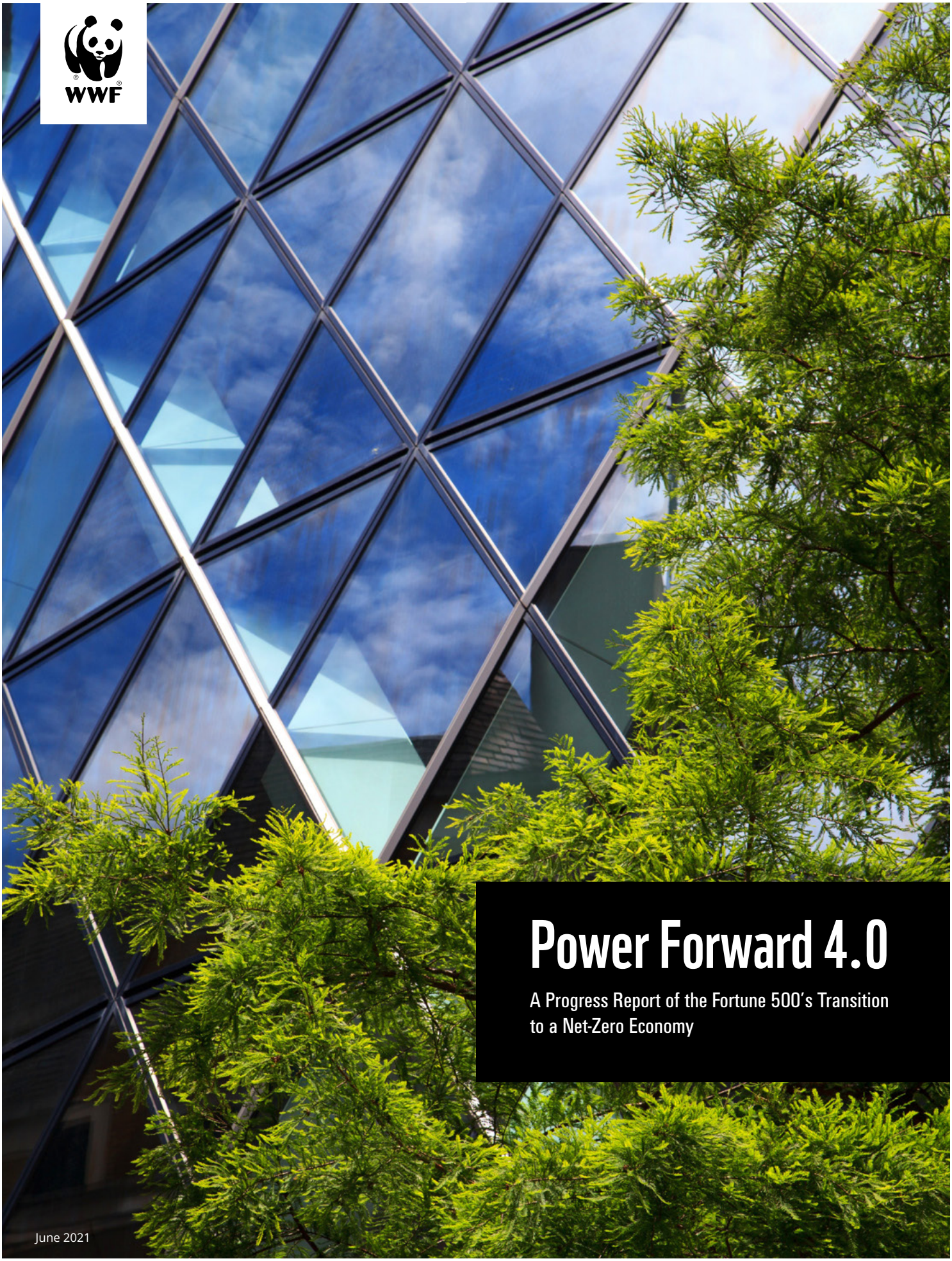

Power Forward 4.0

A Progress Report of the Fortune 500's Transition to a Net-Zero Economy

June 2021

Contents

Acknowledgments

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Executive Summary

Voluntary corporate climate action has accelerated significantly over the past four years, signaling clear progress in the transition to a low-carbon economy. *Power Forward 4.0*, which analyzes climate and energy commitments among the Fortune 500, finds that 60% of America's largest companies have now set at least one target related to greenhouse gas (GHG) emission reduction, energy efficiency, renewable energy sourcing, and/or net-zero emissions. This represents a 12-percentage-point increase since WWF released *Power Forward 3.0* in 2017. Though growth has occurred across the Fortune 500, the largest companies continue to lead the way, with 76% of the Fortune 100 now having at least one commitment—up 13 percentage points.

GHG emission reduction targets are the most common type of commitment, with 54% of Fortune 500 companies committing to reduce their direct (scope 1) emissions, purchased energy (scope 2) emissions, and/or value-chain (scope 3) emissions. Science-Based Targets (SBTs)[1], which require companies to reduce emissions in line with the goals of the Paris Agreement, have increased more than sixfold (from 10 to 63) among Fortune 500 companies since 2017. Even with this progress, only one in five Fortune 500 companies has set or formally committed to set an SBT through the Science Based Targets initiative (SBTi).

Nearly a third (30%) of the companies with GHG targets have also set dedicated renewable energy targets, and the number of 100% renewable commitments has doubled to 58 since 2017. These targets are the engine that drove US companies to nearly quadruple their renewable electricity contracts in that same timeframe. In 2020, 35 corporate buyers, of which 23 were in the Fortune 500, entered contracts for 98 large renewable energy deals, for a total of 10.63 gigawatts (GW) of capacity. This brings the total corporate renewable energy procurement from new projects to 35 GW in the past seven years[2]—equaling roughly half of the coal-fired generation capacity retired during the same period.[3] Thirteen percent of Fortune 500 companies have also set energy efficiency targets, although an analysis of corporate progress to date revealed that companies reporting to CDP are struggling to achieve these improvements.

The newest trend in corporate target setting is the net-zero commitment, which adds to the growing number of variations of the "carbon neutrality" claim that has existed for over 20 years. Seventeen percent of Fortune 500 companies[4] have now made one of these commitments, which take various monikers, from "climate positive" to "carbon negative." The adoption of these commitments has accelerated since the Intergovernmental Panel on Climate Change (IPCC)'s *Special Report on Global Warming of 1.5ºC* (2019), which highlighted the urgent need for global emissions to reach net zero by no later than 2050. At net zero, the amount of GHG emissions equals the amount of GHGs removed from the atmosphere. The emergence of net-zero targets is a positive signal, but the quality and credibility of many claims remain uncertain, and the real impact of these targets on climate outcomes is difficult to assess without increased transparency.

[1] When using "Science-Based Targets" this report refers to targets approved by the Science Based Targets initiative.
[2] *REBA Deal Tracker*, Renewable Energy Buyers Alliance, 2021.
[3] *More than 100 coal-fired plants have been replaced or converted to natural gas since 2011*, US Energy Information Administration, 2020.
[4] This report refers to Fortune 500 companies except where it describes companies "overall" or where otherwise indicated.

Although the steady growth in corporate climate action is encouraging, corporate targets vary dramatically in their robustness (ambition, scope, timeframe), and adoption varies greatly by sector. A breakdown by sector shows that the apparel, hospitality, and food and beverage sectors are leading the way in setting climate commitments as well as SBTs. The financial services, fossil fuel, and retail sectors lag; fewer than 50% of companies in these industries have set a target, and very few have set targets in line with a well-below 2ºC or 1.5ºC pathway.

