

# APPENDIX

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

April 2020



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

## Purpose of this Self-Assessment and How it Can Lead to Action

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. In response to stakeholder interest, this Beta Version 1.0 Self-Assessment is designed to help companies estimate, at a high level, how their GHG inventorying and target-setting approaches compare to large peer companies representing different industry sectors. Once companies estimate how their key GHG measurement and target-setting efforts compare to their peers, they can evaluate, in greater detail, how other companies approach GHG inventorying and target setting. Helping companies locate their GHG management efforts within the broader market may spur competition, garner internal support for widening the scope of their GHG inventories or setting more aggressive GHG reduction targets, and prioritize resources to implement GHG reduction activities.

- **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 cuttingedge 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.

## Methodology

This Beta Version 1.0 Self-Assessment was developed by analyzing data to determine what proportion of companies are implementing different practices within key GHG inventorying and target-setting approaches practiced in the market today. While some target-setting measures may be more feasible in some industries over others, practices featured in this self-assessment can apply across all sectors.

- **Dataset:** The dataset is driven by publicly disclosed data on GHG inventorying and target setting from 565 companies within the S&P500 and Fortune 500 as reported to CDP, a global platform featuring corporate greenhouse gas (GHG) emissions data from nearly 7,000 companies. The dataset includes some of the largest global publicly traded companies and privately held companies spanning various industry sectors. All companies in the dataset publicly disclosed at least some information, thus helping to establish a range of inventorying and target-setting efforts across industries.
  - **Self-Reported Data:** CDP maintains granular data for companies' scope 1, scope 2, and, where available, scope 3 emissions reported at an organizational or financial level. Companies self-disclose their GHG emissions, and many companies also include third-party verification to either limited or reasonable levels of assurance. EPA did not further verify the data.
  - **Data Vintage:** EPA evaluated data reported in CDP's 2018 Climate Change questionnaire, which includes 2017, and some 2018, calendar or fiscal year data.
  - **Additional Data and Analysis:** Given the data vintage, EPA assessed the public platform RE100 pledge to update the number of companies pledging 100% renewable energy targets, as of late March 2020. To assess the extent to which corporations set other renewable energy targets, EPA analyzed green power usage as a percentage of overall electricity usage from Fortune 500 companies participating in its Green Power Partnership that also overlapped with the CDP dataset.
- **Further Insights:** In assessing which inventorying and target-setting behaviors reflected different ambition levels, EPA also leveraged its experience working with companies directly through its ENERGY STAR and Green Power Partnership programs for approximately two decades, observations of broader market trends in corporate GHG management over the past decade, and direct discussions with companies and other key stakeholders who work with companies on GHG inventorying and target setting in the past 24 months.
- **A list of all companies** included in the dataset is available [below](#).



Of note, EPA did not evaluate companies' emissions reductions themselves, as such data are difficult to meaningfully assess when companies represent different sectors, may be structured too differently to be comparable, or may have different GHG inventory baseline years against which to measure progress.

## Resources

Each GHG management practice featured includes resources companies can consult to improve their GHG inventorying and target-setting efforts.

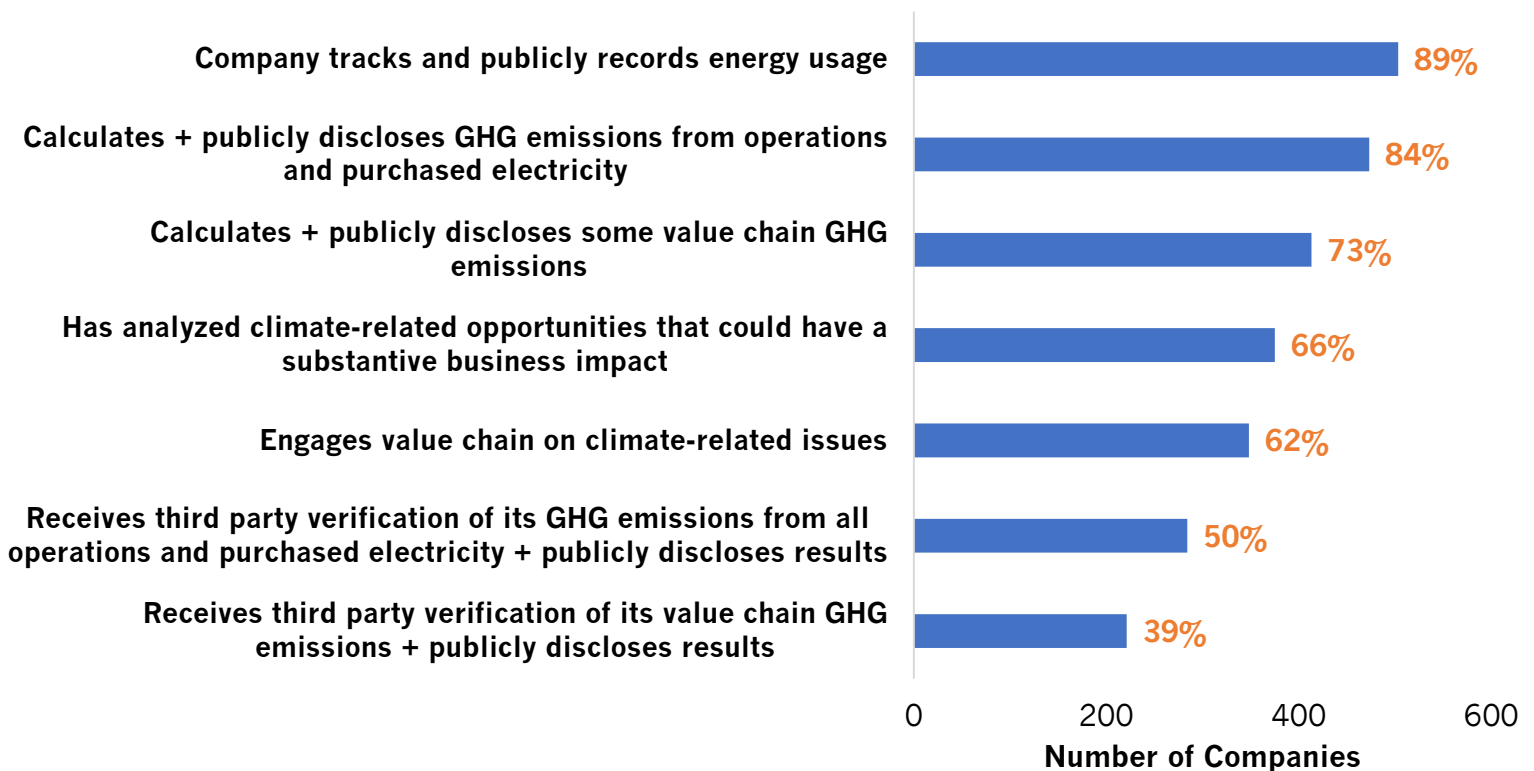


# Inventorying and Reporting

# Key Findings on Corporate GHG Inventorying & Reporting

The findings below reflect how many companies in the dataset implement key GHG inventorying and reporting activities. A detailed examination of sector-based activities is also included below.

**Figure 1: Corporate GHG Inventorying and Reporting**



## A. GHG Inventorying and Reporting: Scope 1 and 2

**From CDP Question C6.1: What were your organization’s gross global scope 1 emissions in metric tons CO2e?**

**From CDP Question 6.3: What were your organization's gross global scope 2 emissions in metric tons CO2e?**

Since the release of the GHG Protocol [Corporate Accounting and Reporting Standard](#) nearly two decades ago, thousands of companies annually report on their GHG emissions. Many leading companies also disclose their GHG emissions publicly, which helps hold them accountable to their emission reduction targets and GHG reductions over time. Most companies in the dataset (84%) responded affirmatively to calculating and publicly disclosing scope 1 and scope 2 emissions. The vast majority, at a minimum, measure and report their energy use (89%). Reporting of scope 1 and scope 2 emissions is more common in specific sectors. For example, in *Figure 2: Percentage Of Companies Reporting Scope 1 And 2 Emissions By Sector*, 69% of industrial companies in the dataset report scope 1 and scope 2 emissions, whereas 95% of companies in the communication services sector do so. In EPA’s experience working with companies via its partnership programs, a significant number of leading companies have reported full scope 1 and 2 inventories for several years, some for over a decade.

