



***2022 CDP***  
***CLIMATE***  
***REPORT***

C0. Introduction

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C0.1

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**(C0.1) Give a general description and introduction to your organization.**

Cummins Inc., a global power leader, is a corporation of complementary business segments that design, manufacture, distribute and service a broad portfolio of power solutions. The company's products range from diesel, natural gas, battery electric, fuel cell electric, hydrogen internal combustion, hybrid powertrains and powertrain-related components including filtration, aftertreatment, turbochargers, fuel systems, controls systems, air handling systems, automated transmissions, electric power generation systems, batteries, electrified power systems, hydrogen generation and fuel cell products, including electrolyzer production. Headquartered in Columbus, Indiana (U.S.), since its founding in 1919, Cummins employs approximately 59,900 people committed to powering a more prosperous world through three global corporate responsibility priorities critical to healthy communities: education, environment and equality of opportunity. Cummins serves its customers online, through a network of company-owned and independent distributor locations, and through thousands of dealer locations worldwide and earned about \$3.5 billion on sales of \$24 billion in 2021.

C0.2

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**(C0.2) State the start and end date of the year for which you are reporting data.**

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2021	December 31 2021	Yes	Please select

C0.3

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**(C0.3) Select the countries/areas in which you operate.**

Angola  
Argentina  
Australia  
Belgium  
Bolivia (Plurinational State of)  
Botswana  
Brazil  
Canada  
China  
Colombia  
Costa Rica  
Czechia  
El Salvador  
France  
Germany  
Ghana  
Honduras  
India  
Ireland  
Italy  
Japan  
Kazakhstan  
Kuwait  
Malaysia  
Mexico  
Mongolia  
Morocco  
Mozambique  
Netherlands  
New Zealand  
Nigeria  
Norway  
Panama  
Papua New Guinea  
Philippines  
Poland  
Republic of Korea  
Romania  
Russian Federation  
Saudi Arabia  
Senegal  
Serbia  
Singapore  
South Africa  
Spain  
Sweden  
Turkey  
United Arab Emirates  
United Kingdom of Great Britain and Northern Ireland  
United States of America  
Zambia

**C0.4**

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**(C0.4) Select the currency used for all financial information disclosed throughout your response.**

USD

**C0.5**

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**(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.**

Operational control

**C-T00.7/C-TS0.7**

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**(C-T00.7/C-TS0.7) For which transport modes will you be providing data?**

Light Duty Vehicles (LDV)  
Heavy Duty Vehicles (HDV)  
Rail  
Marine

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
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C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Chief Executive Officer (CEO)	As of August 1, 2022, the roles of Board Chairman and Chief Executive Officer are held by two different people . The CEO will retain the direct responsibility for climate-related issues as climate strategy and action are integrated into Cummins overall strategy and operations. Environmental sustainability - including product innovation and facilities and operations - are aligned with Cummins business strategy. She is very engaged in our sustainability work, and as in prior practice, will meet at least once a year for strategic feedback on sustainability strategy and target progress in addition to regular board updates every other month. She was directly also directly involved in creating Destination Zero, which is the corporate strategy business approach to meeting carbon neutral products . CEO Technical Strategy sessions are focused on prioritized sector product decarbonization.
Board Chair	As of August 1, 2022, the roles of Board Chairman and Chief Executive Officer are held by two different people . He views environmental sustainability - including product innovation and facilities and operations - as an important element of Cummins business strategy. He will be actively assisting in the transition to the new CEO on climate-related governance.
Board-level committee	The Safety, Environment and Technology committee. This Committee is authorized to assist our Board in its oversight of safety policies, review environmental and technological strategies, compliance programs and major projects and review public policy developments, strategies and positions taken by us with respect to safety, environmental and technological matters that significantly impact us or our products. It met five times in 2021. Its seven members have a range of experience including automotive and transportation, manufacturing and supply chain, technology, corporate responsibility and government / regulatory affairs.
Chief Risk Officer (CRO)	In January 2022, the Company named a Chief Risk Officer to provide accountability over ESG strategic direction and serve as a primary point of contact for the Board and the Cummins executive management team.
Other, please specify (Full board)	With the support and oversight of our Board, we continue to focus on sustainability, including our efforts related to environmental, social and governance issues (ESG). We ensure Board oversight of our top ESG risks and opportunities in the following committees depending upon the topic: Talent Management and Compensation Committee, Safety, Environment and Technology Committee, and the Governance and Nominating Committee. We also review ESG strategy and progress with the full Board at least once a year.

C1.1b

**(C1.1b) Provide further details on the board's oversight of climate-related issues.**

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – all meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding business plans Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues	<Not Applicable>	The CEO and President, both on the board, provide guidance on strategy and budget and review current climate goal progress. The board SET committee provides overall guidance and insight, and in particular did so for the new environmental sustainability plan announced in 2019. The Safety, Environment and Technology committee is authorized to assist our Board in its oversight of safety policies, review environmental and technological strategies, compliance programs and major projects and review public policy developments, strategies and positions taken by us with respect to safety, environmental and technological matters that significantly impact us or our products. It met five times in 2021. Its seven members have a range of experience including automotive and transportation, manufacturing and supply chain, technology, corporate responsibility and government / regulatory affairs.

**C1.1d**

**(C1.1d) Does your organization have at least one board member with competence on climate-related issues?**

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	Criteria used to assess competence of board members on climate related issues include: deep technology expertise for product decarbonization, health, safety and environment function knowledge, risk analysis, general environmental sustainability expertise in both strategy and execution of plans.	<Not Applicable>	<Not Applicable>

**C1.2**

**(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.**

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO) <i>As of August 1, 2022, the roles of CEO and President are held by the same person.</i>	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly
Other C-Suite Officer, please specify (Chief Technical Officer)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Sustainability committee	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
President <i>As of August 1, 2022, the roles of CEO and President are held by the same person.</i>	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Risk committee	<Not Applicable>	Assessing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Other C-Suite Officer, please specify (Vice President New Power)	<Not Applicable>	Managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly

**C1.2a**

**(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 CEO and President has direct responsibility for all facets of climate-related issues in strategy, operations (manufacturing, facilities and supply chain), planning, budgets and technology and innovation. A recent example of a climate-related decision in 2021-2022 led by the CEO and executive team is Destination Zero, the company's product decarbonization strategy for scope 3 emissions aligned to a 1.5 degree C pathway.

Vice President & President – New Power segment reports to the CEO. The New Power segment designs, manufactures, sells and supports hydrogen production solutions as well as electrified power systems ranging from fully electric to hybrid along with innovative components and subsystems, including battery and fuel cell technologies. A recent example of action by this segment was the announced plan to build one of the **world's largest electrolyzer plants for the production of green hydrogen**.

The Environmental Sustainability program office reports up to the Chief Technical Officer. As such, he is responsible for reviewing sustainability plans and targets, particularly as they related to technology and innovation. The CTO is responsible for 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 gas. The CTO also is the senior executive with oversight and overall responsibility for the environmental sustainability plan. This makes the CTO uniquely qualified to lead climate-related program for next generation products including strategy and planning for low carbon transitioning, scenario analysis and product-use greenhouse gas emissions goals. Progress is reported to the Board of Directors at each Board meeting including climate-related issues and progress.

The Action Committee for Environmental Sustainability (ACES), formed in 2012, integrates climate change actions into overall business strategy. The executive sponsor and the head of this group both report up through 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 go further and faster in reaching environmental goals. The group meets monthly and reports progress to the CTO through its executive sponsor weekly. ACES directs the development and implementation of the environmental sustainability plan and reports out on progress in meeting goals. The corporate ACES team has a global focus includes as its stakeholders nearly all businesses and all functions. The individual stakeholder and goal owner areas of ACES ensure that all aspects of the environment and relevant areas of the business are included and data is collected and reported that inform decision making and goal setting. Additional Executive Sponsor meetings align functional and business leaders across the organization to align and prioritize actions required for goal progress. A major outcome of the working group was the company's first global comprehensive environmental sustainability plan in 2014,; in 2019, the team announced the next sustainability plan that includes 2050 aspirations with nine goals timed to 2030 along the glide path. Goals in the areas of addressing climate change and air emissions, natural resource efficiency and the circular economy and resilience in the communities in which we operate are included.

The Company has an Executive Risk Council comprised of the COO, CFO, CAO, General Counsel, and Corporate Strategy leader that meets five times a year with our leader of enterprise risk management to review and update our material enterprise-related risks and their mitigation plans. The Executive Risk Council provides direction on risk assessments and mitigation plans, approves all risk escalation or de-escalation, identifies new and emerging risks. Ownership of the most significant enterprise risks are assigned to a member of our leadership team. The committee reviews all the risks annually and does deep dives on risks which include climate on a regular basis.

A recent example of a climate-related decision made by the enterprise risk management team and the ACES team was to engage external climate change analytics expertise. Cummins may be able to use this analysis to aid in planning, enterprise and portfolio risk management, infrastructure resilience engineering, safety and operations, and shareholder and regulatory response. The company hopes to leverage a new climate analytics tool that offers portfolio-level physical risk assessment for any point on the Earth's surface. This will also help us prioritize community partnerships to prepare for future unprecedented environmental challenges. (see expanded disclosure in Question 3 on scenario analysis.)

**C1.3**

**(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?**

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	

**C1.3a**

**(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).**

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Chief Executive Officer (CEO)	Monetary reward	Energy reduction target	The seven 2020 plan public goals were part of the CEO's workplan, and he reported on the plan's progress to the Board of Directors as part of his performance review. One of those seven goals was an energy reduction target, a 32% energy intensity reduction by 2020 from a base year of 2010. An absolute energy reduction target of 50% included in the new plan announced in 2019.
Environment/Sustainability manager	Monetary reward	Energy reduction target Behavior change related indicator Company performance against a climate-related sustainability index	A key measure in Cummins' Global Environmental Sustainability Plan is a commitment to transparency and accountability. Environmental goals are now incorporated into the Quarterly Scorecard for the Cummins Leadership Team's review. The scorecard shows progress toward the facilities and operations waste, water, energy, and greenhouse gas goals, products in use goal, and logistics goal. In each of these areas, the scorecard will show progress on the both enterprise-wide goals as well as the progress toward the goal apportioned by each business unit and some area business organizations (regional or country focused.) Progress toward goal achievement is part of an employee's work plan for the year and can result in monetary award through merit increases and meeting the company's ROANA target, which results in a profit sharing bonus for all employees. For some in sustainability, company performance against a benchmark and/or reporting additional disclosures through various reports is also part of their annual compensation review. This also applies to participation in sustainability employee engagement programs.
Facilities manager	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target	A key measure in Cummins' Global Environmental Sustainability Plan is a commitment to transparency and accountability. Environmental goals are now incorporated into the Quarterly Scorecard for the Cummins Leadership Team's review. The scorecard shows progress toward the facilities and operations waste, water, energy, and greenhouse gas goals, products in use goal, and logistics goal. In each of these areas, the scorecard will show progress on the both enterprise-wide goals as well as the progress toward the goal apportioned by each business unit and some area business organizations (regional or country focused.) Progress toward goal achievement is part of an employee's work plan for the year and can result in monetary award through merit increases and meeting the company's ROANA target, which results in a profit sharing bonus for all employees
Energy manager	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target Supply chain engagement	A key measure in Cummins' Global Environmental Sustainability Plan is a commitment to transparency and accountability. Environmental goals are now incorporated into the Quarterly Scorecard for the Cummins Leadership Team's review. The scorecard shows progress toward the facilities and operations waste, water, energy, and greenhouse gas goals, products in use goal, and logistics goal. In each of these areas, the scorecard will show progress on the both enterprise-wide goals as well as the progress toward the goal apportioned by each business unit and some area business organizations (regional or country focused.) Progress toward goal achievement is part of an employee's work plan for the year and can result in monetary award through merit increases and meeting the company's ROANA target, which results in a profit sharing bonus for all employees
All employees	Non-monetary reward	Emissions reduction project Energy reduction project Behavior change related indicator Supply chain engagement	Cummins has a global employee recognition framework called the Impact Awards. Employees who led a project, employees who were involved with a project or employees who served as the project sponsor can self-nominate their work and can be judged and then recognized their work represents an outstanding effort that supports overall business goals. Beginning in 2017, there are now three different Impact Awards that employees can be recognized for: Business Impact; Global Impact; Chairman's Impact. One of the five award area categories is Environmental. Projects included in this category can range from site facility projects to product design to projects in collaboration with a customer. Many of these projects are climate related through greater energy efficiency or increased fuel economy.

**C2. Risks and opportunities**

**C2.1**

**(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?**

Yes

**C2.1a**

**(C2.1a) How does your organization define short-, medium- and long-term time horizons?**

	From (years)	To (years)	Comment
Short-term	1	3	For a large global 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	3	10	Most of Cummins planning falls into this time horizon, as engine platforms or specific product launches are not short-term.
Long-term	10	30	Cummins PLANET2050 environmental sustainability plan would fall into this category. It contains science-based targets for both 2030 and 2050.

## C2.1b

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### (C2.1b) How does your organization define substantive financial or strategic impact on your business?

Substantial financial and strategic impacts to Cummins business are discussed within applicable SEC documents such as the Annual Report on Form 10-K. Cummins defines substantive financial or strategic impacts in terms of generally accepted accounting principles (GAAP). Cummins includes climate-related risk factors in the 10-K (page 23). We may be adversely impacted by the effects of climate change and may incur increased costs and experience other impacts due to new or more stringent greenhouse gas regulations designed to address climate change. The potential impacts of climate change on our customers, product offerings, operations, facilities and suppliers are accelerating and uncertain, as they will be particular to local and customer-specific circumstances. These potential impacts may include, among other items, physical long-term changes in freshwater availability and the frequency and severity of weather events as well as customer product changes either through preference or regulation. Concerns regarding climate change may lead to additional international, national, regional and local legislative and regulatory responses. Various stakeholders, including legislators and regulators, shareholders and non-governmental organizations, are continuing to look for ways to reduce GHG emissions. We could face risks to our brand reputation, investor confidence and market share due to an inability to innovate and develop new products that decrease GHG emissions. Increased input costs, such as fuel, utility, transportation and compliance-related costs could increase our operating costs and negatively impact customer operations and demand for our products. As the impact of any future GHG legislative or regulatory requirements on our global businesses and products is dependent on the timing, scope and design of the mandates or standards, we are currently unable to predict its potential impact which could have a material adverse effect on our results of operations, financial condition and cash flows.

## C2.2

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### (C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

#### Value chain stage(s) covered

Direct operations  
Upstream  
Downstream

#### Risk management process

Integrated into multi-disciplinary company-wide risk management process

#### Frequency of assessment

More than once a year

#### Time horizon(s) covered

Short-term  
Medium-term  
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. Risks and opportunities are identified and assessed on a global basis by experienced internal management in many functions independently and collectively such as: risk management and the Executive Risk council, product planning, technical and environmental systems, 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 that are identified and assessed are reported to Cummins Board of Directors. Case study: how this process is applied to physical risks and/or opportunities. Cummins has done much work on identifying physical climate-related water risk. Cummins conducted detailed watershed assessments to facilities scoring above the 150 'at risk' threshold. A watershed assessment was conducted to 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/no water use processes such as air cooled chiller systems where warranted, and upgrades to the wastewater treatment system to allow for 100% reuse. Cummins encourages community engagement projects each year focusing on employee volunteer hours and 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 budget. Case study: how this process is applied to transitional risks. 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. In alignment 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 the low-carbon fuel they use. 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. 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.

