CUMMINS RESPONDS TO CLIMATE CHANGE

2022 TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

INTRODUCTION

Cummins has a long history as an environmental leader in the commercial power industry, particularly in meeting and exceeding emissions requirements for the company's products.

From the early days of the environmental movement, former Cummins leaders J. Irwin Miller and Henry Schacht endorsed government regulation as the "right thing to do." In the 1960s, taking an industry leading position, Cummins acknowledged that its products, primarily diesel engines and related components then, have an environmental impact. In the 1970s, the company worked closely with the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB) and other key regulatory agencies to ensure the promulgation of sensible and effective environmental regulations for its industry.

More than 20 years ago (1998), Cummins made the decision to embrace tougher environmental standards and to use the company's technological expertise and innovation to drive its business forward and improve the communities in which Cummins operates. These early efforts laid the foundation for the company's current work and commitment to address the environmental impacts of its operations and products.

The company sees opportunities to lead the way in decarbonizing the industries where it operates by executing Cummins' product decarbonization strategy, Destination Zero, which is critical to achieving the goals set forth in PLANET 2050, the company's environmental sustainability strategy.

TWO DECADES OF CLIMATE LEADERSHIP

CLIMATE MILESTONES THROUGH PLANET 2050 LAUNCH

Cummins has been a leader on addressing climate change for nearly two decades.

Learn more by clicking on each link

See full climate action list here.

2006

Joins EPA's Climate Leaders Program.

Begins reporting GHG inventory and emissions.

2007

Charters Climate Change Workgroup.

6.7-liter turbodiesel engine achieves EPA's 2010 NOx standards three years earlier than required.

2009

Forms Energy Champions program to search for facility reductions.

Creates company's Fuel Efficiency Task Force.

2010

Achieves 28% reduction goal in GHG for facilities.

Establishes second GHG goal for facilities.

CEO Tim Solso outlines support for national GHG emissions and fuel efficiency programs.

2011

Joins DOE's Better Buildings, Better Plants Challenge, committing to 25% energy efficiency intensity reduction.

2012

Committee forms to lead environmental action at Cummins beyond compliance.

Bureau Veritas audits the company's GHG inventory.

Completed environmental hot spot analysis.

2013

Performs life cycle analysis on ISX15L engine.

Certifies first sites to ISO 50001 energy management standards.

2014

Unveils first comprehensive sustainability plan with five primary goals for waste, water, energy, and GHG emissions for facilities.

2015

Introduces ISL G Near Zero NOx natural gas engine.

CDP leader for climate change disclosures.

Reports estimate for collective lifetime emissions of all products sold in 2014.

Exceeds energy and GHG reduction goals.

2016

Pledges 90% of facilities' carbon footprint will meet ISO 50001 by 2020.

Approves third energy goal in 10 years.

Supports EPA's second phase of national fuel efficiency and GHG emissions regulations.

2017

Signs U.N. Global Compact.

Joins ICCT's soot-free bus initiative.

Creates Electrified Power segment to develop electric powertrains.

Tom Linebarger is one of 30 CEOs to sign pledge for climate action.

Commits to setting science-based targets to reduce GHGs.

Unveils all electric powertrain.

Signs VPPA to help Indiana wind farm expand.

2018

Announces support for the launch of EPA CTI.

Cummins holds first Climate Action 100+ shareholder meeting.

2019

Closes on acquisition of Hydrogenics, a leading fuel cell and hydrogen generation equipment provider.

Renames Electrified Power segment New Power business to reflect broader mission.

Cummins announces PLANET 2050 strategy aiming for carbon neutrality by 2050.

2021

Develops Destination Zero strategy to guide product decarbonization efforts.

Accelerates development of internal combustion engines fueled by low-carbon hydrogen.

Announces plans to build a new plant in Spain to manufacture electrolyzers.

Opens a fuel cell systems production facility in Herten, Germany.

2022

Unveils new engine strategy to help reduce carbon emissions.

Acquires Meritor, Inc., including its ePowertrains, critical within hybrid and electric drivetrains.

Announces collaboration with Daimler Truck North America to test fuel cells.

Unveils letter of intent with Werner Enterprises for 500 hydrogen engines.

Announces plan to supply electrolyzers for Florida's first green hydrogen plant.

Reveals plans to begin electrolyzer production in U.S.; expand in Belgium.

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2012 2018

Recommended Disclosure For TCFD Framework	Alignment to 2022 CDP (Climate Change/Water Security) Questionnaire	Response
Governance		
Disclose the organization's governance around climate-related risks and opportunities		
a) Describe the board's oversight of climate related risks and opportunities.	**(C1.1b)** – Provide further details on the board's oversight of climate-related issues	The Cummins Board of Directors and its committees exercise robust oversight of the company's enterprise risk management program, with dedicated time at every regular board meeting. The board or its committees also regularly review environmental, social and governance (ESG) strategy, including risks, challenges and progress. The board met 10 times in 2022. All of the directors attended 75% or more of the aggregate number of meetings and committees on which they served over the year. The board's Safety, Environment and Technology (SET) committee provides overall guidance and insight on major environmental sustainability initiatives such as PLANET 2050, Cummins' environmental sustainability strategy, as well as environmental management at the company's facilities and operations. The committee also reviews key technology developments that may impact product competitiveness for both core and new business areas. The SET committee also examines public policy developments, strategies and positions taken by the company as well as safety, environmental and technological matters that significantly impact Cummins or its products. Committee members have a wide range of experience, including in the automotive and transportation industry, manufacturing and supply chain, technology, corporate responsibility and regulatory affairs.
	(C1.1d) – Does your organization have at least one board member with competence on climate-related issues?	The SET committee has long dealt with issues around air emissions and other environmental issues. Cummins has been meeting emission regulations for more than 20 years. Board members have a range of experience including automotive and transportation and related engineering. To learn more about their backgrounds and areas of expertise see pages 17-23 of the 2023 Proxy.
b) Describe management's role in assessing and managing climate-related risks and opportunities.	**(C1.2a)** – Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).	The President and CEO at Cummins has the highest level of direct responsibility for all facets of climate-related issues in strategy, operations (manufacturing and supply chain), planning, budgets, technology and innovation. The Cummins Vice President of the New Power operating segment, renamed Accelera in 2023, reports to the CEO. The Accelera segment designs, manufactures, sells and supports hydrogen production solutions as well as electrified power systems with innovative components and subsystems, including battery, fuel cell and electric powertrain technologies. The Accelera segment is currently in the early stages of commercializing these technologies with efforts primarily focused on the development of our electrolyzers for hydrogen production and electrified power systems and related components and subsystems. The Environmental Sustainability Program office reports to the Chief Technical Officer (CTO). As such, the CTO is responsible for reviewing sustainability plans and targets, particularly as they relate to technology and innovation. The CTO also oversees Cummins' advancement in electrification, hydrogen, low carbon technology and fuel cell technology, in addition to meeting all current and emerging regulations for criteria pollutants and greenhouse gases (GHGs). The CTO also is the senior executive with oversight and overall responsibility for Cummins' environmental sustainability strategy. This makes the CTO uniquely qualified to lead climate-related programming for next generation products including strategy and planning for low carbon transitioning, scenario analysis and product-use greenhouse gas emissions goals. Updates, including climate-related issues and progress, are regularly reported to the Board of Directors. The company's Action Committee for Environmental Sustainability (ACES), formed in 2012, integrates climate action into Cummins' overall business strategy. The executive sponsor and the head of this group both report up to the Chief Technical Officer. The group is the voice and catalyst for environmental action beyond compliance in the company and provides tools and resources for employees to go further and faster in reaching Cummins' environmental goals.

Recommended Disclosure For TCFD Framework	Alignment to 2022 CDP (Climate Change/Water Security) Questionnaire	Response
Governance (continued)		
(Continued) b) Describe management's role in assessing and managing climate-related risks and opportunities.	**(C1.2a)** – Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).	The group meets monthly and reports progress to the CTO through its executive sponsor. ACES directs the development and implementation of the environmental sustainability strategy and reports out on progress in meeting goals. The corporate ACES team has a global focus, including among its stakeholders, every business segment and key functions. It meets annually with the President and CEO. The individual stakeholder and goal owner areas of ACES ensures that all aspects of the environment and relevant areas of the business are included, and data is collected and reported that informs decision making and goal setting. Additional executive sponsor meetings align functional and business leaders across the organization and prioritize actions required for goal progress. The company has an Executive Risk Council comprised of the Senior Vice President, the Chief Financial Officer, the Chief Administrative Officer, Vice President – Corporate Strategy and the General Counsel. The Corporate Controller and the Vice President of Internal Audit. The council meets regularly to review and update the company's material enterprise-related risks and mitigation plans. The Executive Risk Council provides direction on risk assessments and mitigation plans, approves all risk escalation or de-escalation, and identifies new and emerging risks. Ownership of the most significant enterprise risks are assigned to members of the company's leadership team. The committee reviews all the risks annually and does deep dives on top tier risks on a regular basis.
Strategy		
Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.		
a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	**(C2.1a)** – Describe what your organization consider to be short-, medium- and long-term horizons. **(C2.3a)** – Provide details on risks identified with the potential to have a substantive financial or strategic impact on your business	» **Short-term** (one to three years): For a large company like Cummins, three years or sooner is a short time horizon, especially for product development. Acquisitions would be included in this timeframe. » **Medium-term** (three to 10 years): Most of Cummins planning falls into this time horizon, as engine platforms or specific product launches are not short-term. » **Long-term** (10 to 30 years): Cummins PLANET 2050 environmental sustainability strategy would fall into this category. It contains science-based goals for 2030 and aspirations timed to 2050. **TRANSITION RISKS[1]** **Risk type and primary climate-related risk driver:** Technology. Transitioning to lower emissions technology. **Primary potential negative financial impact:** Decreased revenues due to reduced demand for products and services. **Description:** Cummins' risk related to technology substitution is the end result of a number of drivers, among them emerging regulation, infrastructure readiness, shifts in consumer preference, increasingly lower cost of ownership and a customers' own sustainability goals. The company is actively developing zero and near zero emission technologies, including electrified powertrains, hydrogen fuel cells, and electrolyzer technologies for the production of green hydrogen. Cummins is collaborating closely with customers and other stakeholders to develop zero emission technologies that meet the needs of the applications in the markets the company serves.