**Figure 2: Percentage of Companies Inventorying and Reporting Scope 1 and 2 Emissions by Sector**

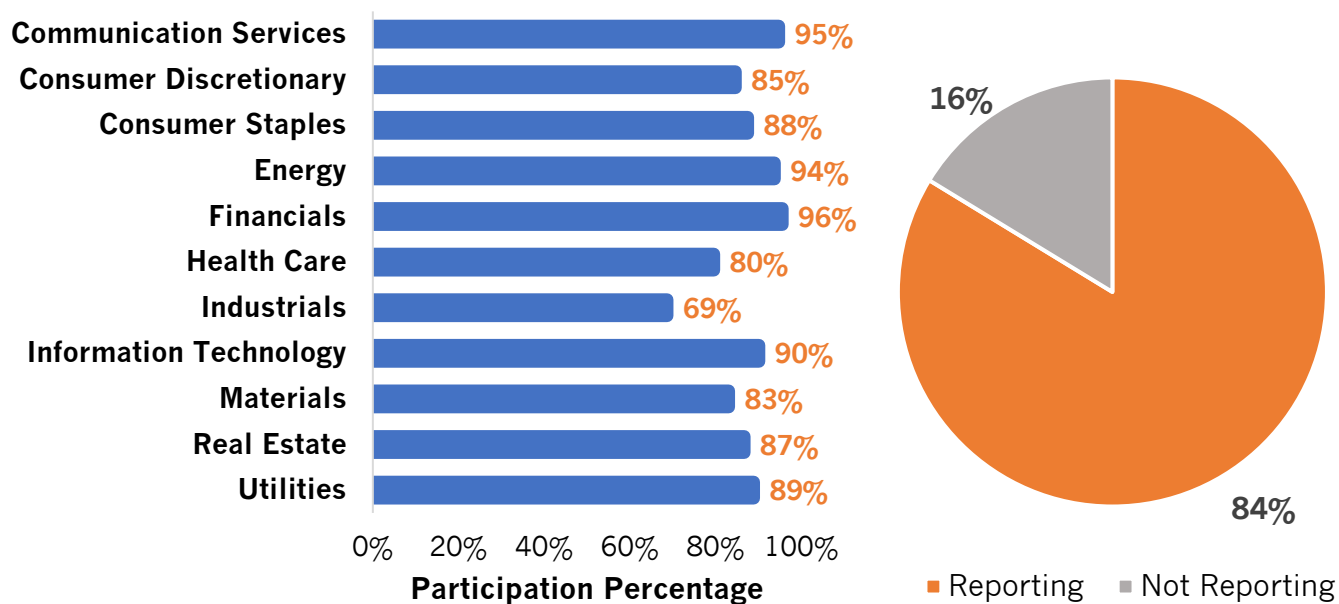
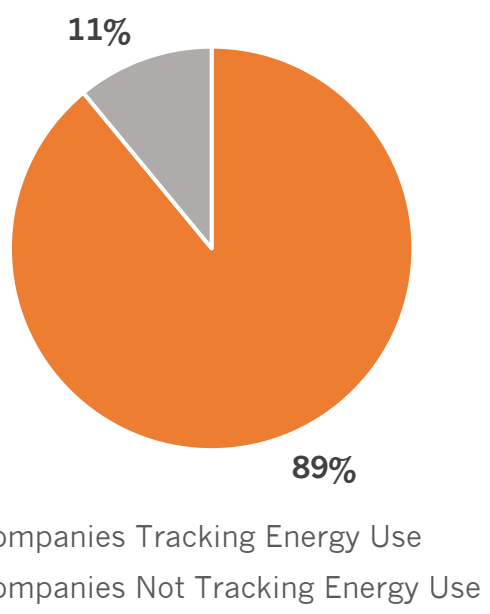
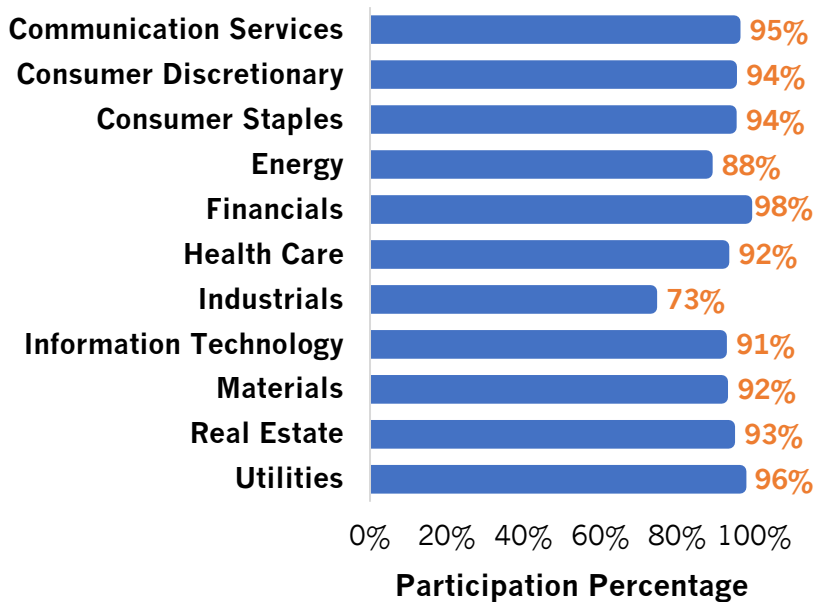


Figure 3: Percentage of Companies Tracking Energy Usage by Sector



## B. Inventorying & Reporting Scope 3 Emissions & Supplier Engagement

**From CDP Question C6.5: Account for your organization’s scope 3 emissions, disclosing and explain any exclusions.**

**From CDP Question C12.1: Do you engage with your value chain on climate-related issues?**

Since the 2012 release of the Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Standard and [Technical Guidance for Calculating Scope 3 Emissions](#), more companies have estimated or calculated the GHG emissions in their value chains. For many companies, up to 90% of their full GHG emissions footprint lies outside their owned and operated facilities. Approximately three-quarters of the dataset responded affirmatively to calculating and publicly disclosing some scope 3 emissions. Of the Guidance’s 15 categories of scope 3 emissions, the most often reported categories include **business travel (51%), purchased goods and services (31%), fuel and energy related activities (31%) and employee commuting (30%)** (See *Figure 5: Percentage of Scope 3 Categories Reported*). Since 2013, the **scope 3 emissions reported increased on average by 13-14%** for both U.S. and global companies.<sup>1</sup> More advanced companies have inventoried all scope 3 emission sources—a laborious and often complex undertaking—and/or explained where GHG emissions in the supply chain are considered de minimis or cannot be calculated. In addition, programs such as the Science-Based Targets Initiative (SBTi)<sup>2</sup> and ISO 14064-1 are beginning to use significance of scope 3 impacts to determine which scope 3 emissions to report.

More companies are also directly engaging their suppliers to measure, report, and reduce GHG emissions. Nearly, **62% companies reported that they engage their value chain on climate-related issues**. Other companies have gone further to integrate supplier performance on GHG management into business decisions.

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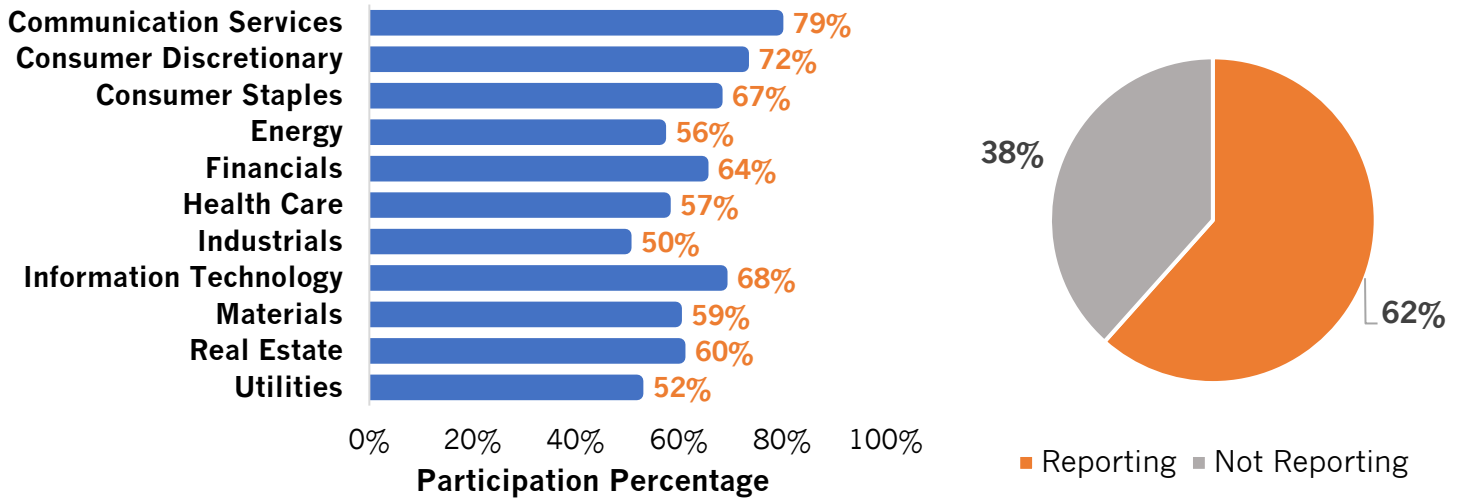
<sup>1</sup> <https://www.greenbiz.com/report/2019-state-green-business-report>

Greenbiz’s State of Green Business report examines trends and metrics assessing how companies address environmental challenges. GreenBiz produced the 2019 report in partnership with Trucost, part of S&P Global, without EPA’s involvement. GreenBiz’s analyzed dataset may differ from the one used to develop this self-assessment.

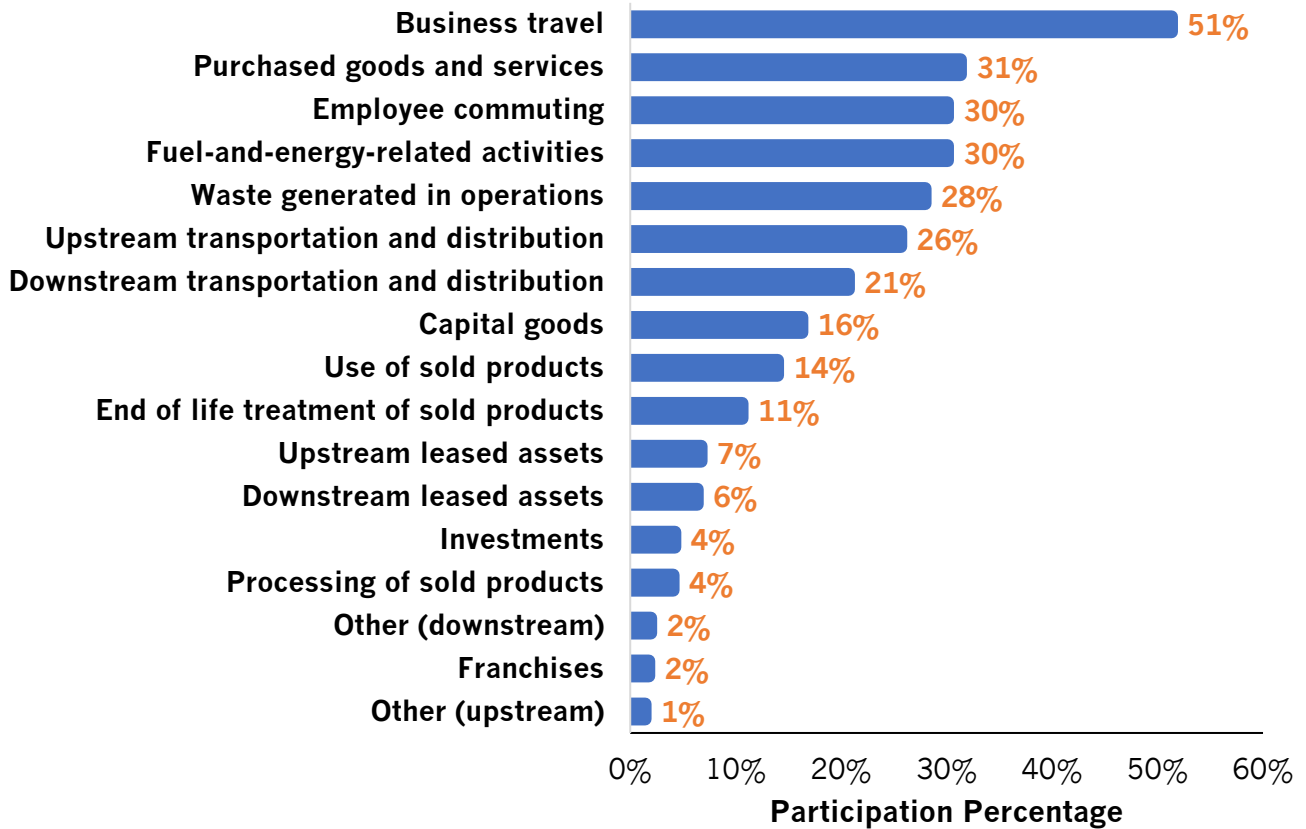
<sup>2</sup> The Science-Based Targets Initiative is a joint effort of CDP, the UN Global Compact (UNGC), the World Resources Institute (WRI) and WWF to enable leading companies to set ambitious corporate GHG reduction targets.