The extent of the climate crisis requires collaboration among a wide range of stakeholders and ambitious climate action from every company, but the limitations of voluntary corporate climate action are clear. In aggregate, the US private sector, as represented by the Fortune 500, is not decarbonizing at the pace needed to align with the goals of the Paris Agreement or the new US Nationally Determined Contribution (NDC). 40% of Fortune 500 companies, including many of the largest emitters, lack any climate commitment, and less than one fifth are aligning targets with climate science. There is an urgent need for ambitious and durable climate policy to drive private-sector action at the scale required to avoid the most adverse climate outcomes. While the challenge is immense, leading US companies are demonstrating that transitioning to a low-carbon economy is possible. By establishing enabling policies and market incentives, we can bridge the gap between current action and what is needed to achieve a net-zero world by 2050.

Recommendations

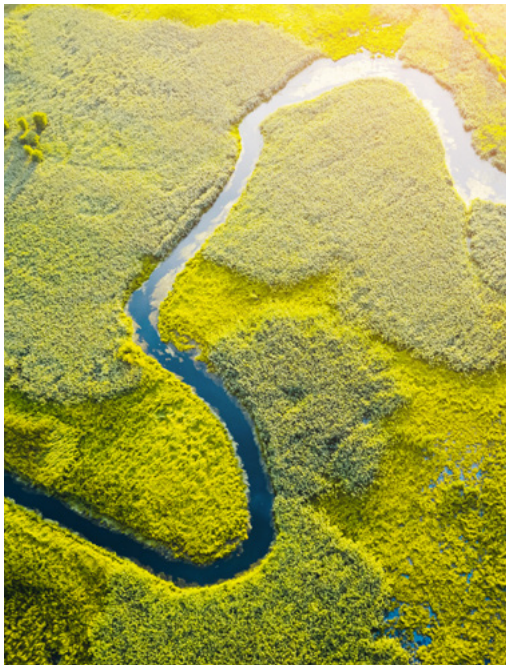
For the private sector:

- Set Science-Based Targets aligned with a 1.5ºC decarbonization pathway and validated by the Science Based Targets initiative.
- Address value-chain (scope 3) emissions by setting ambitious targets, encouraging suppliers and customers to set their own targets, procuring renewable energy, implementing GHG reduction initiatives, and supporting policy.
- Publicly report on company climate risks, GHG emissions and reduction commitments, using GHG Protocol accounting standards, CDP disclosure questionnaires, and the guidelines of the Task Force for Climate-related Financial Disclosures.
- Complement net-zero/carbon-neutral targets with short- or medium-term decarbonization targets that align with the Paris Agreement goals.
- Prioritize decarbonizing operations and value chains before investing in compensatory options (e.g. carbon credits), in line with the mitigation hierarchy (avoid, mitigate, restore, and only then offset) and the *WWF Blueprint for Corporate Action on Climate and Nature*.
- Endorse the new US goal of reducing emissions by 50%– 52% by 2030 and support its implementation through ambitious decarbonization and science-based climate policy, in line with AAA Framework for Climate Policy Leadership.

For US policymakers:

- Establish ambitious and durable climate policy at the federal, state, and local levels to mobilize lagging companies and create clear incentives for businesses to help the US meet its NDC and reduce emissions at the rate and scale demanded by the climate crisis.
- Establish economy-wide policies such as carbon pricing that create direct incentives for corporate action.
- Implement sector-based approaches and complementary policies to reduce emissions from electricity, transportation, buildings, manufacturing, and land use change.

Introduction



Addressing the catastrophic risks posed by climate change demands unprecedented action across the global economy—governments, the private sector, civil society, and other stakeholders working together with common resolve. The United States, as the second-largest global emitter and largest historical emitter of GHGs, must lead the global race to net zero. America's largest companies are critical to this effort, and they must also lead by reducing their GHG emissions, addressing emissions embedded in their global value chains, and advancing domestic climate policies needed to achieve net-zero GHG emissions by no later than 2050.

Since 2012, the *Power Forward* report series has assessed the state of voluntary corporate climate and energy target setting in the Fortune 500. This analysis of corporate commitments to reduce GHG emissions, improve energy efficiency, and source more renewable energy reveals the pace and scale of corporate climate action. The fourth iteration of this report highlights continued growth in target setting among the Fortune 500, analyzes increasingly ambitious targets that align with climate science, and explores new trends in corporate target setting, including the rise of net-zero commitments. The report also assesses the achievement of corporate climate commitments and climate-related value chain engagement.

In addition, the findings demonstrate the limitations of voluntary corporate action and the need for strong, effective, and durable climate policy that incentivizes action from lagging sectors and accelerates the transition to a low-carbon economy. The impact of voluntary corporate target setting depends on the scale of adoption, the types of targets set, their ambition, and—most importantly—the achievement of those targets. The IPCC's initial *NDC Synthesis Report* shows that while individual countries have by and large increased their ambition, overall, their commitments fall far short of what science indicates is needed. Unfortunately, the same is true for target setting within the Fortune 500. Companies must set more rigorous climate and energy targets that align with the level of decarbonization needed to avoid the worst impacts of climate change. Many of America's leading companies have risen to this challenge, but time has run out for the significant cohort of laggards to follow suit voluntarily. Voluntary action is essential but far from sufficient.

Methodology

This report analyzes the prevalence of climate and renewable energy commitments among the 2020 US Fortune 500, an annual index of the largest companies in the US by total revenue.[5] Four categories of targets are considered:

1. GHG emission reduction
2. Renewable energy
3. Energy efficiency
4. Carbon-balancing claims (e.g., carbon neutral/positive/negative, net zero)

The report also highlights the role of global commitment platforms, including the SBTi, RE100, Business Ambition for 1.5°C, and the Race to Zero Campaign. These initiatives use specific criteria to ensure a minimum level of ambition and consistency across different companies.

Only commitments that were quantitative, time-bound (except for 100% renewable energy commitments), and active in 2019 and beyond were considered in this report.[6] Sources include CDP Climate Change 2019 questionnaire responses, corporate sustainability reports, and other publicly available data.[7] For additional information on this report's data sources and methodology, please refer to Appendix A.

[5] Fortune 500 Methodology, *Fortune,* 2017.
[6] An exception was made for the past targets analysis section, for which only commitments finalized in 2018 and prior were considered.
[7] In 2019, 301 Fortune 500 companies reported climate disclosures to CDP, 277 of which were public.

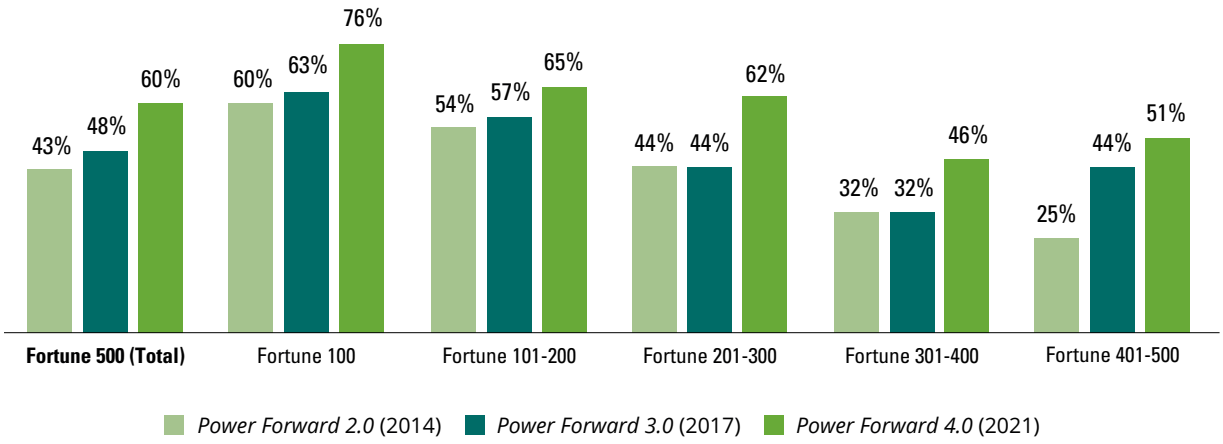
Climate and Energy Targets in the Fortune 500

Among the 2020 Fortune 500, 60% of companies have set at least one climate- or energy-related commitment. This represents an increase of 12 percentage points since *Power Forward 3.0*, published in 2017, and more than double the growth seen between *Power Forward 2.0* (2014) and 2017.