## C2.2a

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**(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?**

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Risk type: Global regulation complexity. Our 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 EPA, the EU, state regulatory agencies (such as the CARB) and other regulatory agencies around the world. We have made, and will be required to continue to make, significant capital and research expenditures to ensure our 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, we are required to develop new products to comply with new regulations, particularly those relating to air emissions and now increasingly GHG emissions. While we have met previous deadlines, our ability to comply with other existing and future regulatory standards will be essential for us to maintain our competitive advantage in the engine markets we serve. Management method/risk assessment: Cummins in 2019 created the Product Compliance and Regulatory Affairs 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 will function independently from, and provide oversight to, the product development teams and business functions, reporting directly into the Chief Executive Officer. Working in tandem with our Policy Analysis & Technology Portfolio team, PCRA manages this climate-related risk by monitoring global regulations and climate change sentiment and policy in countries where we sell products.
Emerging regulation	Relevant, always included	Risk type: timing of government implementation and enforcement of increasingly stringent emission standards in emerging markets are unpredictable and subject to change. The nature and timing of government implementation and enforcement of increasingly stringent emission standards in emerging markets are unpredictable and subject to change. Any delays in implementation or enforcement could result in the products we developed or modified to comply with these standards becoming unnecessary or becoming necessary later than expected thereby, in some cases, negating our competitive advantage. This in turn can delay, diminish or eliminate the expected return on capital and research expenditures that we have invested in such products and may adversely affect our perceived competitive advantage in being an early, advanced developer of compliant engines. Management method/risk assessment: Cummins Technical & Environmental Strategic Planning (TESP) working in tandem with product strategy, the growth office, marketing management and government relations, monitor the likelihood of emerging climate-related regulations in the countries where we sell products.
Technology	Relevant, always included	Risk type: The nature and timing of government implementation and enforcement of increasingly stringent emission standards in emerging markets are unpredictable and subject to change. We are investing in new products and technologies, including electrified powertrains and hydrogen fuel cells, for planned introduction into certain existing and new markets. Given the early stages of development of some of these new products and technologies, there can be no guarantee of the 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 and, over time, reduce the demand for related parts and service revenues from diesel or natural gas powertrains. Furthermore, it is possible that we may not be successful in developing segment-leading electrified powertrains and some of our existing customers could choose to develop their own electrified or alternate fuel powertrains, or source from other manufacturers, and any of these factors could materially adversely impact our results of operations, financial condition and cash flows. Management method/risk assessment: Cummins Technical & Environmental Strategic Planning team, working in tandem with environmental (climate) strategy and our corporate strategy and growth office, routinely assesses the sentiment about climate change risk and the perception of that risk by our current and potential customers and use that data gathering in product planning.
Legal	Relevant, always included	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 increasing laws and regulations, changing customer preferences, new disruptive technology and public policy support. Our engines are subject to extensive statutory and regulatory requirements governing emissions and noise, including standards imposed by the EPA, the EU, state regulatory agencies (such as the CARB) and other regulatory agencies around the world. Regulatory agencies are 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 a material adverse impact on our results of operations, financial condition and cash flows. Similarly, our plants and operations are subject to increasingly stringent environmental laws and regulations in all of the countries in which we operate, 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 reported to the Board of Directors quarterly. 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	Relevant, always included	Risk type: success of new or existing products and services in the marketplace Although we conduct market research before launching new or refreshed engines and introducing new services, many factors both within and outside our control 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 our reputation or market acceptance of our products or services, even if such allegations prove to be inaccurate or unfounded. Management method/risk assessment: Product planners use the intelligence gathered by our stakeholder feedback process to help plan for market expansion in areas that have emerging climate-related regulation or have need for lower carbon products.
Reputation	Relevant, always included	Risk type: Harm to reputation as a product provider and/or environmental leader 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 our reputation or market acceptance of our products or services, even if such allegations prove to be inaccurate or unfounded. Management method/risk assessment: Cummins marketing, communications, government relations and environmental strategy have developed a power of choice action plan to help customers decide which technology is right for them, and meets their climate goals. Cummins is committed to investing in an energy diverse future where its customers have a broad portfolio of power options – including clean diesel, natural gas, electrified power and even fuel cell technology – so they can choose what works best for them. Cummins believes, for example, that some of its customers may opt for clean diesel as an infrastructure is developed across the country for electrified power.
Acute physical	Not relevant, included	Risk type: Water scarcity due to climate change Climate-related risks that are physical in nature are typically water related. We have not recognized any acute water risks. Potential for inadequate or unreliable water supplies in the long-term horizons, which could lead to operational disruptions, increased water pricing, investment in contingency plans, and increased capital expenditures to manage growth within water use allocation limits. Management method/risk assessment: Facilities and operations environmental management monitors and assesses climate related water risks and have business continuity plans accordingly. Cummins has already met its 2020 goal for water intensity reduction of 50% (achieved 54%) and has set a 2030 absolute reduction target of 30%.
Chronic physical	Relevant, sometimes included	Risk type: Water scarcity due to climate change Climate-related risks that are physical in nature are typically water related. We have not recognized any acute water risks. Potential for inadequate or unreliable water supplies in the long-term horizons, which could lead to operational disruptions, increased water pricing, investment in contingency plans, and increased capital expenditures to manage growth within water use allocation limits. Management method/risk assessment: Facilities and operations environmental management monitors and assesses climate related water risks and have business continuity plans accordingly. Cummins has already met its 2020 goal for water intensity reduction of 50% (achieved 54%) and has set a 2030 absolute reduction target of 30%.

**C2.3**

**(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?**

Yes

**C2.3a**

**(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.**

**Identifier**

Risk 1

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Technology	Transitioning to lower emissions technology
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**Primary potential financial impact**

Decreased revenues due to reduced demand for products and services

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

Cummins risk related to technology substitution is the end result of a number of drivers, among them emerging regulation, infrastructure readiness, shift in consumer preference, increasingly lower cost of ownership and the customers' own sustainability goals. We are investing in new products and technologies, including electrified powertrains and hydrogen solutions, for planned introduction into certain existing and new markets. Given the early stages of development of some of these new products and technologies, there can be no guarantee of the 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, we expect that lower demand for our current diesel or natural gas engines and components would result in increased demand for the zero emission products we are developing.

**Time horizon**

Medium-term

**Likelihood**

About as likely as not

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

1000000000

**Potential financial impact figure – maximum (currency)**

2500000000

**Explanation of financial impact figure**

Depending upon the rate of adoption of zero emission technologies, Cummins estimates that revenues from its legacy base business of diesel engines could be reduced in the \$1 to \$2.5 billion dollar range by 2030 as customers transition to lower carbon and zero emission technologies. The company is actively investing in and developing competitive zero emission technologies for the applications it serves, and anticipates that a decrease in demand for diesel engines would be more than offset by increasing demand for the zero emission technologies it is developing, estimating \$6-\$13 billion of revenue attributed to battery electric, hydrogen fuel cell, and electrolyzers by 2030. Please reference C2.4a for further discussion of this opportunity.

**Cost of response to risk**

1300000000

**Description of response and explanation of cost calculation**

[Situation]The description of response and explanation of cost calculation in this case study refers to Cummins New Power segment. [Task] This segment designs, manufactures, sells and supports hydrogen production solutions as well as electrified power systems ranging from fully electric to hybrid along with innovative components and subsystems, including battery and fuel cell technologies. [Action] The New Power segment is currently in the development phase with a primary focus on research and development activities for our power systems, components and subsystems. We anticipate our customer base for New Power offerings will be highly diversified, representing multiple end markets with a broad range of application requirements. [Result] We continue to serve all our markets as they adopt electrification and alternative power technologies, meeting the needs of our OEM partners and end customers. We will continue to leverage existing customer relationships as well as pursue new relationships in markets as they adopt hydrogen and electric solutions. As of the end of 2021, the company has produced more than 6,200 battery modules and packs as part of its work on battery-electric technologies and 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 expects and has communicated externally a \$1.3 billion cash outflow from operations over 2022-2027, including SG&A, production, R&D, maintenance, etc, to support New Power growth.

**Comment****Identifier**

Risk 2

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Acute physical	Drought
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**Primary potential financial impact**

Decreased revenues due to reduced production capacity

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

Potential for inadequate or unreliable water supplies in the long-term horizons, which 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 we have 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

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

5000000

**Potential financial impact figure – maximum (currency)**

20000000

**Explanation of financial impact figure**

Cummins conducted detailed watershed assessments to facilities identified as at risk. Overall, 43 percent of Cummins water use is in water stressed areas. Financial implications would be periods of plant inactivity or closure, loss of production and possible customer deadline ramifications. The maximum \$20 million figure would represent the maximum amount of lost revenue due to a high estimate of 5-7 days of plant shutdown due to lack of water for operations.

**Cost of response to risk**

11500000

**Description of response and explanation of cost calculation**

[Situation] To manage this risk, [task] Cummins established and exceeded a 2020 50 percent water intensity reduction goal with a baseline year of 2014 and committed to a goal of 15 water neutral sites in water-stressed regions of operations (we achieved 16 sites) . In addition, we have set a new 30 percent absolute reduction target to be achieved by 2030. We report the progress towards our goals in our annual sustainability report. Management method varies by site, but can include continued water conservation measures in existing operations, increase in water storage capacity, and deployment of low/no water use processes such as air cooled chiller systems where warranted based upon facility water dependency. These systems increased capital expenditure and increased operating costs related to higher energy use, but off-set the potential risks associated with interruption of operations. However, Cummins is also using technologies such as regenerative dynos to manage the costs associated with the energy impact. [Action]The Cummins' engine plant at Rocky Mount, North Carolina (U.S.), RMEP has a [task] new system brought online in 2020 employing multiple technologies including hydroponics – using plants as a filter – to treat millions of gallons of water annually so it can be returned to the facility for non-potable use . A similar system – minus the greenhouse – is conserving millions of gallons annually at Cummins' Jamestown Engine Plant in western New York (U.S.). Both plants expect to cut city water use by about a third – [result] collectively saving more than 25 million gallons annually. [Action] In 2021, Cummins announced a [task] new global community program called Cummins Water Works, [action] which addresses the global water crisis by partnering with leading water experts and investing and engaging in sustainable, large-scale, high-impact water projects around the world. [Result] This new community program is supported initially by \$8.5 million in Cummins grants focusing on five of the most water-stressed countries: Mexico, Brazil, India, South Africa and the U.S. This program has a specific goal in Cummins PL.ANET 2050 strategy to produce net water benefits that exceed Cummins' annual water use in all Cummins regions by 2030.

**Comment**

**Identifier**

Risk 3

**Where in the value chain does the risk driver occur?**

Downstream

**Risk type & Primary climate-related risk driver**

Emerging regulation	Mandates on and regulation of existing products and services
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**Primary potential financial impact**

Decreased revenues due to reduced demand for products and services

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific 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, we are required to develop new products to comply with new regulations, particularly those relating to air emissions. While we have met previous deadlines, our ability to comply with other existing and future regulatory standards will be essential for us to maintain our competitive advantage in the engine markets we serve. 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, we reached agreement with the CARB and EPA regarding our plans to address the affected populations. From the fourth quarter of 2017 through the second quarter of 2018, we recorded charges 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

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

0

**Potential financial impact figure – maximum (currency)**

43000000

**Explanation of financial impact figure**

The campaigns launched in the third quarter of 2018 are being completed in phases across the affected population. The total engine system campaign charge, excluding supplier recoveries, was \$410 million. The amount accrued represents expected cost of field campaigns to repair. In the fourth quarter of 2020, we recorded an additional \$20 million charge related to this campaign, as a change in estimate, to bring the total campaign, excluding supplier recoveries, to \$430 million.

**Cost of response to risk**

945000000

**Description of response and explanation of cost calculation**

[Situation] We continue to make R&D investments to develop new products and improve our current technologies [task] to meet future emission requirements around the world and improve fuel economy performance of diesel and natural gas-powered engines. Research and development expenditures include salaries, contractor fees, building costs, utilities, testing, technical information technology expenses, administrative expenses and allocation of corporate costs and are expensed, net of contract reimbursements, when incurred. The combined R&D expenses associated with our Engine, Power Systems, and Components businesses in 2021 were \$940 million.

[Action] As an example of a major R&D initiative, Cummins wanted to help its trucking fleet customers decarbonize sooner and faster. In 2022, Cummins unveiled its fuel-agnostic engine platform to accomplish this, allowing customers to choose a familiar engine that runs on a more sustainable, lower emission fuel of their choosing.

[Result] This approach allows for easier integration into a fleet due to 80% parts commonality and ease of training technicians and lower up front costs compared to moving to battery electric or fuel cell. The fuel agnostic engine platform delivers lower total cost of ownership than some other options and more closely matches current range and duty-cycle requirements. And choosing one of these engines, gives fleets the option of selecting an alternative fuel type they're comfortable with so they can immediately start moving toward zero.

**Comment****C2.4****(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes

**C2.4a****(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.****Identifier**

Opp1

**Where in the value chain does the opportunity occur?**

Downstream

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

**Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

**Company-specific description**

Cummins has been very public with its intent on introducing electrified products and its expansion into hydrogen. With battery capacity improving and prices dropping, electrified powertrains are becoming more affordable and practical for certain types of commercial vehicles, particularly urban bus fleets and pickup and delivery trucks. We see electric as a great option for return to base, short-run commercial vehicle routes that do not require large torque, such as transit bus. We expect hydrogen fuel cell solutions to become an increasingly-viable option for other applications requiring higher power needs, such as mining, long-haul, and heavy duty truck, and demand for our electrolyzers to increase as a result of growing demand for green hydrogen. We will provide the entire electrified powertrain solution, as well as some of the most critical components that have the largest impact on performance, quality, and power of the system to deliver the most value to our customers. Cummins anticipates that an increase in demand for these products will result in a decrease in demand for our legacy diesel products, as discussed in C2.3a.

**Time horizon**

Medium-term

**Likelihood**

More likely than not

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

6000000000

**Potential financial impact figure – maximum (currency)**

13000000000

**Explanation of financial impact figure**

The potential financial impact represents the expected revenue for battery electric, electrolyzers, and hydrogen fuel cells by 2030, dependent upon the pace of adoption of zero emission technologies.

**Cost to realize opportunity**

1300000000

#### Strategy to realize opportunity and explanation of cost calculation

[Situation]The description of response and explanation of cost calculation in this case study refers to Cummins New Power segment. [Task] This segment designs, manufactures, sells and supports hydrogen production solutions as well as electrified power systems ranging from fully electric to hybrid along with innovative components and subsystems, including battery and fuel cell technologies. [Action] The New Power segment is currently in the development phase with a primary focus on research and development activities for our power systems, components and subsystems. We anticipate our customer base for New Power offerings will be highly diversified, representing multiple end markets with a broad range of application requirements. [Result] We continue to serve all our markets as they adopt electrification and alternative power technologies, meeting the needs of our OEM partners and end customers. We will continue to leverage existing customer relationships as well as pursue new relationships in markets as they adopt hydrogen and electric solutions. As of the end of 2021, the company has produced more than 6,200 battery modules and packs as part of its work on battery-electric technologies and 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 expects and has communicated externally a \$1.3 billion cash outflow from operations over 2022-2027, including SG&A, production, R&D, maintenance, etc, to support New Power growth.

#### Comment

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#### Identifier

Opp2

#### Where in the value chain does the opportunity occur?

Direct operations

#### Opportunity type

Resource efficiency

#### Primary climate-related opportunity driver

Use of more efficient production and distribution processes

#### Primary potential financial impact

Reduced direct costs

#### Company-specific 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 Cummins functions / businesses of remanufacturing, packaging, advanced manufacturing, material science and product design.

#### Time horizon

Medium-term

#### Likelihood

More likely than not

#### Magnitude of impact

Medium

#### Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

#### Potential financial impact figure (currency)

38000000

#### Potential financial impact figure – minimum (currency)

<Not Applicable>

#### Potential financial impact figure – maximum (currency)

<Not Applicable>

#### Explanation of financial impact figure

This estimate is the expected savings from implementing our packaging strategy.