**Figure 4: Percentage of Companies Publicly Disclosing Scope 3 Emissions**



**Figure 5: Percentage of Scope 3 Categories Reported**

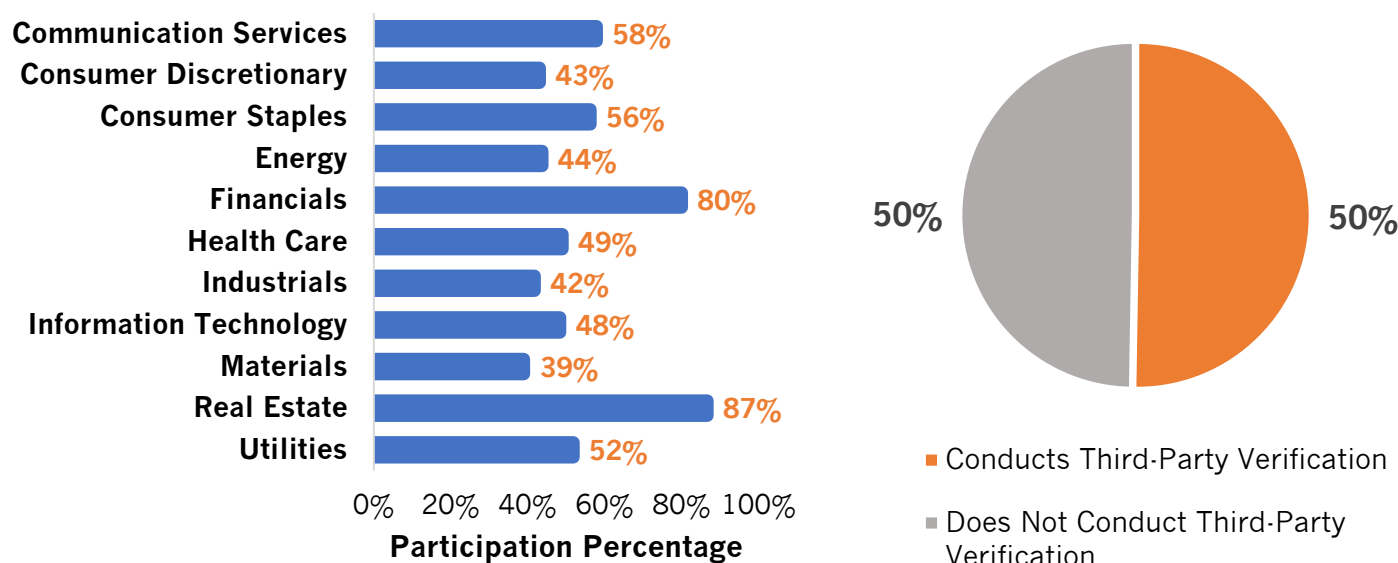


## C. Third-Party Verification

**From CDP Question C10.1: Indicate the verification/assurance status that applies to your reported emissions.**

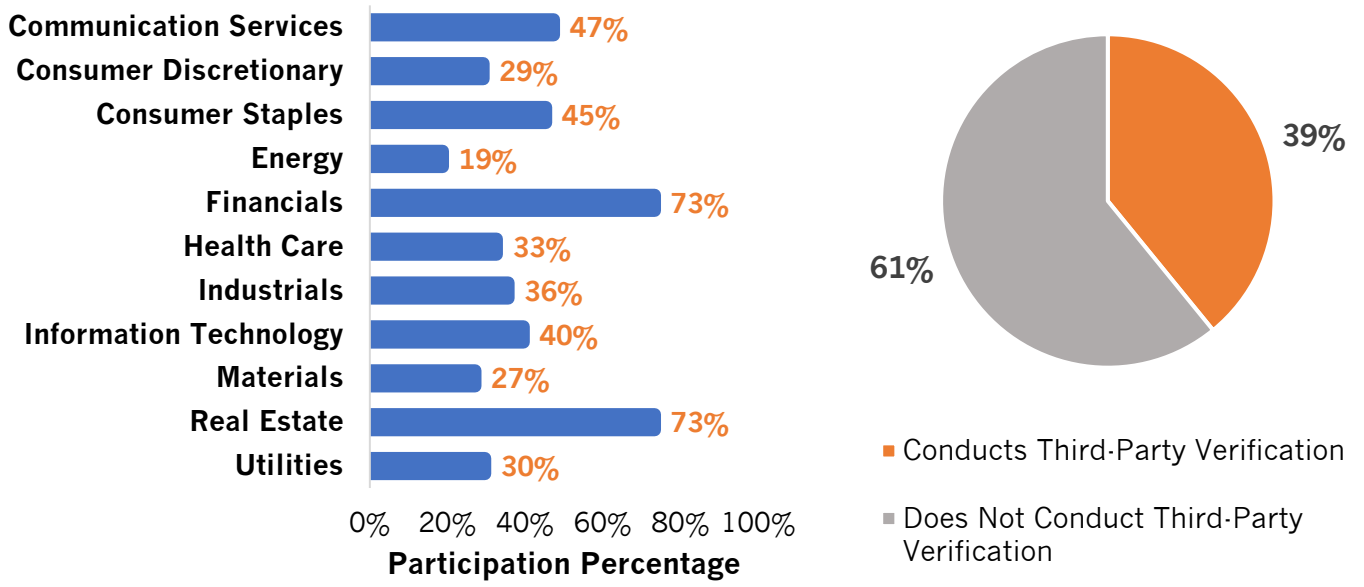
Third-party verification of GHG inventories helps companies establish credibility for their climate-related disclosures. Over the past decade, third-party verification of GHG inventories have become established service offerings. In the dataset analyzed, **50% of companies have had their scope 1 and scope 2 emissions verified by a third party**. In some instances, companies will pursue third-party verification and share results with investors or customers but may not publicize their GHG inventories. In other instances, companies who do not publicly report full or partial GHG inventories, may still decline third-party verification for cost or other reasons. **Fewer companies (39%) pursue** verification of scope 3 emissions, possibly because they lack data to complete a full scope 3 inventory or lack confidence in their estimates, thus not warranting third-party review and public reporting. Based on insights gleaned from stakeholders familiar with different levels of assurance for third-party verification, most companies pursue third-party verification to at least a limited level of assurance, whereas reasonable levels of assurance from an accredited third-party verifier is activity typically seen only in advanced companies.<sup>3</sup> CDP does not differentiate between limited and reasonable assurance in scoring methodology when evaluating companies' climate-related disclosure and performance.

**Figure 6: Percentage of Companies that Receive Third-Party Verification for Scope 1 and 2 Inventories**



<sup>3</sup> More information on limited and reasonable levels of assurance can be found in the ISO 14064-3:2019 standard.

**Figure 7: Percentage of Companies that Receive Third-Party Verification for Scope 3 Inventories**



## D. Analysis of Business Impacts

**From CDP Question C2.4: Has your company identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

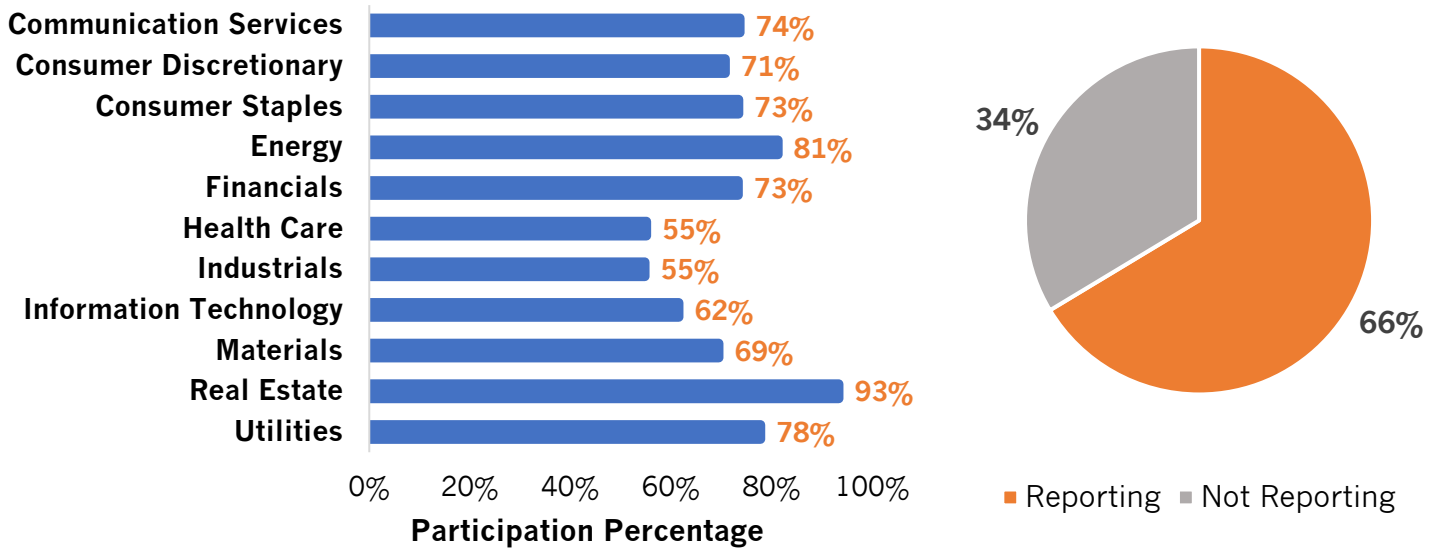
**From CDP Question C2.4a: Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business (Opportunity types are listed in the 2018 and 2019 CDP Climate Change Questionnaire as: resource efficiency, energy source, products and services, markets, resilience).**

**From CDP Question (C3.1a): Explain how climate-related issues are integrated into your business objectives and strategy.**

Typically, once companies have become more experienced in assessing their GHG impacts, they are better positioned to assess climate-related strategic or financial opportunities, especially those pertaining to their energy use and/or GHG emissions. Opportunities may include cost reductions from energy and resource efficiency, development of new products and services which may gain the company access to new markets, and cleaner energy sources. From the dataset, **66% companies have analyzed and publicly reported at least some of these financial or strategic impacts** (*See Figure 8: Percentage Of Companies That Analyzed Climate-Related Opportunities That Can Have A Substantive Financial Or Strategic Impact On Their Business*).

