbox"/>



Resources to Assist Companies with Setting Renewable Energy Use Targets

- [RE100 Reporting Guidance](#): CDP Climate Change 2019
- EPA's Green Power Partnership: [Partnership Requirements](#) and [Eligible Resources](#)

¹² EPA's Green Power Partnership program references the widely accepted U.S. voluntary market definition for green power as a subset of renewable energy representing those renewable energy resources and technologies that provide the highest environmental benefit. Under this definition, renewable energy use includes wind, geo-thermal, solar, eligible biomass, and eligible hydro.

¹³ While many companies use the term "100% renewable energy" to describe their efforts to achieve a net-zero energy use, a more accurate term might be a "100% renewable electricity target," as many companies seek to mitigate their scope 2 emissions with this target and often use "energy" and "electricity" interchangeably. Renewable electricity is a subset of renewable energy. Further clarification is needed across programs and initiatives on whether "100% renewable" targets apply only to electricity purchased or all forms of energy. For purposes of this self-assessment, the percentages listed apply mostly to 100% renewable electricity.

¹⁴ Sectors with high thermal use such as industrials may not be able to set 100% renewable energy use targets. In this case, committing to procure as much energy as possible from renewable sources is recommended. Efforts to develop commercially available and cost-effective renewable thermal solutions are underway.

SUMMARY

Fill in the following with your results (no activity, entry-level, intermediate, advanced).

Inventorizing:

1. Does your company calculate and publicly disclose scope 1 and scope 2 emissions?

2. Does your company track and publicly disclose energy usage?

3. Does your company calculate and publicly disclose at least some scope 3 emissions?

4. Does your company assess the climate impacts of major suppliers and engage them on climate-related issues?

5. Does your company receive third-party verification for its scope 1 and 2 emissions and publicly disclose the results?

6. Does your company receive third-party verification for its scope 3 emissions and publicly disclose the results?

7. Has your company analyzed climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Target setting:

8. Has your company set a combined scope 1 and scope 2 emissions reduction target?

9. Has your company set a scope 3 reduction target?

10. Has your company established a 100% renewable energy (green power) use target?

Congratulations on completing the self-assessment!

You have reached the end of the Corporate GHG Inventorying and Target Setting Self-Assessment V1.0.

This self-assessment is being developed through an iterative process, and we rely on feedback from users to improve in the future. Your comments and questions can be submitted at cccl@epa.gov.



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