#### Cost to realize opportunity

27000000

#### Strategy to realize opportunity and explanation of cost calculation

[Situation] A dedicated Cummins team for material efficiency was formed in 2018 and is working now on ways to make the company's products more eco-efficient in the future. Many of the concepts of the "circular economy" and its emphasis on reuse and recycling are not new, but this team is connecting with the various functions in charge of materials work at Cummins to elevate their importance. The goal is to use the right amount of material in everything the company makes to avoid unnecessary use of water and energy throughout a product's lifecycle. That means using material optimization tools to ensure structural integrity with minimized material and specifying that raw material is finished as close as possible to the ending net shape of the component. [Task]Cummins packaging function has expanded in the past several years. [Action] Packaging leaders at Cummins are working to better understand what metrics and actions will drive consistent and environmentally sound packaging decisions. Their goals for sustainable packaging solutions are to reduce packaging waste and increase reusable solutions as well as the use of recyclable material. The packaging strategy also includes designing out waste in packaging for new products, identifying opportunities for design out packaging waste in legacy products and prioritizing packaging opportunities through packaging design assessment of more than 100,000 legacy parts. Case study/example: With an investment of \$122 million over the next 5 years (an average of \$25 million per year) in returnable packaging, tracking software, hardware, 3PL packaging services, warehousing and reverse logistics, the company will increase returnable packaging usage by over 50% of all domestic inbound material to North American manufacturing facilities. This investment will result in a reduction of 390 million pounds of packaging related waste while producing a 1.5-year payback.

#### Comment

The cost to realize is primarily related to 1) the dramatic expansion of the packaging scope and 2) additional employees required who have expertise in specialized design optimization systems and software as well as costs for the material optimization software and design for lifecycle tools. Estimate of material savings from design optimization not yet included as the company currently has limited project-specific savings.

#### Identifier

Opp3

#### Where in the value chain does the opportunity occur?

---

Direct operations

**Opportunity type**

Resilience

**Primary climate-related opportunity driver**

Participation in renewable energy programs and adoption of energy-efficiency measures

**Primary potential financial impact**

Reduced indirect (operating) costs

**Company-specific description**

Cummins is committed to energy efficiency and renewable energy both for cost savings and resiliency. We are currently working on our fourth energy efficiency / GHG reduction goal since 2006. We have completed more than one thousand energy projects in the last 13 years, now saving the company about \$66 million per year. We exceeded our commitment have 40 sites certified to ISO 50001 energy standard by 2020 (we certified 44). We concluded our two public 2020 goals : 1) energy intensity reduction of 32 percent by 2020 from a baseline of 2010 (we hit 27% with the shortfall in and 2) to increase renewable energy opportunities (we now have 45 solar installations globally. ) Through our PLANET 2050 strategy, we have a 2030 goal to reduce absolute greenhouse gas (GHG) emissions from facilities and operations by 50 %. In 2021, Cummins completed more than 155 projects reducing GHGs, investing approximately \$20 million. As a result of these projects, the company achieved GHG savings of 22,495 metric tons of CO<sub>2</sub> e (carbon dioxide equivalent).

**Time horizon**

Medium-term

**Likelihood**

Virtually certain

**Magnitude of impact**

Medium-high

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

66000000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

We have estimated that our annual cost savings from energy efficiency projects (cumulative since 2006) is \$66 million per year.

**Cost to realize opportunity**

20000000

**Strategy to realize opportunity and explanation of cost calculation**

Cummins employees in its Facilities and Operations Environmental Management group set strategy, objectives and targets, which are carried out through the business units , at site level and through Global Integrated Services. The company's Enterprise Environmental Management System (EMS), created in 2003, plays a critical role in Cummins' global environmental footprint reductions and other improvements. The company adopted a model that includes a common framework to ensure a similar look, feel and fundamental approach throughout the organization. The system has served as the framework for driving continual improvement and efforts beyond compliance at Cummins operations around the world. Our employee engagement program Environmental Champions includes energy as well as water and waste training In 2022, the Company completed its 9th June Environmental Month, with more than half of our employees participating in some way in a site, community or personal action. [Situation] Cummins goal has been to increase its renewable energy generation. [Task] The company worked on 20 solar projects in 2021, ranging from a relatively small 36-kilowatt peak (kWp) array that was phase 2 of a project at the Cummins Generator Technologies facility in Ahmednagar, India; to a 1,472 kWp installation atop the new U.K. Logistics Centre in Daventry, U.K.; to a 3,600 kWp array at the Rocky Mount Engine Plant in Rocky Mount, North Carolina (U.S.). [Action] Cummins currently has plans for another 18 solar projects in 2022, with a special emphasis on China and the United States as the company's efforts move forward. Solar will play a major role in meeting Cummins' PLANET 2050 environmental goals. There have been significant technical improvements and price reductions that make it increasingly attractive as a low-carbon energy source. [Result] Thirty percent of the 2021 GHG reductions can be attributed to solar projects in India and Australia.

**Comment**

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**Identifier**

Opp4

**Where in the value chain does the opportunity occur?**

Downstream

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

**Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

**Company-specific 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

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

6000000000

**Potential financial impact figure – maximum (currency)**

13000000000

**Explanation of financial impact figure**

The potential financial impact represents the combined expected revenue for battery electric, electrolyzers, and hydrogen fuel cells by 2030, dependent upon the pace of adoption of zero emission technologies.

**Cost to realize opportunity**

13000000000

**Strategy to realize opportunity and explanation of cost calculation**

[Situation] In November 2019 Cummins renamed its Electrified Power segment to New Power to better represent our expanded and robust portfolio. [Task] The New Power segment designs, manufactures, sells and supports electrified power systems ranging from fully electric to hybrid along with innovative components and subsystems, including battery, fuel cell and hydrogen production technologies. We anticipate our customer base for New Power offerings will be highly diversified, representing multiple end markets with a broad range of application requirements. [Action] In the past year, Cummins had made significant announcements regarding its commitment to New Power and lower carbon technology. [Result] They include 1) the formation of a 50:50 joint venture with Sinopec to form Cummins Enze, which will accelerate the affordability and availability of green hydrogen in China ; 2) An agreement with Sion Power Corporation to design and supply battery cells based on their proprietary lithium metal technology for commercial vehicle applications; 2) partnership with Iberdrola, one of the world's largest energy companies, to announce its plans for one of the world's largest electrolyzer plants for the production of green hydrogen to be located in Castilla-La Mancha, Spain; 4) The announcement of strategic collaborations to advance the development and integration of hydrogen fuel cells, including Daimler Truck North America and Scania in Europe. Cummins expects and has communicated externally a \$1.3 billion cash outflow from operations over 2022-2027, including SG&A, production, R&D, maintenance, etc, to support New Power growth.

**Comment**

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### C3. Business Strategy

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#### C3.1

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**(C3.1) Does your organization's strategy include a transition plan that aligns with a 1.5°C world?**

**Row 1**

**Transition plan**

Yes, we have a transition plan which aligns with a 1.5°C world

**Publicly available transition plan**

Yes

**Mechanism by which feedback is collected from shareholders on your transition plan**

We have a different feedback mechanism in place

**Description of feedback mechanism**

Not only does Cummins solicit feedback internally, it regularly gathers external stakeholder feedback including frequent collaborations with partners, suppliers, government agencies and customers to identify risks from increasing laws and regulations, changing customer preferences, new disruptive technology and public policy support.

**Frequency of feedback collection**

More frequently than annually

**Attach any relevant documents which detail your transition plan (optional)**

PLANET 2050 and Destination Zero.pdf

**Explain why your organization does not have a transition plan that aligns with a 1.5°C world and any plans to develop one in the future**

<Not Applicable>

**Explain why climate-related risks and opportunities have not influenced your strategy**

<Not Applicable>

#### C3.2

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**(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?**

	Use of climate-related scenario analysis to inform strategy	Primary reason why your organization does not use climate-related scenario analysis to inform its strategy	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	Yes, qualitative and quantitative	<Not Applicable>	<Not Applicable>

C3.2a

**(C3.2a) Provide details of your organization’s use of climate-related scenario analysis.**

Climate-related scenario		Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios	Customized publicly available transition scenario	Company-wide	1.5°C	As part of Cummins' own scenario planning process, the company benchmarked Shell as an example of how to use scenario planning to inform investment decisions and future business conditions. Cummins used Shell scenarios to understand various methods of conducting scenario planning analysis and how to treat various inputs. Cummins does 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 is 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 would be compared to a baseline assumption of how this scenario might play out.
Physical climate scenarios	RCP 2.6	Company-wide	<Not Applicable>	Cummins consulted with an external climate analysis expert that used data from dozens of well-vetted climate models, coupled with machine learning, land use and elevation data, and models for hydrology, wildfire, and severe weather to analyze trends in future climate scenarios. Risk due to environmental perils was quantified in risk 5-year increments from 2020 through 2100, for three carbon emissions scenarios (SSP1-2.6, SSP2-4.5, and SSP5-8.5)
Physical climate scenarios	RCP 4.5	Company-wide	<Not Applicable>	Cummins consulted with an external climate analysis expert that used data from dozens of well-vetted climate models, coupled with machine learning, land use and elevation data, and models for hydrology, wildfire, and severe weather to analyze trends in future climate scenarios. Risk due to environmental perils was quantified in 5-year increments from 2020 through 2100, for three carbon emissions scenarios (SSP1-2.6, SSP2-4.5, and SSP5-8.5)
Physical climate scenarios	RCP 8.5	Company-wide	<Not Applicable>	Cummins consulted with an external climate analysis expert that used data from dozens of well-vetted climate models, coupled with machine learning, land use and elevation data, and models for hydrology, wildfire, and severe weather to analyze trends in future climate scenarios. Risk due to environmental perils was quantified in 5-year increments from 2020 through 2100, for three carbon emissions scenarios (SSP1-2.6, SSP2-4.5, and SSP5-8.5)

C3.2b

**(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.**

**Row 1**

**Focal questions**

Cummins asked these key focal questions: How will changes in the climate cause future flooding, extreme heat and cold, high winds, drought, wildfires, and hail at my locations of interest? What are the potential climate risks? What are the inputs and scenarios for customer product changes related to climate change either through preference, policy or regulation?

**Results of the climate-related scenario analysis with respect to the focal questions**

Results of the climate-related scenario analysis were the development of the company’s overarching environmental sustainability strategy PLANET 2050 in 2019, and in 2022, its product decarbonization plan called Destination Zero. There have many recent actions as we move to produce products along a 1.5degree C pathway: electrolyzer investments (Sinopec, Iberdrola); fuel cell success (Daimler, Scania, Komatsu); and reducing emissions today ( fuel agnostic engine, hydrogen internal combustion engines, natural gas products). Results of the climate-related scenario analysis for our locations are now in 2022 being reviewed and analyzed. They are helping Cummins understand how our locations may be affected by climate change, the risks to which assets may be exposed, the segments and locations of greatest impact, and how that plays out over time and across varying carbon emissions scenarios. Cummins will then determine what mitigation efforts we need to make that are location-based in addition to the corporate objectives for energy and water that are included in PLANET 2050.

C3.3



**(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.**

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Climate-related risks and opportunities were a major driver in the development of the company's 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 degree 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 percent. By 2050, the company aspires to power customer success by carbon neutral technologies that address air quality.
Supply chain and/or value chain	Yes	A climate-related opportunity in the value chain lies with the opportunity to help customers achieve their own sustainability goals and reduce costs and GHG emissions. Cummins has completed more than 700 projects with its customers since 2014. While the company had done fuel economy projects with customers since 2014, our climate scenario analysis and resulting sustainability plan accelerated those efforts. In meeting its 2030 goal, the company will dramatically expand its partnership 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 R&D	Yes	Cummins has said publicly that climate change is the existential crisis of our time, and our actions demonstrate our pursuit of climate-related opportunities. Cummins is committed to investing in an energy diverse future where customers have a broad portfolio of power options, including new technology diesel, natural gas, electrified power, fuel cell technology and alternative fuels – so they can choose what works best for them as they move toward a zero emission future. Cummins in 2021 invested \$1.1 billion in research, technology and engineering as the company enhanced its diesel and natural gas products and brought to market new low-carbon technologies such as hydrogen fuel cells. This investment supports meeting the company's science-based target to reduce scope 3 absolute lifetime GHG emissions from newly sold products by 25 percent by 2030. This investment is significantly driven as the company's climate change response and has accelerated a result of its climate scenario work. A recent investment decision was in 2021, when Cummins announced its plans for one of the world's largest electrolyzer plants for the production of green hydrogen to be located in Castilla-La Mancha, Spain. This investment comes on the heels of Iberdrola (one of the world's largest energy companies) and Cummins' decision to partner together on large-scale hydrogen production projects in Spain and Portugal.
Operations	Yes	Cummins activities in its operations have long been driven by climate-related opportunities as well as cost reduction. PLANET 2050 includes Cummins 4th energy / GHG reduction target – to reduce absolute greenhouse gas (GHG) emissions from facilities and operations by 50% by 2030. Our activities have only increased as we work to meet our fourth aggressive goal. Two significant decisions recently have been driven by climate change. Solar will play a major role in meeting Cummins' PLANET 2050 environmental goals, and Cummins goal has been to increase its renewable energy generation. The company worked on 20 solar projects in 2021 and has plans for another 18 solar projects in 2022, with a special emphasis on China and the United States as the company's efforts move forward. There have been significant technical improvements and price reductions that make it increasingly attractive as a low-carbon energy source. Another significant decision involving renewable energy was to enter into a virtual power purchase agreement with a windfarm in northwest Indiana. The 2017 agreement helped the Meadow Lake Wind Farm expand by guaranteeing a fixed price for its power. The expansion was completed in 2018 and began sending renewable energy to the grid in December of that year. Cummins' share of the expansion was 75 megawatts of capacity. While none of the power generated goes directly to a Cummins' facility, it essentially offsets all of the electricity used from traditional sources at company facilities across the state with renewable electricity.

**C3.4**

**(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.**

	Financial planning elements that have been influenced	Description of influence
Row 1	Capital expenditures, Acquisitions and divestments	Cummins has made several announcements in the past year related to capital expenditures and acquisitions. Capital expenditures: In addition to the previously mentioned electrolyzer plant for the production of green hydrogen in Spain, Cummins cap ex budget for energy efficiency has grown to reflect the company's commitment to climate response as well as very favorable financial returns on energy efficiency projects. Cummins has completed more than 1,000 projects since starting its journey in energy efficiency in 2007. Acquisitions: Cummins announced acquisition of Meritor in February 2022 provides additional electrified powertrain integration capabilities and accelerated capability in our climate change response. Owning technology that comes with the acquisition unlocks significant value and allows us to further develop and be an integrator for new power components. Another example from is the acquisition of Hydrogenics Corporation in September 2019, providing Cummins with both proton exchange membrane (PEM), alkaline fuel cells, and electrolyzers used to generate hydrogen.

**C3.5**

**(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's transition to a 1.5°C world?**

Yes

**C3.5a**

(C3.5a) Quantify the percentage share of your spending/revenue that is aligned with your organization's transition to a 1.5°C world.

**Financial Metric**

CAPEX

Percentage share of selected financial metric aligned with a 1.5°C world in the reporting year (%)

2.4

Percentage share of selected financial metric planned to align with a 1.5°C world in 2025 (%)

3.8

Percentage share of selected financial metric planned to align with a 1.5°C world in 2030 (%)

4

**Describe the methodology used to identify spending/revenue that is aligned with a 1.5°C world**

Cummins cap ex for facilities and operations is aligned with our PLANET 2050 science based target for facilities and operations, which was approved at the 1.5 degree Celsius ambition.

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**Financial Metric**

Revenue

Percentage share of selected financial metric aligned with a 1.5°C world in the reporting year (%)

0.5

Percentage share of selected financial metric planned to align with a 1.5°C world in 2025 (%)

8

Percentage share of selected financial metric planned to align with a 1.5°C world in 2030 (%)

15

**Describe the methodology used to identify spending/revenue that is aligned with a 1.5°C world**

These numbers are for our New Power business only, the business unit with the sole focus on zero emissions technologies. They do not include the contributions from existing internal combustion engine technology, which would make the revenue contribution higher. We are actively developing internal combustion technologies that offer economically viable solutions to reduce carbon emissions today ahead of widespread adoption of zero emission technologies.