While the largest companies continue to lead, with more than three quarters (76%) of companies in the Fortune 100 setting at least one climate or energy commitment, target setting has also grown across the entire Fortune 500 (see Figure 1). This is particularly striking for the Fortune 301-400, which has seen an increase of 14 percentage points since 2017. While the overall growth in target setting is encouraging, 40% of the Fortune 500 still lack any public climate or energy targets. Given the scale of the climate crisis and the important role that the corporate sector plays in GHG emissions reductions, all companies must act without delay.

60% of the Fortune 500 companies have set some type of climate or energy commitment, up from 48% in 2017.

Figure 1. Change in Fortune 500 climate and energy targets over time, by quintile.

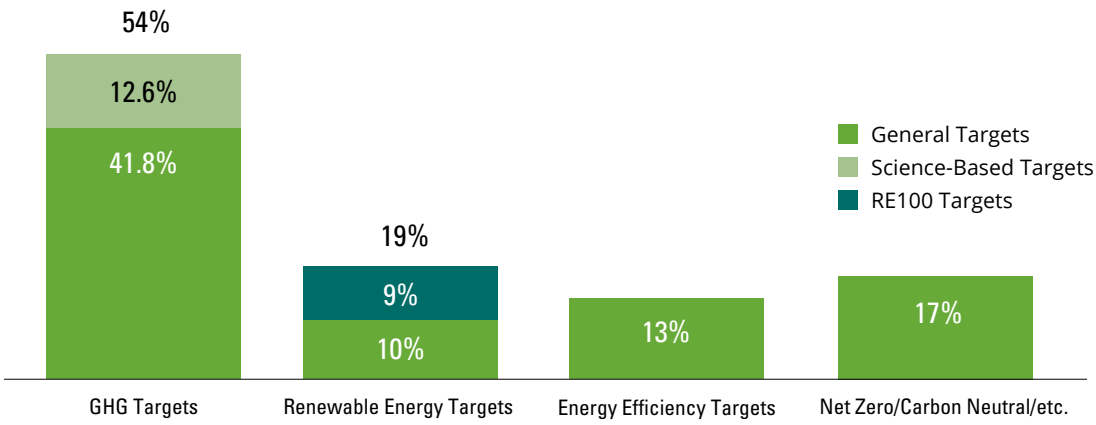


Types of Targets

GHG reduction targets are the most common commitment, with 54% of Fortune 500 companies having set an absolute or intensity-based GHG emissions reduction target. Other target types are less prevalent; 19% of companies have set renewable energy targets, 17% have set net-zero/carbon-neutral targets, and 13% have set energy-efficiency commitments (see Figure 2). Of the 272 companies with a GHG target, 116 also possess a complementary renewable energy or energy-efficiency target.

The climate impact of different targets, across and within target types, can vary significantly depending on the target boundary, ambition, and implementation strategies. For instance, targets validated by the Science Based Targets initiative or the RE100 campaign are required to meet certain guidelines to ensure they will effect a more robust climate impact. While both platforms have grown considerably over the past few years, only 13% of Fortune 500 companies have had targets officially approved by the Science Based Targets initiative, and only 9% are RE100 signatories.

Figure 2. Prevalence of different types of climate and energy commitments among the Fortune 500.[8]



[8] In this figure, a single company is included in different categories if it has multiple target types, so there is overlap in the percentages of companies with each commitment type.

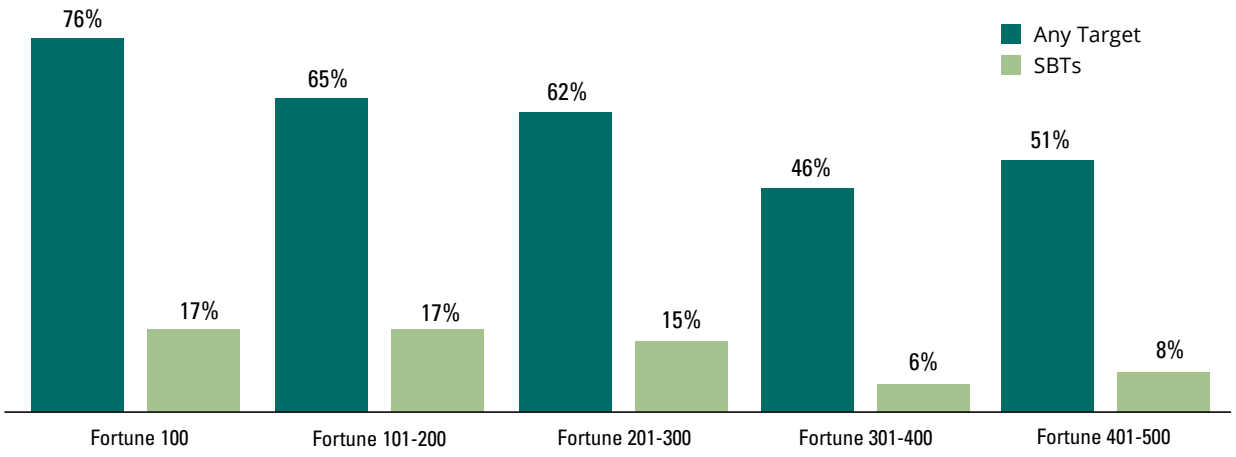
Science-Based Target Setting

To achieve the goals of the Paris Agreement, corporate targets must align with the level of GHG emissions reductions needed to avoid the most dangerous effects of climate change. While more companies are starting to use climate science to guide their targets' ambition, corporate action in the Fortune 500 lacks the scale and intensity necessary to achieve favorable climate outcomes by 2050.

Since its establishment in 2015, the Science Based Targets initiative has emerged as the standard to align corporate commitments with the latest climate science. Science-Based Targets require companies to reduce their scope 1 and scope 2 emissions in line with the Paris Agreement (i.e., either a well-below 2°C or 1.5°C pathway) and take ambitious action to address upstream and downstream scope 3 emissions in the value chain if they account for more than 40% of the company's overall footprint.[9] Within the Fortune 500, 63 companies (13%) have set SBTs that have been approved by the Science Based Targets initiative, six times the number of companies that had done so in 2017.

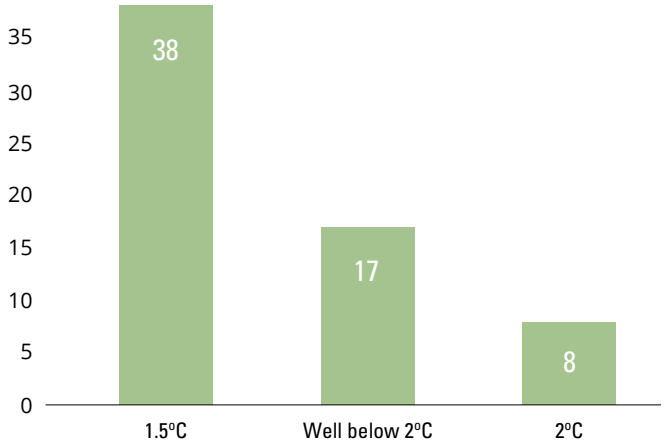
Science-based target setting has penetrated all segments of the Fortune 500; 17% of the Fortune 200 and 15% of the Fortune 201-300 have set these ambitious goals. For companies in the bottom two quintiles, the uptake has been slower, but it is encouraging that this concept has seen uptake across all of the Fortune 500 (see Figure 3).