In addition to evaluating climate-related opportunities, companies are increasingly assessing their climate-related transition risks. The Task Force on Climate Related Financial Disclosure (TCFD)'s reporting framework, launched in 2017, provides companies guidance for developing a materiality assessment of their climate risk to demonstrate how climate change affects companies, their contribution to climate change, and how they will insulate themselves from the physical, financial, reputational, and regulatory risks posed by climate change. **While few companies have completed and publicly reported a materiality assessment** at this time, more companies are beginning to develop TCFD reports in response to growing investor expectations for companies to develop and disclose any substantive climate-related financial impacts, including transition risk impacts. Additionally, with the release of Sustainability Accounting Standards Board (SASB)'s reporting standards in late 2018 that complement TCFD reporting, stakeholders anticipate seeing annual increases in investor-focused reporting on climate-related risk and opportunities according to widely accepted frameworks. Future versions of this self-assessment can examine corporate disclosure on climate-related transition risk.

**Figure 8: Percentage of Companies that Analyzed Climate-Related Opportunities that can have a Substantive Financial or Strategic Impact on their Business**



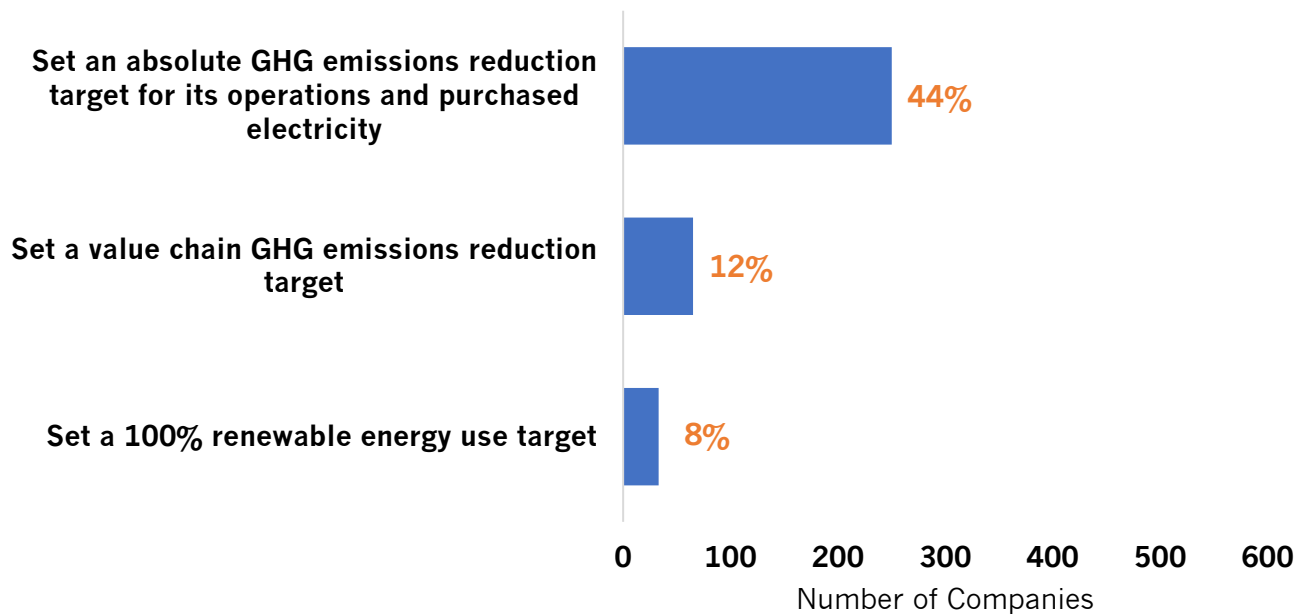
# Target Setting



# Key Findings for Trends in Corporate Target Setting to Reduce GHG Emissions

The findings below reflect how companies in the dataset are setting targets to reduce their GHG emissions. A detailed examination of activities is also included below in *Figure 9: Corporate Target Setting To Reduce GHG Emissions*, which shows the percentage of companies in the dataset that have absolute GHG emission reduction targets (44%), scope 3 targets (12%) and renewable energy use targets (8%), respectively.

**Figure 9: Corporate Target Setting to Reduce GHG Emissions**



## A. Scope 1 and 2 Emissions Reduction Targets

**CDP Question C4.1a: Provide details of your absolute emissions target(s) and progress made against those targets.**

**CDP Question C4.1b Provide details of your emissions intensity target(s) and progress made against those target(s).**

For nearly 20 years, EPA has engaged companies to develop GHG emission reduction targets or created resources to help them do so. Starting in 2009, EPA observed that, increasingly, companies set absolute reduction targets to decouple production of goods and services from emissions growth. While many leading companies have set an absolute reduction target—44% of the dataset recorded setting an absolute scope 1 and/or scope 2 emission reduction target (*Figure 10: Percentage Of Companies By Sector With Emissions Intensity Vs Absolute Reduction Targets*)—companies also continue to set ambitious intensity targets that lead to substantial reductions.

Within the past few years, companies have increasingly participated in the Science-Based Targets Initiative (SBTi); more than 800 companies across sectors and geographies have developed or pledged to develop a Science-Based Target.<sup>4</sup> According to the SBTi, targets adopted by companies to reduce greenhouse gas (GHG) emissions are considered “science-based” if they aligned with climate science to limit global warming to well-below 2°C above pre-industrial levels and pursue efforts to limit warming to 1.5°C. Companies participating in the SBTi can set intensity-based targets for scope 1 and 2 emissions only if they result in absolute emission reductions in line with climate scenarios for keeping global warming to well below 2°C or when they are modelled using an approved sector pathway. Until recently, SBTi recognized new targets consistent with the level of decarbonization required to keep global temperature increase to 2°C compared to preindustrial temperatures. As *Figure 11: Percentage of Companies by Sector with Absolute Reduction Targets* shows, many companies across several sectors have set absolute reductions targets, with a growing number developing reduction targets aligned with current climate science. Fewer companies to date have had their targets approved by the SBTi.

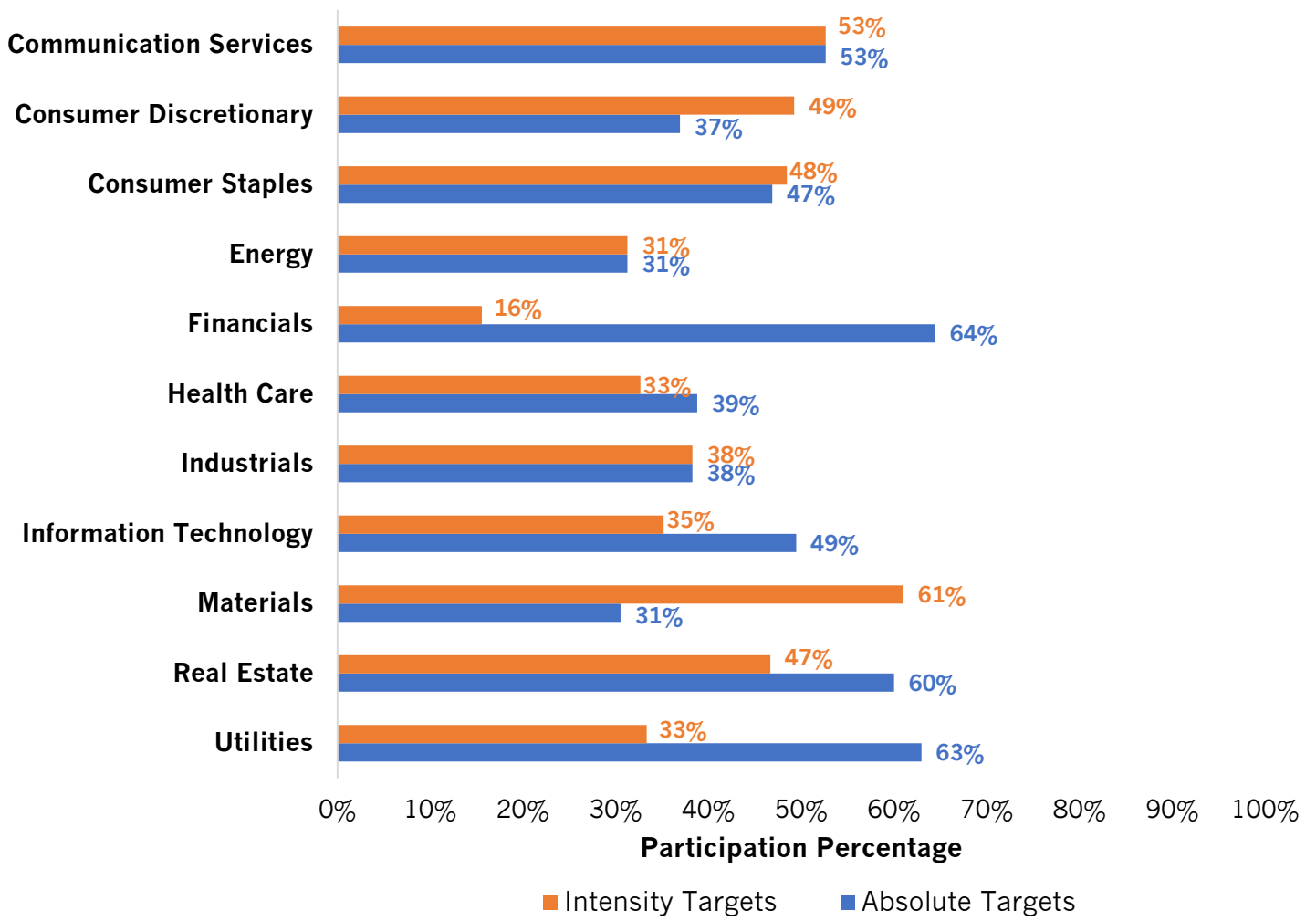
Currently, a handful of leading companies are setting net zero targets to demonstrate their corporate climate commitments. Most of these companies have several years of experience developing full scope 1, 2 and 3 inventories and setting absolute GHG reduction targets to allow them to understand investments and efforts needed to achieve such ambitious measures. As companies begin to use various terminology to describe their net zero or greater commitments-- including terms such as ‘carbon neutral’ or ‘carbon negative,’-- greater clarification is needed to accurately describe this emerging level of ambition.

