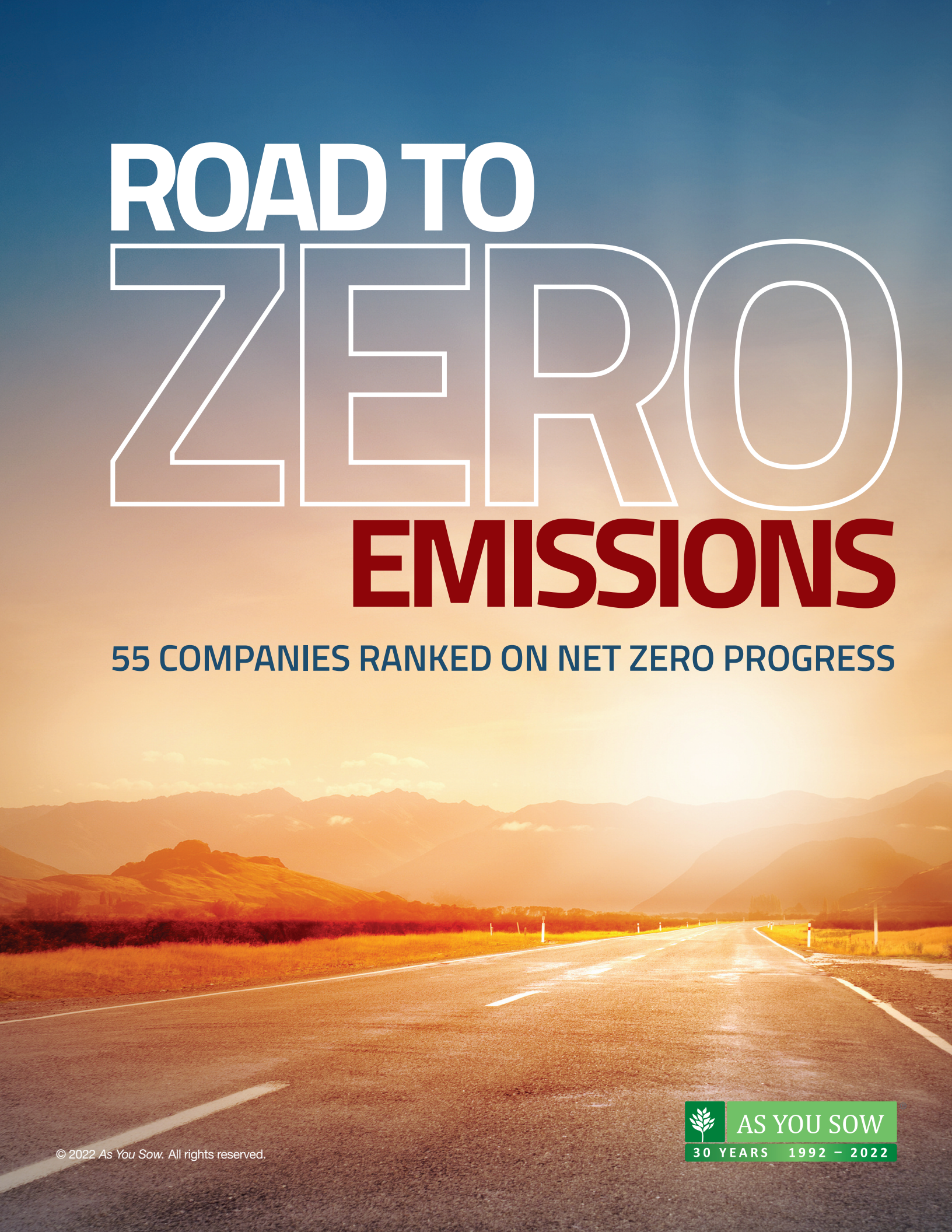
ROAD TO ZERO EMISSIONS

55 COMPANIES RANKED ON NET ZERO PROGRESS



AS YOU SOW
30 YEARS 1992 – 2022

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About *As You Sow*

As You Sow is a nonprofit organization dedicated to increasing environmental and social corporate responsibility while increasing company value. Founded in 1992, *As You Sow* envisions a safe, just, and sustainable world in which environmental health and human rights are central to corporate decision making. Its Energy, Environmental Health, Waste, and Human Rights programs create positive, industry-wide change through corporate dialogue, shareholder advocacy, coalition building, and innovative legal strategies. For more information, visit www.asyousow.org.

Note to the Reader

This data on which this report was based was collected from publicly available documents or provided directly by companies but may not be exhaustive. Please contact individual companies with questions regarding the corporate data presented in this report. If you are a company representative and believe there has been an error in the data collected and ranked, or if you would like to submit updated information, please contact sayonclimate@asyousow.org. Updates to online scores will be made periodically and all additional data and information will be reviewed at that time.

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EXECUTIVE SUMMARY

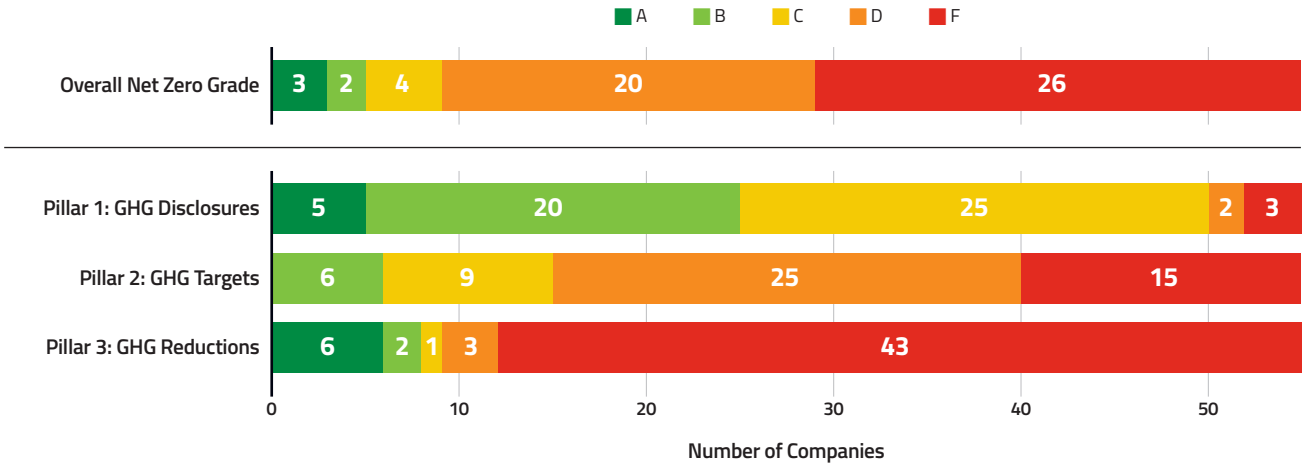
This report assesses the progress of 55 of the largest U.S. corporations in reducing greenhouse gas (GHG) emissions in line with the Paris Agreement's objective of limiting global average temperature rise to 1.5 degrees Celsius above pre-industrial levels, which requires achieving "net zero" emissions by 2050. The primary finding from our analysis is that the overwhelming majority of companies assessed have neither established comprehensive, 1.5 degree-aligned GHG reduction goals nor demonstrated progress in reducing their emissions in alignment with net zero goals.

The social, environmental, and economic impacts associated with climate change are escalating year on year. To mitigate the most catastrophic impacts of climate change, the COP26 Glasgow Climate Pact, signed by almost 200 countries in the fall of 2021, reiterated the importance of setting and achieving emissions reduction targets that hold global warming below 1.5 degrees C.[1] Investors have been a significant force in driving companies toward Paris-aligned climate action. A majority of companies now measure and report some range of their Scopes 1, 2, and 3 GHG emissions and set some level of GHG reduction targets. Many have set net zero ambitions. The vast majority of company climate actions and GHG reductions, however, are not yet aligned with global climate goals.

This report scores companies on their actions across three pillars for an Overall Net Zero grade: (1) GHG Disclosures, (2) GHG Targets, and (3) GHG reductions. Given the importance of reducing GHG emissions, the Overall Net Zero grade is weighted most heavily to achievements in year on year, 1.5 degree-aligned GHG reductions.

A summary of the Net Zero scorecard results is set forth below. Appendix A provides the full list of grades by pillar. Appendix B provides the list of indicators met or not met, and Appendix C provides the complete scoring methodology.

FIGURE 1: Scorecard Grades



1. "COP 26: The Glasgow Climate Impact," (UN Climate Change Conference, November 2021), **https://ukcop26.org/wp-content/uploads/2021/11/COP26-Presidency-Outcomes-The-Climate-Pact.pdf**, p.7.

KEY FINDINGS

Only Three Companies Received an Overall "A" Grade: Figure 2 below shows that, of the 55 companies assessed, two companies, *Microsoft* and *PepsiCo* were awarded an "A" grade for overall performance. *Ecolab* earned an "A-". *Alphabet* achieved an overall grade of "B", *Apple* achieved a "B-", *Prologis* and *Abbott Laboratories* received "C+" grades, and *Southern Company* and *Air Products & Chemicals* received "C-" grades. The rest of the companies assessed received "D" or "F" grades.

Six Companies Received an "A" Grade for Emissions Reductions:[2] The vast majority of companies are not adequately reducing the full range of their Scope 1, 2, and 3 GHG emissions. Only six companies, *Microsoft*, *PepsiCo*, *Ecolab*, *Alphabet*, *Prologis*, and *Abbott Laboratories*, received "A" grades for reducing their Scopes 1, 2, and 3 GHG emissions and GHG emissions intensity at a rate consistent with 1.5 degrees. A contributing factor to the low scores is that, while many companies are reducing their operational and energy emissions, the vast majority are not addressing their full range of Scope 1, 2, and 3 emissions; Scope 3 emissions, which often are made up of supply chain and product emissions, are particularly lacking. Where emissions disclosures are incomplete, companies received a zero score in Pillar 3 GHG reductions, reflecting this non-disclosure and an inability to score emissions reductions.

Lagging Reduction Grades Reflect a Failure to Account for and Reduce the Majority of Company-Related Emissions: While many companies are demonstrating reductions in Scope 1 (operational) and Scope 2 (purchase power) emissions, these emissions often represent just a fraction of total emissions, leading to low performing grades. For example, while *Chevron* has focused on reducing Scope 1 and 2 emissions in alignment with 1.5 degrees over the past three years, such reductions represent only about nine percent of the company's total emissions when Scope 3 product emissions are included. The company therefore earns an "F" grade in reduction performance. Twenty-one assessed companies have reduced Scopes 1 and 2 emissions in alignment with 1.5 degrees, but Scope 1 and 2 emissions represent 50 percent or more of total emissions for only two of these companies, *Freeport-McMoRan* and *Air Products and Chemicals*, demonstrating that most companies are not taking action to reduce their most material emissions.

Zero Companies Received an "A" Grade for GHG Target Setting: While seven companies received "B" grades in the GHG reduction target setting category, no company received an "A" grade, which requires a net zero by 2050 goal applicable to all emissions Scopes with limited use of offsets. Both the CA100+ Net Zero Benchmark and the Science-Based Targets Initiative (SBTi) have underscored the importance of companies achieving comprehensive, company-related GHG reductions, rather than using carbon offsets. To achieve global 1.5 degree goals, offsets should be used only for residual emissions where reductions are not feasible due to technology limitations (which generally should represent 10 percent or less of total reductions). None of the 55 assessed companies has made a clear commitment to follow these guidelines. While 12 companies have committed to achieve net zero emissions or carbon neutrality by 2050 or sooner across all relevant scopes, none specifically states an intent to accomplish this with limited offsets.

Nearly 2/3 of Companies Fail to Align Any GHG Reduction Goal with 1.5 Degrees: Aligning GHG reduction goals with 1.5 degrees, which requires 4.2 percent or more absolute emissions reduction per year in the near term, is critical to reducing the worst impacts of climate change. Thirty-five of the 55 assessed companies have some type of GHG reduction goal. Only 16 companies have both Scope 1 and 2 goals aligned with 1.5 degrees; 39 of the companies fail to align any Scope of emissions with climate science.

Only Two Companies Have Scope 3 Targets Aligned with 1.5 Degrees: Just two companies (*Apple*, and *Microsoft*) have a goal to reduce their Scope 3 emissions in line with 1.5 degrees. Some companies have established less ambitious Scope 3 reduction goals, such as well below 2 degrees, which is notable progress, but insufficient to reduce the worst impact of climate change.

2. Emissions reduction grades may be impacted by the change in economic activity associated with COVID.

Companies Are Performing Better on Disclosures but Are Still Missing Key Elements of Disclosure: Demonstrating forward momentum, a majority of companies assessed received "C" grades or better for their GHG disclosures. Too many companies, however, still miss the mark on disclosing critical metrics, such as full value chain emissions (Scope 3) or clear disclosure on use of carbon offsets.

Most Companies Report Full Scope 1 and 2 Emissions; Most Fail to Disclose Scope 3 Emissions: While 90 percent of the assessed companies report Scope 1 and 2 operational emissions, few disclose Scope 3 emissions, which include indirect supply chain and products-related emissions. Out of the 55 assessed companies, only 20 companies reported all relevant Scope 3 emissions (as identified by the GHG Protocol). Many companies report on Scope 3 emissions but fail to include their primary sources of emissions. This type of reporting can confuse investors.

Carbon Offsets Disclosures Lack Clarity: Companies are failing to disclose necessary information about how carbon offsets are used in GHG disclosures, targets, and achieving emissions reductions goals. Only 11 companies disclosed the number of carbon offsets purchased, a description of the types of carbon offsets projects, and the verification status of these offsets.