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## C4. Targets and performance

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### C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Absolute target

---

### C4.1a

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

**Target reference number**

Abs 2

**Year target was set**

2019

**Target coverage**

Company-wide

**Scope(s)**

Scope 3

**Scope 2 accounting method**

<Not Applicable>

**Scope 3 category(ies)**

Category 11: Use of sold products

**Base year**

2018

**Base year Scope 1 emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 2 emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3 emissions covered by target (metric tons CO2e)**

1094000000

**Total base year emissions covered by target in all selected Scopes (metric tons CO2e)**

1094000000

**Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1**

<Not Applicable>

**Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2**

<Not Applicable>

**Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)**

99

**Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes**

99

**Target year**

2030

**Targeted reduction from base year (%)**

25

**Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]**

820500000

**Scope 1 emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 2 emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3 emissions in reporting year covered by target (metric tons CO2e)**

1162800000

**Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)**

1162800000

**% of target achieved relative to base year [auto-calculated]**

-25.1553930530165

**Target status in reporting year**

Underway

**Is this a science-based target?**

Yes, and this target has been approved by the Science Based Targets initiative

**Target ambition**

Well-below 2°C aligned

**Please explain target coverage and identify any exclusions**

Cummins Inc 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 SBTi's Target Validation Team approved the target.

**Plan for achieving target, and progress made to the end of the reporting year**

Initiatives are underway to reduce the carbon produced by Cummins' products such as the 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 the low-carbon fuel they use. Achieving this goal will require Cummins to work with its stakeholders to achieve significant carbon reductions. Key enablers include: - Strong regulatory support for GHG reductions. - Continued machine and powertrain efficiency improvements. - Broader availability of lower carbon fuels. - Advancements in new technology powertrains. - Market adoption of new technology powertrains. - Customer and industry partnerships to reduce carbon.

**List the emissions reduction initiatives which contributed most to achieving this target**

<Not Applicable>

---

**Target reference number**

Abs 3

**Year target was set**

2019

**Target coverage**

Company-wide

**Scope(s)**

Scope 1

Scope 2

**Scope 2 accounting method**

Market-based

**Scope 3 category(ies)**

<Not Applicable>

**Base year**

2018

**Base year Scope 1 emissions covered by target (metric tons CO2e)**

308069

**Base year Scope 2 emissions covered by target (metric tons CO2e)**

581112

**Base year Scope 3 emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Total base year emissions covered by target in all selected Scopes (metric tons CO2e)**

---

889181

**Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1**

100

**Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2**

100

**Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)**

<Not Applicable>

**Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes**

100

**Target year**

2030

**Targeted reduction from base year (%)**

50

**Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]**

444590.5

**Scope 1 emissions in reporting year covered by target (metric tons CO2e)**

269312

**Scope 2 emissions in reporting year covered by target (metric tons CO2e)**

342842

**Scope 3 emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)**

612154

**% of target achieved relative to base year [auto-calculated]**

62.3105981796732

**Target status in reporting year**

Underway

**Is this a science-based target?**

Yes, and this target has been approved by the Science Based Targets initiative

**Target ambition**

1.5°C aligned

**Please explain target coverage and identify any exclusions**

Cummins, Inc committed to reduce absolute scope 1 and 2 GHG emissions 50% by 2030 from a 2018 base year. On June 21, 2019, the SBTi's 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.

**Plan for achieving target, and progress made to the end of the reporting year**

From the goal's baseline year of 2018 to 2021, GHGs decreased by approximately 277,000 metric tons, equivalent to a 31% reduction from the baseline. The reduction can be attributed to several factors: - Completion of India solar projects and a virtual power purchase agreement with an Indiana windfarm. - LED lighting and compressed air efficiency projects across the company. - The impact of the pandemic on energy use. Normal operations were in place at most manufacturing facilities in 2021, but some offices remained closed where employees could do their jobs working from home. In 2021, Cummins completed more than 155 projects reducing GHGs, investing approximately \$20 million. As a result, the company achieved GHG savings of 22,495 metric tons of CO2e (carbon dioxide equivalent). Thirty percent of the GHG reductions can be attributed to solar projects in India and Australia. Several facilities made equipment upgrades to chillers, boilers, and air conditioning units. Although most large sites have converted to LED lighting, lighting still contributes to GHG reductions, representing 15% of the 2021 GHG savings.

**List the emissions reduction initiatives which contributed most to achieving this target**

<Not Applicable>

---

## C4.2

**(C4.2) Did you have any other climate-related targets that were active in the reporting year?**

Target(s) to increase low-carbon energy consumption or production

Other climate-related target(s)

---

## C4.2a

**(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.**

**Target reference number**

Low 1

**Year target was set**

2019

**Target coverage**

Country/region

**Target type: energy carrier**

Electricity

**Target type: activity**

Production

**Target type: energy source**

Renewable energy source(s) only

**Base year**

2018

**Consumption or production of selected energy carrier in base year (MWh)**

7127

**% share of low-carbon or renewable energy in base year**

0.7

**Target year**

2030

**% share of low-carbon or renewable energy in target year**

10

**% share of low-carbon or renewable energy in reporting year**

2

**% of target achieved relative to base year [auto-calculated]**

13.9784946236559

**Target status in reporting year**

Underway

**Is this target part of an emissions target?**

One of the 9 goals of PLANET 2050 is an absolute GHG emissions reduction from facilities and operations of 50%. One of the ways Cummins has identified to meet this goal is to provide more renewable electricity through onsite solar photovoltaics.

**Is this target part of an overarching initiative?**

Other, please specify (US EPA Green Power Partners)

**Please explain target coverage and identify any exclusions**

Target coverage is 100% of Cummins facilities.

**Plan for achieving target, and progress made to the end of the reporting year**

The company worked on 20 solar projects in 2021, ranging from a relatively modest 36-kilowatt peak (kWp) array that was phase 2 of a project at the Cummins Generator Technologies facility in Ahmednagar, India; to a 1,472 kWp installation atop the new U.K. Logistics Centre in Daventry, U.K.; to a 3,600 kWp array at the Rocky Mount Engine Plant in Rocky Mount, North Carolina (U.S.). Cummins currently has plans for another 18 solar projects in 2022, with a special emphasis on China and the United States as the company's efforts move forward. There have been significant technical improvements and price reductions that make it increasingly attractive as a low-carbon energy source.

**List the actions which contributed most to achieving this target**

<Not Applicable>

---

**C4.2b**

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**(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.**

**Target reference number**

Oth 1

**Year target was set**

2014

**Target coverage**

Company-wide

**Target type: absolute or intensity**

Absolute

**Target type: category & Metric (target numerator if reporting an intensity target)**

Engagement with customers	Other, please specify (Partner with customers to reduce Scope 3 GHG emissions of engines in the field by 55 million metric tons of carbon dioxide (CO <sub>2</sub> ).)
---------------------------	--

**Target denominator (intensity targets only)**

<Not Applicable>

**Base year**

2014

**Figure or percentage in base year**

0

**Target year**

2030

**Figure or percentage in target year**

55

**Figure or percentage in reporting year**

26.8

**% of target achieved relative to base year [auto-calculated]**

48.7272727272727

**Target status in reporting year**

Underway

**Is this target part of an emissions target?**

no

**Is this target part of an overarching initiative?**

No, it's not part of an overarching initiative

**Please explain target coverage and identify any exclusions**

Target customers are original equipment manufacturers as well as end-user customer fleets.

**Plan for achieving target, and progress made to the end of the reporting year**

From optimizing products for specific market segments, to the use of sophisticated digital tools to assist in the truck specification process, to the ability to customize electronic engine settings and parameters, Cummins helps customers reduce their carbon footprint throughout the life of the company's products. Since first surpassing the company's 2020 goal in 2018, Cummins has continued partnering with customers to implement fuel savings projects and is on track to exceed its 2030 goal. In 2021, an additional 50 customer projects were completed, bringing the cumulative total since 2014 to 700.

**List the actions which contributed most to achieving this target**

<Not Applicable>

**C4.3**

**(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.**

Yes

**C4.3a**

**(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO<sub>2</sub>e savings.**

	Number of initiatives	Total estimated annual CO <sub>2</sub> e savings in metric tonnes CO <sub>2</sub> e (only for rows marked *)
Under investigation	549	0
To be implemented*	95	22000
Implementation commenced*	54	16000
Implemented*	137	22700
Not to be implemented	31	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

**Initiative category & Initiative type**

Energy efficiency in buildings	Building Energy Management Systems (BEMS)
--------------------------------	---

**Estimated annual CO2e savings (metric tonnes CO2e)**

257

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

100000

**Investment required (unit currency – as specified in C0.4)**

185000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

10 projects

**Initiative category & Initiative type**

Energy efficiency in buildings	Heating, Ventilation and Air Conditioning (HVAC)
--------------------------------	--

**Estimated annual CO2e savings (metric tonnes CO2e)**

3535

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

472000

**Investment required (unit currency – as specified in C0.4)**

2186000

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

16-20 years

**Comment**

27 projects

**Initiative category & Initiative type**

Energy efficiency in buildings	Lighting
--------------------------------	----------

**Estimated annual CO2e savings (metric tonnes CO2e)**

4252

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

911000

**Investment required (unit currency – as specified in C0.4)**

2982000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

27 projects

**Initiative category & Initiative type**

Energy efficiency in buildings	Other, please specify (compressed air)
--------------------------------	--

**Estimated annual CO2e savings (metric tonnes CO2e)**

2197

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

225000

**Investment required (unit currency – as specified in C0.4)**

532000

**Payback period**

&lt;1 year

**Estimated lifetime of the initiative**

11-15 years

**Comment**

18 projects

**Initiative category & Initiative type**

Energy efficiency in production processes	Other, please specify (test cell improvements)
---	--

**Estimated annual CO2e savings (metric tonnes CO2e)**

2846

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

941000

**Investment required (unit currency – as specified in C0.4)**

878000

**Payback period**

&lt;1 year

**Estimated lifetime of the initiative**

16-20 years

**Comment**

12 projects

**Initiative category & Initiative type**

Energy efficiency in production processes	Machine/equipment replacement
---	-------------------------------

**Estimated annual CO2e savings (metric tonnes CO2e)**

2380

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

147000

**Investment required (unit currency – as specified in C0.4)**

147000

**Payback period**

&lt;1 year



**Estimated lifetime of the initiative**

11-15 years

**Comment**

5 projects, 9 liter CNC machining head line replacement

**Initiative category & Initiative type**

Energy efficiency in production processes	Motors and drives
---	-------------------

**Estimated annual CO2e savings (metric tonnes CO2e)**

57.8

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

17000

**Investment required (unit currency – as specified in C0.4)**

102000

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

2 projects

**Initiative category & Initiative type**

Energy efficiency in production processes	Smart control system
---	----------------------

**Estimated annual CO2e savings (metric tonnes CO2e)**

116

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

37000

**Investment required (unit currency – as specified in C0.4)**

112000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

2 projects

**Initiative category & Initiative type**

Low-carbon energy generation	Solar PV
------------------------------	----------

**Estimated annual CO2e savings (metric tonnes CO2e)**

3807

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

1000000

**Investment required (unit currency – as specified in C0.4)**

4300000

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

16-20 years

**Comment**

15 projects

**C4.3c****(C4.3c) What methods do you use to drive investment in emissions reduction activities?**

Method	Comment
Dedicated budget for energy efficiency	Since 2007, Cummins has implemented an energy efficiency capital fund to finance energy-related projects. Cummins has a comprehensive investment plan designed to achieve the Company's PLANET 2050 Strategy, as well as the 2030 energy and GHG intensity goals.
Internal price on carbon	\$15 per metric ton CO2e; except where local external price on carbon is higher, in which case the higher price is used
Dedicated budget for other emissions reduction activities	A central budget is provided to fund corporate energy and GHG initiatives, including the Cummins Environmental Champion program (updated Energy Champion program integrating Water and Waste) and implementing ISO 50001 across the Cummins Enterprise and SEP Superior Energy Performance at select sites. Cummins beat its 2020 goal of 40 certified sites and by the end of 2021 has 44 sites globally certified to ISO 50001. In addition, Cummins has an internal goal to achieve 10% of electrical use to be provided by on-site renewable solar energy installations by 2030. The central fund has been increased to support the 2030 goals.
Employee engagement	Cummins continues to have a successful Environmental Champions program. To date, Cummins has trained 671 Environmental Champions. Environmental Champions take 32 hours of training over five days. Conformance with this program is a requirement for the 50 priority sites that comprise 90 percent of Cummins environmental footprint. In addition, Cummins issues internal newsletters and blogs, and conducts a company-wide June Environmental Month where more than two-thirds of the company's employees have participated in learning or site activities. In 2021, Cummins launched the PLANET 2050 Influencer program, where employees attend monthly sessions to learn more about our sustainability strategy in order to promote awareness in the company, educate others and act as a catalyst for action in their functions and the community.
Financial optimization calculations	Cummins uses a model of the internal rate of return to establish a baseline IRR for funded energy efficiency projects. Use of common financial analysis tools and calculators. Cummins prioritizes all ECO Projects with a C&E that looks GHG savings/\$ invested as well as IRR, simple payback.
Internal incentives/recognition programs	Cummins has conducted company-wide environmental awards since 2005. Each year, sites and individuals are encouraged to submit applications for the awards, using a common template and judged by a panel of Cummins energy and environmental leaders. Award winners are entered into the recognition framework called the Impact Awards. Employees who led a project, employees who were involved with a project or employees who served as the project sponsor can self-nominate their work and can be judged and then recognized their work represents an outstanding effort that supports overall business goals. Beginning in 2017, there are now three different Impact Awards that employees can be recognized for: Business Impact; Global Impact; Chairman's Impact. One of the five award area categories is Environmental. Projects included in this category can range from site facility projects to product design to projects in collaboration with a customer. Many of these projects are climate related through greater energy efficiency or increased fuel economy from products
Partnering with governments on technology development	The company's recent portfolio of government co-funded technology development and system integration programs stands at hundreds of millions of dollars in total public / private research investment since 2010. Cummins is a Department of Energy (DOE) Better Plants Program partner as well as a US EPA Green Power partner. Cummins lists key Dept. of Energy partnerships in its Sustainability Report year. The latest list in the 2021report is on page 68.
Compliance with regulatory requirements/standards	In the UK, reporting to the streamlined energy and carbon reporting (SECR) framework
Internal finance mechanisms	In addition to the dedicated capital fund, energy and GHG reduction projects are also implemented through normal channels. Sites implement energy efficiency projects and select energy efficient options for projects by using the same financial tools and investment criteria as are used for the dedicated capital fund.

**C4.5****(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?**

Yes

**C4.5a**

**(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.**

**Level of aggregation**

Product or service

**Taxonomy used to classify product(s) or service(s) as low-carbon**

No taxonomy used to classify product(s) or service(s) as low carbon

**Type of product(s) or service(s)**

Other	Other, please specify (Remanufactured engines and components, lighter-weight heavy duty engines, lighter -weight turbochargers and aftertreatment systems)
-------	--

**Description of product(s) or service(s)**

Remanufactured engines and components, lighter-weight heavy duty engines, lighter -weight turbochargers and aftertreatment systems

**Have you estimated the avoided emissions of this low-carbon product(s) or service(s)**

Yes

**Methodology used to calculate avoided emissions**

Other, please specify (Data from Ecoinvent and the Inventory of Carbon and Energy (ICE) database)

**Life cycle stage(s) covered for the low-carbon product(s) or services(s)**

Cradle-to-gate + end-of-life stage

**Functional unit used**

per engine

**Reference product/service or baseline scenario used**

15 liter heavy duty engine

**Life cycle stage(s) covered for the reference product/service or baseline scenario**

Cradle-to-gate + end-of-life stage

**Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario**

30

**Explain your calculation of avoided emissions, including any assumptions**

Industry accepted energy savings from remanufacturing of 85 percent was applied to the life cycle analysis on a heavy duty engine completed for Cummins

**Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year**

10

**C5. Emissions methodology**

**C5.1**

**(C5.1) Is this your first year of reporting emissions data to CDP?**

No

**C5.1a**

**(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?**

**Row 1**

**Has there been a structural change?**

No

**Name of organization(s) acquired, divested from, or merged with**

<Not Applicable>

**Details of structural change(s), including completion dates**

<Not Applicable>

**C5.1b**

**(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?**

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	No	<Not Applicable>

**(C5.2) Provide your base year and base year emissions.****Scope 1****Base year start**

January 1 2018

**Base year end**

December 31 2018

**Base year emissions (metric tons CO2e)**

308069

**Comment**

Scope 1 emissions include (1) Stationary combustion, (2) Generation of sold electricity, (3) Fugitive SF6, CO2, (4) Mobile sources and (5) Refrigerant emissions.