Figure 3. Science-Based Target setting in the Fortune 500, by quintile.



Of the 63 companies with approved targets, more than half have aligned them with a 1.5°C decarbonization pathway—the most ambitious global target in the Paris Agreement (see Figure 4).

Figure 4. Climate ambition of approved SBTs in the Fortune 500.



[9] Scope 1 covers direct emissions from owned or controlled sources. Scope 2 covers indirect emissions from the generation of purchased electricity, steam, heating, and cooling consumed by the reporting company. Scope 3 includes all other indirect emissions that occur in a company's value chain.

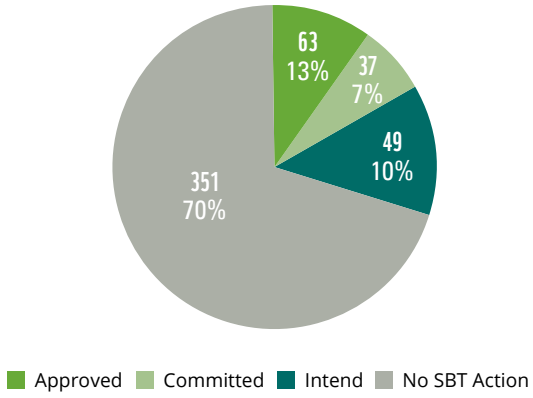
An additional 37 companies (7%) have formally committed to setting GHG targets through the Science Based Targets initiative in the next two years, bringing the total number of the Fortune 500 committed to, or with targets approved by, the SBTi to 100 (20%).

In 2019, 49 other Fortune 500 companies (10%) reported to CDP that they intend to set SBTs within the next two years (see Figure 5). Thirty-four additional companies indicated that they believe their existing absolute emissions reduction targets are science-based. High-level analysis of the targets of the aforementioned 34 companies reveals that 28 of those companies align with at least a well-below 2ºC pathway (>2.5% absolute linear emissions reduction per year).[10] Unfortunately, even when considering informal approaches, a majority of the Fortune 500 have taken no action to set SBTs. In addition, SBTi approval ensures not only alignment with the Paris Agreement but also that corporate commitments meet other best practices, such as covering a majority of their footprint and avoiding the use of carbon credits, thereby promoting consistency across companies and industries.

While the progress in SBTs since *Power Forward 3.0* is encouraging, it remains far from the level of overall action needed to achieve the Paris Agreement's goals.

Only 1 in 5 (20%) Fortune 500 companies have set or committed to set Science-Based Targets.

Figure 5. Science-based target setting in the Fortune 500.



Sector Analysis

The apparel, food and beverage, and hospitality sectors are leading the way in setting climate-related targets as well as aligning them with science, while the financial services, fossil fuel, and retail sectors lag behind.

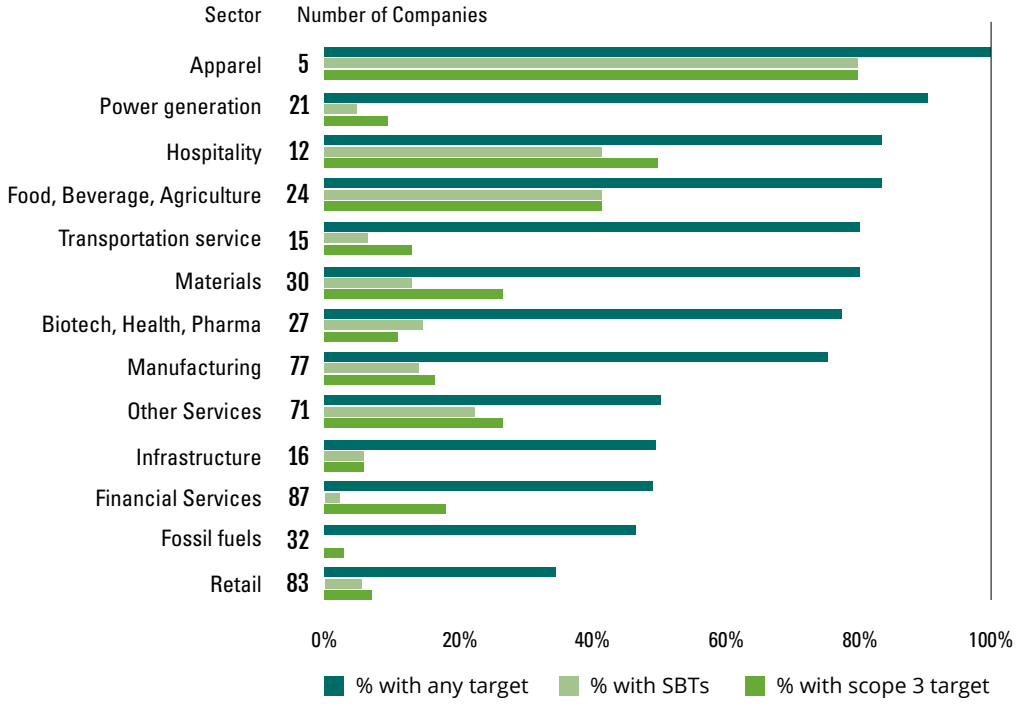
Although climate and energy target setting has increased consistently across the Fortune 500, there are steady variations in target adoption across sectors (see Figure 6). Apparel companies have led the way in setting ambitious and comprehensive climate commitments. All companies in this sector have at least one climate or energy-related target and 80% have an approved SBT. The food and beverage sector and the hospitality sector are also top performers; more than 80% of Fortune 500 companies in each of these two sectors have at least one climate or energy commitment, and more than 40% have SBTs.

Notably, the power generation sector has a high percentage of companies with targets (90%), although very few of those (5%) are Science-Based Targets. Meanwhile, the financial, fossil fuel, and retail[11] sectors lag; only 49%, 47%, and 35%, respectively, have set any commitments. In addition, there is very limited penetration of SBTs or scope 3 targets among these sectors. For many sectors, including the financial, retail, and fossil fuel industries, scope 3 emissions represent the majority of a company's GHG footprint, and excluding those emissions considerably reduces the impact that corporate climate targets have. The SBTi launched a science-based target framework and validation service for financial institutions in October 2020 and is currently developing a new sector methodology for oil and gas; both of these aim to facilitate SBT adoption in these sectors. This will be an important trend to watch in forthcoming reports.

[10] CDP questionnaire data on absolute emissions targets were analyzed, and 34 companies self-reported that their absolute targets were science-based but had not been approved by the SBTi. The timeframe of each target (difference between base year and target year, in years) and the targeted reduction percentage in absolute emissions over the associated timeframe were assessed in order to determine a target's expected absolute linear emissions reduction per year. These values were compared to the absolute linear emissions reduction per year expected for different climate outcome pathways (e.g., 1.5ºC, well below 2ºC, etc.). Intensity targets were not analyzed.

[11] The retail sector includes convenience, discretionary and trading, wholesale, distribution, and rental and leasing companies.

Figure 6. Fortune 500 companies with climate-related targets, science-based targets, and scope 3 targets, by sector.



The alignment of the fossil fuel and financial sectors with science-based decarbonization pathways will be essential for achieving the Paris Agreement. Fossil fuels are responsible for the vast majority of emissions, both globally and in the US. Domestically, CO2 emissions from fossil fuel combustion represented 75% of anthropogenic GHG emissions in 2018.[12] The financial sector, on the other hand, holds a unique influence on other sectors' emission reductions through its investment and lending services.