Company Scores: A summary of the Overall Net Zero grades is set forth in Figure 2 below. Grades are based on the combined points earned in each pillar, with the Greenhouse Gas Reduction pillar being weighted most heavily. The maximum number of points available is 18, with four points available for GHG disclosures, six points for GHG reduction targets, and eight points associated with GHG reductions. A full list of company grades by each pillar is provided in Appendix A.

FIGURE 2: Overall Net Zero Grades

COMPANY NAME	TOTAL POINTS	OVERALL GRADE
Microsoft Corporation	17	A
PepsiCo Inc	16	A
Ecolab Inc	15	A-
Alphabet Inc	13	B
Apple Inc	12	B-
Prologis Inc	11	C+
Abbott Laboratories	11	C+
Southern Company	9	C-
Air Products & Chemicals Inc	8	C-
Johnson & Johnson	7	D+
Schlumberger Ltd	7	D+
The Coca-Cola Company	7	D+
Boeing Company	6	D
Equinix Inc	6	D
AT&T Inc	6	D
Facebook Inc	6	D
General Motors Company	6	D
PayPal Holdings Inc	6	D
United Parcel Service Inc	6	D
Verizon Communications Inc	6	D
Walmart Inc	6	D
Bank of America Corporation	5	D
Pfizer Inc	5	D
Procter & Gamble Company	5	D
American Tower Corporation	4	D-
ConocoPhillips Company	4	D-
Dow Inc	4	D-
Lowe's Companies Inc	4	D-

COMPANY NAME	TOTAL POINTS	OVERALL GRADE
The Walt Disney Company	4	D-
Exelon Corporation	3	F
Amazon.com Inc	3	F
Charter Communications Inc	3	F
Chevron Corporation	3	F
Comcast Cable Communications	3	F
Crown Castle International	3	F
Dominion Energy Inc	3	F
Duke Energy Corporation	3	F
Eli Lilly and Company	3	F
EOG Resources Inc	3	F
Exxon Mobil Corp	3	F
Honeywell International Inc	3	F
JPMorgan Chase & Co	3	F
NVIDIA Corporation	3	F
Freeport-McMoRan Inc	2	F
NextEra Energy Inc	2	F
Public Storage	2	F
Raytheon Technologies Corporation	2	F
Sherwin-Williams Company	2	F
Square Inc	2	F
The Home Depot Inc	2	F
UnitedHealth Group Inc	2	F
Union Pacific Railroad Company	1	F
Visa Inc	1	F
Berkshire Hathaway Inc	0	F
Tesla Inc	0	F

INTRODUCTION

GROWING IMPERATIVE TO REACH NET ZERO EMISSIONS

According to the Intergovernmental Panel on Climate Change, we are approaching a code red for humanity.[3] Global temperatures have risen 1.2 degrees above pre-industrial levels,[4] while the annual rate of global warming has nearly doubled since 1981.[5] The systemic impacts of climate change are far-reaching, destabilizing, and existential in nature. In 2020, the U.S. experienced an estimated $95.8 billion in weather and climate disasters, with costs anticipated to increase considerably in 2021.[6] Rather than continuing to grow, the global economy is projected to lose close to 10 percent of total economic value by mid-century if climate change continues its current trajectory.[7]

To avoid even more catastrophic climate change impacts than we are already experiencing, scientists warn that global warming must be kept at 1.5 degrees, which requires achieving net zero emissions globally by 2050 or sooner.[8] According to a study by Generation Investment Management LLP, publicly listed companies are responsible for approximately 40 percent of all climate-warming emissions.[9] Investors and scientists agree that these corporate emissions must be drastically reduced to lower transition risk, capitalize on opportunities, and limit the worst impacts of climate change.

In acknowledgement of this growing and material climate risk to both companies and investment portfolios, the Climate Action 100+ initiative (CA100+), a coalition of 615 investors with over $60 trillion in assets, issued a Net Zero Benchmark in 2020 outlining metrics that create climate accountability for companies and transparency for shareholders.[10] Larry Fink, BlackRock CEO, advised that every business model will be profoundly affected by the transition to a net zero economy and that investors expect companies to disclose how their business will be compatible with a net zero economy.[11]

Many investors, companies, and financial institutions beyond the CA100+ coalition have recognized the urgency of taking action to reach net zero emissions including that:

- over 370 asset owners and asset managers, representing €50 trillion in assets, joined the Institutional Investors Group on Climate Change, representing the European membership body for investor collaboration on climate change;[12]

3. UN Secretary General, "Secretary-General's Statement on the IPCC Working Group 1 Report on the Physical Science Basis of the Sixth Assessment Secretary-General," August 9, 2021, **https://www.un.org/sg/en/content/secretary-generals-statement-the-ipcc-working-group-1-report-the-physical-science-basis-of-the-sixth-assessment**.
4. V. Masson-Delmotte et al., *IPCC, 2021: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, August 2021), **https://www.ipcc.ch/report/ar6/wg1/#FullReport**.
5. Rebecca Lindsey and LuAnn Dahlman, "Climate Change: Global Temperature," National Oceanic and Atmospheric Association, March 15, 2021, **https://www.climate.gov/news-features/understanding-climate/climate-change-global-temperature**.
6. "U.S. Billion-Dollar Weather and Climate Disasters, 1980 - Present (NCEI Accession 0209268)," National Centers for Environmental Information, October 23, 2021, **https://www.ncdc.noaa.gov/billions/summary-stats/US/2020**.
7. "The Economics of Climate Change: No Action Not an Option," Swiss Reinsurance Company Institute, April 2021, **https://www.swissre.com/institute/research/topics-and-risk-dialogues/climate-and-natural-catastrophe-risk/expertise-publication-economics-of-climate-change.html**.
8. Fiona Harvey, "Climate Experts Warn World Leaders 1.5C Is 'Real Science', Not Just Talking Point," *The Guardian*, October 30, 2021, **https://www.theguardian.com/environment/2021/oct/30/climate-experts-warn-world-leaders-15c-is-real-science-not-just-talking-point**.
9. "Listed Companies Account for 40% of Climate-Warming Emissions, Reveals New Research by Generation Investment Management," Generation Investment Management, October 2021, **https://www.generationim.com/our-thinking/news/listed-companies-account-for-40-of-climate-warming-emissions/**.
10. "Climate Action 100+ Net Zero Company Benchmark," March 2021, **https://www.climateaction100.org/wp-content/uploads/2021/03/Climate-Action-100-Benchmark-Indicators-FINAL-3.12.pdf**.
11. "Larry Fink's 2021 Letter to CEOs," BlackRock Investor Relations, January 2021, **https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter**.
12. "Investor Expectations for Paris-aligned Accounts," The Institutional Investors Group on Climate Change, November 2020, **https://www.iigcc.org/download/investor-expectations-for-paris-aligned-accounts/?wpdmdl=4001&refresh=61eb2f38e2ee61642803000**.

- 128 asset managers, with $43 trillion in assets under management, have signed up for the Net Zero Asset Managers[13] initiative;
- 53 banks, with $37 trillion in assets under management, have formed the UN-convened Net-Zero Banking Alliance;[14]
- 15 of the world's leading insurers and reinsurers committed to individually transition their underwriting portfolios to net zero GHG emissions by 2050 as part of the Net Zero Insurance Alliance, launched at the G20 Climate Summit;[15]
- over 450 financial firms across 45 countries, responsible for assets of over $130 trillion, have joined the Glasgow Financial Alliance for Net Zero;[16]
- 118 investors globally, jointly representing over $40 trillion combined assets under management and advice, pledged support for the Transition Pathway Initiative;[17] and
- at least one fifth (21 percent) of the world's 2,000 largest public companies have committed to meet net zero targets, representing sales of nearly $14 trillion.[18]

SCIENCE-BASED NET ZERO EXPECTATIONS

The SBTi, CA100+ Benchmark, and the Transition Pathway Initiative, among others,[19] have published expectations for companies to demonstrate alignment with the Paris Agreement, including setting net zero, 1.5 degree-aligned targets that cover all relevant Scopes of emissions[20,21] with limited use of offsets.[22] This in turn requires GHG emissions reductions of approximately 45 percent by 2030 and 100 percent by 2050 although specific reduction timelines by sectors may vary slightly.[23]

13. Net Zero Asset Managers Initiative (website), accessed January 2022, **https://www.netzeroassetmanagers.org/**.
14. United Nations Environment Programme Finance Initiative, "Net-Zero Banking Alliance" Net Zero Banking Alliance (December 20, 2021), **https://www.unepfi.org/net-zero-banking/**.
15. United Nations Environment Programme Finance Initiative, "Net-Zero Insurance Alliance," Initiatives , accessed January 21, 2022, **https://www.unepfi.org/net-zero-insurance/**.
16. "About," Glasgow Financial Alliance for Net Zero, accessed January 21, 2022, **https://www.gfanzero.com/about/**.
17. "Methodology and Indicators Report," Transition Pathway Initiative, June 2019, **https://www.transitionpathwayinitiative.org/publications/65.pdf**.
18. "Taking Stock: A Global Assessment of Net Zero Targets," Energy & Climate Intelligence Unit and Oxford Net Zero, March 2021, **https://ca1-eci.edcdn.com/reports/ECIU-Oxford_Taking_Stock.pdf?v=1616461369**. We note that these commitments have a wide variety of interpretations and need to convene around a consistent definition.
19. A range of other groups has also published investor expectations acknowledging the need to achieve net zero, 1.5 degree-aligned goals, including Publications (ACT Initiative), accessed January 21, 2022, **https://actinitiative.org/publications/**; "Net Zero Tracker: Welcome," Energy & Climate Intelligence Unit, Data Driven Envirolab, NewClimate Institute, and Oxford Net Zero, accessed January 12, 2022, **https://zerotracker.net/**;"A Blueprint for Responsible Investment," Principles for Responsible Investment, accessed January 21 2022, **https://www.unpri.org/pri/a-blueprint-for-responsible-investment**; "Methodology and Indicators Report," Transition Pathway Initiative, June 2019, **https://www.transitionpathwayinitiative.org/publications/65.pdf**; "Investor Expectations for Paris-aligned Accounts," IIGCC, November 2020, **https://www.iigcc.org/download/investor-expectations-for-paris-aligned-accounts/?wpdmdl=4001&refresh=61eb2f38e2ee61642803000**; "An Investor's Guide to the Oil and Gas Methane Partnership 2.0," September 2021, **https://www.ogmpartnership.com/sites/default/files/files/Investors-Guide-to-the-OGMP_FINAL.pdf**.
20. "Corporate Net-Zero Standard," Science Based Targets Initiative, October 2021, **https://sciencebasedtargets.org/resources/files/Net-Zero-Standard.pdf**, p. 13.; "SBTi Criteria and Recommendations," Science Based Targets Initiative, October 2021, **https://sciencebasedtargets.org/resources/files/SBTi-criteria.pdf**, p. 5.
21. "Climate Action 100+ Net Zero Company Benchmark," March 2021, **https://www.climateaction100.org/wp-content/uploads/2021/03/Climate-Action-100-Benchmark-Indicators-FINAL-3.12.pdf**, sub-indicator 2.2, p. 1.
22. "Corporate Net-Zero Standard," Science Based Targets Initiative, October 2021, **https://sciencebasedtargets.org/resources/files/Net-Zero-Standard.pdf**, pp. 8-9; "SBTi Criteria and Recommendations," Science Based Targets Initiative, October 2021, **https://sciencebasedtargets.org/resources/files/SBTi-criteria.pdf**, p. 7; "Climate Action 100+ Net Zero Company Benchmark," March 2021, **https://www.climateaction100.org/wp-content/uploads/2021/03/Climate-Action-100-Benchmark-Indicators-FINAL-3.12.pdf**, footnote 5, p. 5.
23. "2020 Progress Report," Climate Action 100+, December 2020, **https://www.climateaction100.org/wp-content/uploads/2020/12/CA100-Progress-Report.pdf**, p. 22.

"ABSOLUTE" VS. "INTENSITY" TARGETS

It is important for investors to be informed on key climate-related terms to accurately understand the impact of company emission reduction commitments. Absolute emissions refer to the measure of a company's total emissions output. Emissions intensity refers to the ratio of emissions generated per unit of output, such as emissions per unit of product, revenue, or other company-specific factor. Since financial denominators in the intensity equation can be impacted by pricing and factors such as inflation, physical outputs are generally preferred for emissions intensity measurements (e.g., emissions per barrel of oil for an oil company). However, in this report, we have used intensity as measured by revenue in order to provide a standardized measure of intensity that can be compared across all companies and sectors. For more information see section Pillar 3 Results: GHG Reductions.

Investors should be aware that a company can succeed in reducing its emissions intensity by implementing more efficient processes. However, if the company simultaneously grows, and thereby increases the amount of product it is creating, it is possible for that company's absolute emissions to increase. The goal of net zero, 1.5 degree alignment is to decrease all relevant emissions to approach zero – even when growth occurs. This requires emissions to decrease to zero across all supply chains, including use of zero emission energy for production and resource extraction, and the development of products that do not create significant emissions when used.

Both absolute and intensity emissions reduction goals are useful tools for companies on the path to net zero emissions. Both have SBTi guidance available to help companies ensure their targets are 1.5 degree-aligned and, where revenue-based intensity measurements are used, to account for factors such as inflation.