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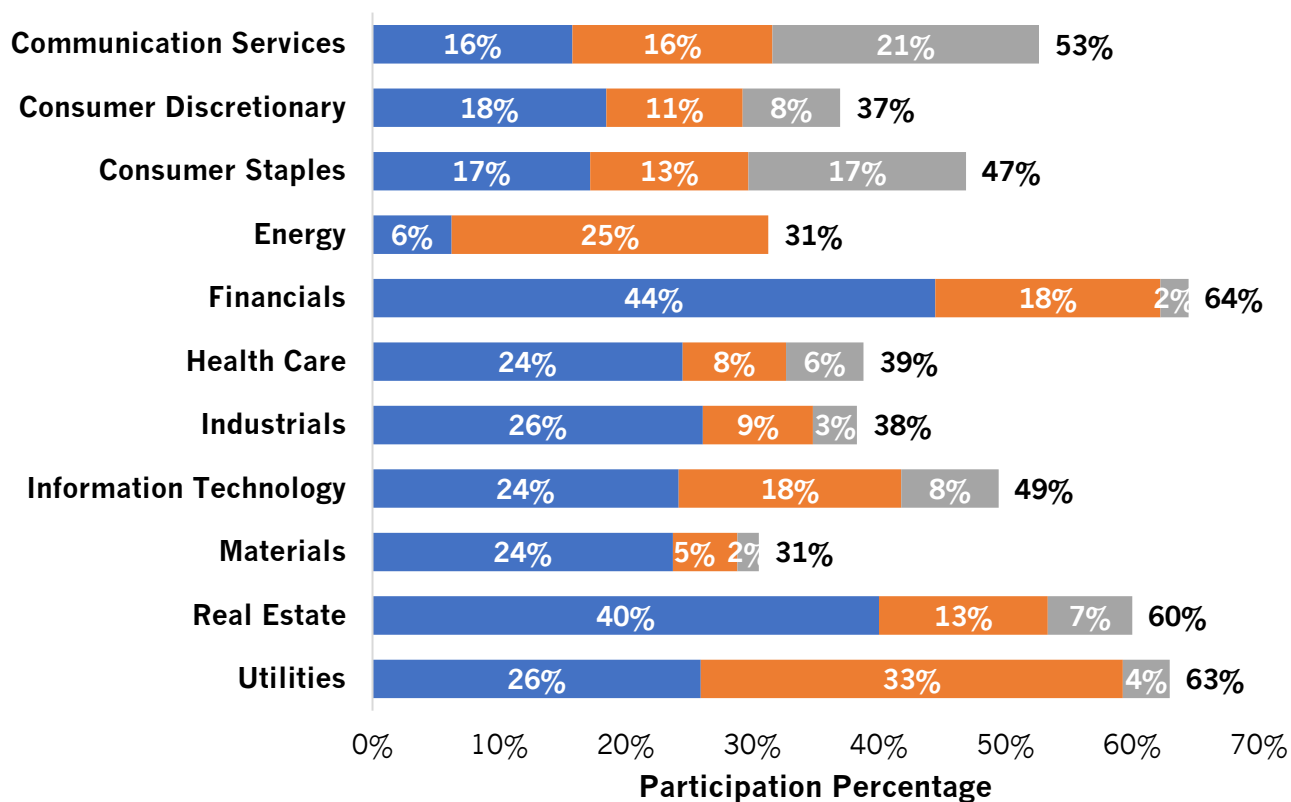
<sup>4</sup> Companies committing to a Science Based Target current as of March 15, 2020. A complete list of companies who have committed to set Science Based Targets: <https://sciencebasedtargets.org/why-set-a-science-based-target/>



Figure 10: Percentage of Companies by Sector with Emissions Intensity vs. Absolute Reduction Targets



**Figure 11: Percentage of Companies by Sector with Absolute Reduction Targets**



- Has an absolute scope 1 and/or scope 2 target
- Has an absolute scope 1 and/or scope 2 target and is considered to be a science based target
- Has an absolute scope 1 and/or scope 2 target that has been approved as science-based by the Science Based Targets Initiative

## B. Scope 3 Emissions Reduction Target

**CDP Question C4.1: Did you have an emissions target that was active in the reporting year?**

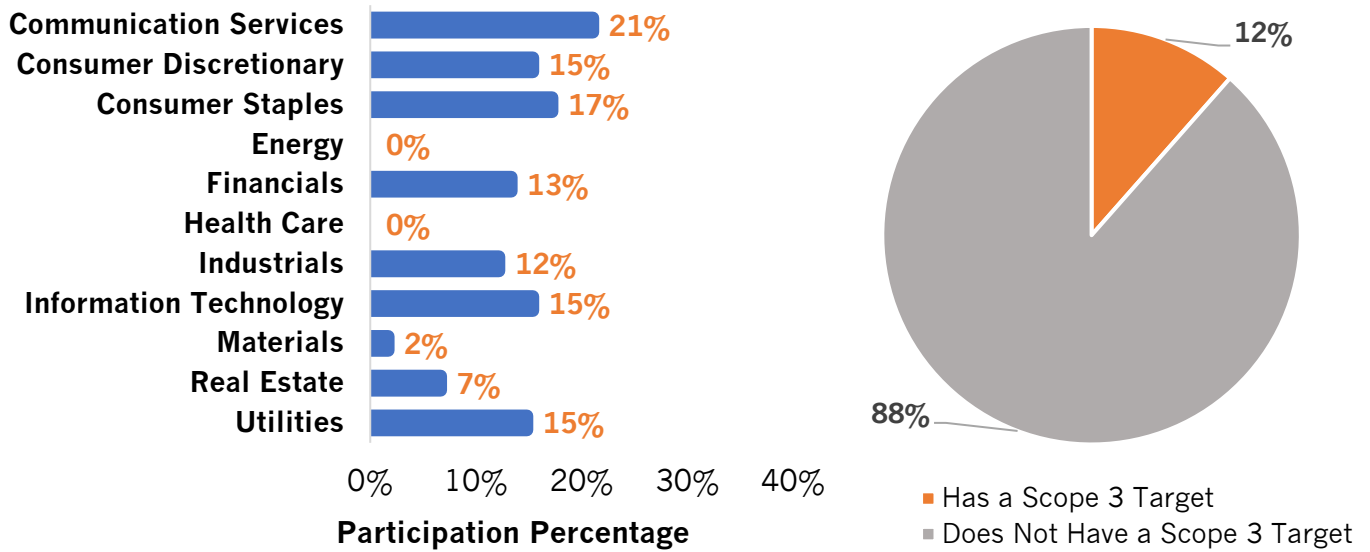
**CDP Question C4.1a: Provide details of your absolute emissions target(s) and progress made against those targets.**

**CDP Question C4.1b Provide details of your emissions intensity target(s) and progress made against those target(s).**

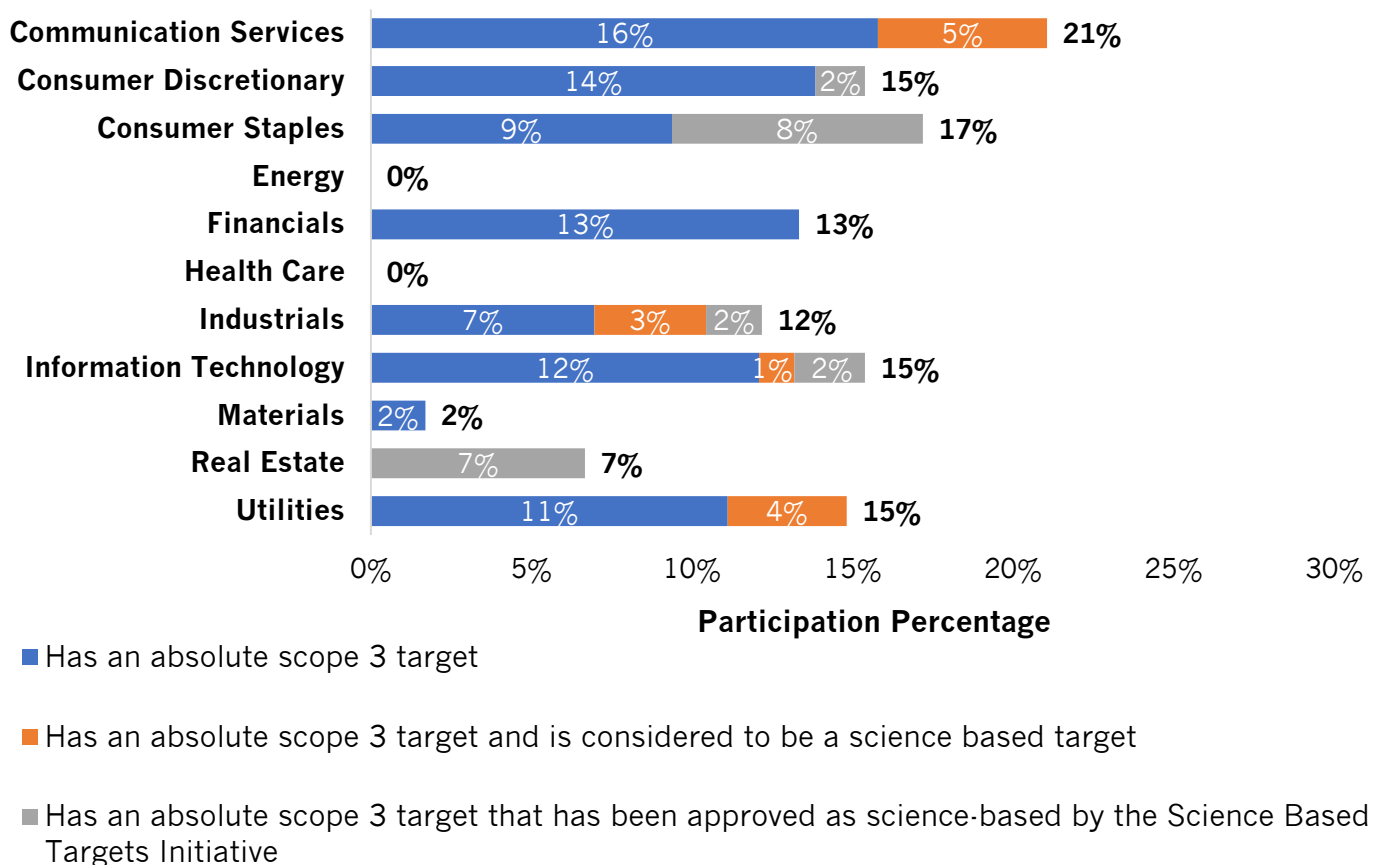
For most sectors, the biggest sources of GHG emissions lie in their upstream and downstream value chains, outside their operational or financial control. As companies become more experienced with developing scope 3 inventories and assessing the GHG impacts of their upstream and downstream suppliers, some have taken steps to publicly announce targets to reduce emissions across their entire value chain. Leading companies set GHG reduction targets that tackle the largest sources of their scope 3 category emissions, often the manufacture and transport of their goods and services or employee travel, depending on the sector. Notable examples of companies with supply chain GHG reduction efforts include Walmart's Project Gigaton, HP's scope 3 target announced in 2015, and Apple's supplier engagement program that includes efforts to reduce upstream supply chain energy impacts in other countries.