[1] *For more information regarding the climate-related risks (including description of the response to the risk and the associated cost), please see Cummins full response to CDP Question (C2.3a) in 2022 Climate Change Response.*

Recommended Disclosure For TCFD Framework	Alignment to 2022 CDP (Climate Change/Water Security) Questionnaire	Response
Strategy (continued)		
(Continued) a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	**(C2.1a)** – Describe what your organization consider to be short-, medium- and long-term horizons. **(C2.3a)** – Provide details on risks identified with the potential to have a substantive financial or strategic impact on your business	Given the early stage of development for some of these new products and technologies, there can be no guarantee of future market acceptance and investment returns with respect to these planned products. The increased adoption of electrified powertrains in some market segments could result in lower demand for current diesel or natural gas engines and components; however, the company expects that lower demand for Cummins' current diesel or natural gas engines and components would result in increased demand for the zero emission products the company is developing as discussed in the opportunities section. **Time-horizon:** Medium to long-term **Likelihood:** More likely than not[2] **Risk type and primary climate-related risk driver:** Emerging regulation. Mandates on and regulation of existing products and services. **Primary potential negative financial impact:** Decreased revenues due to reduced demand for products and services. **Description:** The need to develop new technology to meet emissions regulations could result in substantial additional costs that may be difficult to recover in certain markets. In some cases, Cummins is required to develop new products to comply with new regulations, particularly those relating to air emissions. While the company has met previous deadlines, its ability to comply with other existing and future regulatory standards will be essential for Cummins to maintain its competitive advantage in the engine markets the company serves. The successful development and introduction of new and enhanced products in order to comply with new regulatory requirements are subject to other risks, such as delays in product development, cost over-runs and unanticipated technical and manufacturing difficulties. During 2017, the California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (EPA) selected certain of our pre-2013 model year engine systems for additional emissions testing. Some of these engine systems failed CARB and EPA tests as a result of degradation of an aftertreatment component. In the second quarter of 2018, Cummins reached agreement with CARB and EPA regarding the company's plans to address the affected populations. As of the third quarter of 2022,Cummins recorded total cumulative charges of $430 million for the expected costs of field campaigns to repair these engine systems. **Time horizon:** Medium-term **Likelihood:** About as likely as not **Magnitude of impact:** Medium
	(C2.4a) – Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.	**PHYSICAL RISKS[3]** **Risk type and primary climate-related risk driver:** Chronic physical changes in precipitation patterns and extreme variability in weather patterns. **Primary potential negative financial impact:** Decreased revenues due to decreased production capacity. **Description:** The potential for inadequate or unreliable water supplies in the long-term could lead to operational disruptions, increased water pricing, investment in contingency plans, and increased capital expenditures to manage growth within water use allocation limits. The regions Cummins has identified are China (Hai Ho river basin); India (Krishna river basin); Mexico (Panuco river basin) and Brazil (Paraiba Do Sul river basin). **Time horizon:** Medium-term **Likelihood:** More likely than not **Magnitude of impact:** Medium

[2] This report uses the standard language prescribed by TCFD.

[3] For more information regarding the climate-related risks (including description of the response to the risk and the associated cost), please see Cummins full response to CDP Question (C2.3a) in 2022 Climate Change Response.

Recommended Disclosure For TCFD Framework	Alignment to 2022 CDP (Climate Change/Water Security) Questionnaire	Response
Strategy (continued)		
(Continued)	**(C2.4a)** – Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.	**CLIMATE-RELATED OPPORTUNITIES**[4] **Opportunity type and primary climate-related opportunity driver:** Products and services, development and/or expansion of low emission goods and services. **Primary potential financial impact:** Increased revenues resulting from increased demand for products and services **Description:** Cummins product decarbonization strategy, Destination Zero, is focused on developing and advancing lower emission internal combustion and zero emission technologies, including battery electric, hydrogen fuel cell, and green hydrogen electrolyzer technologies. The company's fuel agnostic engine platform, the first of its kind, will use engine blocks and core components that share common architectures and will be optimized for different low-carbon fuel types, allowing customers to choose a low-carbon fuel that meets the needs of their business, while maintaining the familiarity of an internal combustion engine. This new design approach will be applied across the B, L and X-Series engine portfolios, which will be available for diesel, natural gas and hydrogen. The company is also developing and deploying PEM electrolyzers for the advancement of green hydrogen, and is seeing significant momentum in the market as a result of the Inflation Reduction Act of 2022 in North America. The company anticipates the demand for it's electrolyzers will continue to increase as utility companies move from grey to green hydrogen, and will also be suited to supply hydrogen for transport. Cummins is also actively developing, testing, and deploying battery electric and hydrogen fuel cell technologies, which it believes will be the zero carbon solutions for the industries and applications it serves. The company sees battery electric as an ideal zero emission solution for return to base, short-run routes that do not require large torque, such as medium-duty delivery vehicles and transit buses. Cummins expects hydrogen fuel cell solutions to become an increasingly viable option for other applications requiring higher power needs, such as mining and long-haul heavy-duty trucking applications. For both battery electric and hydrogen fuel cell technologies, Cummins will provide the entire electrified powertrain, as well as some of the most critical components that impact performance, quality, and power to the system to deliver the most value to our customers. The company anticipates that eventually an increase in battery electric and hydrogen fuel cell products will result in decreased demand for its diesel products, as discussed in the risk section. **Time horizon:** Medium-term for electrolyzer and fuel agnostic products; longer-term for fuel cells **Likelihood:** More likely than not **Magnitude of impact:** Medium **Opportunity type and primary climate-related opportunity driver:** Resource efficiency. Use of more efficient production and distribution processes. **Primary potential financial impact:** Reduced direct costs. **Description:** Cummins has a climate-related opportunity in responsible material consumption. Seventy percent of a product's environmental footprint, meaning water and energy use plus in-use emissions, is determined during the earliest phases of the design process. The earlier the company can incorporate innovative design for the efficient use of fuel and raw materials, the greater its ability to reduce the environmental footprint (energy, water and waste) of Cummins products both in their design and use. This opportunity includes the Cummins functions of remanufacturing, packaging, advanced manufacturing, material science and product design. **Time horizon:** Medium-term **Likelihood:** More likely than not **Magnitude of impact:** Medium

[4] *For more information regarding the climate-related opportunities (including description of the strategy to realize the opportunity and associated cost), please see Cummins full response to CDP Question (C2.4a) in 2022 Climate Change Response.*

Recommended Disclosure For TCFD Framework	Alignment to 2022 CDP (Climate Change/Water Security) Questionnaire	Response
Strategy (continued)		
(Continued)	**(C2.4a)** – Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.	**Opportunity type and primary climate-related opportunity driver:** Resilience. Participation in renewable energy programs and adoption of energy-efficiency measures. **Primary potential financial impact:** Reduced indirect (operating) costs. **Description:** Cummins is committed to energy efficiency and increasing the company's use of renewable energy both for cost savings and resiliency. Cummins is currently working on its fourth energy efficiency/GHG reduction goal since 2006. The company has completed more than 1,000 energy projects in the last 13 years, saving Cummins about $66 million per year. The company exceeded its commitment to having 40 sites certified to the ISO 50001 international energy standard by 2020, certifying a total of 44 sites. On Cummins' 2020 energy goals, the company achieved an energy intensity reduction of 27%, narrowly missing its goal of 32%, and met the company's goal of increasing its use of renewable energy by adding 45 solar installations globally. Through Cummins' PLANET 2050 environmental sustainability strategy, the company has a 2030 goal of reducing absolute GHG emissions from facilities and operations by 50%. In 2021, Cummins completed more than 155 projects reducing GHGs, investing approximately $20 million in the effort. As a result of the projects, the company achieved GHG savings of about 22,495 metric tons of CO2e (carbon dioxide equivalent). **Time horizon:** Medium-term **Likelihood:** Virtually certain **Magnitude of impact:** Medium-high **Opportunity type and primary climate-related opportunity driver:** Products and services. Development and/or expansion of low emission goods and services. **Primary potential financial impact:** Increased revenues resulting from increased demand for products and services. **Description:** In the race to develop more sustainable and renewable energy sources, hydrogen has re-emerged as a potential key solution in the transition to zero-emission mobility. Cummins is rapidly growing its hydrogen capabilities and the company continues to deepen its expertise in fuel cell technologies. Cummins uses fuel cell and hydrogen technologies to power a variety of applications, including transit buses, semi-trucks, delivery trucks and passenger trains. Scaling up existing hydrogen technologies will deliver competitive low-carbon solutions across a wide range of applications by 2030 and may even offer competitive low-carbon alternatives to conventional fuels in some segments. **Time horizon:** Medium-term **Likelihood:** More likely than not **Magnitude of impact:** Medium