To ensure reduction targets result in absolute emissions reductions by 2050, SBTi calculates that year on year reductions in absolute emissions of 4.2 percent, and a seven percent or greater year on year reduction in economic emissions intensity (Co2e/Revenue) must occur in the near term.

SCOPE 1, 2, AND 3 EMISSIONS

In setting GHG reduction targets, companies typically set absolute or intensity-based reduction targets for their GHG emissions. The GHG Protocol Corporate Standard provides a definition of GHG emissions scopes (or sources) commonly used by corporations and investors.[24] To comprehensively reduce emissions in line with the Paris Agreement's 1.5 degree goal, companies must take responsibility for ensuring reductions across all relevant Scope 1, 2, and 3 emissions.

Scope 1 emissions cover direct emissions from company-owned or controlled sources and operations, including emissions from power sources; physical or chemical processing; transportation, including movement of materials, products, and waste; and fugitive emissions.[25]

Scope 2 emissions include indirect emissions generated through the purchase of electricity and energy consumption. This scope can be calculated though a "location-based" or "market-based" approach.[26] Renewable energy credits and virtual power purchase agreements can reduce Scope 2 emissions.

24. "We Set the Standards to Measure and Manage Emissions," Greenhouse Gas Protocol, World Business Council for Sustainable Development; World Resource Institute, accessed January 2022, **https://ghgprotocol.org/**.
25. "The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard," World Business Council for Sustainable Development; World Resources Institute, March 2004, **https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf**, p. 27.
26. Location-based accounting considers average emission factors for the electricity grids that provide electricity, while market-based accounting considers contractual arrangements such as power procured from renewable sources.

Scope 3 emissions are all other emissions sources within the company's value chain that are not encompassed within Scopes 1 and 2. Scope 3 emissions cover a wide range of emissions, from upstream emissions in energy production, to use of products sold (such as gas, vehicles, and building heating), to supplier emissions, emissions associate with investments, company travel, and employee commuting. The GHG Protocol identifies 15 categories of Scope 3 emissions upon which companies are expected to either report or state the category is *de minimis* or non-relevant to their business.

Reporting on Scope 3 emissions, which for many companies represents their largest portion of emissions, can be a challenge not only because Scope 3 emissions cover many categories, but also because many of these emissions are influenced by product design or supply chain partners. Reporting across the 15 categories is required, however, to earn credit in this report. Too often, companies report on one or two categories of Scope 3 emissions that encompass only a small portion of relevant emissions, creating a misleading impression that the company's Scope 3 emissions are reported in full.

CARBON OFFSETS

Investors should note if a company discusses the use of carbon offsets in its climate-related plans. A carbon offset generally refers to a mechanism by which reductions of GHG emissions, or increases in carbon storage, are generated in one place to compensate for GHG emissions created elsewhere.[27] In other words, offsets provide a mechanism by which a company can invest in carbon reduction or sequestration projects outside of its own value chain – such as reforestation, sustainable agriculture, emissions reduction capacity, or direct carbon capture – and thereby counteract the impact of units of carbon emitted within its own value chain. Offsets fall within a wide range of projects and actions, including nature-based solutions, natural climate solutions, and technology-based solutions.

Offset projects can have significant positive impacts on the environment; however, there are limited opportunities for creating quality carbon offset projects in relation to the vast amount of GHG reductions that must occur to reach global 1.5 degree goals. Leading experts[28] and investors[29] advise that companies are expected to meet their GHG reduction goals by reducing their own value chain Scope 1, 2, and 3 emissions for the majority of their emissions.[30] Offsets can appropriately be used to compensate for current emissions while companies move forward in reducing their own emissions. Another important concern about the use of offsets is the lack of a generally agreed upon system to define and verify quality offset projects, meaning that carbon offsets may be low quality, poorly defined, or insufficiently verified.[31]

27. "Offsets and RECs: What's the Difference?" EPA Green Power Partnership, February 2018, **https://www.epa.gov/sites/default/files/2018-03/documents/gpp_guide_recs_offsets.pdf**.
28. "SBTi Criteria and Recommendations," Science Based Targets Initiative, October 2021, **https://sciencebasedtargets.org/resources/files/SBTi-criteria.pdf**, "Carbon credits may only be considered to be an option for neutralizing residual emissions […] or to finance additional climate mitigation beyond their science-based emission reduction targets," p. 8.
29. "Climate Action 100+ Net Zero Company Benchmark" (March 2021), **https://www.climateaction100.org/wp-content/uploads/2021/03/Climate-Action-100-Benchmark-Indicators-FINAL-3.12.pdf**, "The use of offsetting or carbon credits should be avoided and limited if at all applied," p. 5 footnote 5;
30. Tom Dowdall, "Science-Based Net-Zero Targets: 'Less Net, More Zero," Science Based Targets Initiative (blog), October 7, 2021, **https://sciencebasedtargets.org/blog/science-based-net-zero-targets-less-net-more-zero**. States that SBTi requires "a limited dependence on carbon removals to neutralize emissions that cannot yet be eliminated (5-10%)."
31. Dr. Martin Cames, et al., "How Additional Is the Clean Development Mechanism?" (Oko-Institut for Applied Ecology, March 2016), **https://ec.europa.eu/clima/system/files/2017-04/clean_dev_mechanism_en.pdf**.; Groups, such as the Voluntary Carbon Markets Integrity Initiative, are working to create credible, net-zero aligned, voluntary carbon markets **https://vcmintegrity.org/**.

METHODOLOGY

This report benchmarks companies on their net zero emissions progress using three main pillars: (1) GHG Disclosures, (2) GHG Targets, and (3) GHG Reductions. For the assessment, the five largest market cap companies in each of 11 sectors were assessed[32] for a total of 55 companies reviewed. Each company was assessed across a total of 18 indicators.

Scores are based on publicly available information, including companies' published reports, press statements, and website materials.[33] For each indicator within a pillar, a company received a "Met" score and earned a point if it fulfilled the requirements of that indicator. The number of points received in each pillar were totaled, and the company received a corresponding Overall Net Zero grade, on a scale from "A" to "F" (excluding "E").

In determining companies' overall grades, pillars were weighted differentially. While companies have made progress in measuring and disclosing GHG emissions and, increasingly, in setting GHG reduction targets, they demonstrate relatively poor performance in achieving full value chain emissions reductions. Pillar 1: GHG Disclosures was weighted at 22 percent, Pillar 2: GHG Targets at 33 percent, and Pillar 3: GHG Reductions was weighted most heavily at 45 percent based on the importance of meeting 2030 Paris-aligned reduction targets of 45 percent and net zero emissions by 2050.[34] The full list of questions and indicators are set forth in Appendix C.

32. Based on the Global Industry Classification Standard (GICS). Dan Caplinger, "Stock Market Sectors: 11 Official GICS Groups," Investment Advice, *The Motley Fool*, January 7, 2022, **https://www.fool.com/investing/stock-market/market-sectors/**.

33. Company responses to third-party organizations, such as the CDP climate-related disclosure framework, were assessed only where they are also made publicly available on the company's website or through free investor materials.

34. See "2020 Progress Report," Climate Action 100+, December 2020, **https://www.climateaction100.org/wp-content/uploads/2020/12/CA100-Progress-Report.pdf**, p. 22; Joeri Rogelj et al., "Mitigation Pathways Compatible with 1.5°C in the Context of Sustainable Development," in *Global Warming of 1.5°C. An IPCC Special Report on the Impacts of Global Warming of 1.5°C above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty*, ed. Greg Flato et al. (IPCC, 2018), p. 116.

PILLAR 1 RESULTS: GHG DISCLOSURES

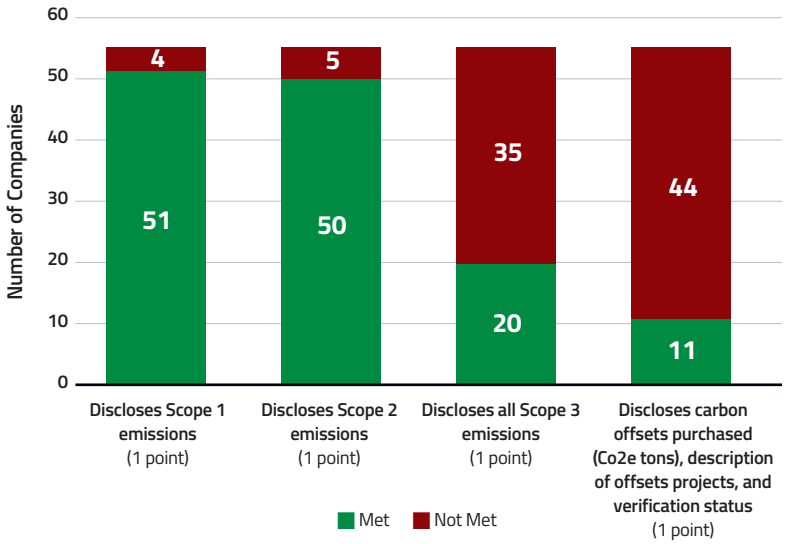
The first pillar of the scorecard assesses climate-related disclosures. A total of four points is possible. Indicators assess disclosure of Scope 1 emissions; Scope 2 emissions; all categories of Scope 3 emissions; and essential carbon offset information.

To receive a point for Scope 3 emissions disclosures, all 15 Scope 3 categories as defined by the GHG protocol[35] must be disclosed, or the company must explicitly state that any categories for which emissions are not disclosed are *de minimis* or not applicable.[36] In addition, all major elements of a particular category must be reported. To receive a point for the carbon offset indicator, companies must disclose (1) the amount of carbon dioxide equivalent (Co2e) tons purchased; (2) descriptions of offset projects; and (3) verification standards for offset projects.

We note that companies, in their disclosures, routinely use the terms "net zero" and "carbon neutrality" interchangeably, and often without sufficient definition. Companies that plan to use offsets to achieve net zero or carbon neutrality goals are encouraged to describe how offsets are integrated into company climate strategies. Companies that use these terms, but do not rely on offsets to meet GHG reduction targets, are encouraged to make this clear. The SBTi recommends using 10 percent or less of offsets towards climate-related commitments.[37]

Significantly, as demonstrated in Figure 3, full reporting of Scope 3 emissions substantially trails company disclosures of Scope 1 and 2 emissions. Of the 55 companies reviewed, 46 companies disclosed at least one of the 15 Scope 3 emissions categories. However, an assessment of categories disclosed found that many companies are failing to report the most impactful Scope 3 categories for their businesses. For example, *NextEra*[38] reports on the Scope 3 category of "business travel," while the majority of its Scope 3 emissions are not reported. To encourage full reporting of Scope 3 emissions, only companies that

FIGURE 3: Pillar 1 (GHG Disclosures) Indicators



35. "Greenhouse Gas Protocol: Technical Guidance for Calculating Scope 3 Emissions," World Business Council for Sustainable Development; World Resource Institute, April 2013, **https://ghgprotocol.org/sites/default/files/standards/Scope3_Calculation_Guidance_0.pdf**.
36. While SBTi and the GHG Protocol provide some sector specific guidance regarding Scope 3 categories that must be addressed, they have yet to provide a comprehensive definition of "relevant." By emphasizing the need to report all 15 categories, this report incentivizes transparency in Scope 3 disclosures for investors' benefit. "SBTi Criteria and Recommendations," Science Based Targets Initiative, October 2021, **https://sciencebasedtargets.org/resources/files/SBTi-criteria.pdf**, p. 5; "Corporate Value Chain (Scope 3) Accounting and Reporting Standard," GHG Protocol, 2013, https://ghgprotocol.org/sites/default/files/standards/Corporate-Value-Chain-Accounting-Reporing-Standard_041613_2.pdf, pp. 6-9.
37. Tom Dowdall, "Science-Based Net-Zero Targets: 'Less Net, More Zero," Science Based Targets Initiative (blog), October 7, 2021, **https://sciencebasedtargets.org/blog/science-based-net-zero-targets-less-net-more-zero**. States that SBTi requires "a limited dependence on carbon removals to neutralize emissions that cannot yet be eliminated (5-10%)."
38. "Environmental, Social, and Governance," NextEra Energy, 2021, **https://www.nexteraenergy.com/content/dam/nee/us/en/pdf/2021_NEE_ESG_Report_Final.pdf**, p. 77.

disclosed data for each of the 15 categories, or indicated if such category was not relevant, received a point. Out of the 46 companies that reported some type of Scope 3 disclosure, only 20 companies reported comprehensive data addressing all 15 categories. This compares to 50 companies that adequately reported their Scope 1 and 2 emissions. We note that *General Motors* has reported on all 15 categories since 2013.[39] Other companies in this scorecard that report all relevant Scope 3 categories are set forth in Figure 4 below.

With regard to carbon offsets, only 11 of the 55 assessed companies provide basic information about use of offsets, including the number of offsets purchased or retired, a description of offset projects, and the use of third-party verification processes. Some companies state that they have a portfolio of carbon offset projects but disclose little else about the offsets beyond names and locations of projects. Certain companies state a commitment to achieve carbon neutrality by 2035[40] and suggest use of offsets in doing so but do not disclose the amount of offsets used or planned to be used for achieving such carbon reduction goals. To fulfill investor expectations, companies must clearly disclose carbon offset metrics relevant to company plans to reduce and/or achieve net zero emissions.