Developing and publicly announcing a scope 3 reduction target is challenging, as reflected in the dataset, where only 12% of companies assessed set a scope 3 reduction target. However, prior to developing value chain reduction targets, companies often have already begun engaging their suppliers to measure and report emissions, as 62% of reported that they engage their value chain on climate-related issues. The SBTi requires companies to include scope 3 emissions reductions in their science-based targets if more than 40% of a company's total GHG footprint is found in its value chain. In developing an SBTi-approved science-based target, companies must set one or more emission reduction targets and/or supplier or customer engagement target that collectively covers at least 2/3 of total scope 3 emissions in conformance with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Despite only 12% of companies analyzed in the dataset having reported scope 3 reduction targets, over 800 companies globally have developed or committed to develop a science-based target through SBTi, many of which will include scope 3 reductions.

**Figure 12: Percentage of Companies with Scope 3 Reduction Targets (by sector)**



**Figure 13: Breakdown of Scope 3 Targets (by sector)**



## C. Renewable Energy

**CDP Question C4.1: Did you have an emissions target that was active in the reporting year?**

**CDP Question C4.1a: Provide details of your absolute emissions target(s) and progress made against those targets C4.1b: Provide details of your emissions intensity target(s) and progress made against those target(s)**

**CDP Question C4.2: Provide details of other key climate-related targets not already reported in question C4.1/a/b.**

Renewable energy plays a key role in the shift to a low carbon economy. Companies globally are committing to setting ambitious renewable energy targets, with over 226<sup>5</sup> companies having set 100% renewable energy procurement targets through the RE100 initiative.<sup>6</sup> In the dataset analyzed, 8% of companies have committed to setting 100% renewable energy use target,<sup>7</sup> however, this number is expected to grow steadily as more companies announce ambitious targets.

Whereas many companies use the term “100% renewable energy,” 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. Committing to 100% renewable energy use can be easily achievable for some sectors, namely those that purchase large amounts of electricity (e.g., datacenters) but challenging for other sectors (e.g., some industrial companies) that rely on thermal energy, where fewer options for commercially available and cost-effective renewable alternatives currently exist.

EPA chose to analyze data from the Green Power Partnership (GPP) instead of the renewable energy purchased amounts disclosed in the CDP dataset to ensure that, absent more details, renewable energy purchases evaluated aligned with its programmatic approach. The GPP 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. All GPP partners purchase green power in alignment with this definition. The majority of GPP Partners purchase green power for renewable electricity, hence the data analyzed for determining different ambition levels in the Self-Assessment best reflect setting targets for purchasing renewable electricity.

As options for sourcing renewable energy have expanded in recent years, more companies are able to set increasingly ambitious procurement targets, even if they do not cover the full scope of their electricity purchases. To understand how companies’ actual purchases could reflect different renewable energy target ambition levels in the market today, EPA examined

<sup>5</sup> As of 27<sup>th</sup> February 2020, <http://there100.org/companies>

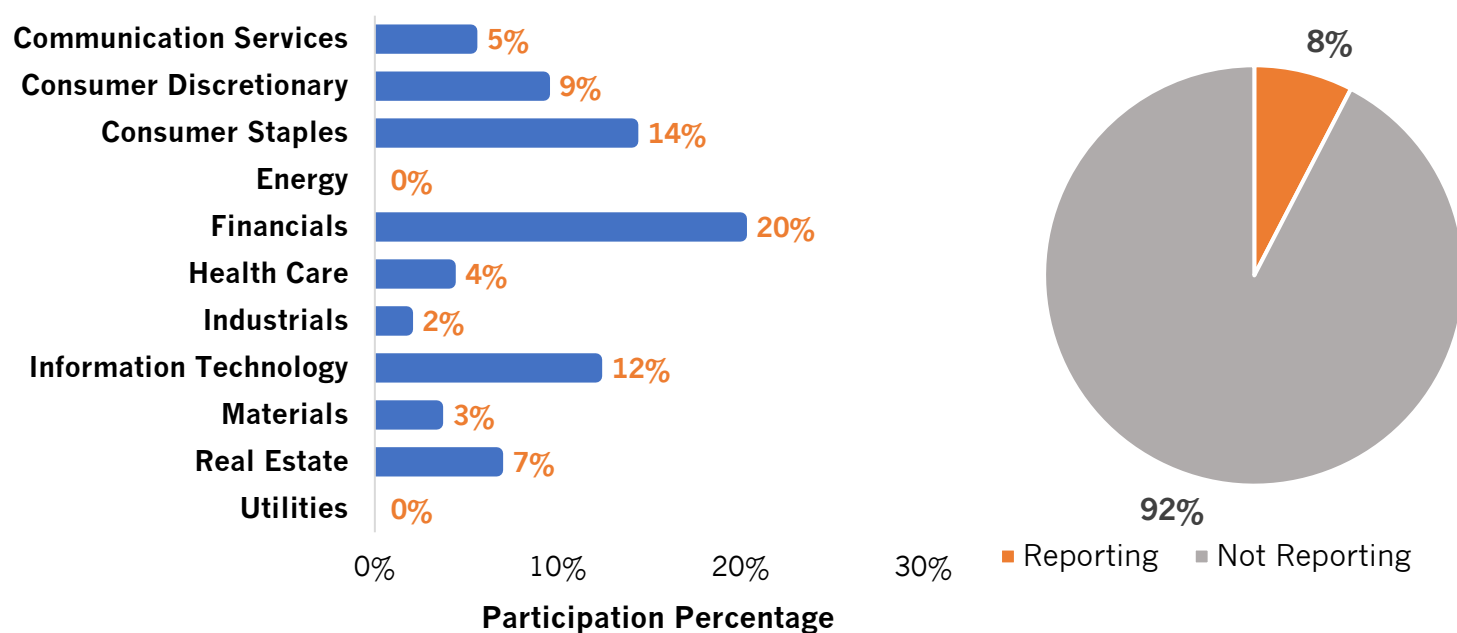
<sup>6</sup> <http://there100.org/companies>

<sup>7</sup> Dataset was crosschecked with RE100’s list of participating companies as of 27<sup>th</sup> February 2020

purchasing data from its Fortune 500 companies in its Green Power Partnership (GPP) that also overlapped with the dataset used for developing the self-assessment.<sup>8</sup>

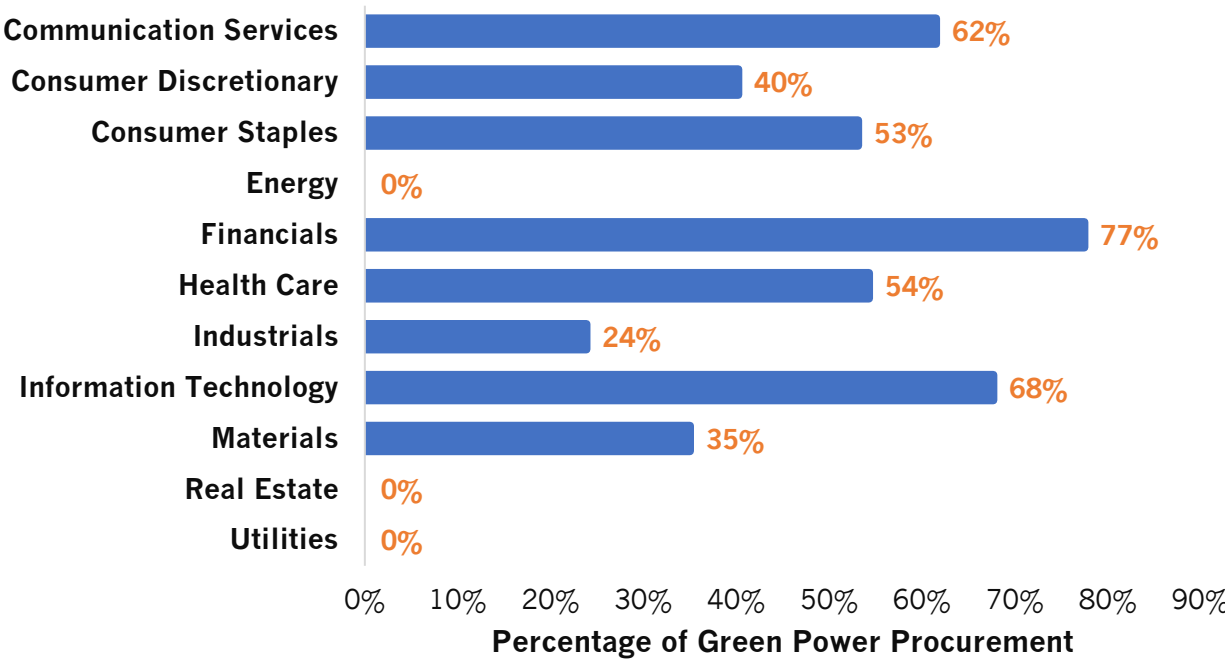
GPP Partners include 16% of all Fortune 500 companies and 35% of all Fortune 100 companies; 57 GPP Fortune 500 Partners companies (or 74% of GPP Fortune 500 Partners) overlapped with the CDP dataset. **On average, these GPP Partners' green power use represents 57% of their individual electricity consumption.** Additionally, the average green power consumption as a percentage of total electricity used is 60% across all 75 Fortune 500 companies participating in the GPP (see end of Appendix for the list of additional companies assessed). In EPA's experience, companies newer to purchasing green power often choose to buy at a lower percentage of their overall electricity use, increasing their procurement once they gain experience with green power product options. In select cases, partners purchase green power in excess of 100% of their US organization-wide electricity use, often on behalf of third-party facilities outside their operational control.