Recommended Disclosure For TCFD Framework	Alignment to 2022 CDP (Climate Change/Water Security) Questionnaire	Response
Strategy (continued)		
b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	(C3.1d) – Describe where and how climate-related risks and opportunities have influenced your strategy.	**BUSINESS AREAS INFLUENCED BY CLIMATE-RELATED RISKS AND OPPORTUNITIES** **Products and services:** Climate-related risks and opportunities were a major driver in the development of the company's environmental sustainability strategy, PLANET 2050, as well as in the development of Destination Zero, the company's product decarbonization strategy for its Scope 3 emissions along a 1.5 °C pathway. In response to its climate scenario analysis, Cummins developed a science-based target in 2019 in conjunction with the Science-based Target initiative, pledging by 2030 to reduce Scope 3 absolute lifetime GHG emissions from newly sold products by 25%. By 2050, the company aspires to power customer success by carbon neutral technologies that address air quality. **Supply chain and/or value chain:** A climate-related opportunity in the value chain lies with the chance to help customers achieve their own sustainability goals and reduce costs and GHG emissions. Cummins has completed more than 700 projects with its customers to reduce GHGs since 2014. While the company had done fuel economy projects with customers since 2014, Cummins' climate scenario analysis and resulting sustainability strategy accelerated those efforts. In meeting its 2030 goal, the company will dramatically expand its partnerships with customers to reduce Scope 3 GHG emissions from products in the field by 55 million metric tons (cumulative since 2014) by 2030. **Investment in research and development:** Cummins has said publicly that climate change is the existential crisis of our time, and the company's actions demonstrate Cummins' pursuit of climate-related opportunities. The company is committed to investing in an energy diverse future where customers have a broad portfolio of power options to choose from, including advanced internal combustion technologies that utilize lower emission fuel sources, natural gas, electrified power, fuel cell, and electrolyzer technologies, allowing customers to choose what works best for them as they move toward a zero-emission future. The company in 2021 invested $1.1 billion in research, technology and engineering as Cummins enhanced its diesel and natural gas products, and continued development and testing of the company's fuel agnostic internal combustion engine, hydrogen fuel cell, battery electric, and electrolyzer technologies. This investment supports meeting the company's science-based target to reduce Scope 3 absolute lifetime GHG emissions from newly sold products by 25% by 2030. This investment is driven significantly by the company's climate change response and has accelerated as a result of its climate scenario work. **Operations:** Cummins' activities, operationally, have long been driven by climate-related opportunities as well as cost reduction. PLANET 2050 includes Cummins' fourth energy/GHG reduction target – to reduce absolute GHG emissions from facilities and operations by 50% by 2030. The company's efforts have only increased as Cummins works to meet its fourth aggressive goal. Two significant decisions recently have been driven by climate change. Solar power will play a major role in meeting Cummins' PLANET 2050 environmental goals, and the company's goal has been to increase its generation of renewable energy. Cummins worked on 20 solar projects in 2021. There have been significant technical improvements and price reductions that make it increasingly attractive as a low-carbon energy source.

Recommended Disclosure For TCFD Framework	Alignment to 2022 CDP (Climate Change/Water Security) Questionnaire	Response
Strategy (continued)		
(Continued) b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	(C3.1e) – Describe where and how climate-related risks and opportunities have influenced your financial planning.	**FINANCIAL PLANNING ELEMENT INFLUENCED BY CLIMATE-RELATED RISKS AND OPPORTUNITIES** Cummins has made several announcements in the past year related to capital expenditures and acquisitions. **Capital expenditures:** Cummins has announced plans for electrolyzer manufacturing facilities in Spain, Belgium, China, and North America, resulting in roughly 2GW of scalable capacity over the next few years. Cummins has completed more than 1,000 projects since starting its journey in energy efficiency in 2007. **Acquisitions:** In 2019, Cummins acquired Hydrogenics, accelerating Cummins' ability to further innovate and scale hydrogen fuel cell technologies across a range of commercial markets. Owning both fuel cell and hydrogen generation from electrolysis capabilities enables the company to offer a full, differentiated hydrogen solution, from start to finish, seamlessly integrated for customers. In 2022, Cummins completed the acquisition of Meritor, a leading global supplier of drivetrain, mobility, braking, aftermarket and electric powertrain solutions for commercial vehicle and industrial markets. The integration of Meritor's people, products and capabilities in axle and brake technology will position Cummins as a leading provider of integrated powertrain solutions across internal combustion and electric power applications.
	(C3.1f) – Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning.	Environmental sustainability leadership for the next several decades requires a focused approach, starting with the choice of the material used to make products to how products are designed, produced, used and disposed. Sustainability actions can be thought of as value creation (increase innovation, improve competitiveness, and strengthen culture), as well as value protection (reduce regulatory uncertainty and strengthen risk mitigation). That is why Cummins created its PLANET 2050 environmental sustainability strategy. The strategy establishes aspirations for 2050 and specific goals for 2030. It will help employees see the roles they and Cummins play in the company's and planet's sustainable future. There are three primary focus areas for the strategy: 1. Reducing greenhouse gas (GHG) emissions in line with climate experts' recommendations. 2. Doing the company's part to use natural resources in the most sustainable way possible. 3. Making communities better because Cummins is there. Cummins firmly believes the companies that are successful in the future will deliver more value to customers with less environmental impact. Cummins intends on being one of those companies.

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Strategy (continued)		
c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	(C3.1b) – Provide details of your organization's use of climate-related scenario analysis.	As part of Cummins' own scenario planning process, the company benchmarked Shell plc as an example of how to use scenario planning to inform investment decisions and plan for future business conditions. Cummins used Shell scenarios to understand various methods of conducting scenario planning analysis and how to treat various inputs. Cummins did not use the Shell scenarios as a prediction, rather, the Shell scenarios are one reference point for Cummins as a peer company that uses scenario planning. One scenario that Cummins used through this planning exercise was a climate-related scenario in which countries around the world take aggressive and globally orchestrated steps to decarbonize their economies. Cummins used a climate-related scenario to understand the extreme limits and major drivers of action within this scenario out to 2035; anything less extreme was compared to a baseline assumption of how this scenario might play out. Cummins supports the framework of the Paris Agreement and believes it gives the world a flexible framework to address climate change while providing a smooth transition for business. American companies, suppliers, customers, and communities will benefit from U.S. participation in the Paris Agreement in several ways: » It strengthens competitiveness in global markets. » It benefits American manufacturing as the country modernizes to new, more efficient technologies. » It supports investment by setting clear goals which enable long-term planning. » It expands global and domestic markets for clean, energy-efficient technologies, which will generate jobs and economic growth. » It encourages market-based solutions and innovation to achieve emissions reductions at lower costs. The company developed and had validated two science-based targets for new products and facilities that meet the threshold to limit global warming to 1.5 °C or lower. To keep that analysis relevant, Cummins must continually monitor and respond accordingly to changes against key indicators. The company does not view scenario planning as a one-time activity. Rather, it must be used as a tool on an ongoing basis to account for real world changes that occur to inform the potential futures that are yet to come. Results of the climate-related scenario analysis were used to help develop the company's overarching environmental sustainability strategy, PLANET 2050, in 2019, and Cummins' product decarbonization strategy, Destination Zero, in 2022. The company has taken many actions to advance the no-carbon green hydrogen economy and further the adoption of zero emission technologies, as it moves to produce products along a 1.5 °C pathway. The company has announced investment in electrolyzer facilities in China, Spain, Belgium, and North America, and plans to have roughly 2GW of capacity globally in the next few years to support the growing demand for green hydrogen. In addition, the company has announced collaborations with Daimler, Scania, and others to further the development of fuel cell solutions, and continues to invest in and provide battery electric solutions for certain applications. The company also continues to provide natural gas solutions, and announced that it will bring to market a 15L natural gas engine. Cummins is collaborating with major OEMs and end fleets, including Paccar and Werner. As for climate risk in company facilities, Cummins consulted with an external climate analysis expert using data from dozens of well-vetted climate models, coupled with machine learning, land use and elevation data, and models for hydrology, wildfires, and severe weather to explore trends in future climate scenarios. Risk due to environmental perils was quantified in five-year increments from 2020 through 2100 for three carbon emissions scenarios (SSP1-2.6, SSP2-4.5, and SSP5-8.5) Results of the climate-related scenario analysis for Cummins locations are currently being reviewed and analyzed. They are helping Cummins understand how company locations may be affected by climate change, the risks to assets, the segments and locations facing the greatest potential impact, and how that plays out over time and across varying carbon emissions scenarios. Cummins will then determine what mitigation efforts the company needs to take that are location-based in addition to the corporate objectives for reducing energy and water consumption that are included in PLANET 2050.