Findings: Assessed companies are performing relatively well on GHG related disclosures. The majority of companies received "B", "C", or "D" grades for the disclosure pillar, while a group of four leading companies received "A" grades. Both *Alphabet* and *Facebook* received "A" grades by fully disclosing Scope 1, 2, and 3 emissions and providing a description of use of carbon offsets.[41] *Johnson & Johnson* also received an "A" grade by fully disclosing Scope 1, 2, and 3 emissions and stating that it does not currently purchase, sell, or transfer offsets in its GHG accounting.[42] Only three lagging companies received "F" grades on the disclosure pillar: *Berkshire Hathaway*, *Tesla*, and *Square*.[43] Tesla represents an interesting case of a company that creates products significant to the energy transition yet displays a serious lack of disclosure related to its own emissions.

Conclusions: Clear and comparable emissions reporting from companies is important in assessing relative company progress and performance on GHG emissions reduction. Investors should assess company GHG disclosures and carbon offsets reporting with a critical eye to assure completeness of information and clarity of reporting. Scope 3 emissions reporting that is limited to lower impact categories can be particularly confusing and misleading. To ensure comparability, companies must report on all 15 GHG Scope 3 categories or explicitly state that a given category does not apply to its business as either irrelevant or *de minimis*. Similarly, use of carbon offsets can be a confounding factor in company GHG disclosures. Where company plans indicate that carbon offsets are being or increasingly will be used to achieve carbon reduction or neutrality goals, companies must provide clear disclosures on how such offsets will be used, what they are, and whether they are verified as to quality.

FIGURE 4: Companies that report all Scope 3 categories.

Abbott Laboratories	Coca-Cola Company	Johnson & Johnson	Schlumberger
Air Products & Chemicals	Ecolab	Microsoft	Southern Company
Alphabet	Equinix	PepsiCo	United Parcel Service
American Tower Corp	Facebook	Procter & Gamble	Verizon Communications
Apple	General Motors	Prologis	Walmart

39. "General Motors- Climate Change Response 2021," CDP, **https://www.gmsustainability.com/_pdf/cdp/Climate_Change_2021_Information_Request-General_Motors_Company.pdf**.
40. "TCFD Report 2019," Verizon Communications, **https://www.verizon.com/about/sites/default/files/Verizon-TCFD-Report.pdf**.
41. "CDP Climate Change Response 2020," Alphabet Inc., August 2020, **https://www.gstatic.com/gumdrop/sustainability/alphabet-2020-cdp-climate-change-response.pdf**; "2020 Sustainability Report," Facebook, Inc., **https://sustainability.fb.com/wp-content/uploads/2021/06/2020_FB_Sustainability-Report-3.pdf**.
42. "2020 Health for Humanity Report," Johnson & Johnson, **https://healthforhumanityreport.jnj.com/_document/johnson-johnson-2020-health-for-humanity-report?id=00000179-eebd-d0e3-ad7b-feff30750000**.
43. "Berkshire Hathaway Sustainability," Berkshire Hathaway Inc., **https://www.berkshirehathaway.com/sustainability/sustainability.html**; "Impact Report 2020," Tesla, Inc., **https://www.tesla.com/ns_videos/2020-tesla-impact-report.pdf**; "2020 Corporate Social Responsibility Report," Square, Inc., **https://s27.q4cdn.com/311240100/files/2020-CSR-Report-Final.pdf**.

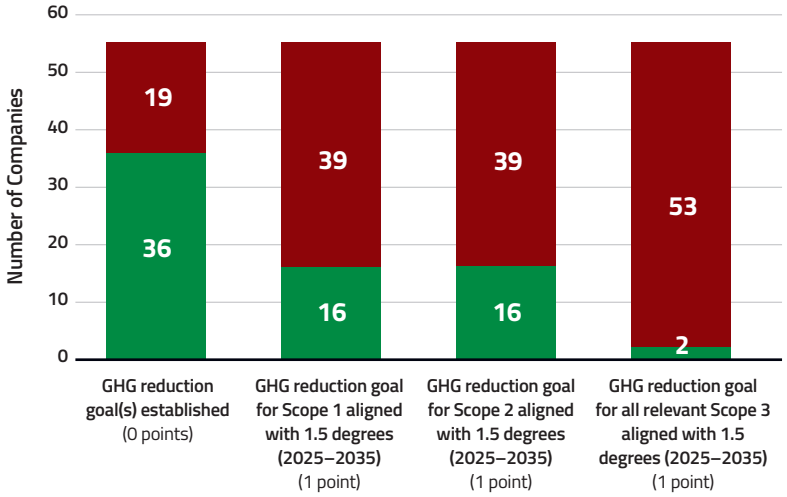
PILLAR 2 RESULTS: GHG TARGETS

Pillar 2 assesses the status of company GHG targets and goals based on publicly available reporting by each company. Companies receive one point each for setting a 1.5 degree aligned interim target (50 percent reduction by 2030) for Scope 1, Scope 2, and all relevant Scope 3 emissions.[44] Companies also received points for setting net zero by 2050 goals. Companies received one point each for setting any net zero by 2050 goal; a net zero by 2050 goal covering Scopes 1, 2, and 3 emissions; and a net zero by 2050 goal covering Scopes 1, 2, and 3 with limited offset use. Company reduction goals could be framed as either absolute emissions reductions or intensity reductions.[45] Taken together, Pillar 2 indicators provide a comprehensive assessment of corporate goals to reduce GHG emissions and achieve net zero emissions by 2050 or sooner.

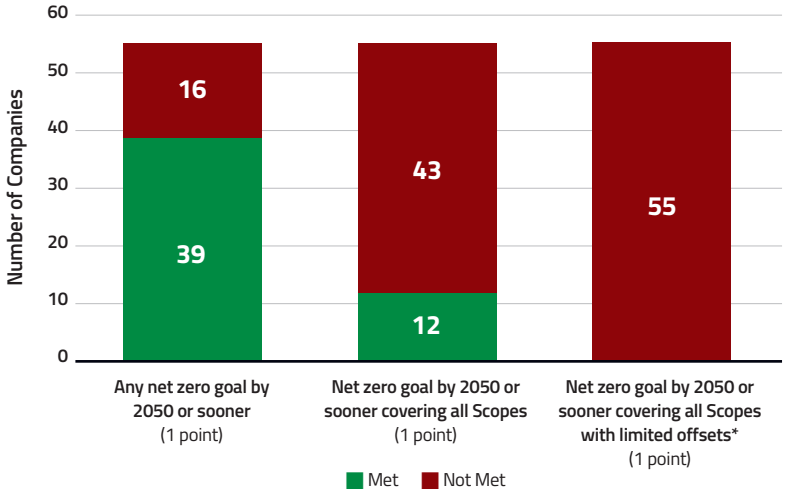
Findings: While 36 companies have some type of interim GHG reduction goal, only 16 have established goals to reduce Scope 1 and 2 emissions at a rate aligned with 1.5 degrees (requiring 4.2 percent or more year over year absolute reductions in the near-term or seven percent annual intensity reductions). Many companies including *General Motors*,[46] *Abbott Laboratories*,[47] and *Sherwin-Williams*[48] have goals to reduce Scope 1 and 2 emissions aligned with well below

FIGURE 5: Pillar 2 (GHG Targets) Indicators

Indicators 1 through 4



Indicators 5 through 7



44. This scorecard does not separate interim targets into short- and medium-term timeframes because companies define these periods differently. This scorecard emphasizes the critical nature of short-term emissions reductions by weighting companies' actual GHG reductions over the short-term (2018-2020) as 45% of the Overall Grade.
45. As discussed at greater length in the GHG Reductions section below, 1.5 degree-aligned reductions are credited where absolute emissions reductions reach 4.2 percent or more annually and emissions intensity reductions reach 7.0 percent or more annually. Intensity is assessed using emissions per dollar of revenue to create comparability across all 55 companies.
46. "2020 Sustainability Report: Driving Sustainable Value," General Motors Company, **https://www.gmsustainability.com/_pdf/resources-and-downloads/GM_2020_SR.pdf**.
47. "2020 Global Sustainability Report," Abbott Laboratories, **https://dam.abbott.com/en-us/documents/pdfs/abbott-citizenship/Abbott-2020-Global-Sustainability-Report.pdf**.
48. "Building in the Good: 2020 Sustainability Report," Sherwin-Williams Company, **https://s2.q4cdn.com/918177852/files/doc_downloads/esg/2021/09/Sherwin-Williams-2020-Sustainability-Report_091621.pdf**.

2 degrees of global warming but have not yet set targets aligned with the Paris 1.5 degree goal. Many other companies are not aligned with even a well below 2 degree goal. Scientists and investors agree that companies must strive to limit global warming to 1.5 degrees to reduce the worst impacts of climate change.[49]

The vast majority of companies lack Scope 3 reduction goals, which often represent their largest sources of emissions, including supply chain and product use emissions. Even where companies have set a Scope 3 emissions reduction goal, only two of the 55 companies assessed aligned their Scope 3 emissions with 1.5 degrees: *Apple* and *Microsoft*.[50]

Another key finding in this pillar is the lack of a long term, net zero by 2050 goal for Scope 1, 2, and 3 emissions. While 39 companies have a goal to become net zero or carbon neutral by 2050 or sooner, only 12 companies have established a net zero by 2050 goal that includes all Scopes of emissions. Many corporate carbon neutrality by 2050 goals, including those at companies such as *Amazon*,[51] *General Motors*,[52] and *Walmart*,[53] cover only Scopes 1 and 2 operational emissions.

The final category in Pillar 2 is use of offsets. Of the 55 companies assessed, we found zero companies with a stated ambition to achieve 1.5 degree-aligned, net zero by 2050 emissions reductions across all Scopes *with limited use of offsets*. This report puts an emphasis on direct emissions reductions by companies because it is not possible for the world to achieve net zero emissions if the majority of companies are reliant on offsets to achieve their climate-related goals.[54] Rather, companies must prioritize deep decarbonization efforts for their own value chain emissions, limiting offsets to compensate for ongoing emissions and/or to cover residual emissions that prove infeasible to reduce by 2050 (constituting generally less than 10 percent of reductions).[55]

Investors require clear information as to what percentage of a company's GHG reductions will be achieved through offsets rather than reductions. Some companies, including *Freeport McMoRan* and *Eli Lilly*,[56] have identified mitigation hierarchies that minimize the use of offsets. For example, Eli Lilly states in its ESG Report that "[a]lthough our primary strategy is to directly reduce emissions and replace carbon intensive sources with clean energy sources, we anticipate we may need to utilize carbon offsets . . . for emissions and energy sources that cannot be reduced or replaced."[57]

49. Fiona Harvey, "Climate Experts Warn World Leaders 1.5C Is 'Real Science', Not Just Talking Point," *The Guardian*, October 30, 2021, **https://www.theguardian.com/environment/2021/oct/30/climate-experts-warn-world-leaders-15c-is-real-science-not-just-talking-point**.
50. "Environmental Progress Report," Apple, Inc., **https://www.apple.com/environment/pdf/Apple_Environmental_Progress_Report_2021.pdf**.
51. The company's operations goal covers Scopes 1 and 2. The company's shipments goal does not include all relevant Scope 3 emissions. "Amazon Sustainability 2020 Report: Further and Faster, Together," Amazon.com Inc., June 2021, **https://sustainability.aboutamazon.com/pdfBuilderDownload?name=amazon-sustainability-2020-report**, p. 12.
52. The company states it plans to become carbon neutral in its global products and operations by 2040. Operations covers Scopes 1 and 2, however global products does not addresses all relevant Scope 3 emissions. "2020 Sustainability Report: Driving Sustainable Value," General Motors Company, **https://www.gmsustainability.com/_pdf/resources-and-downloads/GM_2020_SR.pdf**, p. 46.
53. "Environmental, Social and Governance," Walmart Inc, **https://corporate.walmart.com/esgreport/media-library/document/walmart-2021-esg-annual-summary/_proxyDocument?id=0000017a-82c5-d7dc-ad7a-bac574130000**.
54. For example, the total amount of land required for planned carbon removals is estimated to be equivalent to all the farmland on the planet. In other words, demand for carbon removal projects is expected to outstrip supply. Aditi Sen and Nafkote Dabi, "Tightening the Net - Implications for Land and Food Equity," OXFAM International, August 2021, **https://oxfamilibrary.openrepository.com/bitstream/handle/10546/621205/bp-net-zero-land-food-equity-030821-en.pdf;sequence=1**.
55. "Additional investments like [carbon offsets] could help increase the likelihood the global community stays within a 1.5°C carbon budget but are not a substitute for the rapid and deep reduction of a company's own value chain emissions." "Net-Zero Standard," Science Based Targets Initiative, October 2021, **https://sciencebasedtargets.org/resources/files/Net-Zero-Standard.pdf**, p. 10.
56. "2020 Annual Report on Sustainability," Freeport-McMoRan, **https://www.fcx.com/sites/fcx/files/documents/sustainability/2020-annual-report-on-sustainability.pdf**; "Our Environment Approach," Eli Lilly and Co, **https://esg.lilly.com/environmental#tab-control-tab1**.
57. "Our Environment Approach," Eli Lilly and Co, **https://esg.lilly.com/environmental#tab-control-tab1**.

No companies assessed in this report received an "A" grade on the GHG Targets pillar. *Apple* and *Microsoft* received a "B" grade in this Pillar for setting a target(s) to reduce Scope 1, 2, and 3 emissions in line with 1.5 degrees and having a 2050 carbon neutrality or net zero emissions reduction goal for all emissions scopes, but each lacked an explicit limitation on the use of offsets. *Ecolab*, *Equinix*, *PepsiCo*, *Schlumberger*, and *PayPal* also received "B" grades for reducing Scope 1 and 2 emissions in alignment with 1.5 degrees and having committed to achieve 2050 carbon neutrality or net zero goals for all Scopes of emission, but each failed to set Scope 3 reduction targets aligned with 1.5 degrees.