**Figure 14: Percentage of Companies with 100% Renewable Energy Targets**



<sup>8</sup> <https://www.epa.gov/greenpower/what-green-power>

**Figure 15: Green Power as a Percentage of Total Electricity Purchased**  
(dataset includes 57 green power partnership companies also in the CDP dataset)



## Dataset of Companies Assessed

### Communication Services

Alphabet, Inc.\*  
 AT&T Inc.\*  
 CBS Corp.  
 CenturyLink^  
 Comcast Corporation  
 DG3 NORTH AMERICA INC  
 Edelman  
 Interpublic Group of  
 Companies, Inc.  
 Level 3 Communications, Inc.  
 News Corp  
 Omnicom Group Inc.  
 PCTEL  
 Syniverse  
 T Mobile USA inc†  
 Twenty-First Century Fox  
 Verizon Communications Inc.  
 Viacom Inc.  
 Walt Disney Company  
 WORLDWIDE TECHNOLOGY  
 HOLDING COMPANY

### Consumer Discretionary

Abercrombie & Fitch Co.  
 All Access Apparel, Inc.  
 American Textile Company, Inc.  
 APPLIED ACOUSTICS  
 INTERNATIONAL  
 Bernhardt Design a Division of  
 Bernhardt Furniture Company  
 Best Buy Co., Inc.\*^  
 BorgWarner  
 Caesars Entertainment  
 Carnival Corporation  
 Compatico  
 Cooper Standard Automotive  
 Cousin Corporation of America  
 Dana  
 Davies Office Refurbishing, Inc.  
 Domino Foods, Inc.  
 Dunkin' Brands Group  
 eBay Inc.†  
 Epic Designers  
 Ford Motor Company  
 Gap Inc.^  
 Garan Manufacturing Corp  
 General Motors Company\*†  
 Goodyear Tire & Rubber  
 Company  
 Hanesbrands Inc.  
 Hasbro, Inc.  
 Hilton Worldwide, Inc.\*^  
 Hyatt Hotels  
 JCPenney  
 Kimball Office  
 Kohl's Corporation  
 Kohler Co.

Krueger International, Inc  
 L Brands, Inc.  
 Las Vegas Sands Corporation  
 Levi Strauss & Co.  
 Lowe's Companies, Inc.  
 Macy's, Inc.\*  
 Marriott International, Inc.  
 McDonald's Corporation  
 MGM Resorts International  
 Multipet International  
 National Office Furniture  
 Neapco  
 NIKE Inc.†^  
 OFS Brands  
 PACCAR Inc  
 Pacific Market International  
 PVH Corp†^  
 Radio Flyer Inc†  
 Rockline Industries  
 Royal Caribbean Cruises Ltd  
 Shason Inc.  
 SMART Modular Technologies  
 Tapestry Inc  
 Tenneco  
 The Home Depot, Inc.  
 Tiffany & Co.  
 TJX Companies, Inc.  
 Town & Country Linen  
 VF Corporation†  
 Visteon  
 VIVOTEK LTD  
 Wyndham Destinations, Inc.\*  
 Yotrio Group  
 Yum! Brands, Inc.

### Consumer Staples

Albertsons Companies, LLC\*  
 Alliance One International Inc.  
 Altria Group, Inc.\*  
 ANISA INTERNATIONAL INC  
 Archer Daniels Midland  
 Avon Products, Inc.  
 Bright International Corp.  
 Brown-Forman Corporation  
 Bumble Bee Foods LLC  
 Bunge  
 Campbell Soup Company  
 Cargill^  
 Church & Dwight Co., Inc  
 Clorox Company  
 Colgate Palmolive Company\*  
 Conagra Brands Inc  
 Constellation Brands, Inc.  
 Costco Wholesale Corporation  
 Crown Prince  
 Del Monte Foods  
 Estee Lauder Companies Inc.\*†  
 Farmer Brothers

General Mills Inc.\*  
 Harris Tea Company  
 HARVEST LAND CO-OP, INC.  
 Healthy Food Ingredients  
 Hormel Foods  
 Hp Hood Llc  
 INDULGENT FOODS  
 Ingredion Incorporated  
 Kellogg Company†  
 Keurig Dr Pepper†  
 Keurig Green Mountain  
 Kimberly-Clark Corporation\*  
 Kroger  
 Labbeemint  
 Mario Camacho Foods, Llc  
 Mars†  
 McCormick & Company,  
 Incorporated^  
 Molson Coors Brewing  
 Company^  
 Mondelez International Inc^  
 Nordstrom, Inc.  
 Norpac Foods, Inc.  
 Pacific World Corporation  
 PepsiCo, Inc.  
 Perfection Bakeries Inc.  
 Philip Morris International  
 Pinnacle Foods Group  
 Procter & Gamble Company\*†  
 Roskam Baking  
 Company/Rothbury Farms  
 Sensory Effects  
 Smithfield Foods, Inc.  
 Star of the West  
 Starbucks Corporation\*†  
 Sysco Corporation  
 Target Corporation†^  
 The Coca-Cola Company†^  
 The J.M. Smucker Company  
 The Kraft Heinz Company  
 Tyson Foods, Inc.  
 UNFI  
 Wal-Mart Stores, Inc.  
 Walgreens Boots Alliance  
 Walmart, Inc.\*†

### Energy

Anadarko Petroleum  
 Corporation  
 Baker Hughes, a GE Company  
 California Resources Corp  
 ConocoPhillips  
 CONSOL Energy Inc  
 Devon Energy Corporation  
 DTE Energy Company  
 EOG Resources, Inc.  
 Fluor Corporation  
 Halliburton Company



Hess Corporation  
Occidental Petroleum Corporation  
Oneok Inc.  
PS ENERGY GROUP INC  
Vectren Corporation  
Wisconsin Energy Conservation Corporation (WECC)

### **Financials**

Affiliated Managers Group  
AFLAC Incorporated  
Allstate Insurance Company  
American Express\*  
American International Group, Inc. (AIG)  
Ameriprise Financial, Inc.  
Aon plc  
Assurant, Inc.  
Bank of America\*†  
BlackRock  
Bloomberg†  
BNY Mellon\*  
Capital One Financial\*†  
Charles Schwab Corporation  
Chubb Limited  
Cincinnati Financial Corporation  
Citigroup Inc.\*†  
Citizens Financial Group Inc  
Comerica Incorporated  
Ernst & Young LLP (USA)  
Fifth Third Bancorp\*  
Franklin Resources, Inc.  
Genworth Financial, Inc.  
Goldman Sachs Group Inc.\*†  
Huntington Bancshares Incorporated  
JPMorgan Chase & Co.\*†  
KeyCorp  
Legg Mason, Inc.  
Lincoln National Corporation  
Marsh & McLennan Companies, Inc.  
MetLife, Inc.\*  
Morgan Stanley†  
PNC Financial Services Group†  
Principal Financial Group, Inc.  
Prudential Financial, Inc.  
Regions Financial Corporation  
State Street Corporation\*  
T. Rowe Price Associates, Inc.  
The Hartford Financial Services Group, Inc.  
The Travelers Companies, Inc.  
U.S. Bancorp  
Unum Group\*  
Voya Financial\*†  
Wells Fargo & Company\*†  
World Bank Group

### **Health Care**

Abbott Laboratories  
AbbVie Inc

Aetna Inc.\*  
Agilent Technologies Inc.  
Allergan plc  
AmerisourceBergen Corp.  
Amgen, Inc.  
Anthem Inc†  
Baxter International Inc.\*  
Becton, Dickinson and Co.  
Biogen Inc.\*  
Bristol-Myers Squibb  
Cardinal Health Inc.  
Celgene Corporation\*  
Charles River Laboratories International Inc.  
Cigna  
Comar, Inc.  
CVS Health  
Dentsply Sirona Inc.  
Edwards Lifesciences Corp  
Eli Lilly & Co.  
Express Scripts Holding Company  
Henry Schein Inc.  
Hologic, Inc.  
Humana Inc.  
Johnson & Johnson\*†  
KOBO PRODUCTS  
Laboratory Corporation of America Holdings  
MEDELA INC  
Medtronic PLC  
Merck & Co., Inc.  
Mettler-Toledo International Inc.  
Norwood Medical  
PerkinElmer, Inc.  
Pfizer Inc.  
Quest Diagnostics Incorporated\*  
Regeneron Pharmaceuticals, Inc.  
STERIS Corporation  
Stryker Corporation  
Tenet Healthcare Corporation  
Tower Labs  
Trillium Health Care  
UnitedHealth Group Inc  
Varex Imaging Corporation  
Varian Medical Systems Inc  
VWR International LLC  
Waters Corporation  
West Pharmaceutical Services  
Zimmer Biomet Holdings, Inc.\*

### **Industrials**

3M Company\*†  
ABM INDUSTRIES INC  
American Airlines Group Inc  
American Cleaning Supply, Inc.  
Amtrak  
Aptiv  
Arconic