Recommended Disclosure For TCFD Framework	Alignment to 2022 CDP (Climate Change/Water Security) Questionnaire	Response

Risk management

Disclose how the organization identifies, assesses, and manages climate-related risks

a) Describe the organization's processes for identifying and assessing climate-related risks.	(C2.2a) – Which risk types are considered in your organization's climate-related risk assessments?	The following risk types are relevant and always included in Cummins' risk assessments. **RISK TYPES** **Current regulation:** Cummins' engines are subject to extensive statutory and regulatory requirements that directly or indirectly impose standards governing emissions and noise. These standards are imposed by the U.S. EPA, the European Union, state regulatory agencies such as the California Air Resources Board (CARB) and other regulatory agencies around the world. The company has made, and will be required to continue making, significant capital and research expenditures to ensure its engines comply with these emission standards. Developing engines and components to meet numerous changing government regulatory requirements, with different implementation timelines and emission requirements, makes developing engines efficiently for multiple markets complicated and could result in substantial additional costs that may be difficult to recover in certain markets. In some cases, Cummins is required to develop new products to comply with new regulations, particularly those relating to air emissions and now increasingly greenhouse gas emissions. While the company has met previous deadlines, its ability to comply with other existing and future regulatory standards will be essential for Cummins to maintain its competitive advantage in the engine markets the company serves. **Emerging regulation:** The nature and timing of government implementation and enforcement of increasingly stringent emission standards in emerging markets can be unpredictable and subject to change. Any delays in implementation or enforcement can result in the products Cummins develops or modifies to meet these standards becoming necessary later than expected or even unnecessary, thereby diminishing or negating the company's competitive advantage. This in turn can delay, diminish or eliminate the expected return on capital and research expenditures, and undermine the incentive to being an early, advanced developer of compliant products. **Technology:** The nature and timing of government implementation and enforcement of increasingly stringent emission standards in emerging markets can be unpredictable and subject to change. In addition, the timing of the adoption of zero emission products is uncertain and impacted by many factors outside of the company's direct control - including infrastructure build out, cost parity, and customer acceptance. Executing the company's product decarbonization strategy, Destination Zero, is critical to the company's future success. The company is investing in new products and technologies that enable it to both meet the increasingly stringent emissions standards, as well as advance zero emission solutions. These include the company's fuel agnostic internal combustion engine, electrolyzer, fuel cell, and battery electric power solutions. Given the early stages of development for these new products and technologies, there can be no guarantee of future market acceptance and investment returns with respect to these planned products. The increased adoption of zero emission solutions could ultimately result in lower demand for current diesel or natural gas engines and related parts; however, the company anticipates a decline in the demand for diesel and natural gas would be offset by increased demand for it's battery electric and fuel cell electric solutions. It is possible that Cummins may not be successful in developing segment-leading zero emission solutions and some of the company's existing customers could choose to develop their own solutions, or source from other manufacturers; any of these factors could adversely impact Cummins operations and financial performance.

Recommended Disclosure For TCFD Framework	Alignment to 2022 CDP (Climate Change/Water Security) Questionnaire	Response

Risk management (continued)

(Continued) a) Describe the organization's processes for identifying and assessing climate-related risks.	(C2.2a) – Which risk types are considered in your organization's climate-related risk assessments?	**Legal:** Cummins' Code of Business Conduct says, "we will follow the law everywhere." Legal risks are identified and assessed regularly on a global basis by experienced internal management and through external stakeholder engagement, including frequent collaborations with partners, suppliers, government agencies and customers to identify risks from laws and regulations, changing customer preferences, new disruptive technology and public policy support. The company's engines are subject to extensive statutory and regulatory requirements governing emissions and noise, including standards imposed by the EPA, the European Union (EU), state regulatory agencies (such as CARB) and other regulatory agencies around the world. Regulatory agencies are frequently making certification and compliance with emissions and noise standards more stringent, and subjecting diesel engine products to an increasing level of scrutiny. The discovery of noncompliance issues could have an adverse material impact on Cummins' operations, financial condition, and cash flows. Similarly, the company's plants and operations are subject to increasingly stringent environmental laws and regulations in all of the countries in which Cummins operates, including laws and regulations governing air emission, discharges to water and the generation, handling, storage, transportation, treatment and disposal of waste materials. Product or transition related risks including legal compliance are identified and evaluated globally and regularly reported to the Cummins Board of Directors. Evaluation of legal risks includes determination of the magnitude of the financial risk. The significance of the financial impact of identified risks, including climate-related risk, is based on probabilities of both the likelihood of occurrence and potential financial impacts. **Market:** Although Cummins conducts market research before launching new or refreshed engine platforms and introducing new services, many factors both within and outside the company's control could affect the success of new or existing products and services in the marketplace. Offering engines and services that customers desire and value can mitigate the risks of increasing price competition and declining demand, but products and services that are perceived to be less than desirable (whether in terms of price, quality, overall value, fuel efficiency or other attributes) can exacerbate these risks. With increased consumer inter-connectedness through the Internet, social media and other media, mere allegations relating to poor quality, safety, fuel efficiency, corporate responsibility or other key attributes can negatively impact Cummins' reputation or market acceptance of its products or services, even if such allegations prove to be inaccurate or unfounded. **Reputation:** Harm to reputation as a product provider and/or environmental leader can be a risk. Offering engines and services that customers desire and value can mitigate the risks of increasing price competition and declining demand, but products and services that are perceived to be less than desirable (whether in terms of price, quality, overall value, fuel efficiency or other attributes) can exacerbate these risks. With increased consumer inter-connectedness through the internet, social media and other media, mere allegations relating to poor quality, safety, fuel efficiency, corporate responsibility or other key attributes can negatively impact the company's reputation or market acceptance of Cummins products or services, even if such allegations prove to be inaccurate or unfounded. **Acute physical:** Water scarcity due to climate change is another potential risk. Climate-related risks that are physical in nature are typically water related. Cummins has not recognized any immediate acute water risks, but the potential for inadequate or unreliable water supplies sometime in the future could lead to operational disruptions, increased water pricing, investment in contingency plans, and increased capital expenditures to manage growth within water use allocation limits. **Chronic physical:** Climate-related risks that are physical in nature are typically water related. Cummins has not recognized any acute water risks. However, the potential for inadequate or unreliable water supplies sometime in the future could lead to operational disruptions, increased water pricing, investment in contingency plans, and increased capital expenditures to manage growth within water use allocation limits.

Recommended Disclosure For TCFD Framework	Alignment to 2022 CDP (Climate Change/Water Security) Questionnaire	Response
Risk management (continued)		
b) Describe the organization's processes for managing climate-related risks.	**(C2.2a)** – Which risk types are considered in your organization's climate-related risk assessments?	**METHODS FOR MANAGING CLIMATE-RELATED RISKS** **Current regulation:** Cummins in 2019 created the Product Compliance and Regulatory Affairs (PCRA) organization to focus on strengthening the company's collaboration with the environmental agencies that set emissions regulations and certification processes. Cummins is working to ensure continued compliance with increasingly challenging global emissions regulations. The new organization functions independently from, and provides oversight to, the product development teams and business functions, reporting directly into the Executive Chairman. Working in tandem with the company's Policy Analysis & Technology Portfolio team, PCRA manages climate-related risk by monitoring global regulations and climate change sentiment and policy in countries where Cummins sells products. **Emerging regulation:** Cummins Policy Analysis & Technology Portfolio team works in tandem with product strategy, the growth office, marketing management and government relations, monitoring the likelihood of emerging climate-related regulations in the countries where the company sells products. **Technology:** Cummins Technical and Environmental Strategic Planning team, working in tandem with environmental (climate) strategy and the company's Strategy and Growth function, routinely assesses climate change risk and the perception of that risk by the company's current and potential customers and uses that data in product planning. **Legal:** The Facilities and Operations Environmental Management Group and its associated internal legal counsel monitor and assess environmental and climate-related regulations. **Market:** Product planners use the intelligence gathered by the company's environmental sensing network to help plan for market expansion in areas that have emerging climate-related regulation or have need for lower carbon products. **Reputation:** In 2022, Cummins introduced its Destination Zero strategy for decarbonization: investing in and advancing zero emission technologies for those customers who are ready while providing those who aren't – either because of economic concerns, the absence of infrastructure, or other reasons – the chance to achieve critical carbon reductions. Destination Zero is accelerating development of internal combustion engines fueled by low- and no-carbon hydrogen for commercial-industrial markets, launching a new near-zero emission natural gas engine for heavy-duty trucks, and planning for internal combustion engines with a common architecture capable of optimization for a low-carbon fuel. In early 2023, the company launched Accelera by Cummins, a new brand for the company's New Power business segment and its diverse product portfolio designed to accelerate the transition to a sustainable future. **Acute physical:** The Facilities and Operations Environmental Management Group monitors and assesses climate related water risks and develops business continuity plans, accordingly. Cummins met its 2020 goal for a water intensity reduction of 50% (achieving 54%) and has set a 2030 absolute reduction target of 30%. **Chronic physical:** The Facilities and Operations Environmental Management Group monitors and assesses climate related water risks and has developed business continuity plans, accordingly. Cummins met its 2020 goal for a water intensity reduction of 50% (achieving 54%) and has set a 2030 absolute reduction target of 30%.