Conclusions: Company GHG reduction commitments must be carefully assessed to verify whether companies are taking responsibility for their full range of operational and value chain emissions. Although Scope 3 emissions can be complex to identify and calculate, as each company acts to reduce its full scope of value chain emissions in line with global goals, other companies are encouraged and enabled to do so as well. Already a strong majority of companies are moving on climate; pressure to increase the level of ambition across all emissions scopes and in alignment with 1.5 degree goals – while there is still time to avoid increasingly catastrophic and systemic impacts – is both possible and necessary.

PILLAR 3 RESULTS: GHG REDUCTIONS

The third and final pillar of the net zero scorecard report assesses whether a company's emissions are declining at the rate and scope necessary to align with the global 1.5 degree, net zero by 2050 goal. The GHG Reductions pillar analysis uses SBTi reduction guidance, which states that absolute emissions must decline by 4.2 percent or more per year in the near-term and that economic emissions intensity (Co2e/Revenue) must decline by seven percent or more in the near-term to be aligned with 1.5 degrees. The most recent three years of reporting data, from 2018 to 2020, were used to assess company reduction progress. Emissions data were collected before offset credits were applied and therefore represent each company's gross emissions.

SBTi states that emissions intensity is defined by a reduction in emissions relative to a specific business metric, such as barrels of oil produced or bottles produced.[58] Since product-based intensities cannot accurately be compared across companies, to provide a standardized intensity metric, this report evaluates all companies by revenue-based intensity. Revenue-based intensity has limitations. For example, a company experiencing significant growth can show a declining revenue-based intensity trend, even while its absolute emissions are increasing. Despite its limitations, revenue-based intensity provides a valuable metric to extract overarching trends from a diverse set of companies.

In GHG Reductions pillar, scores are weighted according to the composition of a company's total emissions. For each company, the Scope contributing the greatest amount of emissions was weighted the heaviest. As a result, companies that successfully addressed their largest source(s) of emissions received higher scores than companies that successfully addressed only lower impact Scopes of emissions.

Finally, given that emissions reduction performance is the most critical component in assessing each company's net zero success, the Performance Pillar grade is the most heavily weighted when determining each company's Overall Grade, constituting 45 percent of a company's Overall Grade. Further details of the methodology used for these indicators can be found in Appendix C.

Findings: As an initial matter, we note that, due to the inability to assess company emissions reductions in the absence of disclosures, companies that fail to report on a parameter received a score of zero on that parameter.

Six companies received "A" grades in emissions reduction performance – *Microsoft*, *PepsiCo*, *Alphabet*, *Boeing*, *Ecolab*, and *Prologis* – by reducing emissions and emissions intensity in line with 1.5 degree goals for their most substantial emissions sources. Only two companies, *Air Products & Chemicals* and *Southern Company*, received a "B" grade, and *Apple* received a "C" grade.

Although 28 companies reduced both Scope 1 and 2 emissions in line with 1.5 degrees, only one of these companies, *Air Products & Chemicals*, had Scope 1 and 2 emissions that represented 50% or more of their total emissions. This demonstrates that the vast majority of companies are not reducing their most material emissions.

In total, 43 companies out of 55 companies received "F" grades in this pillar. One of the main factors that resulted in such low grades was a lack of adequate Scope 3 disclosure. For most companies in this assessment, Scope 3 emissions made up more than 75 percent of companies' total emissions.[59]

58. "SBTi Corporate Manual," Science Based Targets Initiative, December 2021, **https://sciencebasedtargets.org/resources/files/SBTi-Corporate-Manual.pdf**, p. 18.

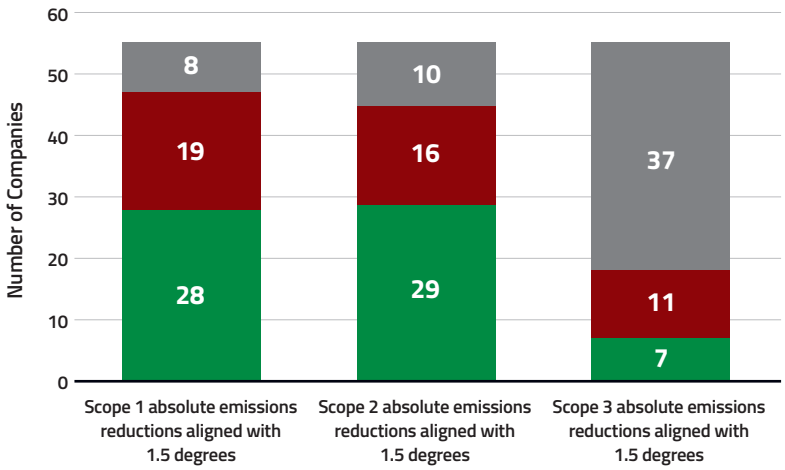
59. In order to avoid presenting misleading information we evaluated only the emission trends of companies that report all 15 Scope 3 categories.

A more surprising trend was the lack of year over year GHG emissions reductions by companies with GHG reduction targets and net zero ambitions. While some such companies are still measuring the full range of their emissions, including supply chain emissions, and developing reduction strategies, many others should be further down the path and achieving short term emissions decreases. Yet, of the 36 companies that have adopted climate related goals, only five companies were found to have reduced their absolute emissions in line with 1.5 degrees.

For example, *Amazon* has spearheaded The Climate Pledge[60] and has committed to reach net zero carbon emissions across its operations by 2040,[61] yet its absolute emissions continue to increase. While the company has been growing its operations, some level of absolute emissions reductions associated with The Climate Pledge should be evident. From 2018 to 2020, Amazon's Scope 1 emissions increased 93 percent, Scope 2 emissions increased 12 percent, and the select Scope 3 emissions Amazon does report on increased 32 percent. Additionally, for several Scope 3 categories, Amazon underreports by only considering emissions from its Amazon-branded products. Further, Amazon's Scope 1 emissions intensity increased 23 percent from 2019 to 2020, meaning that as Amazon grows, the amount of emissions created per dollar of revenue is also growing.[62] Amazon's scope 2 emissions intensity has declined at a rate consistent with 1.5 degrees, demonstrating the success of its renewable electricity procurement practices. Similarly, *United Parcel Service* has a goal to achieve carbon neutrality by 2050, yet the company's Scope 1, 2, and 3 emissions rose from 2019 to 2020.[63]

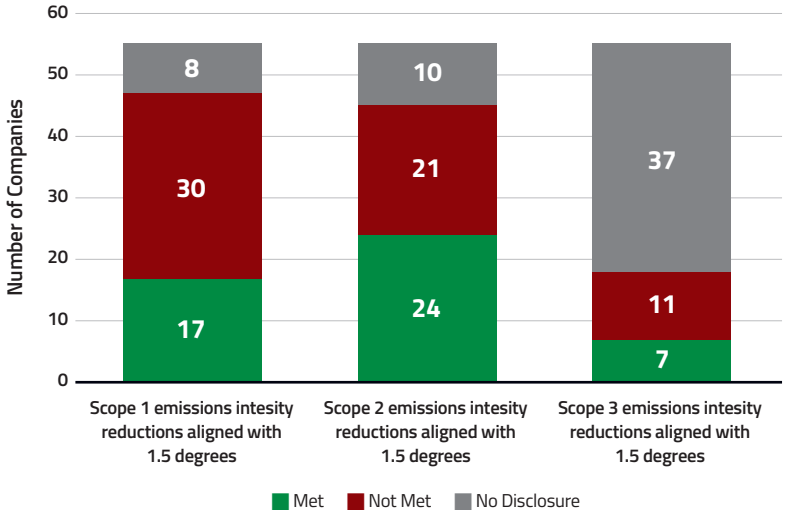
FIGURE 6: Pillar 3 (GHG Reductions) Indicators

Indicators 1 through 3



[8 points in total are given to Pillar 3, weighted by the percent of emissions by each scope]

Indicators 4 through 6



60. "Net Zero Carbon by 2040," The Climate Pledge, Amazon.com Inc., accessed January 12, 2022, **https://www.theclimatepledge.com/**.
61. "Amazon Sustainability 2020 Report: Further and Faster, Together," Amazon.com Inc., June 2021, **https://sustainability.aboutamazon.com/pdfBuilderDownload?name=amazon-sustainability-2020-report**.
62. "Amazon Sustainability 2020 Report: Further and Faster, Together," Amazon.com Inc., June 2021, **https://sustainability.aboutamazon.com/pdfBuilderDownload?name=amazon-sustainability-2020-report**, p. 111.
63. "2020 GRI Content Index," United Parcel Service, **https://about.ups.com/content/dam/upsstories/assets/reporting/sustainability-2021/2020_UPS_GRI_Content_Index_081921v2.pdf**.

Whether intentional or not, failure to fully report emissions across all three Scopes can mask a company's failure to reduce its largest sources of emissions. If a company's Scopes 1 and 2 emissions are 1.5 degree aligned, and its Scope 3 emissions are not reported, investors may incorrectly assume companies are making sufficient progress. For example, while *Chevron* has reduced its Scope 1 and 2 emissions at a rate consistent with 1.5 degrees, it has failed to adequately reduce Scope 3 emissions, which constitute 91 percent of its emissions.[64] Chevron has recently begun reporting its Scope 3 product emissions, which will help investors understand its lack of emissions reduction progress. *Schlumberger* and *Johnson & Johnson* are other companies that are reducing Scope 1 and 2 emissions in alignment with 1.5 degree goals but which still receive an "F" grade because they are failing to sufficiently reduce Scope 3 emissions, which constitute 96 percent of total emissions for each.[65] To accurately assess reduction progress, investors should seek reporting across all Scopes of a company's emissions. Failure to fully disclose emissions prevents an accurate assessment of reduction progress.

Conclusion: Over the past decade, there has been increasing progress by companies in measuring and disclosing emissions data, setting climate goals, and developing plans necessary to reduce emissions. Investors have been instrumental in spurring these first important steps from companies. But company and investor action cannot stall there. While companies could spend years working to perfect emissions reporting, measurement tools, and targets and plans, the window is quickly closing for reducing emissions in line with maintaining global warming at 1.5 degrees.

Having put first steps in place, investors must now set their sights on ensuring year-on-year emissions reduction progress from companies. Failure to make sufficient GHG reduction progress in the short term means higher costs and greater systemic risk as emissions are locked into the atmosphere for decades.

64. "Climate Change Resilience," Chevron Corporation, **https://www.chevron.com/-/media/chevron/sustainability/documents/climate-change-resilience-report.pdf**.

65. "2020 Sustainability Report," Schlumberger Ltd., **https://www.slb.com/sustainability/pdf/SLB_2020_Sustainability_Report.pdf**; "2020 Health for Humanity Report," Johnson & Johnson, **https://healthforhumanityreport.jnj.com/_document/johnson-johnson-2020-health-for-humanity-report?id=00000179-eebd-d0e3-ad7b-feff30750000**.

SECTOR HIGHLIGHTS

The net zero emissions scorecard has uncovered some interesting trends for particular industries. These findings are summarized below:

Failure to Reduce Emissions Associated with Use of Products by Oil and Gas Companies: None of the assessed oil and gas companies have reported Scope 3 reductions, which, for these companies, primarily consists of emissions associated with use of the produced oil and gas. While some assessed oil and gas companies have reported reductions in Scope 1 and 2 emissions, such emissions usually represent less than 10 percent of total emissions for these companies. We note that even though certain oil and gas companies have made commitments to achieve carbon neutrality across all scopes of emissions, such as *BP*[66] and *Shell*,[67] these commitments appear to rely heavily on carbon offsets, and none has set absolute Scope 3 emissions reduction goals aligned with 1.5 degrees. Thus, while oil and gas companies may be increasing operational efficiencies – a necessary step – such actions leave the vast amount of emissions associated with their businesses unaddressed and unaligned with achieving a net zero economy.

Lack of Supply Chain Disclosure by Utilities: While utilities perform well on reporting Scope 1 and 2 emissions, those that procure, burn, and distribute natural gas often fail to account for upstream methane emissions leakage in production, which in most cases will substantially increase total emissions associated with their natural gas products. Many others fail to report emissions associated with use of product. For example, the only Scope 3 category *NextEra*[68] reports is business travel. Of the assessed utility companies, *Southern Company* provides the most comprehensive Scope 3 reporting. It discloses all categories and is expanding its upstream methane reporting. To accurately assess net zero progress, it is critical that utilities measure not only direct emissions associated with producing power, but also the indirect emissions associated with their fuel sources and products.

Lagging Net Zero Goals by Steel Manufacturers: Steel manufacturers have begun to set net zero goals for specific points in their operations, but none has set comprehensive goals across the full range of their business. For example, *Steel Dynamics*[69] aims to achieve carbon neutrality by 2050 but only for its electric arc furnaces. *Nucor*[70] commits to reduce its GHG emissions intensity but only for its steel mill-generated emissions. On the other hand, *US Steel*[71] has committed to reduce its GHG intensity across Scope 1 and 2 to achieve net zero emissions intensity by 2050. Enterprise-wide commitments like US Steel's are essential to achieve necessary science-based emissions reduction.