Value-Chain Targets

Economy-wide action is needed to mitigate the physical risks of climate change to business operations, supply chains, customers, and communities. One avenue for scaling the impact of voluntary corporate action and incentivizing collective action is to extend corporate target setting to include emissions upstream and downstream in the company's value chain (indirect value-chain emissions are also known as scope 3). Ninety-one Fortune 500 companies (18%) have targets that include scope 3 emissions. For most companies, scope 3 is significantly larger than their combined scopes 1 and 2 emissions. For the Fortune 500 companies that report to CDP, scope 3 emissions are on average approximately 5.7 times their combined scopes 1 and 2 emissions.[13] Setting scope 3 targets is a growing trend, and is required to set SBTs, if a company's scope 3 emissions are 40% or more of the overall GHG inventory.

While addressing emissions throughout the value chain is critical, the barriers to setting and implementing scope 3 targets are significant. Many companies resist setting targets to reduce emissions that occur mostly outside of their operational control. Others lack reliable data on emissions from sources upstream and downstream in the value chain, making target setting an imprecise exercise. Scope 3 reduction strategies often require collaborative approaches within and across sectors, as well as efforts to induce behavior change in both suppliers and customers.

[12] *Energy and the Environment Explained: Where greenhouse gases come from*, US Energy Information Administration, 2020.
[13] In 2019, 270 companies reported to CDP regarding scope 3 emissions. However, for this analysis, we considered only companies that had estimated the majority of their relevant scope 3 categories (189 companies), in order to produce an accurate assessment of how significant a company's scope 3 emissions were compared to its scopes 1 and 2 emissions. All companies that did not provide estimates for more than three categories that were relevant (classified as "relevant not yet calculated") were excluded from the analysis.

More than 90% of Fortune 500 companies that reported to CDP are engaging with their value chain on climate-related issues, with 66% engaging customers and 77% engaging suppliers. However, supplier engagement encompasses a broad set of activities, with most relating to onboarding, compliance, and information gathering. Only 18% of Fortune 500 CDP responders that reported supplier engagement mentioned incentives, innovation, or collaboration to change supplier behavior or markets. There is much more work to be done, and questions remain around how to improve the quality of value-chain emissions reporting and how to claim scope 3 action within an inventory. However, the collaborative and holistic approaches taken to reduce value-chain emissions to date reflect the type of economy-wide, all-hands efforts required to reduce emissions in line with climate science.

Beyond Carbon Neutrality: The Emergence of Net Zero

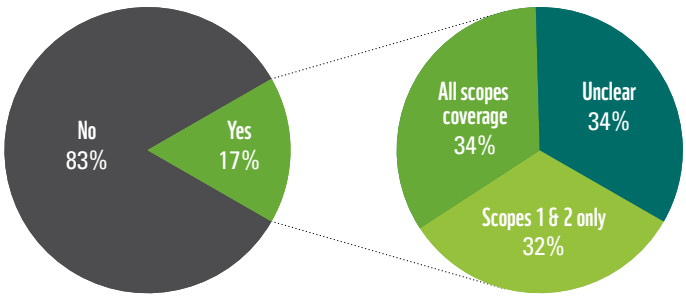
"Carbon neutrality" has been a term in the corporate climate vernacular for two decades, with claims generally defining it as a balancing of emissions with the purchase of carbon credits (also known as "offsets"). But in 2018, after the release of the IPCC's special report *Global Warming of 1.5°C*, a new term was introduced: net zero. In the report, net zero (and carbon neutrality) is defined as the point when "anthropogenic emissions of greenhouse gases to the atmosphere are balanced by anthropogenic removals, over a specified period."[14] If global temperatures are to stay well below 2°C, the state of net zero would have to be reached by around 2070, but to achieve the Paris Agreement's ultimate goal of 1.5°C, net zero is necessary by around 2050.

A wide range of global stakeholders have adopted net zero as both a goal and a rallying cry. In June 2020, the United Nations Framework Convention on Climate Change launched the Race to Zero Campaign, which aggregates net-zero commitments from a range of initiatives across the climate action community. As of May 2021, 708 cities, 23 regions, 2,162 businesses, 127 of the biggest investors, and 571 higher education institutions across the world had joined the campaign, demonstrating the traction that the net-zero concept has gained. Over the past two years, this type of goal has also risen in prominence among Fortune 500 companies.

Through February 2021, 36 (7%) of the Fortune 500 had set a target described as "net zero." Thirty-nine companies (8%) had "carbon neutral" targets, while 8 (2%) adopted other terms, including "carbon positive," "climate neutral," and "carbon negative." In all, 83 companies (17%) had some type of goal that promised to balance their emissions. These commitments vary significantly in terms of the scope of emissions covered, implementation strategies, and accomplishment timeframes. As a result, it is difficult to assess the real climate impact of many of these goals and whether they align with the level of action needed to limit global warming to 1.5°C. It is critical that companies setting these types of targets follow the mitigation hierarchy (avoid, mitigate/abate, restore, and only then offset) and commit to emission reductions on a science-aligned pathway. To read more about how to consider raising ambition in this way, see the December 2020 WWF report, *Beyond Science-Based Targets: A Blueprint for Action on Climate and Nature*.

An analysis of the emissions covered by these 83 goals shows that 32% focus solely on the company's scopes 1 and 2 emissions, while 34% encompass scopes 1, 2, and 3. It is unclear whether scope 3 emissions are covered or not in the remaining 34% of commitments based on publicly available information (see Figure 7), underscoring the need for greater transparency.

Figure 7. Fortune 500 companies with carbon-balancing targets and their scopes coverage.

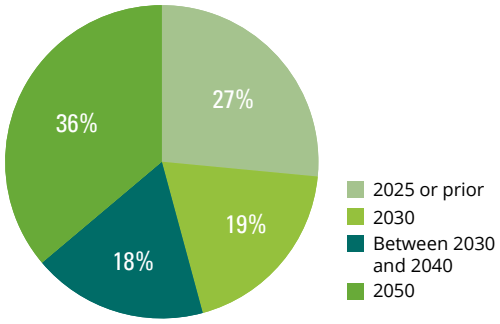


Net-zero, carbon neutral and similar goals are the newest trend in corporate climate targets—with 17% of Fortune 500 having one— but they vary signicantly in their ambition, scope and transparency.

[14] *Global Warming of 1.5°C*, IPCC Special Report, 2018.

The target years for these goals also vary widely, from 2007 to 2050, which also has significant implications for real-world impact (see Figure 8). Thirty of the goals (36%) are long-term goals for 2050, while nearly half (46%) have target dates of 2030 or earlier. Some carbon neutrality commitments have target years that have already passed, indicating that carbon neutrality was achieved that year and is being maintained. While all companies should prioritize internal and supply chain abatement, for longer-term targets (2040 and beyond), it is important to also set interim Science-Based Targets. Yet, of the Fortune 500 with carbon-balancing goals, while more than 92% have another type of climate-related target, less than a third of them (31%) have an approved SBT.

Figure 8. Timeframe of Fortune 500 carbon-balancing targets.



The absence of interim SBTs for most companies with carbon-balancing commitments reflects a lack of consistency in target implementation strategies. Companies that rely heavily on carbon credits without additional, science-based GHG reductions to achieve these goals minimize decarbonization efforts within their own operations and value chains. This is unsustainable at a global level, since achieving net zero requires deep, economy-wide decarbonization.

The wide range of ambition, scope, and transparency among net-zero commitments has motivated SBTi to develop a net-zero standard for business. The Foundations for Science-Based Net-Zero Target Setting in the Corporate Sector, published in September 2020, lays out the conceptual basis for credible, science-based net-zero targets. Additionally, a first draft of target-setting criteria went through a public consultation in the spring of 2021. After another round of consultation, a set of final criteria is expected by the 2021 United Nations Climate Change Conference (COP26) in November 2021. This effort is critical to ensuring that the growth of net-zero commitments translates to the level of climate action needed at the global level.

Corporate Renewables

The number of companies setting renewable energy targets continues to rise. Nineteen percent of the Fortune 500 have set a goal to buy or invest in renewable energy, up from 10% in *Power Forward 3.0*.