Recommended Disclosure For TCFD Framework	Alignment to 2022 CDP (Climate Change/Water Security) Questionnaire	Response

Risk management (continued)

c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	(C2.2) – Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.	**PROCESSES FOR IDENTIFYING, ASSESSING, AND RESPONDING TO CLIMATE-RELATED RISKS AND OPPORTUNITIES** **Value chain stages covered:** Direct operations, upstream and downstream. **Risk management process:** Integrated into multi-disciplinary, company-wide risk management process. **Frequency of assessment:** Annually **Time horizons covered:** Short-, medium-, and long-term. **Description of process:** Cummins has a multi-disciplinary, company-wide management process to identify, assess, and respond to climate-related risks and/or opportunities that could have a substantive financial or strategic impact on the company. Risks and opportunities are identified and assessed on a global basis by experienced internal management within many functions, independently and collectively, such as: Risk Management and the Executive Risk Council, product planning, technical and environmental systems; health, safety and environment (HSE) management, and the Environmental Sustainability Program Office and its extended team of environmental sustainability plan goal owners. Cummins gathers insights using external stakeholder engagement, including frequent collaborations with partners, suppliers, government agencies and customers, to identify risks from increasing regulations, changing customer preferences, new disruptive technology, and public policy support for low-carbon products. As referenced in the governance section, potential impacts, identified and assessed, are reported to the Cummins Board of Directors. The company has done much work on identifying physical climate-related water risk. Cummins conducted detailed watershed assessments for facilities scoring above a 150 'at risk' threshold. These assessments help the company better understand and evaluate water sourcing risks, alternatives, and overall watershed conditions. In addition to continued water conservation measures and technologies, additional response measures may include deployment of additional water storage and low- or no-water use processes such as air-cooled chiller systems where warranted, and upgrades to wastewater treatment systems to allow for 100% reuse for non-potable purposes. This process was an integral part of Cummins' strategy to pursue electrified products, hydrogen and other low-carbon future options identified as a transitional opportunity. Cummins announced in 2021 a number of initiatives aligned to Destination Zero, accelerating development of internal combustion engines fueled by low-carbon hydrogen for commercial-industrial markets, launching a new near-zero emission natural gas engine for heavy-duty trucks, and, in early 2022, unveiling plans for internal combustion engines with a common architecture capable of optimization for a low-carbon fuel. The company in 2021 also opened a fuel cell systems production facility in Herten, Germany, and announced plans to build a new plant in Spain to manufacture electrolyzers, critical technology for increasing the supply of no-carbon, "green" hydrogen. Cummins has also announced plans to invest in electrolyzer facilities in China, Belgium, and North America, estimating it will have roughly 2GW of capacity within the next few years to meet the growing demand for no-carbon green hydrogen. The company is collaborating with several key customers, including Daimler, Scania and others on the development of fuel cells, and continues to invest in and provide battery electric solutions for certain applications. Cummins believes full market adoption of zero emission solutions will take time, and is providing lower-emission internal combustion bridge technologies that allow customers to choose a lower carbon fuel source that meets their business needs today while continuing to advance zero emission solutions. Cummins also encourages community engagement projects each year that focus employee volunteer hours on sustainable projects that will be owned by the community upon completion. Cummins has a grant process to fund these projects and allows sites to fund smaller ones within their own budgets. Historical data shows these are relatively low cost. The company's Action Committee for Environmental Sustainability did a hot spot environmental assessment in 2011 and the resulting data still informs the company's strategy and planning today. The assessment concluded that 99% of Cummins' GHG footprint comes from the company's products in their use phase. The group identified an opportunity to address these emissions by setting a science-based target to reduce lifetime emissions from newly sold products in their use phase timed to 2030. Finally, the company in 2020 and 2021 took several new steps to identify climate-related risks. The company's Executive Risk Council and Board of Directors had managed climate-related risk within other enterprise risks that have overlap with climate change and included climate change as an emerging risk to monitor. Climate change, however, has since been upgraded to a regularly reviewed enterprise risk by the council. Climate change was also added as a risk factor in Cummins' 2020 Annual Report on Form 10K. And in 2021, the company hired a third-party consultant to evaluate the risk presented by climate change to individual Cummins facilities.

Recommended Disclosure For TCFD Framework	Alignment to 2022 CDP (Climate Change/Water Security) Questionnaire	Response

Metrics and targets

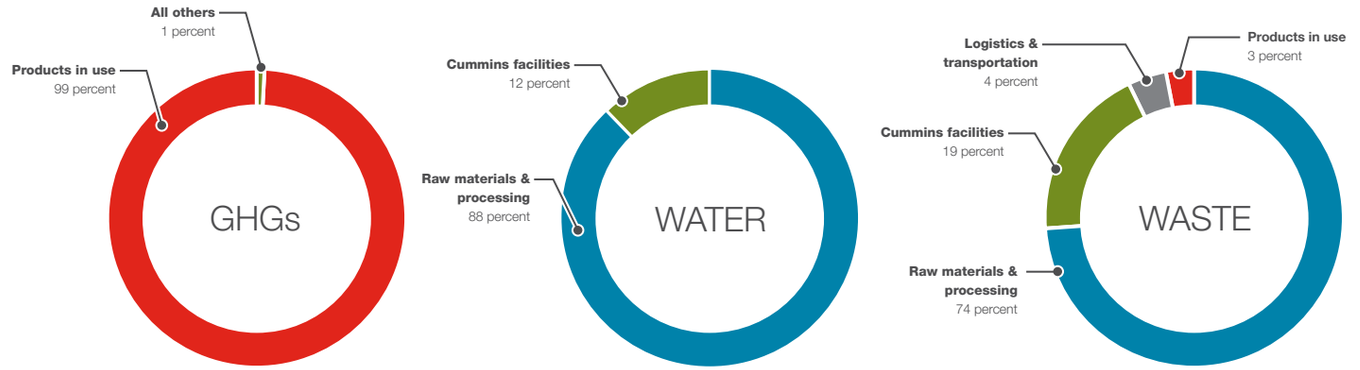
Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material

a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.

(C9.1) – Provide any additional climate-related metrics relevant to your business.

RESULTS OF OUR ENVIRONMENTAL ASSESSMENT

Cummins product lifecycle analyses have indicated that products' in-use fuel consumption is our greatest GHG impact.



	Aligned with a 1.5°C world in 2021 (%)	Aligned with a 1.5°C world in 2025 (%)	Aligned with a 1.5°C world in 2030 (%)
Revenue	0.5	8	18
Capital Expenditures	2.4	3.8	4

The revenue numbers above are for Cummins' Accelera business segment, then known as New Power, the business segment at the company developing zero emissions technologies. The figures do not include contributions from existing internal combustion engine technology, which would make the revenue contribution higher. Cummins is actively developing internal combustion technologies that offer economically viable solutions to reduce carbon emissions today ahead of widespread adoption of zero emission technologies in the future.

Recommended Disclosure For TCFD Framework	Alignment to 2022 CDP (Climate Change/Water Security) Questionnaire	Response
Metrics and targets (continued)		
(Continued) a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	**(C9.1)** – Provide any additional climate-related metrics relevant to your business.	**Waste:** Cummins made reducing waste as a percentage of revenue one of the company's 2030 sustainability goals. In 2021, Cummins achieved a 4.1% waste reduction as a percent of revenue from a 2018 baseline. For more details, please see the company's 2021 Sustainability Progress Report in Cummins' Sustainability Document Archive. **GHG reduction:** Cummins' 2030 sustainability goals include reducing absolute GHG emissions from facilities and operations by 50% by 2030. From the goal's baseline year of 2018 to 2021, GHGs decreased by 277,000 metric tons, equivalent to a 31% reduction from the baseline. For more details, please see the company's 2021 Sustainability Progress Report in Cummins' Sustainability Document Archive. **Water:** The goals of Cummins' comprehensive water strategy, which address both direct water use and community engagement, are to mitigate business risks, reduce costs and compliance risk and be a good global citizen. Cummins' 2030 water goal is to reduce absolute water consumption in facilities and operations by 30%. In 2021, the company's water use was 838 million gallons, a 12.7% reduction from the 2030 goal's baseline year of 2018. For more details, please see the company's 2021 Sustainability Progress Report in the Sustainability Document Archive.
b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	**(C6.1)** – What were your organization's gross global Scope 1 emissions in metric tons CO_2e?	Gross global **Scope 1**[5] emissions (metric tons of CO_2e): 269,312
	(C6.3) – What were your organization's gross global Scope 2 emissions in metric tons CO_2e?	Gross global **Scope 2**[6]**, location-based emissions** (metric tons of CO_2e): 464,657 Gross global **Scope 2**[7]**, market-based emissions** (metric tons of CO_2e): 342,842
	(C6.5) – Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.	Gross global **Scope 3**[8] **emissions** (metric tons of CO_2e): **Purchased goods and services:** 4,325,000 metric tons of CO_2 equivalent **Capital goods:** 348,000 metric tons of CO_2 equivalent **Fuel-and-energy-related activities (not included in Scope 1 or 2):** 167,600 metric tons of CO_2 equivalent **Upstream transportation and distribution:** 1.027 million metric tons of CO_2 equivalent **Waste generated in operations:** 12,400 metric tons of CO_2 equivalent **Business travel:** 7,100 metric tons of CO_2 equivalent **Employee commuting:** 80,000 metric tons of CO_2 equivalent **Upstream leased assets:** 19,000 metric tons of CO_2 equivalent **Downstream transportation and distribution:** 1.027 million metric tons of CO_2 equivalent **Processing of sold products:** 2,300 metric tons of CO_2 equivalent **Use of sold products:** 1.1628 billion metric tons of CO_2 equivalent **End of life treatment of sold products:** 60,000 metric tons of CO_2 equivalent **Downstream leased assets:** 50,000 metric tons of CO_2 equivalent **Investments:** 42,500 metric tons of CO_2 equivalent