**Scope 2 (location-based)****Base year start**

January 1 2018

**Base year end**

December 31 2018

**Base year emissions (metric tons CO2e)**

575115

**Comment**

Scope 2 emissions include (1) Electricity, (2) Hot Water, (3) Steam.

**Scope 2 (market-based)****Base year start**

January 1 2018

**Base year end**

December 31 2018

**Base year emissions (metric tons CO2e)**

581112

**Comment**

Scope 2 emissions include (1) Electricity, (2) Hot Water, (3) Steam.

**Scope 3 category 1: Purchased goods and services****Base year start**

January 1 2018

**Base year end**

December 31 2018

**Base year emissions (metric tons CO2e)**

4269000

**Comment****Scope 3 category 2: Capital goods****Base year start**

January 1 2018

**Base year end**

December 31 2018

**Base year emissions (metric tons CO2e)**

450000

**Comment****Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)****Base year start**

January 1 2018

**Base year end**

December 31 2018

**Base year emissions (metric tons CO2e)**

176000

**Comment**

**Scope 3 category 4: Upstream transportation and distribution**

**Base year start**

January 1 2018

**Base year end**

December 31 2018

**Base year emissions (metric tons CO2e)**

765000

**Comment**

**Scope 3 category 5: Waste generated in operations**

**Base year start**

January 1 2018

**Base year end**

December 31 2018

**Base year emissions (metric tons CO2e)**

8000

**Comment**

**Scope 3 category 6: Business travel**

**Base year start**

January 1 2018

**Base year end**

December 31 2018

**Base year emissions (metric tons CO2e)**

40800

**Comment**

**Scope 3 category 7: Employee commuting**

**Base year start**

January 1 2018

**Base year end**

December 31 2018

**Base year emissions (metric tons CO2e)**

124000

**Comment**

**Scope 3 category 8: Upstream leased assets**

**Base year start**

January 1 2018

**Base year end**

December 31 2018

**Base year emissions (metric tons CO2e)**

27300

**Comment**

**Scope 3 category 9: Downstream transportation and distribution**

**Base year start**

January 1 2018

**Base year end**

December 31 2018

**Base year emissions (metric tons CO2e)**

765000

**Comment**

**Scope 3 category 10: Processing of sold products**

**Base year start**

January 1 2018

**Base year end**

December 31 2018

**Base year emissions (metric tons CO2e)**

3000

**Comment**

**Scope 3 category 11: Use of sold products**

**Base year start**  
January 1 2018

**Base year end**  
December 31 2018

**Base year emissions (metric tons CO2e)**  
1094000000

**Comment**

**Scope 3 category 12: End of life treatment of sold products**

**Base year start**  
January 1 2018

**Base year end**  
December 31 2018

**Base year emissions (metric tons CO2e)**  
64500

**Comment**

**Scope 3 category 13: Downstream leased assets**

**Base year start**  
January 1 2018

**Base year end**  
December 31 2018

**Base year emissions (metric tons CO2e)**  
52000

**Comment**

**Scope 3 category 14: Franchises**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**  
Not relevant to Cummins.

**Scope 3 category 15: Investments**

**Base year start**  
January 1 2018

**Base year end**  
December 31 2018

**Base year emissions (metric tons CO2e)**  
54300

**Comment**

**Scope 3: Other (upstream)**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**  
Not evaluated.

**Scope 3: Other (downstream)**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**  
Not evaluated.

---

C5.3

**(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.**

ISO 14064-1

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

The Greenhouse Gas Protocol: Scope 2 Guidance

US EPA Center for Corporate Climate Leadership: Indirect Emissions From Purchased Electricity

US EPA Center for Corporate Climate Leadership: Direct Emissions from Stationary Combustion Sources

US EPA Center for Corporate Climate Leadership: Direct Emissions from Mobile Combustion Sources

US EPA Mandatory Greenhouse Gas Reporting Rule

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## C6. Emissions data

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### C6.1

**(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?**

**Reporting year**

**Gross global Scope 1 emissions (metric tons CO2e)**

269312

**Start date**

January 1 2021

**End date**

December 31 2021

**Comment**

---

### C6.2

**(C6.2) Describe your organization's approach to reporting Scope 2 emissions.**

**Row 1**

**Scope 2, location-based**

We are reporting a Scope 2, location-based figure

**Scope 2, market-based**

We are reporting a Scope 2, market-based figure

**Comment**

Cummins reports both Scope 2 location based and market based figures.

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### C6.3

**(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?**

**Reporting year**

**Scope 2, location-based**

464657

**Scope 2, market-based (if applicable)**

342842

**Start date**

January 1 2021

**End date**

December 31 2021

**Comment**

Scope 2 market-based emissions in 2021 were significantly less than location-based emissions in part because of the inclusion of renewable energy certificates (RECs) retained by Cummins for approximately 126,741 metric tons of CO2e (carbon dioxide equivalent) associated with a virtual power purchase agreement (VPPA). Updated emission factors reduced greenhouse gases (GHGs) associated with electricity purchased from the grid by approximately 47,000 metric tons of CO2e, a change which can be partially attributed to improvements in the carbon intensity of the grid in at least some of the regions where Cummins operates. The following sources were used to calculate location-based emissions: 1) US EPA eGRID 2020, (15th edition), January 27, 2022. 2) Canada: National Inventory Report 1990-2019: Greenhouse Gas Sources and Sinks in Canada, Part 3. Annex 13: Emission Factors, Tables A13-1 to A13-14.. 3) Facilities outside of the United States, Canada, and Australia used factors for 2019 from the "CO2 Emissions from Fuel Combustion" (2021 Edition) published by the International Energy Agency (IEA) in Paris. For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2020," Version 1.0, 2021-05-31. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.

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### C6.4

**(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?**

No

**C6.5**

**(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.**

**Purchased goods and services**

**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO2e)**

4325000

**Emissions calculation methodology**

Spend-based method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

**Please explain**

Cummins total spend data for direct purchasing (including raw materials - metals and commodities usage) as well as total 2021 indirect purchase expenses (including supply chain services, facilities services, IT and engineering, corporate services, etc.) were used to estimate the associated Scope 3 emissions. For purchased raw materials, cradle to gate approach was used to estimate the scope 3 emissions using the 2011 purchase data. 2021 emissions was calculated based on revenue change factor. For indirect purchasing goods and services, UK DEFRA's Standard Industrial Classification (SIC) Codes closest to the spend category and 2009 emission factors were utilized to estimate the scope 3 emissions (Reference/Source of Emission factors: Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance; March 2019; defra.uk). - Supply Chain Services: 20% assumed as ancillary transport services (SIC Code 63) under purchased goods and services; 80% is assumed transportation and distribution of products and parts. - Corporate Services: 10% as insurance and pension funds (SIC Code 66); 10% auxiliary financial services (SIC Code 66); and 80% as legal, consultancy, other business activities (SIC Code 74) Facilities Services: 75% assumed as purchased goods and services and rest 25% as capital goods. Of the 75%, assumed 50% as real estate activities (SIC Code 70); 25% as legal, consultancy, other business activities - industrial cleaning (SIC Code 74); 25% sewage and refuse services (SIC Code 90) - Product Testing and Manufacturing Services: 75% assumed as research and development (SIC Code 73) under purchased goods and services and 25% as capital goods; - IT & Engineering Services: 50% assumed as purchased goods and services and 50% as capital goods. Within purchased goods 50% is assumed as computer services (SIC Code 72) and 50% as metal products – general mechanical engineering services (SIC Code 28) - Indirect/Undefined: 50% assumed as office machinery and computers (SIC Code 30) under purchased goods and services and 50% as capital goods

**Capital goods**

**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO2e)**

348000

**Emissions calculation methodology**

Spend-based method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

**Please explain**

Cummins total 2021 spend data for capital goods purchases in facilities & construction, IT, engineering and machinery was used to estimate the scope 3 emissions. UK DEFRA's SIC Codes closest to the spend category and 2009 emission factors were utilized to estimate the scope 3 emissions (Reference/Source of Emission factors: Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance; March 2019; defra.uk). We assume that 100 percent of the indirect purchasing on facilities and construction is towards capital goods purchases.

**Fuel-and-energy-related activities (not included in Scope 1 or 2)**

**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO2e)**

167600

**Emissions calculation methodology**

Average data method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

**Please explain**

Energy consumption data for activities not included in Scope 1 or 2 is grouped by type (e.g. natural gas) and multiplied by activity specific emission factors. Life-cycle analysis software is used as the basis of emission factors for upstream emissions of purchased fuels. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US and on UK Defra 2012 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US and on UK Defra 2012 guidelines for other countries. GWPs are IPCC Fourth Assessment Report (SAR - 100 year).



## Upstream transportation and distribution

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

1027000

### Emissions calculation methodology

Spend-based method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain

2021 transportation and distribution was assumed to be equal to 80 percent of the supply chain services spend. Also it was assumed 70 percent of the logistics was through road, 10 percent through rail, 10 percent through water and 10 percent through air. UK DEFRA's SIC Codes for Rail, Road, Water and Air categories and 2009 emission factors were utilized to estimate the scope 3 emissions (Reference/Source of Emission factors: Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance; March 2019; defra.uk).

## Waste generated in operations

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

12400

### Emissions calculation methodology

Waste-type-specific method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain

The US EPA EF Hub Table 9 provides Scope 3 Category 5: Waste Generated in Operations and Category 12: End-of-Life Treatment of Sold Products. Previously we directly used the Waste Reduction Model (WARM) Version 15 created by the U.S. Environmental Protection Agency (EPA) was used to quantify the scope 3 emissions for the landfilled waste, combusted waste and composted waste from Cummins global facilities for the year 2021. As there were no separate categories available for incinerated waste and waste that was burned for energy recovery, both were included in the combusted waste category and default factors in the tool were used to calculate the GHG emissions. Due to non-availability of exact categories, the general refuse / garbage generated was categorized as Mixed Organics as it includes primarily food waste from canteen, grass clippings from lawn etc. and the process derived industrial waste was categorized as Mixed MSW. Composted waste data from global facilities and the same was included in the emissions analysis (Reference/Source: EPA WARM Model).

## Business travel

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

7100

### Emissions calculation methodology

Distance-based method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain

All air travel data are tracked through a service provided to Cummins by AmEx. Emissions are calculated using the short, medium, and long haul air travel categories and associated emission factors given in Table 8 of US EPA EF Hub April 2022. Car rental mileage is provided by rental car companies (Hertz and Enterprise). The total emissions for Enterprise are calculated using US EPA EF Hub Passenger Car factors in the March 9, 2018 edition. Total CO2e emissions were calculated by Hertz using "industry standard calculation protocols." However, the precise methodology and data upon which this total was based were not provided by Hertz.

## Employee commuting

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

80000

### Emissions calculation methodology

Average data method  
Distance-based method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

75

### Please explain

Calculations derived from general country (outside of US) direct data and assumptions plus per state employee headcount data. Some direct and some derived assumptions of commuter mileage and mode of transportation. (Source of Emission factors: US EPA (2008); Greenhouse Gas Inventory Protocol Core Module Guidance - Direct Emissions from Mobile Combustion Sources, EPA Climate Leaders, Tables A-6 and A-7)

## Upstream leased assets

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

19000

### Emissions calculation methodology

Average data method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

90

### Please explain

Cummins leased facilities exempt from environmental reporting that are shared facilities with no operational control, separate meter and utility bills are considered under this category. Based on the Area Business Organization (ABO), Business Unit (BU) and facility type (Eg: Office, Warehouse etc), scope 1 and scope 2 emissions intensity were estimated and applied based on the occupied square footage. The total square footage is assumed to be the same as in 2012. The Scope 1 and Scope 2 intensity is based on the average country specific Scope 1 and Scope 2 emission intensities at CMI owned/managed facilities.

## Downstream transportation and distribution

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

1027000

### Emissions calculation methodology

Other, please specify (Separate data was not available for downstream transportation and distribution, so Cummins assumed that emissions from shipping and distribution of final products were the same as upstream transportation and distribution of parts and input materials.)

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

Most Cummins customers pay for the transportation of products sold to them, either directly or via part of an overall invoice. There's no separate dollar spend available. Hence an assumption was made that downstream transportation and distribution emissions of shipping and distribution of final products to customers are the same as upstream transportation and distribution of parts and input materials.

## Processing of sold products

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

2300

### Emissions calculation methodology

Average data method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain

Engine weights used in the general categories of mid-range, heavy-duty and high-horsepower were derived by updating the 2012 calculation of weighted-average by volume of the various engine families within those three categories. Custodial engine volumes were taken from annual report Form 10-K and JV engine volumes were estimated using 2019 vs 2017 JV revenue growth. Assumptions were made on the power of the power tools / hoist used and the time taken to install each unit.

## Use of sold products

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

1162800000

### Emissions calculation methodology

Methodology for direct use phase emissions, please specify (Products that directly consume energy (fuels or electricity) during use)

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain

Cummins use of sold product emissions were calculated using overall volumes by segment and engine model, which were then multiplied by the attrition rates to determine the volumes in operation each year moving forward. 2021 emissions were calculated by adjusting overall 2021 engine volumes against 2015 volumes. We used the long-standing Cummins New and Recon parts proprietary parts consumption model as well as customer engineering analysis to determine the attrition rate. We then multiplied each of these yearly figures by an age factor (i.e., a 10 year old truck will not operate the same number of hours or miles as a brand new truck) and then converted miles per gallon or gallons per hour to million metrics tons of CO2. The CO2e conversion factor for Diesel was applied based on the EPA's EF Hub and AR 4.

## End of life treatment of sold products

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

60000

### Emissions calculation methodology

Waste-type-specific method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain

Cummins conducted a hot spot analysis to evaluate the impact of the end of life treatment of sold products. The waste related to sold product is primarily iron and steel (more than 90%). The estimates are based on landfilling, processing, and recycling of the generated wastes associated with those products. The assumption is 5% of the products are scrapped – 90% is melted / processed.. The emissions were adjusted based on the change in the number of engine units shipped between 2011 and 2021.

## Downstream leased assets

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

50000

### Emissions calculation methodology

Average data method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain

This represents our rental generator fleet. We have made assumptions on generator use - as some generators are used as backup power and others operate full time. The total number of rental fleet generators at North American distributor locations were collected for 2012. Total fuel usage was estimated based on the number of generators from each kW category, efficiency and monthly average run time. The emissions were adjusted to the change in power systems business as a proxy for power solutions. The Diesel emission factor is updated with US EPA EF Hub from April 2022.

## Franchises

### Evaluation status

Not relevant, explanation provided

### Emissions in reporting year (metric tons CO2e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

This category is not applicable as franchises are not part of Cummins' business model.

## Investments

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

42500

### Emissions calculation methodology

Other, please specify ( Emissions are calculated using unconsolidated revenue data and proportionate market-based emissions from the consolidated and 50:50 JV revenues.)

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

Emissions from 50:50 joint venture investments in China and India are included in Scope 1 and Scope 2 based on operational control scope. The remaining minority and unconsolidated joint venture operations where Cummins does not have operational or administrative control are included in this category. Cummins holds a minority stake (<20% and 20-50% equity investee) in several distributor businesses and manufacturing operations, primarily in regions other than India and China.

## Other (upstream)

### Evaluation status

Relevant, not yet calculated

### Emissions in reporting year (metric tons CO2e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

Cummins has not evaluated other upstream scope 3 emissions.

**Other (downstream)**

**Evaluation status**

Relevant, not yet calculated

**Emissions in reporting year (metric tons CO2e)**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

**Please explain**

Cummins has not evaluated other downstream scope 3 emissions.