As renewable energy costs, particularly wind and solar, continue to decline, companies are procuring renewable energy to reduce operating costs, gain long-term price stability, and diversify their energy supply. Many companies also recognize renewable energy as a critical complement to energy efficiency in achieving aggressive emissions targets.

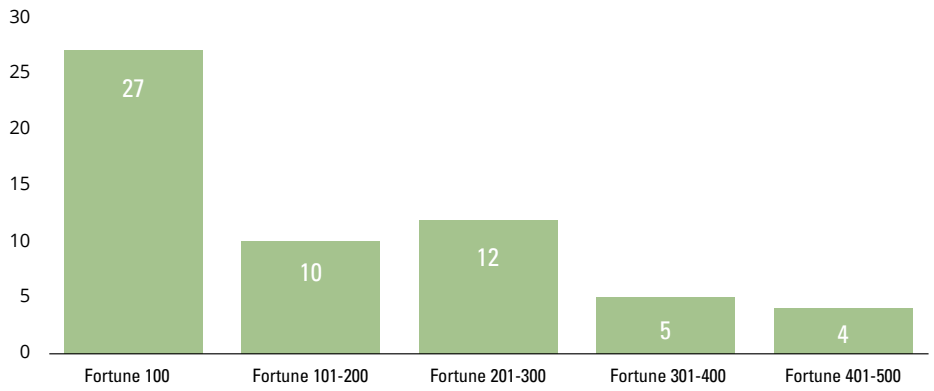
Ninety-four Fortune 500 companies have set a goal to buy or invest in renewable energy, up from the 53 that had done so in *Power Forward 3.0*.

100% Renewable Energy

Ambitious renewable energy targets play an essential role in driving successful corporate climate action. Since 2017, the number of Fortune 500 companies with 100% renewable energy commitments has more than doubled, from 23 to 58. Commitments to achieve 100% renewable energy, which include targets to procure all electricity from renewable sources (and, in some cases, to meet all energy needs using renewable sources), account for about 62% of all renewable energy commitments among the Fortune 500.

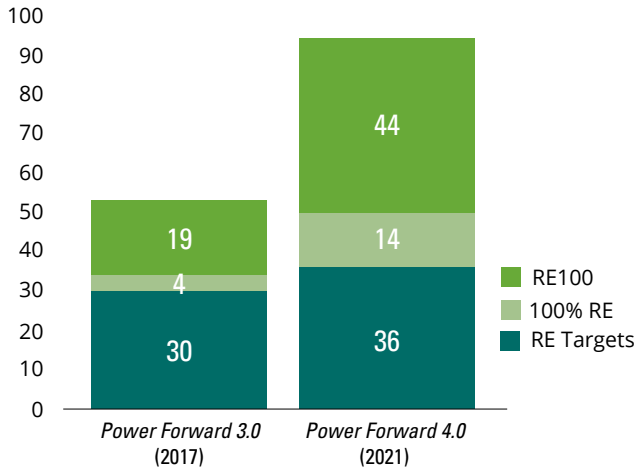
The largest companies still lead in adopting aggressive 100% renewable energy targets, with 47% clustered in the Fortune 100. However, 100% renewable energy targets are becoming more prevalent among companies further down the list (see Figure 9).

Figure 9. 100% renewable energy targets in the Fortune 500.



Of the 58 Fortune 500 companies with a 100% renewable energy target, 44 (76%) are members of the RE100 Initiative, more than double the number in 2017 (see Figure 10). Companies that join RE100 are required to commit to 100% renewable electricity by 2050 at the latest, with specific interim targets that align with 1.5ºC decarbonization scenarios. They must also include all electricity use in the commitment (including self-generated electricity), among other requirements.[15] Similar to SBTi, RE100 provides some assurance to external parties that renewable procurement commitments are ambitious, robust, and comparable across companies.

Figure 10. Breakdown of renewable energy targets in the Fortune 500.



[15] For the full list of RE100 requirements, see https://www.there100.org/technical-guidance.

Achieving Renewable Energy Targets

Companies are employing a variety of procurement approaches in order to meet renewable energy targets, including the purchase of unbundled Renewable Energy Credits (RECs), onsite and offsite installations, and large-scale, offsite purchases through instruments such as power purchase agreements (PPAs). According to the Solar Energy Industries Association (SEIA), US companies installed 844 Megawatts (MW) of onsite solar in 2019 alone.[16] Additionally, since 2015, offsite corporate solar installations have accounted for almost one-half (~2 Gigawatts) of all installed commercial capacity, with an expected 5 GW of such offsite capacity to be established by 2022. All in all, "18 of the top 25 corporate solar users and 47 of the top 100 are also in the Fortune 500."[16]

Offsite corporate renewable energy contracts continue to increase among the United States' largest companies as well. According to the Renewable Energy Buyers Alliance (REBA), a total of 98 large energy deals were completed—for a total of 10.63 GW of capacity—by 35 corporate buyers in 2020.[17] Of these 35 companies, 23 were members of the Fortune 500. These 23 companies accounted for 84 of the 98 deals that occurred. The year 2020 represented another year of continued growth in corporate renewable energy procurement (not exclusive to the Fortune 500), as demonstrated in Table 1 below. These large energy deals included public contracted capacity of corporate PPAs, green power purchases, green tariffs, outright project ownership, bilateral utility deals, and energy buyer tax equity investments.[17]

Table 1. Growth in corporate renewable energy procurement since 2016.[17]

	2016	2017	2018	2019	2020
Number of Deals	21	31	75	83	98
Number of Corporate Buyers	14	21	41	42	35
Capacity (GW)	1.53	2.76	6.39	9.37	10.63

Remaining Barriers

Electricity production and industrial energy use account for nearly half of global GHG emissions. More than two-thirds of all delivered electricity goes to commercial and industrial users, placing business at the center of the climate-energy nexus.[18]

Despite the growing global corporate renewable energy movement, knowledge gaps as well as regulatory and market barriers still frustrate companies' access to cost-effective renewable energy. This is particularly true in certain international markets. With the rise of scope 3 targets, many Fortune 500 companies are also encouraging their suppliers to increase renewable electricity procurement outside of the United States to achieve emissions reductions in their value chain. However, many barriers still exist to accessing clean electricity in key markets, including China, India, and Mexico. Inspired by the success of the Renewable Energy Buyers Alliance (REBA) in the US, WWF is growing a network of corporate renewable initiatives across key markets globally. WWF has launched programs in Australia, China, India, Mexico, South Korea, and Viet Nam. These programs support corporate buyers in sourcing more renewable energy and leveraging their collective voice to move the market.

Corporate advocacy at the subnational and national levels continues to play an important role in increasing access to renewable energy. In January 2021, numerous Fortune 500 companies that lead in the renewable energy space signed the Energy Buyer Federal Clean Energy Policy statement. Organized by REBA, this statement represents concerted corporate advocacy "for key policy strategies that accelerate energy buyer procurement goals and create a road map for the Biden Administration to actualize its vision of a zero-carbon energy future."[19] Similar work led by WWF and leading companies in other markets is also significantly shifting the policy landscape for corporate renewable energy procurement and the broader energy transition.

[16] Solar Means Business, Solar Energy Industries Association, 2020.
[17] REBA Deal Tracker, Renewable Energy Buyers Alliance, 2021.
[18] Data and Statistics, IEA, 2021.
[19] *America's Largest Energy Buyers Call on Federal Government to Transition to Zero-Carbon Energy*, Renewable Energy Buyers Alliance, 2021.

Beyond the barriers related to renewable electricity, the lack of access to renewable energy used for industrial process heat, which generates 12.5% of the United States' GHG emissions, represents a major challenge.[20] This is particularly the case for companies in industrial sectors. Unlike in the transport and power sectors—where renewable electricity, electric vehicles, and new mobility strategies have resulted in important progress over the past two decades—in the thermal energy arena, cost-effective renewable solutions (such as bio-based energy, renewable hydrogen, and solar thermal) remain largely unavailable.

To achieve a 1.5°C future, this traditionally neglected wedge of corporate energy needs and emissions must be addressed. In response, a growing group of large industrial energy users have come together with WWF, the Center for Climate and Energy Solutions (C2ES), and David Gardiner and Associates to form the Renewable Thermal Collaborative (RTC), the first global initiative for thermal energy solutions. The initiative is creating a new community for the large—but fragmented—set of actors needed to help overcome the technology, market, and policy barriers blocking the widespread adoption of cost-effective renewable thermal energy solutions.

Targets Achievement Analysis

Target setting is an important step in a company's journey to address its climate footprint. For these targets to be truly impactful, successful action, investment, and decarbonization must follow. This section focuses on the achievement of corporate climate targets as an important barometer of the impact of voluntary corporate climate commitments.[21]

Past Targets Achievement

Forty-eight Fortune 500 targets were reported to CDP in 2019 with end dates in or prior to 2018. Of those 48 targets, 81% were reported as achieved by 2019. Renewable electricity procurement and carbon-neutral targets have the highest achievement rates (100%), while energy-efficiency targets have the lowest (53%). This may be in part because renewable energy and carbon neutrality are generally met through market instruments like RECs and carbon credits, which are not readily available for energy efficiency. Among the companies that did not achieve their targets, the majority noted considerable progress toward achieving their targets and/or positive changes in their internal operations to continue monitoring and striving toward emissions reductions.

Current Targets Progress

The second achievement analysis focused on Fortune 500 targets that are currently pending and have been reported to CDP. A progress indicator (percentage of target achieved/percentage of timeframe completed at the time of disclosure[22]) was used to assess whether the targets are on track, based on assumptions of linear progress toward goals. There are certain limitations to assuming that emissions reductions are achieved on a linear basis; some companies may make substantial investments in the first years after setting a target but do not see reductions until later in the target timeframe, while others might achieve significant reductions in the initial years of a target because they begin by addressing the "low-hanging fruit." However, despite the methodological constraints, this progress indicator provides a good proxy for whether some companies are falling significantly behind or are ahead of their targets. Targets with a progress indicator <0.75 were considered behind, those between 0.75 and 1.25 were considered on track, and those >1.25 were considered ahead. Of the 436 Fortune 500 targets reported to CDP in 2019 that were analyzed, more than 70% were either ahead or on track (46% and 26%, respectively), while 28% were behind. Table 2 summarizes the findings for all targets and for different categories of targets (absolute/intensity GHG reduction targets, renewable energy, and energy efficiency).

[20] *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2018*, EPA Report, Table ES-3, 2020.

[21] This analysis focuses on the subset of Fortune 500 companies that reported to CDP in 2019.

[22] The timeframe completed was obtained with the following formula: 1-(Target year-2019)/Target timeframe, with the target timeframe being Target year-Target start year.

Companies seem to be performing very well on absolute GHG targets, with 55% of such targets categorized as "ahead" and 22% as being on track. Intensity and renewable energy targets are next, with most determined to be on track or above linear achievement (73% and 66%, respectively). On the other hand, energy efficiency targets appear to be the most challenging ones for companies to achieve, with close to half of those targets being categorized as "behind" (48%).

Table 2. Progress analysis of current Fortune 500 targets reported to CDP.

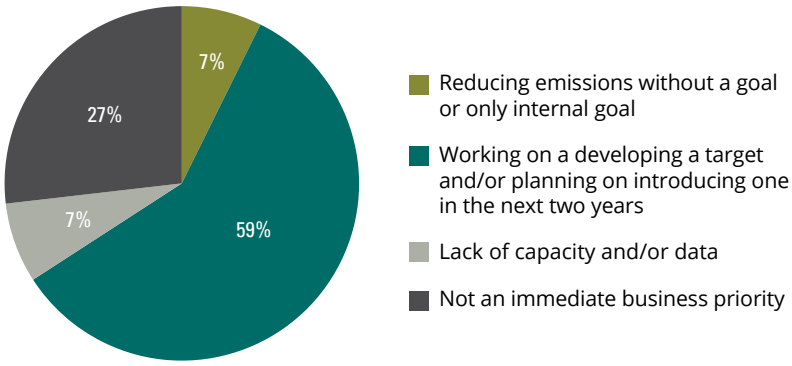
	Percentage of targets behind	Percentage of targets on track	Percentage of targets ahead
Absolute GHG	23%	22%	55%
Intensity GHG	27%	38%	35%
Renewable energy	34%	22%	44%
Energy efficiency	48%	22%	30%
All	28%	26%	46%

Companies Without Targets

Although the overall progress in target setting is encouraging, the fact remains that 40% of the Fortune 500 still lack any public climate or energy targets, highlighting the limitations of voluntary corporate target setting. Of Fortune 500 companies that responded to CDP's climate change questionnaire, 41 provided explanations for why they do not possess emissions reduction targets. Encouragingly, more than half (59%) of these 41 companies stated that they were developing or planning to develop a target in the next two years (see Figure 11). Seven percent of these companies reported having an internal goal to reduce emissions or that they were reducing emissions without a formal goal. An additional 7% reported that lack of capacity or data was a barrier in setting targets. Unfortunately, the remaining 27% of companies did not see climate action as an immediate business priority.

This information underscores the need for additional incentives to reach corporations that are still dismissing climate as a priority. Value chain engagement and ambitious climate policy will be crucial elements to scale in the next few years in order to narrow the gap in corporate climate action.

Figure 11. Reasons for not setting emission reduction targets among Fortune 500 companies that responded to CDP.



Conclusion

This latest iteration of *Power Forward* shows that America's largest companies have continued to accelerate their transition to a low-carbon economy over the last few years. Since 2017, the number of Fortune 500 companies with climate or energy targets has increased 12-percentage-points, showing that more companies are addressing their climate footprint. Ambition is increasing as well, with the number of companies setting science-based targets increasing sixfold over the same period. Fortune 500 companies are also signaling strong interest in committing to achieve net-zero goals, the newest trend in corporate target setting. While this progress is encouraging, overall, the private sector is not decarbonizing at the scale or pace needed.

Given that 40% of the Fortune 500 lack a single public climate or energy target and only 20% have voluntarily set or committed to set an SBT, the US needs ambitious and durable climate policy to mobilize lagging companies and create clear incentives for businesses to reduce emissions at the rate and scale demanded by the climate crisis.

On April 22 2021, the US announced a new goal under the Paris Agreement (NDC) to reduce US emissions by 50%–52% by 2030, from 2005 levels. This new, ambitious federal goal is a step in the right direction. However, it cannot be met with voluntary private-sector action alone. Economy-wide policies such as carbon pricing or more sector-based approaches such as a clean energy standard are potential policy solutions that could drive corporate action to help the US meet its NDC. Complementary policies to reduce emissions from transportation, buildings, manufacturing, and land use change will also be necessary.

Beyond reducing their own emissions, businesses can and should use their individual and collective voices to advocate for bold domestic climate policy. WWF and nine other NGOs have developed the AAA Framework for Climate Policy Leadership to help define corporate climate policy leadership. This leadership framework calls on businesses to support science-based climate policy by

- advocating for policies consistent with achieving net-zero emissions by 2050
- aligning trade associations' climate policy advocacy with the goal of net-zero emissions by 2050
- allocating advocacy spending to advance climate policies, not obstruct them

Many businesses are already engaging in some advocacy, though few have fully embraced advocating for policies to achieve net-zero emissions. In 2019, nearly 85% of Fortune 500 CDP responders reported activities that directly or indirectly influence climate-related public policy. Fifty-two percent of responding companies reported direct engagement with policymakers, and 75% reported engagement through trade associations. In the aftermath of President Trump's withdrawal from the Paris Agreement, hundreds of US companies signaled their continued commitment to the goals of the Agreement through the We Are Still In coalition, (now America Is All In). Hundreds more recently signed a statement supporting an ambitious NDC calling for at least a 50% emissions reduction by 2030.

Together, these actions are a positive sign that company pressure may be making a difference. The strength of the new US NDC is one prominent example. Another is that trade associations that have stymied past climate policy opportunities, including the US Chamber of Commerce and National Association of Manufacturers, have recently released more positive climate and energy position statements, signaling new opportunities for constructive engagement. Businesses are increasingly concerned with the serious risks of climate change, and many have stepped up to take strong voluntary action. Ambitious SBTs are a tremendous step in the right direction.

Nevertheless, voluntary corporate action alone will not move us quickly enough to solve the climate crisis. Strong, durable, and ambitious climate policy will be needed to help companies meet their own goals, level the playing field for all companies and reduce emissions quickly enough to align with a 1.5ºC climate change pathway.

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Appendix

A. Methodology

Targets analysis
Rigorous criteria were applied to the analysis of commitments in this report. To be included in this report, voluntary commitments must be:

1. Quantitative
2. Time-bound (except for 100% renewable energy commitments)
3. Active at least through 2019

Targets that were exclusively focused on foreign operations and did not address the company's US-based emissions were excluded.

Data sources and collection period
The climate and energy commitment data used for this report were publicly available information from the following sources: responses to CDP's climate change questionnaire (2019 reporting year), corporate social responsibility and sustainability reports, company websites, publicly available news reports, and other target databases. These databases include the Science Based Targets initiative's "Companies Taking Action" page, the RE100 Member List, the Non-state Actor Zone for Climate Action (NAZCA) database, and the We Are Still In (WASI) webpage. A total of 301 Fortune 500 companies reported climate disclosures to CDP in 2019, 277 of which reported publicly.

Data on corporate target setting were collected until February 2021, except for science-based targets. These targets were evaluated up until the beginning of April 2021. Therefore, non-SBTi targets set after February 2021 are not reflected in this report; in addition, any SBTi target approvals or commitments made after early April are not reflected in this report.

Sectoral analysis
Sector classifications for the Fortune 500 were established through the utilization of CDP's Activity Classification System.[23] In order to allow for an insightful analysis of climate and energy commitments across sectors, companies were classified either according to the CDP Industry or CDP Activity Group to which each one belongs.

B. Changes in the Fortune 500 Composition

Commitments are analyzed by company ranking in the Fortune 500 index, as well as through comparisons made between the findings of *Power Forward 4.0* and previous iterations of the report. It must be noted that, each year, the composition of the Fortune 500 changes due to variations in corporate revenue, mergers and acquisitions, changes in financial reporting structure, and overseas relocation of corporate headquarters. In addition, companies shift positions relative to one another, sometimes moving into or out of certain quintiles. A total of 84 companies, about 17% of the 2020 Fortune 500, were not listed in the index in 2016 (used in *Power Forward 3.0*).

Of the companies that were delisted from 2016, 34 reported some type of climate or energy target, while 50 did not.
Of the new companies listed in 2020, 42 of the 84 reported a climate or energy target, while 42 did not.

As for the 416 companies listed in the Fortune 500 in both 2016 and 2020, 17 companies that reported a target in *Power Forward 3.0* no longer report one. However, 69 companies that did not report a target in *Power Forward 3.0* now report one in *Power Forward 4.0.*

The changes in the Fortune 500 composition between *Power Forward 3.0* and *4.0,* when compared to changes in corporate climate and energy commitments, demonstrate that most of the growth in Fortune 500 target setting has come from incumbent firms setting new targets (a net increase of 52 targets). Companies listed in 2020 that were not part of the 2016 Fortune 500 accounted for a net increase of only eight targets.

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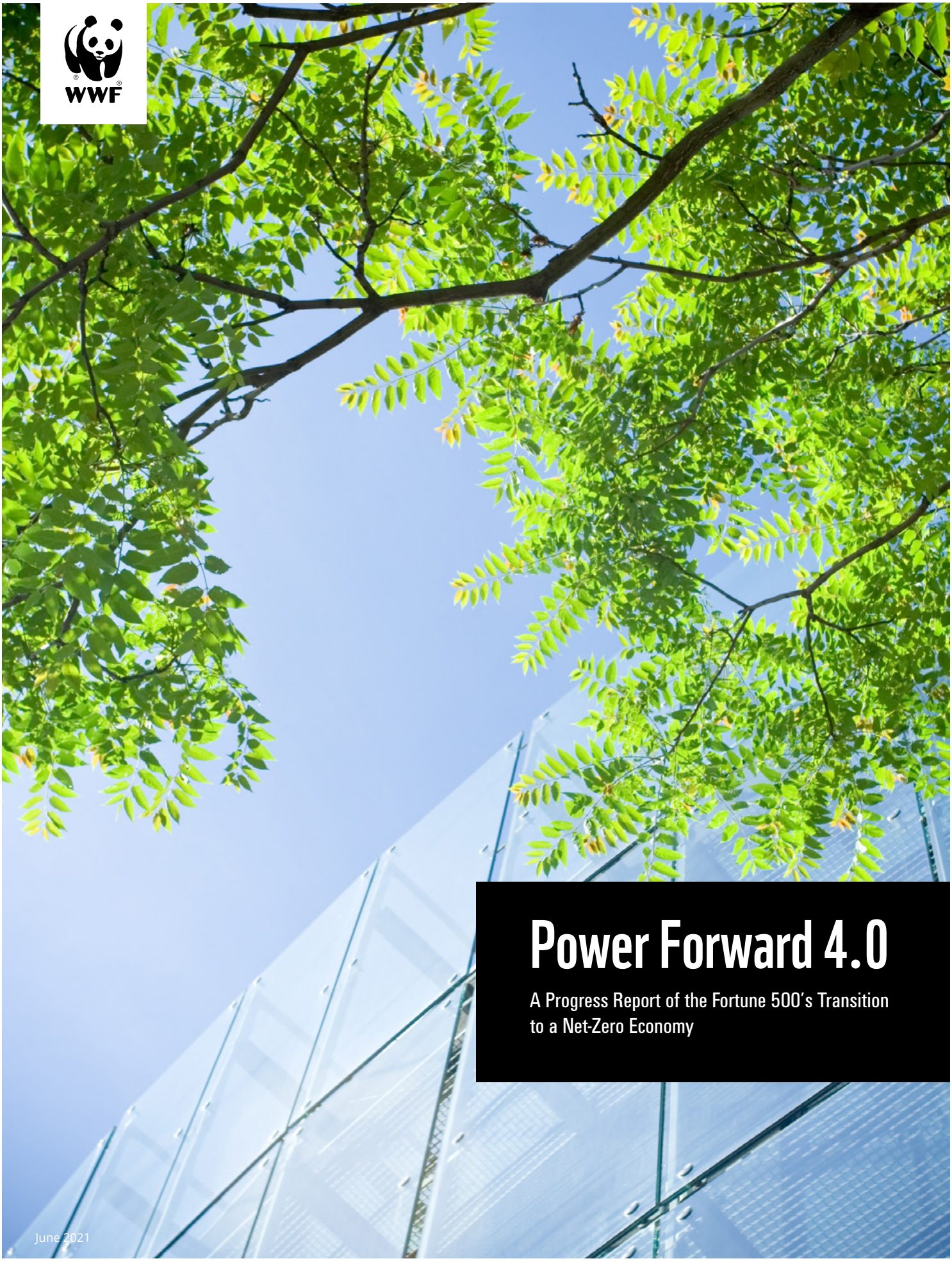

Power Forward 4.0

A Progress Report of the Fortune 500's Transition to a Net-Zero Economy

June 2021