ARTESYN EMBEDDED TECHNOLOGIES  
AVIOTRADE INC  
BECK GROUP - HC BECK  
Boeing Company\*  
Brady Corporation  
CALIENTE CONSTRUCTION INC  
CAMPBELL WRAPPER CORP  
Cartus  
Central Business Forms, Inc  
CHA HOLDINGS  
Chroma  
Clune Construction Company  
CONTROLPOINT TECHNOLOGIES  
CORPORATE CARE  
CSX Corporation  
Cummins Inc.^  
DAVEY TREE EXPERT  
Deere & Company  
Deloitte Touche Tohmatsu Limited  
Delta Air Lines  
Dover Corporation  
DW Morgan, LLC  
Eaton Corporation  
EMCOR Group Inc.  
Emerson Electric Co.  
EMO TRANS  
Expeditors International of Washington  
F & G CONSTRUCTION  
FedEx Corporation\*  
FORGE INDUSTRIES INC  
General Electric Company  
GROUP O, INC  
GZA Geoenvironmental, Inc.  
Hamilton Safe Company  
Harris Corporation  
Hartford Paving  
Harvard Maintenance, Inc.  
Herman Miller  
Hertz Global Holdings\*  
Hi-Lex Corporation  
HNI Corporation  
Honeywell International Inc.  
IHS Markit Ltd.  
Illinois Tool Works Inc.  
Ingersoll-Rand Co. Ltd.  
Interface, Inc.  
Jetblue Airways Corporation  
Johnson Controls International PLC  
K&A Machine & Tool, Inc.  
Kansas City Southern  
KC Transportation  
Kelly Services  
Lennox International Inc  
Lockheed Martin Corporation\*  
LOUREIRO ENGINEERING ASSOCIATES, INC.

|  |                                    |  |
|--|------------------------------------|--|
| M&M Cartage                              | Accenture†^                        | Microchip Technology                       |
| ManpowerGroup                            | Actiontec Electronics              | Micron Technology, Inc.                    |
| Masco Corporation                        | Adobe, Inc.†                       | Microsemi Corporation†                     |
| MENEMSHA COMPANIES                       | ADTRAN INC                         | Microsoft Corporation*^                    |
| MILAN EXPRESS CO INC                     | Akamai Technologies Inc            | Milestone AV Technologies                  |
| MILLENNIUM TECHNICAL SERVICES            | Alliance Data Systems              | Moody's Corporation                        |
| Modern Machine & Metal Fabricators, Inc. | AMKOR TECHNOLOGY INC               | Motorola Solutions                         |
| ModusLink Corporation                    | Analog Devices, Inc.               | NetApp Inc.                                |
| Navistar International Corporation       | Apple Inc.*†                       | NVIDIA Corporation                         |
| NEW ENGLAND UTILITY CONSTRUCTORS         | Applied Materials Inc.*            | Oracle Corporation*                        |
| Norfolk Southern Corp.                   | Arista Networks                    | QUALCOMM Inc.                              |
| NORTHERN CLEARING                        | Autodesk, Inc.†                    | S&P Global                                 |
| Northrop Grumman Corp                    | Automatic Data Processing, Inc.    | salesforce.com*†^                          |
| Northwest Seaport Alliance               | Avaya^                             | Seagate Technology LLC^                    |
| OMARK Consultants, Inc.                  | Bel Fuse Inc.                      | SEMTECH                                    |
| Owens Corning^                           | Booz Allen Hamilton                | SHI International Corp.                    |
| Parker-Hannifin Corporation              | Broadridge Financial Solutions Inc | Sungard Availability Services (Sungard AS) |
| Pitney Bowes Inc.                        | CA Technologies                    | Sykes Enterprises Incorporated             |
| Port of Tacoma                           | CABOT MICROELECTRONICS CORP        | Symantec Corporation                       |
| POTTERS CONSTRUCTION                     | Cavium                             | TE Connectivity                            |
| PRECISION PIPELINE SOLUTIONS             | Ciena Corp.                        | Teradata Corp.                             |
| Raytheon Company*                        | Cisco Systems, Inc.*               | Teradyne Inc.                              |
| REGAL BELOIT                             | CommScope, Inc.                    | Texas Instruments Incorporated             |
| Republic Services, Inc.^                 | CREE INC.                          | Trimble Navigation Ltd.                    |
| Rinchem Company Inc                      | Cypress Semiconductor Corporation  | Unisys Corporation                         |
| ROBIN ENTERPRISES CO                     | Dell Technologies*†                | Verisk Analytics Inc                       |
| Rockwell Automation                      | Entegris Inc                       | Versum                                     |
| Ryder System, Inc.                       | Exela Technologies                 | Virtusa                                    |
| Satellite Logistics Group                | First Solar Inc                    | Visa†                                      |
| SERIGRAPH, INC.                          | Fiserv, Inc.                       | VMware, Inc                                |
| SONIM TECHNOLOGIES INC                   | Flex Ltd.                          | Western Digital Corp                       |
| Southwest Airlines Co.*                  | Form Factor Inc.                   | Worldpay Inc                               |
| Stanley Black & Decker, Inc.             | Fourstar Connections, Inc.         | Xerox Corporation*                         |
| Steelcase†                               | GENESYS EUROPE LTD (Global)        | Xilinx Inc                                 |
| Suez Treatment Solutions                 | H&R Block Inc                      | <b>Materials</b>                           |
| Tennant Company                          | Hewlett Packard Enterprise†        | Air Products & Chemicals, Inc.             |
| Terex Corporation                        | HP Inc*†                           | AK Steel Holding Corporation               |
| Tessy Plastics                           | Ingram Micro Inc.                  | Alcoa Corp.                                |
| Textron Inc.                             | Integrated Device Technology, Inc. | American Packaging                         |
| Thomson Reuters Corporation              | Intel Corporation*                 | AptarGroup                                 |
| Tosoh SMD                                | IBM*                               | Ashland Global Holdings Inc                |
| Trans-Expedite Inc.                      | Intuit Inc.^                       | Avery Dennison Corporation                 |
| TSM CORP                                 | Iron Mountain Inc.†^               | Axalta Coating Systems                     |
| Turtle & Hughes                          | Jabil Inc.                         | Ball Corporation                           |
| ULTRA TOOL & MANUFACTURING, INC.         | Juniper Networks, Inc.             | BELLIS STEEL COMPANY, INC.                 |
| Union Pacific Corporation                | Keysight Technologies Inc          | Bemis Company                              |
| United Continental Holdings              | Kimball Electronics                | Berry Global Group, Inc                    |
| United Technologies Corporation          | KLA                                | Birla Carbon                               |
| UPS                                      | Kmg Electronic Materials           | Brewer Science                             |
| W.W. Grainger, Inc.                      | Lam Research Corp.                 | Cabot Corporation                          |
| Waste Management, Inc.                   | LATTICE SEMICONDUCTOR              | Celanese Corporation                       |
| Wesco International                      | Leidos                             | Compass Minerals International Inc         |
| Xylem Inc                                | Lenovo Group                       | COX INDUSTRIES                             |
| <b>Information Technology</b>            | Lexmark International, Inc.        | CRC INDUSTRIES INC                         |
|  | LUMENTUM                           | Crown Holdings†                            |
|  | Marvell Technology Group, Ltd.     | DowDuPont                                  |
|  | MasterCard Incorporated            | E.I. du Pont de Nemours and Company        |
|  |                                    | Eastman Chemical Company                   |

|   |  |                                       |
|---|--|---------------------------------------|
| Ecolab Inc.   | Silgan Plastics                          | American Electric Power Company, Inc. |
| Ecova, Inc.   | The Dow Chemical Company*                | American Water Works                  |
| FMC Corp  | The Mosaic Company                       | Aqua America Inc.                     |
| Freeport-McMoRan Inc.                                 | Tosoh Quartz                             | Avangrid Inc                          |
| Fujimi Incorporated                                   | Trinseo LLC                              | CMS Energy Corporation                |
| Gates Corporation                                     | Vulcan Materials Company                 | Covanta Energy Corporation            |
| Genfoot America Inc                                   | WestRock Company                         | Dominion Energy                       |
| Graphic Packaging                                     | WS Hampshire, Inc.                       | Duke Energy Corporation               |
| Greif Inc <sup>^</sup>                                | Zatkoff Seals and Packing                | Eversource Energy                     |
| GW Plastics   | <b>Real Estate</b>                       | Exelon Corporation                    |
| H.B. Fuller   | AvalonBay Communities <sup>^</sup>       | FirstEnergy Corporation               |
| International Flavors & Fragrances Inc.† <sup>^</sup> | CBRE Group, Inc.                         | Idacorp Inc                           |
| International Paper Company                           | Digital Realty Trust Inc                 | NiSource Inc.                         |
| J M HUBER   | EQUINIX, INC.†                           | NORTHLINE UTILITIES                   |
| KIK Custom Products                                   | Forest City Realty Trust                 | NRG Energy Inc                        |
| LyondellBasell Industries N.V.                        | HCP Inc.                                 | OGE Energy Corp.                      |
| Moses Lake Industries                                 | Host Hotels & Resorts, Inc. <sup>^</sup> | Ormat Technologies Inc                |
| NDK   | JLL                                      | PG&E Corporation                      |
| Newmont Mining Corporation                            | Kimco Realty                             | Pinnacle West Capital Corporation     |
| Norcom, Inc.  | Macerich Co.                             | PPL Corporation                       |
| Novelis Inc.  | MILLENNIUM REAL ESTATE SERVICE           | Public Service Enterprise Group Inc.  |
| Packaging Corporation of America                      | Prologis <sup>^</sup>                    | Sempra Energy                         |
| PPG Industries, Inc.                                  | Simon Property Group                     | The AES Corporation                   |
| Praxair, Inc.   | Ventas Inc                               | The Southern Company                  |
| Schnitzer Steel Industries, Inc.                      | Welltower Inc.                           | WEC Energy Group                      |
| Sealed Air Corp.                                      | <b>Utilities</b>                         | Xcel Energy Inc.                      |
| Sherwin-Williams Company                              | Ameren Corporation                       |                                       |

\*Companies that are Partners in EPA's Green Power Partnership

†Companies with 100% renewable energy targets

<sup>^</sup>Companies with updated Science-Based Targets

## Additional Green Power Partnership Partner Companies Assessed for Renewable Energy Target Setting:

|   |  |   |
|---|--|---|
| BD  | Penske Truck Leasing Co., L.P./Penske Logistics, LLC | United Parcel Service (UPS) / Palm Springs, CA Facility |
| Netflix, Inc.                                 | United Natural Foods, Inc.                           |   |
| PayPal, Inc. / U.S. Data Centers              | General Dynamics Land Systems / Central Office       |   |
| The Hartford Financial Services Group Inc.    | Office Depot, Inc / Headquarters                     |   |
| Wynn Las Vegas                                | Ulta Inc.  |   |
| United Services Automobile Association (USAA) | General Dynamics Land Systems / Scranton             |   |
| Kohl's  | Time Warner Cable / Central Texas                    |   |
| Department Stores                             |  |   |
| Whirlpool Corporation                         |  |   |

The self-assessment and this appendix are 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](mailto:cccl@epa.gov).

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