C6.7

**(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?**

Yes

C6.7a

**(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.**

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	62	Calculated using the percentage of biodiesel in diesel fuel and ethanol in gasoline.

C6.10

**(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.**

**Intensity figure**

0.000026826

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)**

612154

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

22819347387

**Scope 2 figure used**

Market-based

**% change from previous year**

13.5

**Direction of change**

Decreased

**Reason for change**

While Scope 1 and Scope 2 market-based emissions in 2021 increased by 3% compared to the prior year, increased revenue (adjusted for inflation to 2010 dollars) lowered emission intensity by 13.5%. Renewable energy certificates (RECs) totaling approximately 126,741 metric tons of CO2e (carbon dioxide equivalent) retained by Cummins for energy produced at the Meadow Lake VI wind farm in northwest Indiana (U.S.) continued to reduce the company's Scope 2 emissions. Emission factor updates in 2021 also impacted greenhouse gases (GHGs) associated with the grid, leading to a reduction of approximately 47,000 metric tons of CO2e. The company worked on 20 solar projects in 2021, ranging from a relatively modest 36-kilowatt peak (kWp) array that was phase 2 of a project at the Cummins Generator Technologies facility in Ahmednagar, India; to a 1,472 kWp installation atop the new U.K. Logistics Centre in Daventry, U.K.; to a 3,600 kWp array at the Rocky Mount Engine Plant in Rocky Mount, North Carolina (U.S.). When completed in 2022, the Rocky Mount solar array will be the second largest at Cummins, behind only the combined power of the 3,600 and 3,300 kWp installations atop two buildings that make up the Beijing Foton Cummins Engine Company campus in Beijing, China. India has been a point of emphasis in recent years for Cummins' solar efforts with 20 installations since 2018 that together have a maximum potential output of 11-megawatts peak (MWp). The largest project in the country was a 1,250 kWp array during phase 2 of a solar initiative at the Kothrud Engine Plant in Pune, India. The total solar capacity at the plant is now 2,800 kWp, the largest installation in India. Cummins currently has plans for another 18 solar projects in 2022, with a special emphasis on China and the United States as the company's efforts move forward. Solar will play a major role in meeting Cummins' PLANET 2050 environmental goals. There have been significant technical improvements and price reductions that make it increasingly attractive as a lowcarbon energy source.

C7. Emissions breakdowns

## C7.1

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**(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?**

Yes

## C7.1a

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**(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).**

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	252511	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	174	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	427	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	16149	IPCC Fourth Assessment Report (AR4 - 100 year)
Other, please specify (Fugitive SF6, CO2)	50	IPCC Fourth Assessment Report (AR4 - 100 year)

## C7.2

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**(C7.2) Break down your total gross global Scope 1 emissions by country/region.**

Country/Region	Scope 1 emissions (metric tons CO2e)
Angola	1
Argentina	161
Australia	4309
Belgium	1782
Bolivia (Plurinational State of)	6
Botswana	674
Brazil	2616
Canada	4623
Costa Rica	11
China	50168
Colombia	40
Czechia	47
France	616
Germany	1075
Ghana	49
Honduras	357
India	18567
Ireland	17
Italy	129
Japan	26
Kazakhstan	67
Malaysia	212
Mexico	5443
Mongolia	139
Morocco	38
Mozambique	1
Netherlands	179
New Zealand	12
Nigeria	1175
Norway	19
Panama	110
Papua New Guinea	136
Philippines	124
Poland	213
Romania	1651
Russian Federation	416
Saudi Arabia	29
Senegal	19
Serbia	70
Singapore	154
South Africa	1480
Republic of Korea	1719
Spain	98
Sweden	76
Turkey	991
United Arab Emirates	317
United Kingdom of Great Britain and Northern Ireland	21632
United States of America	147259
Zambia	259

**C7.3**

**(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.**

By business division

**C7.3a**

**(C7.3a) Break down your total gross global Scope 1 emissions by business division.**

Business division	Scope 1 emissions (metric ton CO2e)
Components Segment	22766
Corporate Segment	8440
Distribution Segment	56850
Engine Segment	107407
New Power Segment	875
Supply Chain Segment	9808
Power Systems Segment	63167

**C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4**

**(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.**

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions, metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	194214	<Not Applicable>	Emissions from Cummins' engine, new power, power systems, and components business segments were included within the scope of transport OEM activities.
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

**C7.5**

**(C7.5) Break down your total gross global Scope 2 emissions by country/region.**

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Angola <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	2	2
Argentina <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	54	54
Australia <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	4136	4136
Belgium <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	520	641
Bolivia (Plurinational State of) <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	11	11
Botswana <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	21	21
Brazil <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	2697	2697
Canada <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	1942	1942





Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Norway <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	3	106
Panama <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	39	39
Papua New Guinea <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	40	40
Philippines <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	64	64
Poland <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	52	62
Romania <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	2608	2003
Russian Federation <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	1303	1303
Saudi Arabia <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	125	125
Serbia <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	74	74
Singapore <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	592	592
South Africa <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	2654	2654
Republic of Korea <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	5434	5434
Spain <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	19	27
Turkey <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	116	116
United Arab Emirates <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	1076	1076
United Kingdom of Great Britain and Northern Ireland <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	8818	13246
United States of America <i>The renewable energy certificates (RECs) retained by Cummins for approximately 238,060 MWh associated with a virtual power purchase agreement (VPPA) were incorporated into the Scope 2 market-based emissions reported for 2019. These RECs are being retired by Cummins in accordance with CDP's guidance. For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	189803	63150
Zambia <i>For market-based calculations, Cummins used residual mix factors for European facilities from the Association of Issuing Bodies, "European Residual Mixes: Results of the calculation of residual mixes for the calendar year 2018," Version 1.2, 2019-07-11. The calculations default to location-based factors for facilities outside of Europe where residual mix factors are not currently available.</i>	8	8

## C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

## C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Components Segment	107261	87960
Corporate Segment	14636	3192
Distribution Segment	28002	22793
Engine Segment	232415	168760
New Power Segment	1063	898
Supply Chain Segment	17807	15084
Power Systems Segment	63474	44156

## C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	404212	301774	Emissions from Cummins' engine, new power, power systems, and components business segments were included within the scope of transport OEM activities.
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

## C-TO7.8

(C-TO7.8) Provide primary intensity metrics that are appropriate to your indirect emissions in Scope 3 Category 11: Use of sold products from transport.

## C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Increased

## C7.9a

**(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.**

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	10419	Decreased	1.49	On-site electricity generation from renewable sources (e.g. on-site solar panels) where Cummins retained the energy's renewable attributes increased from approximately 15,970 MWh in 2020 to 19,171 MWh in 2021. The difference between these values was the amount by which energy generation within this category increased (3,201 MWh). The metric tons of CO2e represented by this change was determined by multiplying the electricity produced at each site in 2020 and 2021 by the applicable regional emission factors and then subtracting the resulting totals for 2021 by those for 2020 to determine the difference. The percent change in emissions attributed to renewable energy consumption was calculated by dividing -10,419 MT CO2e by the combined Scope 1 and Scope 2 location-based emissions in the prior year (699,053 MT CO2e) and multiplying by 100. The percent reduction in CO2e due to increased on-site electricity generation from renewable sources for which Cummins retained credits was calculated to be 1.49%.
Other emissions reduction activities	22700	Decreased	3.25	Cummins implemented 137 emission reduction initiatives in 2021, resulting in an estimated CO2e savings of 22,700 metric tons. This was a reduction of 3.25% as compared to the total Scope 1 and Scope 2 location-based emissions in 2020 (699,053 MT CO2e). The change in emissions attributed to these activities was calculated by dividing the sum of the emission reductions achieved through the projects implemented in 2021 by the total Scope 1 and Scope 2 location-based emissions in 2020. This value was then multiplied by 100 to yield the percent by which initiatives in 2021 reduced CO2e. The projects included improvements to building controls, HVAC upgrades, energy efficient lighting, energy efficiency in production processes, energy recovery from engine test cells, equipment replacement, and solar panel installations.
Divestment		<Not Applicable >		
Acquisitions		<Not Applicable >		
Mergers		<Not Applicable >		
Change in output	115439	Increased	16.51	Changes in production and business activities in 2021 resulted in CO2e output increasing by approximately 115,439 metric tons compared to the prior year, due in part to the disruption caused by COVID-19 in 2020. This value was calculated by subtracting the difference between combined Scope 1 and Scope 2 location-based emissions in 2020 and 2021 by the sum of the changes in emissions in 2021. In other words, output was determined to have increased in 2021 since other activities did not fully account for the change in combined Scope 1 and Scope 2 location-based emissions. This was an increase of 16.51% as compared to the total Scope 1 and Scope 2 location-based emissions in 2020 (699,053 MT CO2e). The percentage was calculated by dividing the change in CO2e output in 2021 (-115,439 MT) by the total Scope 1 and Scope 2 location-based emissions in 2020. This value was then multiplied by 100 to yield the percent by which CO2e output would have changed without emission reduction measures. The emission reduction attributable to the virtual power purchase agreement (VPPA) with the Meadow Lake VI wind farm in 2021 (126,741 MT CO2e) was not part of the change in output calculation since it was not applied to Cummins' Scope 2 location-based emissions, only market-based. If the VPPA emission savings were incorporated, the difference between Scope 1 and Scope 2 emissions in 2020 and 2021 would have to be recalculated using market-based emissions in order to yield an accurate change in output value.
Change in methodology	47404	Decreased	6.78	Approximately 47,000 metric tons of Cummins' overall GHG reduction in 2021 can be attributed to the use of updated emission factors from the U.S. Environmental Protection Agency, the International Energy Agency and other country-specific sources. This was 6.78% of total Scope 1 and Scope 2 location-based emissions from the prior year (43,179 MT CO2e / 699,053 MT CO2e x 100 = 6.78%). While Scope 2 location-based emissions are the basis for these performance calculations, an additional methodological change could be attributed to Cummins' 15-year virtual power purchase agreement (VPPA) with the Meadow Lake VI wind farm if Scope 2 market-based emissions were considered here instead. The same could also be said of the figures reported to CDP for 2019, the first full year of power generation from the VPPA. Renewable energy credits (RECs) from the VPPA totaled 126,741 metric tons of CO2e in 2021. These RECs were accounted for at a zero emission factor in Cummins' 2021 Scope 2 market-based emissions.
Change in boundary		<Not Applicable >		
Change in physical operating conditions		<Not Applicable >		
Unidentified		<Not Applicable >		
Other		<Not Applicable >		

**C7.9b**

**(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?**

Location-based

**C8. Energy**

**C8.1**

**(C8.1) What percentage of your total operational spend in the reporting year was on energy?**

More than 0% but less than or equal to 5%

**C8.2**

**(C8.2) Select which energy-related activities your organization has undertaken.**

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

**C8.2a**

**(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.**

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	1191246	1191246
Consumption of purchased or acquired electricity	<Not Applicable>	284406	713328	997734
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	0	20498	20498
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	19171	<Not Applicable>	19171
Total energy consumption	<Not Applicable>	303577	1925071	2228649

**C8.2b**

**(C8.2b) Select the applications of your organization's consumption of fuel.**

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	Yes

**C8.2c**

**(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.**

**Sustainable biomass**

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

0

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

0

**Comment**

**Other biomass**

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

0

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

0

**Comment**

**Other renewable fuels (e.g. renewable hydrogen)**

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

0

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

0

**Comment**

**Coal**

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

0

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

0

**Comment**

## Oil

### Heating value

HHV

### Total fuel MWh consumed by the organization

633266

### MWh fuel consumed for self-generation of electricity

90232

### MWh fuel consumed for self-generation of heat

3222

### MWh fuel consumed for self-generation of steam

3222

### MWh fuel consumed for self-generation of cooling

<Not Applicable>

### MWh fuel consumed for self- cogeneration or self-trigeneration

0

### Comment

The totals reported for this category include the consumption of fuel oil #2, motor gasoline, diesel, and jet kerosene. The self-generation of electricity using distillate fuel oil #2 is derived from fuel consumption in on-site test cells using an efficiency of 50%. Distillate fuel oil #2 usage associated with boilers, furnaces, forklifts and similar sources is split evenly between heat and steam.

## Gas

### Heating value

HHV

### Total fuel MWh consumed by the organization

518445

### MWh fuel consumed for self-generation of electricity

19556

### MWh fuel consumed for self-generation of heat

357092

### MWh fuel consumed for self-generation of steam

0

### MWh fuel consumed for self-generation of cooling

<Not Applicable>

### MWh fuel consumed for self- cogeneration or self-trigeneration

0

### Comment

Natural gas and propane consumption are included in the totals reported for this category. The cubic feet of natural gas consumed by test cells with regenerative dynamometers is used as the basis for the self-generation of electricity. Stationary natural gas consumption reported at the facility level is counted toward the self-generation of heat. Energy generation associated with mobile sources and sold electricity is tracked separately. Heat generation from propane is derived from a set proportion of fuel consumption not associated with test cells.

## Other non-renewable fuels (e.g. non-renewable hydrogen)

### Heating value

HHV

### Total fuel MWh consumed by the organization

39534

### MWh fuel consumed for self-generation of electricity

0

### MWh fuel consumed for self-generation of heat

0

### MWh fuel consumed for self-generation of steam

0

### MWh fuel consumed for self-generation of cooling

<Not Applicable>

### MWh fuel consumed for self- cogeneration or self-trigeneration

0

### Comment

Hydrogen used as fuel at Cummins facilities is the sole contributor to this category.

**Total fuel****Heating value**

HHV

**Total fuel MWh consumed by the organization**

1191246

**MWh fuel consumed for self-generation of electricity**

109787

**MWh fuel consumed for self-generation of heat**

360313

**MWh fuel consumed for self-generation of steam**

3222

**MWh fuel consumed for self-generation of cooling**

&lt;Not Applicable&gt;

**MWh fuel consumed for self- cogeneration or self-trigeneration**

0

**Comment****C8.2d****(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.**

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	109787	109787	21692	19171
Heat	360313	360313	0	0
Steam	3222	3222	0	0
Cooling	0	0	0	0

**C8.2e****(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in C6.3.****Sourcing method**

Direct procurement from an off-site grid- connected generator e.g. Power purchase agreement (PPA)

**Energy carrier**

Electricity

**Low-carbon technology type**

Wind

**Country/area of low-carbon energy consumption**

United States of America

**Tracking instrument used**

US-REC

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

284406

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

United States of America

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2018

**Comment**

Cummins retained renewable energy certificates (RECs) through a virtual power purchase agreement (VPPA) with the Meadow Lake VI wind farm in northern Indiana. The recent expansion of the wind farm was made possible through Cummins' 15-year VPPA for 75 MW capacity signed in 2017. The VPPA provided a hedge against energy prices, as a slight price settlement loss was offset by reduced utility costs at the company's Indiana plants. Cummins accounted for the RECs in its Scope 2 market-based emissions by applying them to electricity purchased from the utility grid at its facilities.