Lack of Disclosure on Financed Emissions by Banks: While many large U.S. banks – *Citi*, *JP Morgan Chase*, *Wells Fargo*, *Bank of America*, and *Goldman Sachs* – have committed to achieve net zero financed emissions and joined the Net Zero Banking Alliance,[72] and *Vanguard*, *State Street*, *Amundi*, and *Fidelity International* have joined the Net Zero Asset Managers Initiative,[73] these banks do not yet publicly disclose their financed emissions. This lack of Scope 3 reporting makes it impossible to assess the company's performance against stated net zero commitments, the most material scope of bank emissions.

66. "Getting to Net Zero," BP Plc., accessed January 12, 2022, **https://www.bp.com/en/global/corporate/sustainability/getting-to-net-zero.html**.
67. "Our Climate Target," Royal Dutch Shell PLC, **https://www.shell.com/energy-and-innovation/the-energy-future/our-climate-target.html#iframe=L3dlYmFwcHMvY2xpbWF0ZV9hbWJpdGlvbi8**.
68. "Sustainability: Valuing Our Environment," Steel Dynamics, **http://sustainability.steeldynamics.com/valuing-our-environment/**.
69. "Sustainability: Valuing Our Environment," Steel Dynamics, **http://sustainability.steeldynamics.com/valuing-our-environment/**.
70. "Our Greenhouse Gas Reduction Targets," Nucor Corporation, **https://www.nucor.com/greenhouse-gas-reduction-target-strategy/**.
71. "Environment: Greenhouse Gas Emissions," United States Steel Corporation, **https://www.ussteel.com/sustainability/environmental/ghg**.
72. United Nations Environment Programme Finance Initiative, "Net Zero Banking Alliance," accessed January 12, 2022, **https://www.unepfi.org/net-zero-banking/**.
73. Net Zero Asset Managers Initiative (website), accessed January 12, 2022, **https://www.netzeroassetmanagers.org/**.

CONCLUSIONS

Absence of Tangible Emissions Reductions Performance: While many companies have set GHG reduction goals or made net zero pledges, few companies have actually reduced their emissions sufficiently to achieve alignment with the global 1.5 degree Celsius target. While 12 companies have committed to achieve net zero emissions or carbon neutrality by 2050, of those that provided adequate emissions data, only six actually met the annual 4.2 percent reduction goal for absolute emissions. An overwhelming 43 of the 55 companies assessed received "F" grades on their emissions reduction performance, primarily because companies are not reducing the largest sources of emissions, such as their supply chain and use of product emissions. Another underlying issue is that many companies do not disclose emissions across all three Scopes and are therefore failing to fully account for their emissions reductions.

Limited Scope 3 Disclosures, Targets, and Performance: Data from this scorecard highlight that Scope 3-related information and action is seriously lagging. Currently, most companies disclose Scope 1 and 2 emissions data and have goals that address Scopes 1 and 2. However, out of 55 companies assessed, only 20 reported all Scope 3 emissions, and only two had 1.5 degree-aligned goals that address Scope 3 emissions. As a result of this lack of focus on Scope 3 emissions, companies are seriously under-performing in reductions. While 28 companies successfully reduced Scopes 1 and 2 emissions in line with 1.5 degrees, only eight companies saw Scope 3 reductions in line with 1.5 degrees. Setting targets that address all Scopes, especially in their mid to long term targets, will help set companies up for success in achieving net zero with regard to supply chains, product offerings, and operational and equipment efficiencies.

Few GHG Reduction Goals Are Aligned with the 1.5 Degree Target: Aligning GHG reduction goals with the 1.5 degree global net zero goal, which requires 4.2 percent or more emissions reduction per year in the near term, is critical to avoiding the worst impacts of climate change. While 36 of the 55 assessed companies have GHG reduction goals covering Scopes 1 and/or 2 emissions, only 16 of those companies have aligned with climate science by setting 1.5 degree-aligned targets. Much more ambition is needed to avoid the systemic and global risk that a warming planet poses to human health, the environment, and our economy.

Insufficient Clarity over Carbon Offsets: None of the companies assessed in this scorecard has committed to use carbon offsets in line with developing best practices. The SBTi and the CA100+ Benchmark, among others, have underscored that net zero goals should use carbon offsets only for unavoidable and residual emissions (which generally represents 10 percent or less of total reductions) to align with the 1.5 degree target. In order for companies to publish 1.5 degree aligned net zero goals, specific commitments on the limited use of offsets must be made. Where companies are currently using offsets – or have stated an intent to do so in the future – they must provide clarity as to whether those offsets are currently used, or intended in the future to be used, toward net zero or carbon neutrality goals. The current lack of specificity demonstrated by companies on the use of carbon offsets tends to cloud the issue of 1.5 degree alignment and raises the specter of greenwashing. Where companies are using offsets, only 11 disclosed the number of carbon offsets purchased, the type of carbon offsets projects used, and the verification status of these offsets.

LOOKING TO THE FUTURE

Overall, the companies we assessed – which are among the most sophisticated companies in the world – have a long way to go to demonstrate adequate progress toward achieving 1.5 degree aligned net zero carbon emissions. The headline areas for improvement are the publication of Scope 3 disclosures, the setting of 1.5 degree aligned targets across all Scopes, and, most critically, the achievement of sufficient year on year emissions reductions. These gaps lead to a worrying series of low grades, especially in the GHG Reductions pillar.

On a more positive note, while many of the current grades are low, company grades will likely improve over time for a number of reasons. The transition to a clean energy economy is underway. Low carbon technologies are increasingly cost effective and diverse. More and more companies are announcing net zero and SBTi approved GHG targets, and the recently released SBTi Net Zero Standard[74] mandates limited use of carbon offsets. Continuing pressure from investors and the market as a whole are increasing the expectation that companies will reduce the full range of their operational, supply chain, and product-related emissions, while governments are increasingly mandating disclosure and carbon reduction measures. Climate financing commitments by a wide range of financial institutions indicate that access to and cost of capital will increase for high carbon companies. Also, as reporting increases, companies that received zero scores due to lack of reporting can be assessed on the basis of additional performance indicators.

CALL TO ACTION FOR SHAREHOLDERS

Shareholders are uniquely positioned to support corporations in the transition towards net zero emissions. Through the power of shareholder engagements, voting, and purchase or sell decisions, investors have the ability to affect company action. Key action steps shareholders can take to support net zero include:

1. Incorporate company 1.5 degree emission reduction alignment in investment decision-making metrics.
2. Raise lack of demonstrated, 1.5 degree aligned reductions in engagements with companies.
3. Specify shareholder voting consequences for companies that fail to demonstrate adequate net zero progress on disclosures, target setting, and emissions reduction, including a stated intention to focus on boards of directors votes.
4. Prior to AGMs, publicly communicate voting intentions and rationales for such votes.
5. Join Net Zero Asset Owner Alliance[75] or Net Zero Asset Manager Initiative[76] to drive portfolio emissions toward Net Zero.

74. "Net-Zero Standard," Science Based Targets Initiative, October 2021, **https://sciencebasedtargets.org/resources/files/Net-Zero-Standard.pdf**.
75. "UN-Convened Net-Zero Asset Owner Alliance," (United Nations Environment Finance Initiative), accessed January 25, 2022, **https://www.unepfi.org/net-zero-alliance/**.
76. "The Net Zero Asset Managers initiative," (Net Zero Asset Managers initiative), accessed January 25, 2022, **https://www.netzeroassetmanagers.org/**.

APPENDIX A: COMPANY SCORES BY PILLAR

COMPANY NAME	OVERALL POINTS	OVERALL GRADE	PILLAR 1: DISCLOSURES	PILLAR 2: TARGETS	PILLAR 3: PERFORMANCE
Microsoft Corporation	17	A	A	B	A
PepsiCo Inc	16	A	A	B	A
Ecolab Inc	15	A-	B	B	A
Alphabet Inc	13	B	A	D	A
Apple Inc	12	B-	B	B	C
Prologis Inc	11	C+	B	F	A
Abbott Laboratories	11	C+	B	F	A
Southern Company	9	C-	B	D	B
Air Products & Chemicals Inc	8	C-	B	F	B
Johnson & Johnson	7	D+	A	C	F
Schlumberger Ltd	7	D+	B	B	F
Coca-Cola Company	7	D+	B	C	D
Boeing Company	6	D	B	C	F
Equinix Inc	6	D	B	C	F
AT&T Inc	6	D	B	C	F
Facebook Inc	6	D	A	D	F
General Motors Company	6	D	B	C	F
PayPal Holdings Inc	6	D	C	B	F
United Parcel Service Inc	6	D	B	D	D
Verizon Communications Inc	6	D	B	C	F
Walmart Inc	6	D	B	C	F
Bank of America Corporation	5	D	B	D	F
Pfizer Inc	5	D	C	C	F
Procter & Gamble Company	5	D	B	D	F
American Tower Corporation	4	D-	B	F	D
ConocoPhillips Company	4	D-	B	D	F
Dow Inc	4	D-	C	D	F
Lowe's Companies Inc	4	D-	C	D	F
The Walt Disney Company	4	D-	B	D	F
Exelon Corporation	3	F	C	D	F
Amazon.com Inc	3	F	C	D	F
Charter Communications Inc	3	F	C	D	F

(Continued on next page.)

COMPANY NAME	OVERALL POINTS	OVERALL GRADE	PILLAR 1: DISCLOSURES	PILLAR 2: TARGETS	PILLAR 3: PERFORMANCE
Chevron Corporation	3	F	C	D	F
Comcast Corporation	3	F	C	D	F
Crown Castle International Corporation	3	F	C	D	F
Dominion Energy Inc	3	F	C	D	F
Duke Energy Corporation	3	F	C	D	F
Eli Lilly and Company	3	F	C	D	F
EOG Resources Inc	3	F	C	D	F
ExxonMobil Corp	3	F	C	D	F
Honeywell International Inc	3	F	C	D	F
JPMorgan Chase & Co	3	F	C	D	F
NVIDIA Corporation	3	F	C	D	F
Freeport-McMoRan Inc	2	F	C	F	F
NextEra Energy Inc	2	F	C	F	F
Public Storage	2	F	C	F	F
Raytheon Technologies Corporation	2	F	C	F	F
Sherwin-Williams Company	2	F	C	F	F
Square Inc	2	F	F	D	F
The Home Depot Inc	2	F	C	F	F
UnitedHealth Group Inc	2	F	C	F	F
Union Pacific Railroad Company	1	F	D	F	F
Visa Inc	1	F	D	F	F
Berkshire Hathaway Inc	0	F	F	F	F
Tesla Inc	0	F	F	F	F

APPENDIX B: INDICATORS MET BY COMPANY

PILLAR 1				
COMPANY NAME	DISCLOSES SCOPE 1 EMISSIONS	DISCLOSES SCOPE 2 EMISSIONS	DISCLOSES ALL SCOPE 3 EMISSIONS	DISCLOSES CARBON OFFSETS PURCHASED (Co2e TONS), DESCRIPTION OF OFFSETS PROJECTS, AND VERIFICATION STATUS
Abbott Laboratories	Met	Met	Met	Not Met
Air Products & Chemicals Inc	Met	Met	Met	Not Met
Alphabet Inc	Met	Met	Met	Met
Amazon.com Inc	Met	Met	Not Met	Not Met
American Tower Corporation	Met	Met	Met	Not Met
Apple Inc	Met	Met	Met	Not Met
AT&T Inc	Met	Met	Not Met	Met
Bank of America Corporation	Met	Met	Not Met	Met
Berkshire Hathaway Inc	Not Met	Not Met	Not Met	Not Met
Boeing Company	Met	Met	Not Met	Met
Charter Communications Inc	Met	Met	Not Met	Not Met
Chevron Corporation	Met	Met	Not Met	Not Met
Coca-Cola Company	Met	Met	Met	Not Met
Comcast Corporation	Met	Met	Not Met	Not Met
ConocoPhillips Company	Met	Met	Not Met	Met
Crown Castle International Corporation	Met	Met	Not Met	Not Met
Dominion Energy Inc	Met	Met	Not Met	Not Met
Dow Inc	Met	Met	Not Met	Not Met
Duke Energy Corporation	Met	Met	Not Met	Not Met
Ecolab Inc	Met	Met	Met	Not Met
Eli Lilly and Company	Met	Met	Not Met	Not Met
EOG Resources Inc	Met	Met	Not Met	Not Met
Equinix Inc	Met	Met	Met	Not Met
Exelon Corporation	Met	Met	Not Met	Not Met
ExxonMobil Corp	Met	Met	Not Met	Not Met
Facebook Inc	Met	Met	Met	Met
Freeport-McMoRan Inc	Met	Met	Not Met	Not Met
General Motors Company	Met	Met	Met	Not Met
Honeywell International Inc	Met	Met	Not Met	Not Met
Johnson & Johnson	Met	Met	Met	Met

(Continued on next page.)