[5,6,7,8] *For emissions calculation methodology, and other information regarding Cummins emissions data, please see Cummins 2022 Climate Change Response.*

Recommended Disclosure For TCFD Framework	Alignment to 2022 CDP (Climate Change/Water Security) Questionnaire	Response
Metrics and targets (continued)		
c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	**(C4.1a)** – Provide details of your absolute emissions target(s) and progress made against those targets.	**ABSOLUTE TARGETS**[8] **Scope:** Use of sold products (Scope 3) **Base year:** 2014 **Target year:** 2030 **Targeted reduction from base year:** 55 million metrics tons **Comment:** Cummins' fuel economy teams throughout the world have implemented more than 700 projects since this goal was announced in 2014. The company surpassed its 2020 goal of an annual run rate reduction of 3.5 million metric tons of CO_2 in 2018. It ended 2020 with an annual run rate reduction of 4.9 million metric tons of CO_2. Cummins is on track to meet its 2030 goal. **Scope:** Use of sold product (Scope 3). **Base Year:** 2018 **Target year:** 2030 **Targeted reduction from base year:** 25%. **Comment:** Cummins committed to reduce absolute Scope 3 GHG emissions from the use of sold products 25% by 2030 from a 2018 base year. On June 21, 2019, the Science-Based Target initiative's (SBTi) Target Validation Team approved the target. Cummins product decarbonization pathway to meet this 2030 goal will include near-term solutions such as fuel agnostic engines and natural gas as well as the early adoption of hydrogen and fuel cell solutions. **Scope:** Scope 1+2 (market-based). **Base Year:** 2018 **Target year:** 2030 **Targeted reduction from base year:** 50%. **Comment:** Cummins committed to reduce absolute Scope 1 and 2 GHG emissions 50% by 2030 from a 2018 base year. On June 21, 2019, the Science-Based Targets initiative's (SBTi) Target Validation Team classified the Scope 1 and 2 target ambition and determined that it is in line with a 1.5°C trajectory and approved the target. See also 'Emission Reduction Initiatives' (CDP Question C4.3a) that demonstrates progress towards reducing emissions through implementing emissions reduction initiatives.

[8] *For the full CDP response to Question (C4.1a), please see Cummins 2022 Climate Change Response.*

Recommended Disclosure For TCFD Framework	Alignment to 2022 CDP (Climate Change/Water Security) Questionnaire	Response
Metrics and targets (continued)		
	(W8.1a) – Provide details of your water targets that are monitored at the corporate level, and the progress made.	**WATER TARGET** **Category of target:** Water consumption **Level:** Company-wide **Description of target:** Cummins' 2030 water goal is to reduce absolute water consumption in facilities and operations by 30%. **Baseline year:** 2018 **Target year:** 2030 **% of target achieved:** In 2021, the company's water use was 838 million gallons, a 12.7% reduction from the 2030 goal's baseline year of 2018.
	(W8.1b) – Provide details of your water goal(s) that are monitored at the corporate level and the progress made. **(C4.2)** – Did you have any other climate-related targets that were active in the reporting year?	**WATER GOAL** **Goal:** Engaging with local community. **Level:** By region **Description:** Produce net water benefits that exceed Cummins' annual water use in all Cummins regions. **Baseline year:** 2021 **End year:** 2030 **Progress:** Progress will be reported in 2023. **Other climate-related targets active in the reporting year** Target(s) to increase low-carbon energy consumption or production.

CUMMINS CLIMATE STORY

CUMMINS' COMMITMENT TO DECARBONIZATION DRIVES INNOVATION

2021 will likely go down as one of Cummins' most innovative years, as the company worked to reduce the carbon impact of its core products and bring to market the low-carbon technologies that will power the future—all while maintaining the durability and dependability customers count on.

"The decarbonization of our economy is critical to our way of life and our industry will play a key role in that effort," Cummins' then CEO Tom Linebarger told financial analysts in early 2022.

"Fortunately, decarbonization is also a growth opportunity for Cummins," said Linebarger who today is Executive Chairman of the company and Chairman of the Cummins Board of Directors. "We are confident in our ability to play a leading role in bringing lower carbon technologies to commercial vehicle and industrial markets globally."

DESTINATION ZERO

Destination Zero is Cummins' strategy for product decarbonization aligned with a 1.5°C degree pathway and the Paris Agreement on climate. It drives Cummins' investment

REDUCE SCOPE 3 ABSOLUTE LIFETIME GHG EMISSIONS FROM NEWLY SOLD PRODUCTS BY 25%

Lifetime CO_2e (MMT) =

$$\sum_{\text{Years}}^{40} \text{Adjusted Volume} * \frac{\text{Duty cycle} + 10.2441 + 1e^{-9}}{\text{Fuel Economy}}$$

$$\text{Adjusted Volume} = \text{Volume} * \text{Life factor} * \text{Age factor}$$

ASSUMPTIONS

1

VOLUME

APP / CAGR model
Life factor/age factor models

2

DUTY CYCLE

Aggregated values

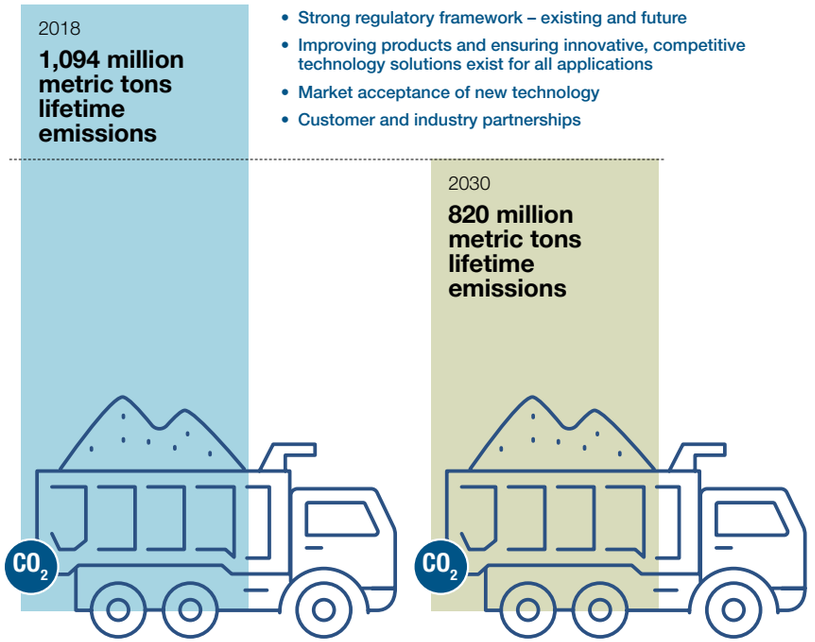
3

FUEL ECONOMY

Weighted average for sectors

Above is a graphic breakdown of the company's greenhouse gas (GHG) goal in the new strategy.

Meeting our science-based product target of a 25% CO_2 reduction



in and advancement of zero emission technologies for those customers who are ready while providing those who aren't—either because of economic concerns, the absence of infrastructure, or other reasons – the chance to achieve critical carbon reductions using the company's core technologies.

Cummins believes it is important to begin carbon reductions as quickly as possible to achieve the world's climate goals. Cummins announced in 2021 a number of initiatives aligned to Destination Zero, such as accelerating development of internal combustion engines that can use low-carbon hydrogen for commercial-industrial markets, launching a new near-zero emission natural gas engine for heavy-duty trucks, and, in early 2022, unveiling plans for internal combustion engines with a common architecture capable of optimization for a particular low-carbon fuel.

The company in 2022 also celebrated the opening of a fuel cell systems production facility in Herten, Germany, and broke ground on a new plant in Spain to manufacture electrolyzers, critical technology for increasing the supply of no-carbon, green hydrogen. In addition, Cummins unveiled a partnership to pursue large scale hydrogen production projects in Europe and a joint venture to produce green hydrogen in China. Cummins has now deployed more than 600 electrolyzers, including the world's largest PEM electrolyzer in Bécancour, Quebec (Canada). The company has produced more than 6,200 battery modules and packs as part of its work on battery-electric technologies. Finally, the global power leader has deployed more than 2,000 hydrogen fuel cells, powering a number of global firsts, including the world's first hydrogen-powered passenger train with Alstom.

Cummins includes innovation highlights annually in its Sustainability Progress Reports. Cummins spent $1.1 billion in 2021 on research, development and engineering expenses, a record amount. Cummins estimates that greater than 90 percent of this is spent on lower-carbon technologies.

ALIGNING FOR ZERO EMISSIONS BY 2050

ADVOCATING, ALIGNING, AND ALLOCATING FOR ZERO EMISSIONS

Cummins has reported on its lobbying efforts in the company's Sustainability Progress Reports and its CDP responses.

ALLOCATING

Cummins estimates that one quarter of its lobbying expense, or about $750,000, per year, is devoted to climate advocacy. See pages 62 to 64 of the company's 2021 Sustainability Progress Report for more information on Cummins' Government Relations function.

ALIGNING

A proponent of climate science, Cummins doesn't lobby for policies counter to addressing climate change and company leaders have testified before state and federal legislators on multiple occasions in support of regulations and complementary policies acting on climate-related issues. The company will continue to work in partnership with others to advocate for tough, clear, and enforceable regulations across the globe to address air emissions, and for science-based climate policies to address climate issues.

Cummins also evaluates the climate positions of its business partners for alignment with the goals and aspirations in the company's PLANET 2050 environmental sustainability strategy and Cummins' public commitments on climate action. In addition, the company encourages the trade associations it joins to address climate change and support the Paris Agreement on climate. For example, Cummins belongs to the U.S. Chamber of Commerce to help amplify its position to government leaders on immigration and taxes, and the National Association of Manufacturers (NAM), to help ensure lawmakers know where Cummins stands on energy, trade and manufacturing. It has encouraged both groups to embrace climate science.

Like many members, Cummins was an active participant when the chamber in 2019 created its first Task Force on Climate Change and encouraged NAM to embrace the objectives of the Paris Agreement. Both groups had been opposed to climate science for many years, but recently reversed those positions. Cummins also worked with the Business Roundtable to move beyond embracing climate science to supporting the bold step of endorsing carbon pricing in efforts to address climate change, a position the company enthusiastically supports.

Cummins' Government Relations team lobbies for regulations and complimentary policies addressing climate change in the markets where the company does business around the world. To ensure the team speaks in a unified voice, the entire Government Relations staff meets monthly, and the group's regional leaders meet every other week with Catherine Van Way, Cummins' Vice President of Government Relations. The team also wants to make sure it is aligned with the company's Board of Directors. Government Relations prepares a report on its progress and challenges for each regular board meeting—typically five times a year.

ADVOCATING

At the U.S. federal level, Cummins has supported the following investment foci for climate solutions:

- Federal investment and tax policy that encourages and sustains innovation. Robust and consistent investment in research and development and investment through grants and public-private partnerships is essential to provide market certainty for consumers, fleets, dealers, manufacturers, and suppliers participating in the transition to cleaner technologies.
- Infrastructure investment across the energy and transportation sectors. Encouraging adoption of low-emissions technologies, as well as investment in the infrastructure to support them, is critical. Federal investment in battery electric vehicle charging as well as hydrogen and natural gas fuel infrastructure helps accelerate adoption of these technologies.
- Sustainable low- and no-carbon fuel choices. The rise of multiple fuels means a poly-fuel future, but each application has unique needs. It is important for suppliers to continually produce more sustainable, low- and no-carbon fuels, technologies, and infrastructure that measurably improve climate impacts and address other relevant sustainability impacts and benefits.

RECENT ADVOCACY FOR DECARBONIZING OUR WORLD

The past year has been historic for investment in infrastructure and climate. In August 2022, Congress passed the Inflation Reduction Act, the largest investment ever made by the U.S. government to address the climate crisis. Additionally, the passage of the CHIPS and Science Act of 2022 further invests in American manufacturing as well as addresses the semiconductor shortage arising during the COVID-19 pandemic.

Cummins strongly advocated for legislation supporting climate action with Congress and the Biden Administration, including:

- In January 2022, then CEO Tom Linebarger joined other corporate leaders at the White House, making the case for aggressive action on climate change through the Build Back Better Act.
- In March 2022, then President and COO Jennifer Rumsey attended a roundtable discussion with President Biden on the semiconductor shortage and how it impacts clean energy manufacturing.
- In August 2022, after her promotion to President and CEO, Rumsey attended a virtual roundtable with President Biden to discuss the Inflation Reduction Act and its importance to decarbonizing industry.

Cummins supports and advocates for legislation to address the climate, including:

- Tax credits for clean technology investment by both customers and businesses alike.
- Appropriations for robust U.S. Department of Energy (DOE) research, development and deployment of decarbonized technologies.
- Market reform to support decarbonizing the grid.
- With the passage of the Infrastructure, Investment and Jobs Act (IIJA), the CHIPS and Science Act, as well as the Inflation Reduction Act (IRA), Cummins will not only continue to advocate for investments in decarbonization but also thoughtful implementation of all three pieces of legislation by the relevant departments. The company will also encourage Congress to continue to appropriate funds to ensure the research, development and deployment of decarbonized technologies continues.

The company also supports:

- **Hydrogen Hubs:** Advocating for the use of Cummins' hydrogen products in the chosen hubs and working with the State of Indiana to apply for the Hub funding.
- **Infrastructure Investment and Jobs Act Implementation:** Advocating for broad implementation and adoption of low carbon technologies in the transit and construction space.
- **Inflation Reduction Act Implementation:** Providing input to the Department of Treasury on how to administer the Clean Energy Tax Credits most effectively.
- **Battery Policy:** Implementation of the IIJA and IRA to encourage manufacturing and implementation of battery technology across applications.
- **Energy and Water Appropriations:** Continued funding for Department of Energy programs including the Vehicle Technologies Office, Hydrogen and Fuel Cell Technology Office, Office of Electricity, Office of Clean Energy Demonstrations and the Office of Fossil Energy and Carbon Management.

PARTNERSHIPS

Cummins has reported on its partnerships for many years, such as on page 32 in the company's 2021 Sustainability Progress Report. Also see page 68 for a selected listing of technical partnerships.

The company has encouraged partnerships that replicate the model of the successful 21st Century Truck Partnership, an industry-government partnership between heavy-duty engine manufacturers, heavy-duty truck and bus manufacturers, heavy hybrid and electrified powertrain manufacturers, and four U.S. government agencies.

Specific technology goals have been defined that will reduce fuel usage and emissions, and increase safety. The aim of the partnership is to support research, development and demonstration, which makes it possible to achieve these goals with commercially viable products and systems.

Of particular note, Cummins:

- Was one of the initial companies pledging a voluntary greenhouse gas reduction commitment from its facilities as part of the U.S. EPA's Climate Leaders program.
- Was one of the first to make a commitment to the U.S. Department of Energy's Better Plants Challenge.
- Was a founding industry partner of the Health Effects Institute. See story on page 25 of Cummins' 2018 Sustainability Progress Report.
- Was a lead partner in the original Department of Energy SuperTruck program. See story on page 64 of Cummins' 2013 Sustainability Progress Report.

COST OF CARBON MECHANISM

Cummins understands that to achieve a goal of net-zero carbon by 2050, which it adopted in the company's PLANET 2050 strategy, there will need to be an established, market-based mechanism to internalize the social cost of carbon. This, along with sector-specific policies providing tough, clear and enforceable standards, similar to the Phase 2 fuel-efficiency rule for commercial vehicles in the United States, will provide a road map for achieving net-zero carbon status.

Any carbon pricing mechanism should maintain sector-specific policies where appropriate. The heavy-duty truck industry relies on the U.S. EPA's fuel efficiency rules for commercial vehicles to provide a roadmap of tough, clear and enforceable standards with appropriate lead times for innovation.

Knowing the emissions reduction levels customers in the public and private sector will demand allows Cummins to invest in the right technologies at the right time, and maximize that investment so the company has the right solutions to get the job done in the most responsible way.

It is critical that any carbon pricing mechanism maintain the EPA's fuel efficiency rules for commercial vehicles.

CUMMINS IS INVESTING IN NEW TECHNOLOGIES TO BROADEN OUR PORTFOLIO

2017
The Electrification Business Development Initiative officially launched.

2017
Acquired Brammo, a primarily low-voltage battery designer, located in North America.

2018
Announced that the electrification business will become Cummins' fifth reporting segment, called the Electrified Power segment.

2018
Acquired Johnson Matthey Battery Systems, a primarily high-voltage battery designer, located in the United Kingdom.

2019
Acquired Silicon Valley-based Efficient Drivetrains Inc. (EDI), a developer of plug-in hybrid and fully electric powertrain systems for commercial vehicles.

2019
Acquired solid oxide fuel cell (SOFC) technology and assets in upstate New York to expand capabilities in stationary power options.

2019
Acquired Hydrogenics, a Toronto-based fuel cell and hydrogen production technologies provider.

2020
Formed a joint venture with NRPOXX for hydrogen tanks.

2019
The Electrified Power segment is renamed "New Power," better reflecting its growing alternative power portfolio.

2019
Announced a minority investment in Loop Energy, a fuel cell technology developer based in Vancouver.

2021
Accelerated development of internal combustion engines fueled by low-carbon hydrogen.

2022
Fuel Cell Partnerships: Daimler, others

Hydrogen ICE Partnerships: Werner, TEL, Versatile

Natural Gas Partnerships: Walmart, Chevron

2022
Unveils plans for internal combustion engines with common architecture capable of optimization for low-carbon fuels.