**C8.2g****(C8.2g) Provide a breakdown of your non-fuel energy consumption by country.****Country/area**

Angola

**Consumption of electricity (MWh)**

6000

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

6000

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Argentina

**Consumption of electricity (MWh)**

188912

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

188912

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Australia

**Consumption of electricity (MWh)**

6668536

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

6668536

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Belgium

**Consumption of electricity (MWh)**

3132395

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

3132395

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Bolivia (Plurinational State of)

**Consumption of electricity (MWh)**

32930

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

32930

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Botswana

**Consumption of electricity (MWh)**

16375

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

16375

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Brazil



**Consumption of electricity (MWh)**

26302138

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

26302138

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Canada

**Consumption of electricity (MWh)**

10649702

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

10649702

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

China

**Consumption of electricity (MWh)**

250387

**Consumption of heat, steam, and cooling (MWh)**

283

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

250670

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Colombia

**Consumption of electricity (MWh)**

191

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

191

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Costa Rica

**Consumption of electricity (MWh)**

57

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

57

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Czechia

**Consumption of electricity (MWh)**

15

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

15

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

France

**Consumption of electricity (MWh)**

3965

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

3965

**Is this consumption excluded from your RE100 commitment?**

&lt;Not Applicable&gt;

**Country/area**

Germany

**Consumption of electricity (MWh)**

2988

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

2988

**Is this consumption excluded from your RE100 commitment?**

&lt;Not Applicable&gt;

**Country/area**

Ghana

**Consumption of electricity (MWh)**

221

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

221

**Is this consumption excluded from your RE100 commitment?**

&lt;Not Applicable&gt;

**Country/area**

Honduras

**Consumption of electricity (MWh)**

166

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

166

**Is this consumption excluded from your RE100 commitment?**

&lt;Not Applicable&gt;

**Country/area**

India

**Consumption of electricity (MWh)**

120774

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

120774

**Is this consumption excluded from your RE100 commitment?**

&lt;Not Applicable&gt;

**Country/area**

Ireland

**Consumption of electricity (MWh)**

45

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

45

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Italy

**Consumption of electricity (MWh)**

59

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

59

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Japan

**Consumption of electricity (MWh)**

170

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

170

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Kazakhstan

**Consumption of electricity (MWh)**

155

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

155

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Malaysia

**Consumption of electricity (MWh)**

342

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

342

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Mexico

**Consumption of electricity (MWh)**

48352

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

48352

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Mongolia

**Consumption of electricity (MWh)**

301

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

---

**Country/area**

Morocco

**Consumption of electricity (MWh)**

15

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

15

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

---

**Country/area**

Mozambique

**Consumption of electricity (MWh)**

4

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

4

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

---

**Country/area**

Netherlands

**Consumption of electricity (MWh)**

115

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

115

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

---

**Country/area**

New Zealand

**Consumption of electricity (MWh)**

372

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

372

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

---

**Country/area**

Nigeria

**Consumption of electricity (MWh)**

1178

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

1178

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

---

**Country/area**

Norway

**Consumption of electricity (MWh)**

263

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

263

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Panama

**Consumption of electricity (MWh)**

94

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

94

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Papua New Guinea

**Consumption of electricity (MWh)**

107

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

107

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Philippines

**Consumption of electricity (MWh)**

96

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

96

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Poland

**Consumption of electricity (MWh)**

78

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

78

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Romania

**Consumption of electricity (MWh)**

7556

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

7556

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Russian Federation

**Consumption of electricity (MWh)**

3161

**Consumption of heat, steam, and cooling (MWh)**

296

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

3457

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Saudi Arabia

**Consumption of electricity (MWh)**

202

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

202

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Serbia

**Consumption of electricity (MWh)**

99

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

99

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Singapore

**Consumption of electricity (MWh)**

1531

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

1531

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

South Africa

**Consumption of electricity (MWh)**

2834

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

2834

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Republic of Korea

**Consumption of electricity (MWh)**

10506

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

10506

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

---

Spain

**Consumption of electricity (MWh)**

93

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

93

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Turkey

**Consumption of electricity (MWh)**

269

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

269

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

United Arab Emirates

**Consumption of electricity (MWh)**

2678

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

2678

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

United Kingdom of Great Britain and Northern Ireland

**Consumption of electricity (MWh)**

43868

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

43868

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

United States of America

**Consumption of electricity (MWh)**

510442

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

510442

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

---

**Country/area**

Zambia

**Consumption of electricity (MWh)**

53

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

53

**Is this consumption excluded from your RE100 commitment?**

<Not Applicable>

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## C-TO8.5

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**(C-TO8.5) Provide any efficiency metrics that are appropriate for your organization's transport products and/or services.**

**Activity**

Light Duty Vehicles (LDV)

**Metric figure**

**Metric numerator**

tCO<sub>2</sub>e

**Metric denominator**

Please select

**Metric numerator: Unit total**

**Metric denominator: Unit total**

**% change from previous year**

**Please explain**

---

## C9. Additional metrics

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### C9.1

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

**Description**

Waste

**Metric value**

9.6

**Metric numerator**

Grams

**Metric denominator (intensity metric only)**

Net sales adjusted to 2018 USD

**% change from previous year**

0.17

**Direction of change**

Decreased

**Please explain**

Cummins committed to generating 25% less waste in its facilities and operations as a percent of revenue by 2030. This target is one of the nine goals the company set in its PLANET 2050 environmental sustainability strategy.

---

## C-TO9.3/C-TS9.3

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**(C-TO9.3/C-TS9.3) Provide tracking metrics for the implementation of low-carbon transport technology over the reporting year.**

**Activity**

Heavy Duty Vehicles (HDV)

**Metric**

Sales

**Technology**

Other, please specify (Hydrogen production solutions as well as electrified power systems ranging from fully electric to hybrid along with innovative components and subsystems, including battery and fuel cell technologies. )

**Metric figure**

1

**Metric unit**

% of total sales

**Explanation**

As disclosed in our 10K, total sales for New Power in 2021 were \$116 million, less than one percent. However, New Power segment sales increased 61 percent over 2020 principally due to increased sales in North America.

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(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	Cummins' New Power segment includes battery-electric and fuel cell electric products as well as products used in renewable hydrogen production and potentially other new power initiatives. In 2019, Cummins acquired Hydrogenics, a fuel cell and hydrogen production technologies company, which is now included in the segment. Cummins spent \$1.1 billion on research, development and engineering expenses in 2021, up from \$906 million in 2020. In 2021 Cummins announced a number of initiatives aligned to Destination Zero accelerating development of internal combustion engines fueled by low-carbon hydrogen for commercial-industrial markets and launching a new near-zero emission natural gas engine for heavy-duty trucks. The company also opened a fuel cell systems production facility in Herten, Germany, and announced plans to build one of the world's largest electrolyzer manufacturing plants in Spain, scalable to 1 gigawatt per year. In addition, Cummins unveiled a joint venture to produce green hydrogen in China. The company announced in November 2021 it had entered into an agreement with Sion Power Corporation, a leading developer of high-energy rechargeable battery technology, to design and supply battery cells based on Sion's proprietary lithium metal technology for commercial vehicle applications. Cummins also made an investment in Sion, providing it with a minority stake in that company. Cummins has now deployed more than 600 electrolyzers, including the world's largest PEM electrolyzer in Bécancour, Canada. The company has produced more than 6,200 battery modules and packs as part of its work on battery-electric technologies and 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.

C-TO9.6a/C-TS9.6a

(C-TO9.6a/C-TS9.6a) Provide details of your organization's investments in low-carbon R&D for transport-related activities over the last three years.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

Cummins\_2022 GHG Assurance Statement.pdf

**Page/ section reference**

Apex Companies, LLC (Apex) conducted an independent verification of global greenhouse gas (GHG) emissions from sources within Cummins' operational control. Limited assurance was provided on the basis of the ISO 14064-3 reference standard and criteria from the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD). Scope 1 emission data is presented on page 1.

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

C10.1b

**(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.**

**Scope 2 approach**

Scope 2 location-based

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

Cummins\_2022 GHG Assurance Statement.pdf

**Page/ section reference**

Apex Companies, LLC (Apex) conducted an independent verification of global greenhouse gas (GHG) emissions from sources within Cummins' operational control. Limited assurance was provided on the basis of the ISO 14064-3 reference standard and criteria from the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD). Scope 2 location-based emission data is presented on page 1.

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

---

**Scope 2 approach**

Scope 2 market-based

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

Cummins\_2022 GHG Assurance Statement.pdf

**Page/ section reference**

Apex Companies, LLC (Apex) conducted an independent verification of global greenhouse gas (GHG) emissions from sources within Cummins' operational control. Limited assurance was provided on the basis of the ISO 14064-3 reference standard and criteria from the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD). Scope 2 market-based emission data is presented on page 1.

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

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**C10.1c**

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**(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.**

**Scope 3 category**

- Scope 3: Purchased goods and services
- Scope 3: Capital goods
- Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)
- Scope 3: Upstream transportation and distribution
- Scope 3: Waste generated in operations
- Scope 3: Business travel
- Scope 3: Employee commuting
- Scope 3: Upstream leased assets
- Scope 3: Investments
- Scope 3: Downstream transportation and distribution
- Scope 3: Processing of sold products
- Scope 3: Use of sold products
- Scope 3: End-of-life treatment of sold products
- Scope 3: Downstream leased assets

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

Cummins\_2022 GHG Assurance Statement.pdf

**Page/section reference**

Apex Companies, LLC (Apex) conducted an independent verification of global greenhouse gas (GHG) emissions from sources within Cummins' operational control. Limited assurance was provided on the basis of the ISO 14064-3 reference standard and criteria from the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD). Scope 3 emissions data is presented on pages 1 and 2 of the assurance statement.

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

**C10.2**

**(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?**

Yes

**C10.2a**

**(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?**

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C9. Additional metrics	Other, please specify (Quantity of Waste Generated)	Limited assurance was provided on the basis of the International Standard on Assurance Engagements (ISAE) 3000 Revised, Assurance Engagements Other than Audits or Reviews of Historical Financial Information (effective for assurance reports dated on or after Dec. 15, 2015), issued by the International Auditing and Assurance Standards Board.	Apex Companies, LLC (Apex) conducted an independent verification of waste data reported for facilities within Cummins' operational control. The determination and fair presentation of the waste quantities was the responsibility of Cummins. Apex's sole responsibility was to independently verify the accuracy of the waste quantities reported and the underlying systems and processes used to collect, analyze and review the information.

Cummins\_2022  
Waste  
Assurance  
Statement.pdf

**C11. Carbon pricing**

**C11.1**

**(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?**

No, and we do not anticipate being regulated in the next three years

## C11.2

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**(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?**

No

## C11.3

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**(C11.3) Does your organization use an internal price on carbon?**

Yes

### C11.3a

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**(C11.3a) Provide details of how your organization uses an internal price on carbon.**

**Objective for implementing an internal carbon price**

Change internal behavior  
Drive energy efficiency  
Drive low-carbon investment

**GHG Scope**

Scope 1  
Scope 2

**Application**

The internal carbon price is built into the Cummins financial analysis tool, which is mandatory for all energy and GHG emission projects at both the corporate and business unit level.

**Actual price(s) used (Currency /metric ton)**

15

**Variance of price(s) used**

The Cummins carbon price is applied for all projects, except where local carbon taxes exceed the corporate price; in these cases, the local price is applied.

**Type of internal carbon price**

Shadow price

**Impact & implication**

The internal carbon price is built into the Cummins financial analysis tool, which is mandatory for all energy and GHG emission projects.

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## C12. Engagement

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### C12.1

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**(C12.1) Do you engage with your value chain on climate-related issues?**

Yes, our suppliers  
Yes, our customers/clients  
Yes, other partners in the value chain

### C12.1a

---

**(C12.1a) Provide details of your climate-related supplier engagement strategy.**

**Type of engagement**

Information collection (understanding supplier behavior)

**Details of engagement**

Collect climate change and carbon information at least annually from suppliers

**% of suppliers by number**

0.05

**% total procurement spend (direct and indirect)**

22

**% of supplier-related Scope 3 emissions as reported in C6.5**

22

**Rationale for the coverage of your engagement**

1. We have an annual scorecard with our top 46 strategic suppliers representing \$3.6 billion /year in spend with 8 points out of 100 for Sustainability plus diversity. The current metrics relate to CDP water disclosure and ISO140001 certification encouraging suppliers to have a sound environmental management system in place. Their points allow them to win and expand business with Cummins. 2. Future iterations of the scorecard will advance to reporting certain goals related to water, energy and waste reduction based on the suppliers opportunity levels based on type of operations they conduct.

---

**Impact of engagement, including measures of success**

The measure of success is for 80% of our suppliers to achieve all 8 points in the Sustainability category. Current achievement level is 50% of suppliers achieving these points. The ultimate impact is that suppliers are better fulfilling our expectations related to our Green Supply Chain Principles mentioned above in the Compliance section.

**Comment**

---

**Type of engagement**

Engagement & incentivization (changing supplier behavior)

**Details of engagement**

Run an engagement campaign to educate suppliers about climate change  
Climate change performance is featured in supplier awards scheme

**% of suppliers by number**

100

**% total procurement spend (direct and indirect)**

100

**% of supplier-related Scope 3 emissions as reported in C6.5**

100

**Rationale for the coverage of your engagement**

1. Engagement campaign - a 2021 goal is to share environmental best practices with our entire supply base representing 29728 suppliers and \$14 billion in annual spend via our Supplier Portal at [www.cummins.supplier.com](http://www.cummins.supplier.com). This best practices portal will share case studies of our 15 year journey in Environmental Sustainability including how we develop our own goals, how we have prioritized and developed funding options for capital projects that have helped us improve our environmental footprint including water usage and recycling improvements, energy reduction in manufacturing plants, LED lighting and solar array campaigns, PPA wind farm agreements/programs, and many facility-related improvements including improved design features for new buildings and facilities. We will share highlights of the environmental benefits, costs and savings.

**Impact of engagement, including measures of success**

The impact will be to encourage our suppliers to raise the priority of their own sustainability efforts as well as send a clear message to our supply base that environmental sustainability is a priority for Cummins and our expectations are high for our suppliers. Measure of success will be broad feedback and success stories from our suppliers based on the learning and encouragement they receive from our shared information.

**Comment**

---

**Type of engagement**

Innovation & collaboration (changing markets)

**Details of engagement**

Run a campaign to encourage innovation to reduce climate impacts on products and services

**% of suppliers by number**

1

**% total procurement spend (direct and indirect)**

1

**% of supplier-related Scope 3 emissions as reported in C6.5**

1

**Rationale for the coverage of your engagement**

In 2019-2020 we expanded our Environmental Gateway program in Purchasing which allows innovative suppliers to pitch their ideas to Cummins management in a SharkTank format to help us achieve our environmental goals, mainly focussed on facilities and operations and packaging, winners are presented by an internal/external judging panel including Sustainability experts with Indiana and Purdue University etc, The top 10 ideas are considered for trials at Cummins plants to confirm the viability / impact of the ideas/products/services, and successful ideas are promoted within Cummins for broader adoption. Four ideas from the recent Gateway are in final pilot stage.

**Impact of engagement, including measures of success**

The Gateway program opens the door for diverse and innovative suppliers to introduce new technologies to Cummins outside our existing supply base to ensure we remain open to cutting edge technologies and services that will help us achieve our environmental goals. To date, our UK Gateway program has trialed and implemented four successful supplier innovations from furniture recycling to more energy efficient hand dryers in restrooms as well as energy recovery technologies from our test operations. Our US program is in the late evaluation/pilot stage with at least two new technologies that have passed initial pilot goals including Building Clarity which uses artificial intelligence technology to assess broad building performance data to identify energy and water usage savings. At an analysis cost of \$120,000, the resulting improvements involves a hybrid water filtration system to help us reach our water re-use goals at a major manufacturing plant. This success saves 15 million gallons of water annually from being deposited in the sewer from the plant saving \$840,000 year in water cost.

**Comment**

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C12.1b

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**(C12.1b) Give details of your climate-related engagement strategy with your customers.**

**Type of engagement & Details of engagement**

Collaboration & innovation	Run a campaign to encourage innovation to reduce climate change impacts
----------------------------	---

**% of customers by number**

20

**% of customer - related Scope 3 emissions as reported in C6.5**

5

**Please explain the rationale for selecting this group of customers and scope of engagement**

Greenhouse gas (GHG) emissions from Cummins products in use are the company's largest environmental impact and represent an estimated 99 percent of Cummins' GHG footprint due to fossil fuel use. Cummins' biggest opportunity to expand its product stewardship beyond the upfront design of its products is in working with customers to improve the efficiency of the company's products in use. One of Cummins' sustainability plan goals is to partner with its customers to improve the fuel efficiency of the company's products in use, and by extension reduce carbon dioxide (CO2).