PILLAR 1				
COMPANY NAME	DISCLOSES SCOPE 1 EMISSIONS	DISCLOSES SCOPE 2 EMISSIONS	DISCLOSES ALL SCOPE 3 EMISSIONS	DISCLOSES CARBON OFFSETS PURCHASED (Co2e TONS), DESCRIPTION OF OFFSETS PROJECTS, AND VERIFICATION STATUS
JPMorgan Chase & Co	Met	Met	Not Met	Not Met
Lowe's Companies Inc	Met	Met	Not Met	Not Met
Microsoft Corporation	Met	Met	Met	Met
NextEra Energy Inc	Met	Met	Not Met	Not Met
NVIDIA Corporation	Met	Met	Not Met	Not Met
PayPal Holdings Inc	Met	Met	Not Met	Not Met
PepsiCo Inc	Met	Met	Met	Met
Pfizer Inc	Met	Met	Not Met	Not Met
Procter & Gamble Company	Met	Met	Met	Not Met
Prologis Inc	Met	Met	Met	Not Met
Public Storage	Met	Met	Not Met	Not Met
Raytheon Technologies Corporation	Met	Met	Not Met	Not Met
Schlumberger Ltd	Met	Met	Met	Not Met
Sherwin-Williams Company	Met	Met	Not Met	Not Met
Southern Company	Met	Met	Met	Not Met
Square Inc	Not Met	Not Met	Not Met	Not Met
Tesla Inc	Not Met	Not Met	Not Met	Not Met
The Home Depot Inc	Met	Met	Not Met	Not Met
The Walt Disney Company	Met	Met	Not Met	Met
Union Pacific Railroad Company	Met	Not Met	Not Met	Not Met
United Parcel Service Inc	Met	Met	Met	Not Met
UnitedHealth Group Inc	Met	Met	Not Met	Not Met
Verizon Communications Inc	Met	Met	Met	Not Met
Visa Inc	Not Met	Not Met	Not Met	Met
Walmart Inc	Met	Met	Met	Not Met

(Continued on next page.)

PILLAR 2							
COMPANY NAME	GHG REDUCTION GOAL(S) ESTABLISHED	GHG REDUCTION GOAL FOR SCOPE 1 ALIGNED WITH 1.5 DEGREES (2025-2035)	GHG REDUCTION GOAL FOR SCOPE 2 ALIGNED WITH 1.5 DEGREES (2025-2035)	GHG REDUCTION GOAL FOR ALL RELEVANT SCOPE 3 ALIGNED WITH 1.5 DEGREES (2025-2035)	CARBON NEUTRALITY GOAL BY 2050 OR SOONER	CARBON NEUTRALITY GOAL BY 2050 OR SOONER COVERS ALL SCOPES	NET ZERO GOAL BY 2050 OR SOONER COVERS ALL SCOPES WITH LIMITED OFFSETS*
Abbott Laboratories	Met	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
Air Products & Chemicals Inc	Met	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
Alphabet Inc	Not Met	Not Met	Not Met	Not Met	Met	Met	Not Met
Amazon.com Inc	Not Met	Not Met	Not Met	Not Met	Met	Not Met	Not Met
American Tower Corporation	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
Apple Inc	Met	Met	Met	Met	Met	Met	Not Met
AT&T Inc	Met	Met	Met	Not Met	Met	Not Met	Not Met
Bank of America Corporation	Met	Not Met	Not Met	Not Met	Met	Met	Not Met
Berkshire Hathaway Inc	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
Boeing Company	Met	Met	Met	Not Met	Met	Not Met	Not Met
Charter Communications Inc	Not Met	Not Met	Not Met	Not Met	Met	Not Met	Not Met
Chevron Corporation	Not Met	Not Met	Not Met	Not Met	Met	Not Met	Not Met
Coca-Cola Company	Met	Met	Met	Not Met	Met	Not Met	Not Met
Comcast Corporation	Not Met	Not Met	Not Met	Not Met	Met	Not Met	Not Met
ConocoPhillips Company	Not Met	Not Met	Not Met	Not Met	Met	Not Met	Not Met
Crown Castle International Corporation	Not Met	Not Met	Not Met	Not Met	Met	Not Met	Not Met
Dominion Energy Inc	Met	Not Met	Not Met	Not Met	Met	Not Met	Not Met
Dow Inc	Met	Not Met	Not Met	Not Met	Met	Met	Not Met
Duke Energy Corporation	Met	Not Met	Not Met	Not Met	Met	Not Met	Not Met
Ecolab Inc	Met	Met	Met	Not Met	Met	Met	Not Met
Eli Lilly and Company	Not Met	Not Met	Not Met	Not Met	Met	Not Met	Not Met
EOG Resources Inc	Not Met	Not Met	Not Met	Not Met	Met	Not Met	Not Met
Equinix Inc	Met	Met	Met	Not Met	Met	Not Met	Not Met
Exelon Corporation	Met	Not Met	Not Met	Not Met	Met	Not Met	Not Met
ExxonMobil Corp	Met	Not Met	Not Met	Not Met	Met	Not Met	Not Met
Facebook Inc	Not Met	Not Met	Not Met	Not Met	Met	Met	Not Met
Freeport-McMoRan Inc	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
General Motors Company	Met	Met	Met	Not Met	Met	Not Met	Not Met
Honeywell International Inc	Met	Not Met	Not Met	Not Met	Met	Not Met	Not Met

(Continued on next page.)

PILLAR 2							
COMPANY NAME	GHG REDUCTION GOAL(S) ESTABLISHED	GHG REDUCTION GOAL FOR SCOPE 1 ALIGNED WITH 1.5 DEGREES (2025-2035)	GHG REDUCTION GOAL FOR SCOPE 2 ALIGNED WITH 1.5 DEGREES (2025-2035)	GHG REDUCTION GOAL FOR ALL RELEVANT SCOPE 3 ALIGNED WITH 1.5 DEGREES (2025-2035)	CARBON NEUTRALITY GOAL BY 2050 OR SOONER	CARBON NEUTRALITY GOAL BY 2050 OR SOONER COVERS ALL SCOPES	NET ZERO GOAL BY 2050 OR SOONER COVERS ALL SCOPES WITH LIMITED OFFSETS*
Johnson & Johnson	Met	Met	Met	Not Met	Met	Not Met	Not Met
JPMorgan Chase & Co	Met	Not Met	Not Met	Not Met	Met	Not Met	Not Met
Lowe's Companies Inc	Met	Met	Met	Not Met	Not Met	Not Met	Not Met
Microsoft Corporation	Met	Met	Met	Met	Met	Met	Not Met
NextEra Energy Inc	Met	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
NVIDIA Corporation	Not Met	Not Met	Not Met	Not Met	Met	Not Met	Not Met
PayPal Holdings Inc	Met	Met	Met	Not Met	Met	Met	Not Met
PepsiCo Inc	Met	Met	Met	Not Met	Met	Met	Not Met
Pfizer Inc	Met	Met	Met	Not Met	Met	Not Met	Not Met
Procter & Gamble Company	Met	Not Met	Not Met	Not Met	Met	Met	Not Met
Prologis Inc	Met	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
Public Storage	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
Raytheon Technologies Corporation	Met	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
Schlumberger Ltd	Met	Met	Met	Not Met	Met	Met	Not Met
Sherwin-Williams Company	Met	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
Southern Company	Met	Not Met	Not Met	Not Met	Met	Not Met	Not Met
Square Inc	Not Met	Not Met	Not Met	Not Met	Met	Met	Not Met
Tesla Inc	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
The Home Depot Inc	Met	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
The Walt Disney Company	Not Met	Not Met	Not Met	Not Met	Met	Not Met	Not Met
Union Pacific Railroad Company	Met	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
United Parcel Service Inc	Met	Not Met	Not Met	Not Met	Met	Not Met	Not Met
UnitedHealth Group Inc	Met	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
Verizon Communications Inc	Met	Met	Met	Not Met	Met	Not Met	Not Met
Visa Inc	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
Walmart Inc	Met	Met	Met	Not Met	Met	Not Met	Not Met

(Continued on next page.)

PILLAR 3						
COMPANY NAME	SCOPE 1 ABSOLUTE EMISSIONS REDUCTIONS ALIGNED WITH 1.5 DEGREES	SCOPE 2 ABSOLUTE EMISSIONS REDUCTIONS ALIGNED WITH 1.5 DEGREES	SCOPE 3 ABSOLUTE EMISSIONS REDUCTIONS ALIGNED WITH 1.5 DEGREES	SCOPE 1 EMISSIONS INTENSITY REDUCTIONS ALIGNED WITH 1.5 DEGREES	SCOPE 2 EMISSIONS INTENSITY REDUCTIONS ALIGNED WITH 1.5 DEGREES	SCOPE 3 EMISSIONS INTENSITY REDUCTIONS ALIGNED WITH 1.5 DEGREES
Abbott Laboratories	Not Met	Not Met	Met	Met	Met	Met
Air Products & Chemicals Inc	Met	Met	Not Met	Met	Not Met	Not Met
Alphabet Inc	Not Met	Not Met	Met	Met	Not Met	Met
Amazon.com Inc	Not Met	Not Met	Not Met	Not Met	Met	Not Met
American Tower Corporation	Met	Not Met	Not Met	Met	Met	Not Met
Apple Inc	Met	Met	Met	Met	Met	Not Met
AT&T Inc	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
Bank of America Corporation	Met	Met	Not Met	Not Met	Met	Not Met
Berkshire Hathaway Inc	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
Boeing Company	Met	Met	Not Met	Not Met	Not Met	Not Met
Charter Communications Inc	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
Chevron Corporation	Met	Not Met	Not Met	Not Met	Not Met	Not Met
Coca-Cola Company	Met	Not Met	Not Met	Met	Not Met	Not Met
Comcast Corporation	Met	Met	Not Met	Met	Not Met	Not Met
ConocoPhillips Company	Met	Met	Not Met	Not Met	Not Met	Not Met
Crown Castle International Corporation	Met	Met	Not Met	Met	Met	Not Met
Dominion Energy Inc	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
Dow Inc	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
Duke Energy Corporation	Met	Met	Not Met	Met	Met	Not Met
Ecolab Inc	Met	Met	Met	Not Met	Met	Met
Eli Lilly and Company	Met	Met	Not Met	Met	Met	Not Met
EOG Resources Inc	Met	Not Met	Not Met	Not Met	Not Met	Not Met
Equinix Inc	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
Exelon Corporation	Met	Met	Not Met	Not Met	Not Met	Not Met
ExxonMobil Corp	Met	Met	Not Met	Not Met	Not Met	Not Met
Facebook Inc	Met	Met	Not Met	Met	Met	Not Met
Freeport-McMoRan Inc	Met	Met	Not Met	Not Met	Not Met	Not Met
General Motors Company	Met	Met	Not Met	Not Met	Not Met	Not Met
Honeywell International Inc	Not Met	Met	Not Met	Not Met	Not Met	Not Met

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PILLAR 3						
COMPANY NAME	SCOPE 1 ABSOLUTE EMISSIONS REDUCTIONS ALIGNED WITH 1.5 DEGREES	SCOPE 2 ABSOLUTE EMISSIONS REDUCTIONS ALIGNED WITH 1.5 DEGREES	SCOPE 3 ABSOLUTE EMISSIONS REDUCTIONS ALIGNED WITH 1.5 DEGREES	SCOPE 1 EMISSIONS INTENSITY REDUCTIONS ALIGNED WITH 1.5 DEGREES	SCOPE 2 EMISSIONS INTENSITY REDUCTIONS ALIGNED WITH 1.5 DEGREES	SCOPE 3 EMISSIONS INTENSITY REDUCTIONS ALIGNED WITH 1.5 DEGREES
Johnson & Johnson	Met	Met	Not Met	Met	Met	Not Met
JPMorgan Chase & Co	Met	Met	Not Met	Met	Met	Not Met
Lowe's Companies Inc	Not Met	Met	Not Met	Not Met	Met	Not Met
Microsoft Corporation	Not Met	Not Met	Met	Not Met	Not Met	Met
NextEra Energy Inc	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
NVIDIA Corporation	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
PayPal Holdings Inc	Met	Met	Not Met	Met	Met	Not Met
PepsiCo Inc	Not Met	Met	Met	Not Met	Met	Met
Pfizer Inc	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
Procter & Gamble Company	Not Met	Met	Not Met	Not Met	Met	Not Met
Prologis Inc	Met	Not Met	Met	Met	Not Met	Met
Public Storage	Not Met	Met	Not Met	Not Met	Met	Not Met
Raytheon Technologies Corporation	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
Schlumberger Ltd	Met	Met	Not Met	Not Met	Not Met	Not Met
Sherwin-Williams Company	Not Met	Met	Not Met	Not Met	Met	Not Met
Southern Company	Met	Not Met	Not Met	Met	Not Met	Not Met
Square Inc	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
Tesla Inc	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
The Home Depot Inc	Not Met	Met	Not Met	Not Met	Met	Not Met
The Walt Disney Company	Met	Met	Not Met	Met	Met	Not Met
Union Pacific Railroad Compny	Met	Met	Not Met	Not Met	Met	Not Met
United Parcel Service Inc	Not Met	Not Met	Not Met	Not Met	Met	Met
UnitedHealth Group Inc	Not Met	Not Met	Not Met	Not Met	Met	Not Met
Verizon Communications Inc	Met	Not Met	Not Met	Not Met	Not Met	Not Met
Visa Inc	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
Walmart Inc	Not Met	Met	Not Met	Not Met	Met	Not Met

APPENDIX C: SCORING METHODOLOGY

INDICATOR METHODOLOGY

- For each indicator, a company received a "Yes" if it had fulfilled the requirements of that indicator or a "No" if it had not fulfilled the requirements. The definitions and methodology used in the indicators are provided below.
- Company disclosures were assessed as of January 31, 2022.

PILLAR 1: DISCLOSURES

Common rules for indicators: Discloses Scope 1, Scope 2, and all relevant Scope 3 emissions

- Emissions disclosure must encompass all GHG compounds, such as methane and carbon dioxide, with a global warming impact. CO2e is frequently used as a common unit for all types of GHG emissions.
- Emissions disclosures must include all sources of emissions related to a company's operations, products, and supply chains, as described in the GHG Protocol's Scopes 1, 2, and 3 standards. Companies that only report on certain segments will receive a zero score for the emissions disclosure pillar (e.g., a steel company that only discloses its electric arc furnace emissions as opposed to its entire operations' emissions would not receive a point; an oil and gas company that only discloses upstream emissions would not receive a point; a company with global operations that only discloses data in limited regions would not receive a point). Although companies do not always use the "Scopes 1through 3" terminology, language indicating that emissions from a particular Scope are reported receives a point (e.g., PepsiCo uses "direct emissions" rather than "Scope 1" but in footnotes explain the emissions covered; Exxon discloses "emissions associated with imported power," which similarly covers the same emissions as "Scope 2").
- Emissions disclosure must be reported annually (e.g., aggregated emissions for multiple years is not sufficient).

Discloses Scope 1 emissions: (Point Awarded = 1)

- Scope 1 emission disclosure must include all direct emissions that occur from sources controlled or owned by an organization. The GHG Protocol Corporate Standards states that Scope 1 emissions are principally the result of emissions from (1) the generation of electricity, heat, or steam; (2) emissions from physical or chemical processing; (3) emissions from the transportation of materials, products, waste, and employees; and (4) fugitive emissions.[77]

Discloses Scope 2 emissions: (Point Awarded = 1)

- Scope 2 emissions are defined by the GHG Protocol as indirect GHG emissions associated with the purchase of electricity, steam, heat, or cooling.[78]
- Either "location-based" or "market-based" Scope 2 emissions reporting is acceptable when covering all power use by the company. Location-based accounting considers average emissions factors for the electricity grids that provide electricity. Market-based accounting considers contractual arrangements under which the company procures power from specific sources, such as renewable energy credits or virtual power purchase agreements with renewable sources.
- In assessing companies where both types of data were provided by companies, market-based Scope 2 emissions were used to score companies to give credit to companies that are engaging in renewable energy procurement.

77. "The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard," World Business Council for Sustainable Development; World Resources Institute, February 2017, **https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf**, p. 27.
78. "GHG Protocol Scope 2 Guidance," World Business Council for Sustainable Development; World Resources Institute, September 2020, **https://ghgprotocol.org/sites/default/files/standards/Scope%202%20Guidance_Final_Sept26.pdf**.

Discloses all relevant Scope 3 emissions: (Point Awarded = 1)

- Scope 3 emissions include all other indirect emissions that occur in a company's value chain that are not included in Scopes 1 and 2. The GHG Protocol breaks Scope 3 emissions into 15 categories and requires companies to quantify and report emissions from each category.[79]
- To earn a point, company reporting must include all 15 Scope 3 categories or state that all relevant Scope 3 categories have been reported. A company that discloses some categories, such as Category 6, "business travel," but fails to disclose other relevant categories, will not receive credit for this indicator.
- "Relevance" is determined on a per-business-model basis and is informed by other third-party frameworks, including those released by the SBTi and CA100+ Net Zero Company Benchmark. Relevant emissions are defined for this indicator as emissions germane to the company's business model that are not *de minimis*. For example, a retailer that primarily outsources manufacturing of products must disclose Category 1, "purchased goods and services." An engine manufacturer that sells high-emitting products must disclose Category 11, "use of sold products." Financial institutions with investment units must disclose financed emissions associated with Category 15, "investments." However, a company without franchises could report Category 14, "franchises," as not relevant. Additionally, a company may have emissions from Category 8, "upstream leased assets," that only account for two percent of its total emissions and could therefore report Category 8 as *de minimis*.

Discloses carbon offsets purchased (Co2e tons), description of offsets projects, and verification status: (Point Awarded = 1)

- To receive credit, a company must (1) disclose the amount of carbon offsets or carbon credits purchased over a given year; (2) provide a description of the types of carbon offsets projects; and (3) provide verification information and status of offsets.
- A company will not receive a point for this category if it (1) claims to or plans to achieve carbon neutrality but does not report the number of credits purchased annually; or (2) only provides the amount of money invested in offsets and similar projects but does not provide the number of credits generated and retired.

PILLAR TWO: TARGETS

Common rules for Pillar 2 indicators:

- To earn credit, reported GHG reduction targets, net zero goals, and carbon neutrality goals must address the company's Scope 1, 2, and 3 emissions.
- If a company states it is "in the process of measuring" or "developing" a goal, or that it has an "ambition to set a goal," the company will not receive a point for this category.
- Only GHG reduction goals will be accepted. Goals regarding renewables, waste, or energy efficiency will not. Furthermore, a net zero or carbon neutrality goal will not be accepted as a GHG reduction goal unless it states a commitment that a specific percentage reduction will be achieved without the use of carbon offsets.
- A GHG reduction goal for a particular Scope of emissions will only count if it encompasses 95 percent of a given Scope's emissions.

79. "Greenhouse Gas Protocol: Technical Guidance for Calculating Scope 3 Emissions," World Business Council for Sustainable Development; World Resource Institute, April 2013, **https://ghgprotocol.org/sites/default/files/standards/Scope3_Calculation_Guidance_0.pdf**, p. 6.

- Assessment of whether a goal is aligned with 1.5 degree utilizes methodologies of SBTi's cross-sector 1.5 degree requirements.[80] The requirements of 1.5 degree alignment is for 4.2 percent or more reductions year over year in the short-term. While SBTi is developing industry specific guidance, the cross sector methodology is the most comprehensive guidance currently available. Where a company has a 1.5 degree aligned target validated by SBTi such company earned full credit.

Interim GHG reduction goals for Scope 1 aligned with 1.5 degrees (2025-2035) (Point Awarded = 1)

- To satisfy this requirement, companies must either have explicit validation from SBTi or a goal that is consistent with SBTi guidance for alignment with limiting global warming to 1.5 degrees (i.e., 4.2 percent average reduction per year).[81] Goals that have received approval from SBTi for "well below 2 degrees" do not receive a point for this category.
- Goals must have an end date in the 2025 to 2035 timeframe.

Interim GHG reduction goals for Scope 2 aligned with 1.5 degrees (2025-2035) (Point Awarded = 1)

- To satisfy this requirement, companies must either have explicit validation from SBTi or a goal that is consistent with SBTi guidance for alignment with limiting global warming to 1.5 degrees.
- Goals must have an end date in the 2025 to 2035 timeframe.

Interim GHG reduction goals for all relevant Scope 3 aligned with 1.5 degrees (2025-2035) (Point Awarded = 1)

- To satisfy this requirement, companies must either have explicit validation from SBTi or a goal that is consistent with SBTi guidance for alignment with limiting global warming to 1.5 degrees.
- Assessments if a goal is aligned with 1.5 degree criteria utilize methodologies of SBTi's cross-sector 1.5 degree requirements.[82] The requirement of 1.5 degree alignment is for 4.2 percent or more reductions year over year in the short-term for Scope 3. Note that this method has been extended from Scope 1 and 2 requirements as SBTi doesn't provide percent reduction for near-term Scope 3 emissions aligned with 1.5 degrees.
- Goals must have an end date in the 2025 to 2035 timeframe.

Net zero ambition or carbon neutrality goal by 2050 or sooner for Scopes 1 and 2: (Potential Points Awarded = 1 point per metric for 4 Total points)

- Goal requires net zero/carbon neutral emissions by 2050 or sooner.
- The goal covers enterprise-wide emissions for Scopes 1 and 2 (e.g., net zero targets by 2050 for Scope 1 and 2 emissions).
- The goal covers Scope 3 emissions for all 15 categories (or indicates where such categories are not relevant due to *de minimis* emissions).
- Long-term net zero goals must achieve 90 percent or more of reductions from reductions, unless otherwise specified for a given industry.[83] Goals that depend largely on the use of offsets and/or unproven technology, such as geologic carbon capture, do not satisfy this category.

80. "Net-Zero Standard," Science Based Targets Initiative, October 2021, **https://sciencebasedtargets.org/resources/files/Net-Zero-Standard.pdf**, p. 27.
81. "Net-Zero Standard," Science Based Targets Initiative, October 2021, **https://sciencebasedtargets.org/resources/files/Net-Zero-Standard.pdf**, p. 27.
82. "Net-Zero Standard," Science Based Targets Initiative, October 2021, **https://sciencebasedtargets.org/resources/files/Net-Zero-Standard.pdf**, p. 27.
83. "Corporate Net-Zero Standard," Science Based Targets Initiative, October 2021, **https://sciencebasedtargets.org/resources/files/Net-Zero-Standard.pdf**, pp. 8-9; "SBTi Criteria and Recommendations," Science Based Targets Initiative, October 2021, **https://sciencebasedtargets.org/resources/files/SBTi-criteria.pdf**, p. 7.

PILLAR 3: PERFORMANCE

Common rules for Pillar 3 indicators: (Point Awarded = 8 points are maximum number and points are weighted by each scope based on the % of emissions from scope)

- Annual emissions data and revenue from 2018 to 2020 were collected and calculated to determine absolute and intensity reductions. Annual reductions were determined by comparing 2018 data to 2020 data. If 2018 data were not disclosed, 2020 data were compared to 2019; if 2020 data were not yet disclosed due to annual publication timelines, 2019 data were compared to 2018. If a company failed to report 2020 data on its prior reporting data, it was assumed that the company did not report, and no performance point was given.
- Although some companies report GHG intensity using energy used per unit of energy, GHG intensity scoring for this report uses company revenue as the denominator (emissions / revenue) to ensure comparability of scoring. Revenue data were retrieved from the company's annual report and compared to sustainability metrics for that year. In some cases, revenue data were retrieved from Yahoo! Finance.
- Companies with only one year of emissions disclosure data, such as 2020, did not receive credit for performance indicators as a year over year trend cannot be deduced.

Scope 1 absolute emissions reductions aligned with 1.5 degrees:

- Following SBTi guidance, absolute Scope 1 emissions must decline at 4.2 percent or more per year to receive a point on this indicator.

Scope 2 absolute emissions reductions aligned with 1.5 degrees:

- Following SBTi guidance, absolute Scope 2 emissions must decline at 4.2 percent or more per year to receive a point on this indicator.
- Market-based Scope 2 data were preferred for this scorecard. When a company provided both market-based and location-based data, market-based data were recorded. If a company only provided location-based data, location-based data were recorded.

Scope 3 absolute emissions reductions aligned with 1.5 degrees:

- SBTi guidance on aligning near term Scope 1 and 2 emissions to 1.5 degrees has been extended to Scope 3. Absolute Scope 3 emissions must decline at 4.2 percent or more per year to receive a point on this indicator.

Scope 1 emissions intensity reductions aligned with 1.5 degrees:

- SBTi only provides economic intensity requirements for Scope 3 emissions of seven percent year over year reductions. Extending this guidance, seven percent year over year reduction is used to determine if Scope 1 emissions intensity is aligned with 1.5 degrees.

Scope 2 emissions intensity reductions aligned with 1.5 degrees:

- SBTi only provides economic intensity requirements for Scope 3 emissions of seven percent year over year reductions. Extending this guidance, seven percent year over year reduction is used to determine if Scope 2 emissions intensity is aligned with 1.5 degrees.

Scope 3 emissions intensity reductions aligned with 1.5 degrees:

- Following SBTi, Scope 3 economic emission intensity must decline at seven percent or more per year to receive a point on this indicator.

GRADING METHODOLOGY

PILLAR 1:

POINTS:	GRADE:
4	A
3	B
2	C
1	D
0	F

PILLAR 2:

POINTS:	GRADE:
6	A
5	B
4	B
3	C
2	D
1	D
0	F

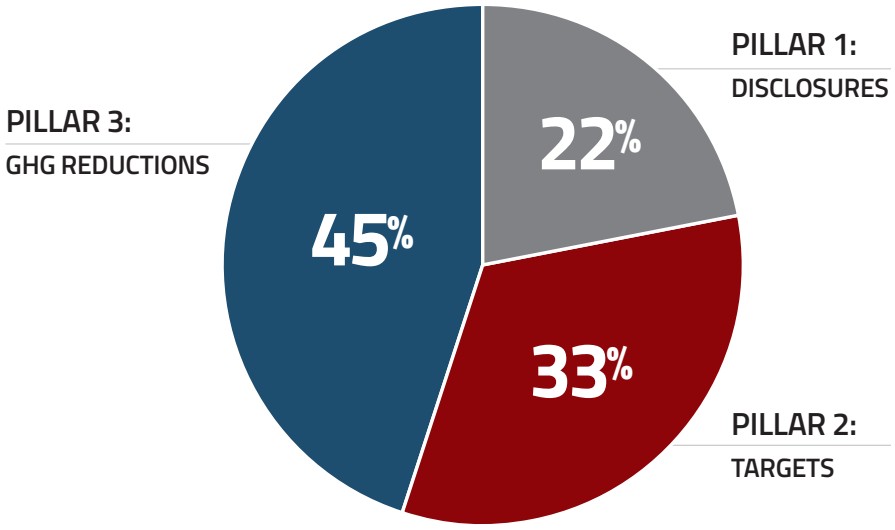
PILLAR 3:

POINTS:	GRADE:
8	A
7	A
6	B
5	B
4	C
3	C
2	D
1	D
0	F

OVERALL GRADE:

POINTS:	GRADE:
18	A+
17	A
16	A
15	A-
14	B+
13	B
12	B-
11	C+
10	C
9	C-
8	C-
7	D+
6	D
5	D
4	D-
3	F
2	F
1	F
0	F

PILLAR WEIGHTS IN OVERALL GRADE



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