2022
Acquires Meritor, Inc, including its ePowertrain technology

2022
Electrolyzer momentum: Florida Power & Light, Belgium expansion to 1GW, Fridley expansion

TWO DECADES OF ENVIRONMENTAL AND CLIMATE LEADERSHIP

The following timeline highlights significant milestones in Cummins' addressing emissions and climate leadership over the last two decades:

2002

- Cummins meets early the U.S. EPA's 2004 "pull-ahead" emission standards established for heavy-duty on-highway engines.

2006

- The company joins the EPA's Climate Leaders Program, pledging a 25% reduction in greenhouse gas (GHG) emissions from facilities by 2010 as compared to a 2005 baseline This is Cummins first formal GHG reduction goal.
- Cummins begins publicly reporting its GHG inventory and emissions to CDP (formerly known as the Carbon Disclosure Project).
- The company announces plans to develop a company-wide global climate change policy to guide the business in efforts to improve energy efficiency and minimize its impact on the environment.

2007

- Cummins charters its Climate Change Workgroup, creating climate change principles focused on company actions and policy advocacy. The principles set an expectation Cummins will be "part of the climate change solution."
- The company's 6.7-liter turbo-diesel engine achieves the EPA's 2010 oxides of nitrogen (NOx) standards three years earlier than required. Cummins is the first to meet 2010 truck emissions standards in all 50 states.

2009

- Cummins re-charters and expands its Climate Change Workgroup, recognizing that "climate change is our greatest environmental challenge." The workgroup expands on the 2007 principles and adds four new principles – two for company action and two for policy advocacy.
- The company forms its Energy Champion Program, which trains employees to improve energy efficiency at company plants.
- Cummins creates a Fuel Efficiency Task Force.
- The company authors a paper titled "Framework for the Regulation of Greenhouse Gases from Commercial Vehicles" at the request of the National Academy of Sciences to serve as a reference for U.S. regulators.

2010

- Cummins achieves a 28% GHG reduction from facilities in 2010 compared to a 2005 baseline, exceeding the company's first reduction goal of 25%.
- The company sets its second GHG reduction goal for facilities, aiming to reduce GHG emissions by an additional 25% and reduce energy use by 27% by 2015 compared to a baseline year of 2005.
- Cummins' Chief Technical Officer Dr. John Wall meets with more than 4,000 employees at 24 town hall meetings to share the company's views on climate change, reducing energy consumption and opportunities for employees to become more engaged with regard to their own carbon footprint.
- The company's Chairman and CEO Tim Solso, in a letter to U.S. Department of Transportation and the EPA, outlines the company's support of a national program to address GHG emissions and fuel efficiency for medium- and heavy-duty trucks and buses along with principles to guide program development.
- Cummins receives a grant from the U.S. Department of Energy (DOE) as part of the SuperTruck program, which has the goal of designing a concept heavy-duty Class 8 truck achieving a 50% improvement in overall freight efficiency measured in ton-miles per gallon.

2011

- The company joins the DOE's Better Buildings, Better Plants Challenge Partnership, committing to a 25% energy efficiency intensity reduction by 2015 from a 2005 baseline, which equates to a 27% GHG reduction.

2012

- Cummins forms the company's Action Committee for Environmental Sustainability (ACES) as the voice and catalyst for environmental action beyond compliance and provides tools and resources for employees to go further and faster in reaching environmental goals.
- The company has Bureau Veritas audit Cummins' GHG inventory.

2013

- Cummins performs a lifecycle analysis (LCA) on its flagship ISX15L engine in order to further its approach to product stewardship with a lifecycle mindset and for development of the company's design for environment strategy.
- The company certifies three sites to the ISO 50001 international energy management standard.

2014

- Cummins announces its first comprehensive sustainability plan with five primary goals involving waste, water, energy and GHG emissions for company facilities.

2015

- Cummins is recognized by CDP as a leader in the U.S. for disclosure of climate change related information to investors and customers, scoring a 100 out of a possible 100 on the Climate Disclosure Leadership Index.
- The company renames its Energy Champions program the Environmental Champions program, reflecting an expanded mission from solely energy savings to also including reductions in water and waste.
- Cummins exceeds its energy and GHG reduction goals, achieving a 36% reduction in GHG intensity and a 33% reduction in energy intensity (both adjusted for sales) from a 2005 baseline year. The company's GHG emissions decrease by 14,000 tons on an absolute basis and 1% adjusted for sales from the previous year.

- The company sets two additional sustainability goals for reduction in carbon dioxide (CO_2) emissions. For products in-use, Cummins' goal is to partner with customers to improve the efficiency of products in-use, reaching by 2020 an annual reduction of 3.5 million metric tons (MMT) of CO_2. This would save 350 million gallons of fuel (baseline year 2014). Cummins' new logistics goals are to use the most efficient method and mode to move goods across the Cummins' network to reduce CO_2 per kilogram of goods moved by 10% by 2020 (baseline year of 2014).
- Cummins reports to the CDP a collective lifetime emissions estimate for all products sold in the previous year to help guide future company reduction efforts.
- The company introduces the ISL G Near Zero (NZ) NOx natural gas engine, "the first mid-range engine in North America to receive emission certifications from both the EPA and California Air Resources Board (CARB) that meet the 0.02 g/bhp-hr optional Near Zero NOx emissions standards for medium-duty truck, urban bus and refuse applications.

2016

- Cummins pledges that 90% of its facility carbon footprint will meet the ISO 50001 international standards by 2020.
- The company approves its third energy goal in 10 years, pledging to achieve a 32% energy intensity reduction from Cummins facilities by 2020 (baseline year of 2010) and increase the portion of electricity it uses derived from renewable sources.
- Cummins announces the company's support of EPA and National Highway and Transportation Safety Administration's second phase of national fuel efficiency and GHG emissions regulations for medium-and heavy-duty commercial vehicles.
- The company announces a partnership with Peterbilt on SuperTruck II, a project funded by the DOE to develop and demonstrate cost-effective technologies that more than double the freight efficiency of Class 8 Trucks. The goal of the SuperTruck program is to accelerate the pace of reductions in petroleum consumption and GHG emissions of the nation's freight transportation system.

2017

- Cummins signs on to the International Council on Clean Transportation's soot-free bus initiative, pledging to help bring low-emissions bus technology to cities worldwide.
- Company Chairman and CEO Tom Linebarger is one of 30 CEOs to sign a pledge for climate action published in the Wall Street Journal.
- Cummins commits to setting science-based targets for reducing GHG emissions.
- The company announces its Virtual Power Purchase Agreement (VPPA) with EDP Renewables North America to support a wind farm expansion in northern Indiana.
- Cummins becomes a signatory of the United Nations Global Compact encouraging businesses worldwide to adopt sustainable practices.
- The company unveils its first all-electric powertrain for trucks and buses.

2018

- Cummins announces its support for the launch of the U.S. EPA Cleaner Trucks Initiative (CTI), an effort to create standards to reduce NOx emissions from on-highway heavy-duty engines.
- The company holds its first meeting with Climate Action 100+, an investor-led initiative to advocate for action on climate change.
- The Environmental Defense Fund's Fred Krupp interviews Cummins Chairman and CEO Tom Linebarger concerning emissions, sustainability and Cummins' commitment to supporting strong, clear and enforceable emissions regulations for his podcast and blog on the group's website and Forbes.com.

2019

- Cummins closes on its acquisition of Hydrogenics, one of the world's premier fuel cell and hydrogen production technology providers to further the company's fuel cell electric capabilities.
- The company announces it has reached two of its 2020 environmental sustainability goals early: Reducing water use per hour worked and cutting CO_2 through collaborative projects with customers.
- Cummins unveils PLANET 2050, the company's next generation environmental sustainability strategy that looks out to 2050. The strategy sets quantifiable goals for 2030 along with visionary longer-term aspirations to 2050.

2020

- Cummins holds its first virtual Hydrogen Day for 3,000 analysts, media members and others to report on its progress developing low- and no-carbon products employing this promising fuel source.
- The company's fuel cells power the world's first hydrogen train in Europe.
- Cummins announces it will work with longtime customer Navistar on the development of a Class 8 truck powered by hydrogen fuel cells.
- The company unveils water treatment plants at its Jamestown, New York, and Rocky Mount, North Carolina, engine plants that will send millions of gallons of treated wastewater back into the plants for non-potable uses, reducing the two plants' fresh-water intake significantly.

2021

- Cummins opens fuel cell systems production facility in Herten, Germany.
- Company accelerates development of internal combustion engines fueled by low-carbon hydrogen.
- Company develops Destination Zero, Cummins' product decarbonization strategy.

2022

- Cummins announces plans to acquire Meritor Inc., a global powertrain leader including ePowertrains, expected to be critical within hybrid and electric drivetrains.
- Company leaders tell financial analysts they see the global effort to reduce carbon as a growth opportunity for Cummins.
- Cummins unveils plans for internal combustion engines with a common architecture capable of optimization for a specific low-carbon fuel.
- Company leaders contribute to lobbying effort for the Inflation Reduction Act and its carbon reduction initiatives.
- Cummins offers the new X15N natural gas heavy-duty engine.
- Fuel Cell partnerships: Daimler, others
- Hydrogen ICE partnerships: Werner, TEL, Versatile
- Electrolyzer momentum: Florida Power & Light, Belgium expansion to 1GW, Fridley expansion
- Natural Gas partnerships: Walmart, Chevron

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