**Impact of engagement, including measures of success**

Cummins fuel teams throughout the world implemented many new products in use projects in 2021, bringing the total number of initiatives with customers since 2014 to more than 700. The company surpassed its 2020 goal of achieving an annual run rate reduction of 3.5 million metric tons of CO2. The 2020 rate was 4.9 million metric tons. Performance in 2021 built on global momentum global as fuel economy teams have been building functional capability via fuel economy forums, training and tools. Customer savings in dollars from products in use fuel economy projects since environmental sustainability goals were established in 2014 have totaled \$9 billion. Projects with customers also saved 3 billion gallons of fuel and avoided 27 million metric tons of CO2.

**C12.1d**

**(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.**

Cummins believes in partnering with others to achieve innovation in its products. We partner with many academic institutions, nongovernmental organization and government entities on new product technology and policy advocacy. Some current examples of partnership with the U.S. Department of Energy are 1) the SuperTruck II program with Peterbilt and Eaton to demonstrate advanced engine, drivetrain, and vehicle technologies for Class 8 line-haul trucks and 2) a Cummins Reversible-Solid Oxide Fuel Cell (SOFC) System Development Project; 3) Cummins PEM Fuel Cell System for Heavy-Duty Applications. A list of such projects is found on page 68 of the 2021 Sustainability Progress Report.

**C12.2**

**(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?**

Yes, suppliers have to meet climate-related requirements, but they are not included in our supplier contracts

**C12.2a**

**(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.**

**Climate-related requirement**

Complying with regulatory requirements

**Description of this climate related requirement**

This content is found on page 12 of our Supplier Code of Conduct [https://public.cummins.com/sites/CSP/SiteCollectionDocuments/Supplier%20Code%20of%20Conduct/Supplier\\_Code\\_of\\_Conduct.pdf](https://public.cummins.com/sites/CSP/SiteCollectionDocuments/Supplier%20Code%20of%20Conduct/Supplier_Code_of_Conduct.pdf) Protect the environment and conserve natural resources. As our global reach grows, so does our responsibility to ensure our actions around the world reflect a commitment to the environment . We expect Cummins suppliers and their subcontractors to comply with all applicable environmental laws, regulations and standards .It is important that suppliers manage compliance, minimize environmental impact and drive continual improvement of environmental compliance . Suppliers must maintain documentation to be able to respond to requests for informayion including but not limited to resource consumption, emissions, compliance, environmental risks and liabilities and other environmental sustainability metrics .Suppliers should have procedures for notifying community authorities in case of an accidental discharge or release of hazardous materials into the environment, or in case of any other environmental emergency. . Suppliers should implement an audit program for compliance to applicable environmental regulations and standards, including a means to ensure corrective actions and avoidance of recurrence

**% suppliers by procurement spend that have to comply with this climate-related requirement**

100

**% suppliers by procurement spend in compliance with this climate-related requirement**

100

**Mechanisms for monitoring compliance with this climate-related requirement**

Supplier scorecard or rating

**Response to supplier non-compliance with this climate-related requirement**

Retain and engage

**C12.3**

**(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?**

**Row 1**

**Direct or indirect engagement that could influence policy, law, or regulation that may impact the climate**

Yes, we engage directly with policy makers

Yes, we engage indirectly through trade associations

**Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?**

Yes

**Attach commitment or position statement(s)**

Climate change policy position.docx

**Describe the process(es) your organization has in place to ensure that your engagement activities are consistent with your overall climate change strategy**

The Company has several groups and processes in place to ensure that our advocacy is consistent with our environmental and climate strategies. A Cummins team called Technical & Environmental Strategic Planning exists to analyze major environmental strategic opportunities and risks that affect the company globally; direct work with internal and external stakeholders to shape stances and positions on environmental affairs that impacts Cummins; and coordinate efforts across complex environmental issues to ensure consistency and adherence to our environmental and climate strategies across all activities including public policy advocacy. This team uses robust processes and guiding principles to direct Cummins' environmental policy actions. Whether the policy we are influencing is a regulation that focuses on reducing criteria pollutants, greenhouse gas emissions (GHG) or improving fuel efficiency, Cummins' policy principles ensure that we always advocate for tough, clear, and enforceable policy. These principles and our environmental mission apply to all direct and indirect activities including external relations, partnerships, and advocacy.

**Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate**

<Not Applicable>

**Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate**

<Not Applicable>

**C12.3a**

---

**(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?**

**Focus of policy, law, or regulation that may impact the climate**

Adaptation and/or resilience to climate change

**Specify the policy, law, or regulation on which your organization is engaging with policy makers**

Securing America's Clean Fuels Infrastructure Act- S.975 (This bill extends the tax credit for alternative fuel vehicle refuelling property through 2029. It also increases the allowable amount of such credit from \$30,000 to \$200,000 for any single item of refuelling property.) Build Back Better Act- H.R. 5376 (energy-efficiency projects, electric vehicles and zero-emission, heavy-duty vehicles;) Clean Hydrogen Energy Innovation Act- H.R. 1788 (this bill expands the types of hydrogen projects that are eligible for loan guarantees from the Department of Energy.)

**Policy, law, or regulation geographic coverage**

National

**Country/region the policy, law, or regulation applies to**

United States of America

**Your organization's position on the policy, law, or regulation**

Support with minor exceptions

**Description of engagement with policy makers**

Met with Members of Congress to discuss how this can benefit Cummins and our customers. We also have engaged with the Administration including the President to show our support for the legislation.

**Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation**

not applicable

**Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?**

Yes, we have evaluated, and it is aligned

---

**Focus of policy, law, or regulation that may impact the climate**

Carbon tax

**Specify the policy, law, or regulation on which your organization is engaging with policy makers**

Cummins is in support of market mechanisms to make it more expensive to generate things we don't want and less expensive to generate things we do want – that means some kind of price on carbon. Right now, carbon is roughly free to produce. Without a market mechanism, the regulatory framework we need to get all the way there is so complex and so long from here that Cummins fears it will be too late.

**Policy, law, or regulation geographic coverage**

Global

**Country/region the policy, law, or regulation applies to**

<Not Applicable>

**Your organization's position on the policy, law, or regulation**

Support with no exceptions

**Description of engagement with policy makers**

Met with Members of Congress to discuss how this can benefit Cummins and our customers. We also have engaged with the Administration including the President to show our support for the legislation.

**Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation**

<Not Applicable>

**Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?**

Yes, we have evaluated, and it is aligned

---

**Focus of policy, law, or regulation that may impact the climate**

Climate-related targets

**Specify the policy, law, or regulation on which your organization is engaging with policy makers**

CLEAN Future Act- H.R. 1512. This bill creates requirements and incentives to reduce emissions of greenhouse gases. The bill establishes an interim goal to reduce greenhouse gas emissions to at least 50% below 2005 levels by 2030 as well as a national goal to achieve net-zero greenhouse gas emissions by 2050. Each federal agency must develop a plan to achieve the goals.

**Policy, law, or regulation geographic coverage**

National

**Country/region the policy, law, or regulation applies to**

United States of America

**Your organization's position on the policy, law, or regulation**

Support with minor exceptions

**Description of engagement with policy makers**

Met with Members of Congress to discuss how this can benefit Cummins and our customers. We also have engaged with the Administration including the President to show our support for the legislation.

**Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation**

not applicable

**Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?**

Yes, we have evaluated, and it is aligned

---

**Focus of policy, law, or regulation that may impact the climate**

Subsidies for renewable energy projects

**Specify the policy, law, or regulation on which your organization is engaging with policy makers**

GREEN Act of 2021. This bill provides tax incentives for investment in renewable energy resources and energy efficiency programs. Includes among other provisions extends for five years the tax credit for production of electricity from certain renewable resources

**Policy, law, or regulation geographic coverage**

National

**Country/region the policy, law, or regulation applies to**

United States of America

**Your organization's position on the policy, law, or regulation**

Support with no exceptions

**Description of engagement with policy makers**

Met with Members of Congress to discuss how this can benefit Cummins and our customers. We also have engaged with the Administration including the President to show our support for the legislation.

**Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation**

<Not Applicable>

**Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?**

Yes, we have evaluated, and it is aligned

---

**Focus of policy, law, or regulation that may impact the climate**

Electricity grid access for renewables

**Specify the policy, law, or regulation on which your organization is engaging with policy makers**

Clean Energy for America Act- S. 1298. This bill provides tax incentives for investment in clean electricity, clean transportation, clean fuel production, energy efficiency, and sets forth workforce development requirements for the energy sector.

**Policy, law, or regulation geographic coverage**

National

**Country/region the policy, law, or regulation applies to**

United States of America

**Your organization's position on the policy, law, or regulation**

Support with minor exceptions

**Description of engagement with policy makers**

Met with Members of Congress to discuss how this can benefit Cummins and our customers. We also have engaged with the Administration including the President to show our support for the legislation.

**Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation**

not applicable

**Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?**

Yes, we have evaluated, and it is aligned

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**Focus of policy, law, or regulation that may impact the climate**

Renewable energy generation

**Specify the policy, law, or regulation on which your organization is engaging with policy makers**

GREEN Act of 2021. This bill provides tax incentives for investment in renewable energy resources and energy efficiency programs. Includes among other provisions extends for five years the tax credit for production of electricity from certain renewable resources.



**Policy, law, or regulation geographic coverage**

National

**Country/region the policy, law, or regulation applies to**

United States of America

**Your organization's position on the policy, law, or regulation**

Support with minor exceptions

**Description of engagement with policy makers**

Met with Members of Congress to discuss how this can benefit Cummins and our customers. We also have engaged with the Administration including the President to show our support for the legislation.

**Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation**

not applicable

**Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?**

Yes, we have evaluated, and it is aligned

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**C12.3b**

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**(C12.3b) Provide details of the trade associations your organization engages with which are likely to take a position on any policy, law or regulation that may impact the climate.**

**Trade association**

National Association of Manufacturers

**Is your organization's position on climate change consistent with theirs?**

Consistent

**Has your organization influenced, or is your organization attempting to influence their position?**

We have already influenced them to change their position

**State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)**

NAM supports the goals of the Paris Climate Agreement and supports a market based mechanism to internalize the social cost of carbon. Cummins works actively in NAM to encourage it to be supportive of fuel economy in vehicles and of industrial energy efficiency programs in our sector. The company is encouraging the organization to work more collaboratively with the EPA.

**Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)**

32803.6

**Describe the aim of your organization's funding**

To support NAM as an effective resource and influential advocate for for manufacturers across the country.

**Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?**

Yes, we have evaluated, and it is aligned

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**Trade association**

US Chamber of Commerce

**Is your organization's position on climate change consistent with theirs?**

Mixed

**Has your organization influenced, or is your organization attempting to influence their position?**

We are attempting to influence them to change their position

**State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)**

The Chamber of Commerce supports the goals and US participation in the Paris Climate Agreement. Cummins works actively with the US Chamber to encourage them to be supportive of policies that address climate change.

**Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)**

10000

**Describe the aim of your organization's funding**

**Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?**

Yes, we have evaluated, and it is aligned

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**Trade association**

Business Roundtable

**Is your organization's position on climate change consistent with theirs?**

Consistent

**Has your organization influenced, or is your organization attempting to influence their position?**

We have already influenced them to change their position

**State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)**

BRT supports the goals of the Paris Climate Agreement and supports a market based mechanism to internalize the social cost of carbon. Cummins has been a voice for climate change action in the BRT for more than a decade.

**Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)**

75000

**Describe the aim of your organization's funding**

Cummins supports the Business Roundtable's mission to promote a a thriving U.S. economy and expanded opportunities for all Americans through sound public policies.

**Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?**

Yes, we have evaluated, and it is aligned

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**Trade association**

Other, please specify (The Engine Manufacturers Association)

**Is your organization's position on climate change consistent with theirs?**

Consistent

**Has your organization influenced, or is your organization attempting to influence their position?**

We have already influenced them to change their position

**State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)**

EMA supports effective rulemaking to promote the most advanced technologies, and significant funding to promote alternative fuel infrastructure, research, development and deployment. Cummins works actively in the EMA to encourage it to be supportive of engine efficiency and of energy efficiency programs in our sector.

**Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)**

4722.96

**Describe the aim of your organization's funding**

Cummins supports the EMA's push for advanced technologies, and significant funding to promote alternative fuel infrastructure, research, development and deployment

**Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?**

Yes, we have evaluated, and it is aligned

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**Trade association**

Other, please specify (The American Trucking Association)

**Is your organization's position on climate change consistent with theirs?**

Consistent

**Has your organization influenced, or is your organization attempting to influence their position?**

We have already influenced them to change their position

**State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)**

Cummins works with ATA to encourage regulatory and legislative programs to reduce CO2 and NOx emissions from trucks. Cummins works actively in the ATA to encourage it to be supportive of fuel economy in vehicles and of energy efficiency programs in our sector

**Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)**

14815.92

**Describe the aim of your organization's funding**

Cummins supports in the ATA in its work to be supportive of fuel economy in vehicles and of energy efficiency programs in our sector.

**Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?**

Yes, we have evaluated, and it is aligned

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C12.4

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(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

**Publication**

In voluntary sustainability report

**Status**

Complete

**Attach the document**

2021-sustainability-progress-report-07252022.pdf

**Page/Section reference**

19-33,55, 62-68

**Content elements**

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Other metrics

**Comment**

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**Publication**

In mainstream reports, incorporating the TCFD recommendations

**Status**

Complete

**Attach the document**

cummins-tcf-d-report-05-19-2021.pdf

**Page/Section reference**

all pages

**Content elements**

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

**Comment**

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**Publication**

In mainstream reports

**Status**

Complete

**Attach the document**

2021 Annual Report on Form 10-K.pdf

**Page/Section reference**

12-14, 18-25

**Content elements**

Governance

Strategy

Risks & opportunities

Emission targets

**Comment**

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**Publication**

In other regulatory filings

**Status**

Complete

**Attach the document**

2022 Proxy Statement.pdf

**Page/Section reference**

4,7,9,10,14

**Content elements**

Governance

**Comment**

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C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	Please select	<Not Applicable>	<Not Applicable>

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	Please select	<Not Applicable>	<Not Applicable>

C15.3

(C15.3) Does your organization assess the impact of its value chain on biodiversity?

	Does your organization assess the impact of its value chain on biodiversity?	Portfolio
Row 1	Please select	<Not Applicable>

C15.4

(C15.4) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity-related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Land/water protection Land/water management Education & awareness

C15.5

(C15.5) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No, we do not use indicators, but plan to within the next two years	State and benefit indicators Response indicators

C15.6

(C15.6) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
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C16. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C16.1

**(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.**

	Job title	Corresponding job category
Row 1	Global Environmental Relations Director	Environment/Sustainability manager

SC. Supply chain module

SC0.0

**(SC0.0) If you would like to do so, please provide a separate introduction to this module.**

SC0.1

**(SC0.1) What is your company’s annual revenue for the stated reporting period?**

	Annual Revenue
Row 1	

SC1.1

**(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.**

SC1.2

**(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).**

SC1.3

**(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?**

Allocation challenges	Please explain what would help you overcome these challenges
Customer base is too large and diverse to accurately track emissions to the customer level	Customer base is too large and diverse to accurately track emissions to the customer level. Cummins and its joint venture partners sell more than one million engines per year. While our GHG model is sophisticated, it must make assumptions about the in use mileage and application of each engine it sells. What could help overcome challenges would be a device on the engine that would report fuel burned to both the user and the manufacturer.

SC1.4

**(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?**

Yes

SC1.4a

**(SC1.4a) Describe how you plan to develop your capabilities.**

Cummins is using the convergence of telecommunications and information technology to provide customers the information they need to work more efficiently, increasing uptime and decreasing costly downtime.

In recognition of the increasing importance of working across stakeholders, the Cummins environmental sustainability team in 2021 is also establishing a system that would better facilitate working collaboratively and proactively with customers on collective sustainability goals. This framework will leverage cross-business insights and commitments to align and build the right processes, data, tools, training and more to forge even stronger partnerships.

Part of this framework will include processes for allocating scopes 1, 2 and 3 emissions to customers.

SC2.1

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(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

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(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

SC4.1

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(SC4.1) Are you providing product level data for your organization's goods or services?

Submit your response

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In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms