Eaton Corporation - Climate Change 2020

C0. Introduction

C0.1

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

Eaton's vision is to improve the quality of life and the environment through the use of our power management technologies and services. And we live this vision by being active stewards of our environment. We believe we have the power to make a difference – and we're doing just that throughout the world. Every day, Eaton people are developing solutions that drive sustainable growth by efficiently using and conserving our natural resources, developing energy-efficient products and protecting the health and safety of our employees and communities.

We take our stewardship of the environment seriously and are focused on advancing our five-part sustainability strategy through: 1) employee engagement and development; 2) sustainable products; 3) reducing our environmental footprint; 4) doing business right; and 5) transparency in reporting progress toward our goals.

Our businesses are aligned with important secular trends that advance sustainability: digitization and connectivity, electrification, and energy transition. We provide the world with highly engineered products and solutions to help customers manage power more reliably, efficiently, safely and sustainably. We are also a company committed to encouraging every employee to see the positive impact we can have on the world — and to do more. Our portfolio of sustainable products performs across broad criteria for sustainability, including reduced environmental impact, increased use-phase efficiency, safety and reliability while also helping to advance Sustainable Development Goals set by the United Nations.

We engage our employees in all aspects of our approach to sustainability, from design and manufacturing to community outreach, and more. More than 10,000 employees participate in Eaton's annual World Environment Month program to raise awareness and help reduce our environmental footprint. These efforts continue throughout the year and capture the spirit of Eaton's promise to improve the environment.

We have recently announced our commitment to achieve science-based greenhouse gas reduction targets by 2030 to do our part to limit climate change to 1.5 degrees Celsius and we are aiming for carbon neutral operations by 2030. Over the next five years, we are accelerating the transition to a renewable energy economy with investments in research and development, an expanded product portfolio, and measures to reduce the impact of our own operations as we drive the movement to a more circular economy.

C0.2

(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 2019	December 31 2019	Yes	3 years

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.
Argentina
Australia
Austria
Belgium
Brazil
Canada
Chile
China
Colombia
Costa Rica
Czechia
Denmark
Dominican Republic
Finland
France
Germany
Hungary
India
Indonesia
Italy
Japan
Malaysia
Mexico
Morocco
Netherlands
Norway
Philippines
Poland
Puerto Rico
Republic of Korea
Romania
Saudi Arabia
Serbia
Singapore
South Africa
Spain
Taiwan, Greater China
Thailand
Turkey
United Arab Emirates
United Kingdom of Great Britain and Northern Ireland
United States of America

C0.4

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

C0.5

(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

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
Board-level committee	The Board of Directors member who chairs the Governance Committee is responsible for environmental issues, including climate change issues. The governance committee was given the responsibility for climate related issues because of its experience in managing all company environmental issues that needed Board review. As part of its governance responsibilities, this committee's oversight includes significant public policy issues with respect to our relationships with shareholders, employees, customers, competitors, suppliers and the communities in which we operate, including such areas as ethics, compliance, environmental (including climate change), and health and safety issues. An example of a climate-related decision made by this group is Eaton's commitment to achieve its Science Based Targets and subsequently approved Science based Target Initiative (SBTi) application.

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 – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives 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>	Governance mechanism: Reviewing and guiding risk management policies: Under the direct supervision of the Board of Directors, strategic, financial, operational, legal and compliance risks and opportunities are continually assessed at the company level by Eaton's Senior Leadership Committee (SLC), which is the most senior management committee within the corporation. The Executive Vice President, Eaton Business System (EBS) and Sustainability, is a member of the SLC, which meets quarterly. Risk is managed on an enterprise-wide basis using a unified risk management framework. A wide range of risks faced by the company, including climate change, are evaluated and the top risks that could materially affect the company's businesses financial condition or results of operations are typically identified each year. The SLC appoints company task forces (led by SLC members) to manage these risks, and additional risks that are not in the top risks are managed within the appropriate division of the company. Results on material risks, including climate change issues, are reported to the Board of Directors on an annual basis or more frequently depending on circumstances, and other risks are reported as scheduled. In the case of climate change, all aspects are included in the twice-yearly report-out to the Board by the EVP, EBS and Sustainability. Our risk processes address a wide array of issues associated with climate change, including but not limited to customer requirements/issues (e.g., need for energy efficient products to address climate change regulations, consumer demands, profitability); operational issues (including new climate-related regulations and voluntary actions and norms); and supply chain (including weather related disruptions influenced by climate change).

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
Other C-Suite Officer, please specify (Executive VP, Sustainability and Eaton Business System)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	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 Senior Leadership Committee (SLC) is the highest-level non-Board committee, and its members report directly to the Board of Directors on major corporate and business issues. Results on material risks, including climate change issues and other environmental topics, are reported to the Board of Directors on an annual basis or more frequently depending on circumstances. Functional leaders in partnership with the businesses develop annual risk mitigation plans that are integrated into Eaton's strategic planning and profit planning processes. Greenhouse gas, water, waste and energy reduction targets are established for long-term and annual targets. These environmental targets are approved by the CEO and Chairman. Greenhouse gas emissions, water use and waste to landfill are reported quarterly to the businesses, senior leadership and the board. Eaton continually seeks to learn from and to replicate practices that increase efficiency, incorporate renewable energy into our operations.

The Executive Vice President, Eaton Business System (EBS) and Sustainability, is a member of Eaton's Senior Leadership Committee (SLC) and is responsible for reporting climate-related and environmental issues including waste reduction, hazardous materials management, water usage and energy, on a quarterly basis to the SLC. The EVP, EBS and Sustainability also reports climate change issues in a twice-yearly report-out [AA2] to the Board. The EVP of EBS and Sustainability holds this responsibility because the position is the functional leader for environmental, health and safety which includes climate mitigation functions as well as EBS—the core operating system for the entire company. Through Eaton Business System, we have procedures for Continuous Improvement and sharing best practices across the enterprise. We align our greenhouse gas accounting methodology with the GHG Corporate Protocol to ensure our practices are aligned with global standards.

Our businesses report on environmental performance, including greenhouse gas emissions targets, to the CEO annually during Environmental Operations Reviews.

Eaton utilizes Management of Environment, Safety, Security and Health system (MESH), a globally deployed, unified system that consolidates all EHS risk and compliance programs into one integrated management system to monitor climate-related issues including implementation, targets and performance objectives. MESH has three components: Process & Compliance; Culture; and Results. Process & Compliance sets requirements in 10 EHS categories and drives regulatory compliance and voluntary action at the company's facilities. Culture relates to how well each facility demonstrates EHS engagement at all levels. The Results component focuses on achieving performance metrics, including climate related issues. Targets, objectives, priorities and performance goals are set for each component. Eaton facilities conduct self-assessments each year and undergo a corporate MESH assessment every three years. Results are reported each year to EVP, EBS and Sustainability and during Environmental Operations Reviews during which Eaton business presidents report on progress the Eaton CEO and the Board of Directors.

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	We have a variety of incentives from compensation to recognition for climate-related performance.

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 inventivized	Comment
Corporate executive team	Monetary reward	Emissions reduction project	We assess progress to goals through our APEX program. APEX enables us to evaluate each employee against established goals and conformance to company values. We leverage these APEX performance evaluations to make compensation and other financial incentive decisions for all employees and executive leaders. Meeting and exceeding our sustainability goals is essential to our overall business success. To encourage progress across our business, we provide incentives for achieving high performance. Our corporate executive team receives a monetary reward when we achieve our annual emissions reduction targets set by our CEO. Our 2019 APEX GHG target was an absolute reduction of 2.5 percent, and we exceeded this goal. We achieved an absolute reduction of 3 percent.
All employees	Non-monetary reward	Emissions reduction project	During Eaton's June 2019 celebration of World Environment Month (WEM) more than 10,000 employees from 73 sites across the globe participated in sustainability projects that reduced waste, conserved water and energy, supported community projects and much, much more. Awards are given for employee engagement, environmental footprint reduction, and handprint creation (a "handprint" results from positive contributions to the environment and our health). Handprints can be created by helping other people reduce their environmental impact, or footprint.
All employees	Non-monetary reward	Other (please specify) (Zero Waste)	Eaton focuses on reducing the impact of our waste and our Zero Waste to Landfill (ZWTL) initiatives are championed by our senior leadership. By the end of 2018, 148 of our sites had achieved ZWTL certification meaning nearly 50 percent of our manufacturing sites were diverting at least 98% of waste from landfill. And every year, a third-party verifier assesses a random, representative sample of our certified sites. In 2018, we set a target for 100 percent of our manufacturing sites to achieve ZWTL by 2030. We also committed to reducing our waste to landfill by 3 percent annually, indexed to sales. On an absolute basis, we decreased our waste generation by 3.4 percent (from 26,402 metric tons in 2017 to 25,498 in 2018), a total decrease of 904 metric tons. Since 2015, we have reduced waste sent to landfill by our operations by 24 percent. By reducing the volume of waste sent to landfills, we help minimize the release of GHG emissions. Our waste reductions in 2018 resulted in a decrease of 317 metric tons of GHG emissions (using US EPA WARM v14 emission factors and allocating tonnage based on a 2015 waste composition study). Each ZWTL facility is awarded with a plaque from the CEO, a celebration at the site, and recognition in a variety of internal communications vehicles.
All employees	Non-monetary reward	Emissions reduction project Behavior change related indicator Environmental criteria included in purchases	All employees can receive awards celebrating excellence in the workplace. We design the awards process to engage the entire workforce and aim to increase the development and transfer of best practices through employee recognition and awards. Our awards recognize practices enhancing our energy efficiency and sustainability progress. Awards highlighting sustainability achievement include our Continuous Improvement Award, Engineer of the Year and Eaton Business Excellence, among others. Eaton's E-STAR program is used to recognize employees that achieve our aspirational and financial goals or demonstrate actions and behaviors that represent our culture and values including a category for Environment and sustainability.

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	This time horizon for assessing climate-related risks and opportunities is generally aligned with other business practice time horizons.
Medium-term	4	10	This time horizon for assessing climate-related risks and opportunities is generally aligned with other business practice time horizons
Long-term	11	25	This time horizon for assessing climate-related risks and opportunities is generally aligned with other business practice time horizons

C2.1b

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

Eaton defines substantive financial or strategic impact as the following: 1) lost sales, lost profits, monetary damages or penalties is an amount greater than $5 million and/or 2) significant loss of brand reputation, and/or 3) outside monitoring and enforcement (e.g. government-appointed compliance monitoring or reporting requirements); and/or 4) the inability to achieve the company's annual goals and objectives, including potential loss of ability to operate one or more of the company's business groups.

C2.2

(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
Eaton's Enterprise Risk Management (ERM) process identifies, assesses and mitigates and the Company's "top risks." Eaton's leadership team and every business unit, region and corporate function participates in this process identifying enterprise-level risks and opportunities. Risks qualifying as "top risks" to the Company (based on Eaton's risk rating criteria) are managed under ERM through the development and execution of mitigation plans, and subject to leadership and board approval and reporting. Approximately 8-10 risks are identified and managed as ERM "top risks" each year. Climate change risk is assessed as part of this ERM process. In 2019, external climate change scenarios sources were reviewed to determine climate risks and opportunities and provided as inputs along with other emerging risks into the ERM process: 1) International Energy Agency's World Energy Outlook Sustainable Development Scenario and 2) International Energy Agency's 2DS Scenario—Clean Energy Technology Progress. Eaton assesses climate change risks in the short-term (1-3 years), medium -term (4-10 years) and long-term (11-25 years). One of the top risks identified in 2019 was Natural Disasters and Business Continuity Management. Sites that were identified as having high or moderate climate risk updated their Business Continuity Management (BCM) Plans, with particular focus on back-up power assets, creating Crisis Event Response Teams (CERT) and identifying key buildings and infrastructure, customers, suppliers, manufacturing equipment and the creation of a Disaster Recovery Plan. Final outputs were BCM Plan documents for each site that were completed, approved and published on the intranet and table top event exercises . A transitional market opportunity Eaton identified through ERM included the increasing share of electric vehicles, which was a key factor in Eaton's eMobility group being formed in 2018.

C2.2a

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

	Relevance & inclusion	Please explain

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Current regulation is always included in our risk assessments to help Eaton respond proactively through strategic planning, advocacy, partnership and product innovation. Current regulation is monitored by several functions within Eaton: Ethics and Compliance, Legal, Government Relations and Eaton's businesses. Current regulation is included in Eaton's risk assessments because our value chain is impacted by local, regional, and national regulation related to climate change. For example, in evaluating the current EPA CAFÉ standards, we identified a risk that a reduction in these standards would negatively impact our revenue. This analysis led to Eaton's endorsement of EPA's Phase I and Phase II Corporate Average Fuel Economy (CAFÉ) standards and GHG standards for automotive passenger and commercial vehicles. The Phase II CAFÉ standards mandate that vehicle fleets ultimately achieve an average of 54.5 mpg by 2025, thereby reducing fuel use and carbon emissions. However, the process identified a risk that the current White House administration will reduce these mileage standards which will lessen the impact on climate change. The decision was relevant because freezing standards would impact Eaton's Vehicle Business which represents about 15% of Eaton's annual sales, or $3.5 billion in 2018. If we sold 1-3% fewer VEH products in the USA as a result of lower CAFE standards, the amount of reduced income could be approximately $2.15 million to $6.5 million, a medium to high impact on the corporation. In 2019 Eaton performed significant advocacy work to demonstrate that we have readily available technologies to support key regulations, including CAFÉ standards. Activities included hosting the EPA at our facilities, submitting comments to federal register on the proposed regulation and working with Motor and Equipment Manufacturers Association to show the economic and environmental benefits of the standards.
Emerging regulation	Relevant, always included	Emerging regulation is always included in our risk assessments to help Eaton respond proactively through strategic planning, advocacy, partnership and product innovation. Emerging regulation is monitored by several functions within Eaton: Ethics and Compliance, Legal, Government Relations and Eaton's businesses. Environmental regulation affecting our operations is monitored by the legal team that supports the EHS function. Ethics and Compliance monitors a broad set of emerging regulation related to business practices, reporting and transparency. Eaton's Government Relations and our businesses monitor emerging regulation related to our production processes, the environmental and climate implications of our products during the use-phase and at end-of-life. For example, the emerging regulations to eliminate the use of SF6 communicated by the European Union and the State of California could impact switchgear lines which contain SF6. Our SF6-free Xiria switchgear line mitigates this risk. The electrical industry overall is now rolling out green switching alternatives to SF6 gas as the European Commission starts a wide-ranging review that could result in a decision to ban SF6 gases from MV switchgear by 2020. The Kyoto Protocol in 2007 identified SF6 as one of the most severe greenhouse gases, and subsequently, the EU banned SF6 gas for most industries and applications, such as in manufacturing of sports shoes and tennis balls. An exception was granted for high and medium voltage switchgear in 2014, but it is possible that by 2020 the European Commission will impose a complete ban on the use of SF6 gas. Eaton's Xiria switchgear was designed with Eaton's vacuum philosophy and introduced in 2002 - based on considerations of safety and environmental friendliness. Eaton's Xiria panels are used to control and protect electrical equipment operated by utilities, commercial building owners and operators of distributed renewable generation assets such as solar farms and wind turbines. Xiria is especially valued for its small footprint and because it requires minimal maintenance leading to low operation costs. In 2019, the Eaton Xiria range expanded considerably, this enabled more flexibility and has resulted in the product being even more versatile.
Technology	Relevant, always included	Technology risk is always evaluated in our climate risk analysis since we rely on having the best technology to combat climate change for our customers, end consumers, and our own operations. There is a risk of falling behind on technologies necessary to combat climate change for our customers, consumers and our own operations including solutions for digitization, Industry 4.0, electrification and grid management in general. In 2019, Eaton invested $606 million in research and development, most of which was used to develop energy efficient products that reduce emissions or power management solutions that enable electrification and grid management for the incorporation of more on and off-grid renewable energy in order to mitigate that risk. We collaborate with a robust ecosystem of partners that include academia, government agencies and research incubators. For example, in 2019 we marked one year in a unique co-location agreement with the U.S. Department of Energy's National Renewable Energy Laboratory's (NREL) Energy Systems Integration Facility in Golden, Colorado. Building on a ten-year history of collaboration, 17 Eaton employees are working side-by-side with NREL engineers to accelerate research and commercialization in areas such as microgrids, energy storage systems, and smart grids. Our embedded workforce substantially increases the scale and pace of power management innovation, on projects ranging from control strategies for managing electric bus fleets to advancements in cybersecurity. Examples of Eaton's innovative products, their function and the amount of GHG emissions that are eliminated by product use, include: The APR48-ES Energy Saver Rectifier helps communications network operators cut energy costs across the network through greater operating efficiency resulting in a reduction in carbon footprint. The Energy Saver rectifier operates with over 96% efficiency (4% waste), reducing waste energy by at least 50% compared to normal industry efficiencies of 89-92%. Protection Station 650 and 800 are combined Uninterruptible Power System (UPS), surge suppressor, and multiple socket devices with improved energy efficiency provided by an EcoControl function that automatically disables computer peripherals when the master drive is turned off. For 100,000 computers, the annual savings of 6,600,000 kWh reduces carbon emissions by 4,551 metric tons.
Legal	Relevant, always included	Legal risks are always relevant to Eaton's risk assessments because the issues surrounding our products, customers, suppliers, personnel, equipment, operating conditions and tooling are constantly evolving and require regular reviews and validations performed at every level of the enterprise. As part of Eaton's Enterprise Risk Management Process, legal risks, including risks of lawsuits and litigation are assessed on an annual basis. The results from these regular reviews are summarized and reported to the Senior Leadership Team (which reports directly to the Board of Directors) and the Corporate Risk Management (CRM) Group. Legal risks related to climate change were assessed in 2019, but were not included in the company's top risks. The Legal Team's overall responsibilities for addressing climate change include: support reviews of impact of planning for current and emerging greenhouse gas regulation; support business continuity planning/preparedness in relation to climate risks from a facility/physical protection end, from a customer and supply product end, and from an employee safety end; and key support of legal aspects of product development that saves energy and reduces carbon emissions.
Market	Relevant, always included	Eaton always includes market risk in our risk assessments because we are exposed to availability and price changes both in our manufacturing processes and in our customer demand. This market risk is particularly strong for energy since this impacts the cost of our own energy, the cost of energy-intense materials that we purchase, and the strength of our energy-efficient products with our customer. Major implications of the transition to a lower carbon economy include increased expectations for digitization, grid management and energy storage and electrification across our business sectors. For example, the market projections for electric vehicles are impacted both by raw material costs for the batteries, the power density of the technology and the cost of electricity which impacts the affordability for customers. This exposure impacts Eaton's electric vehicle charging product line. In 2019, Eaton responded to this risk by addressing the challenge of electric vehicle charging. With global EV sales expected to reach 10 million by 2025. If not properly managed, charging can significantly increase energy demand, put grids under strain and lead to local brownouts . In 2019, Eaton responded to this risk with a new charging station for electric vehicles, xChargeIn, which enables intelligent EV charging, peak shaving to avoid expensive energy periods and can optimize solar power to further use renewable energy. In addition to electric vehicles, global industrial and aerospace markets are experiencing the transition to electrification, particularly the growing demand for electrical content on aircraft. To accelerate Eaton's strategy to bring our broad electrical expertise into new markets, in 2019 we acquired Souriau-Sunbank Connection Technologies. This global leader provides customers with highly engineered electrical interconnect solutions for harsh environments in the aerospace, defense, industrial, energy, and transport industries. Half of the world's electricity will come from renewable sources by 2035. That is driving significant change in how power is managed and optimized — including the ability to produce and sell energy as well as consume it in homes, buildings and other sites. We are helping customers safely integrate more renewables, storage and electric vehicle infrastructure into their energy mix.
Reputation	Relevant, always included	Reputational risks are always considered in our risk assessments because societal understanding of and public perception about Eaton's role in addressing climate change, the growing impact of ESG and Socially Responsible investing, and climate related competition for customers and talent are all relevant risks for Eaton to address. Eaton recognizes the increasing importance of delivering efficiency products and committing to a wide range of environmentally responsible practices as well as the increased importance of voluntary reporting, disclosure and target setting. For example, Eaton recognized the reputational risk of not clearly responding to the expectations of a variety of stakeholders, not just shareholders, to address climate risk. In 2019 Eaton's CEO responded by joining 180 Business Roundtable members who made a significant new statement on the purpose of a corporation, with a shared belief that companies exist to create value not only for shareholders but also for customers, employees, suppliers and communities. The statement specifically emphasized sustainability, stating, "We respect the people in our communities and protect the environment by embracing sustainable practices across our businesses."
Acute physical	Relevant, always included	Acute physical risks are always included in our risk assessments because the safety and well-being of Eaton's employees is a critical priority. Acute physical risks relate to all aspects of our value chain. Eaton manages businesses with manufacturing facilities worldwide. and the company's manufacturing facilities and operations could be disrupted by acute physical climate risks such as changing weather patterns, rising temperatures and other natural disasters. Eaton develops risk mitigation plans for extreme weather events exacerbated by climate change through its Business Continuity Management Process (BCM). BCM is an Eaton corporate process that identifies risks and establishes mitigation & recovery plans for key building & infrastructure; equipment; manufacturing personnel; tooling; suppliers; customers; and IT to provide effective mitigation and recovery for Eaton's key assets and revenue, while maintaining competitive advantage and value system integrity. BCM takes key inputs & risks and creates mitigation and recovery strategies to direct business recovery efforts in the event of a disaster. Risk inputs are consolidated and evaluated at the corporate level in the Enterprise Risk Management assessment. BCM is tested and refreshed annually, with site and business leadership approving the plans. For example , in 2019 BCM identified climate risk sites in order to update their site-level BCM plans. These sites are undergoing backup power assessments, table top risk assessments; their mitigation plans and activities are slated to be assessed as part of Eaton Business System's Operational Assessment program in the near term. The process described above has helped Eaton to mitigate acute physical risks of climate change. For example, in 2017 Eaton's two manufacturing sites in Puerto Rico were impacted by Category 5 Hurricane Maria. Scientists determined that Hurricane María's extreme rainfall volume could be attributed to climate change. The hurricane resulted in a significant impact to Eaton including approximately $1,000,000 of lost production each day operations were ceased, and more than 1,000 employees were impacted. Total negative impact is estimated to be more than $40,000,000. To mitigate future impact, Eaton is in the process of exploring on-site solar/storage and micro-grid technology for more resilience to extreme weather events and power grid outages.
Chronic physical	Relevant, always included	Eaton conducts strategic planning and risk analysis at all of its facilities and associated businesses. One of the factors considered involves potential environmental impacts to the business, both short-term and long-term. Chronic physical risks such as more frequent and sustained high heat days and sea level rise, are reviewed. One of the outcomes of these meetings is the development of local response plans designed to address catastrophic occurrences. Voluntary projects to reduce carbon emissions are also assessed, along with mandatory projects for environmental regulation. For example, after Germany had some of the highest levels of rainwater in 50 years, our facility in Gummersbach experienced severe flash flooding in 2019. The flood caused operations to shut down for three days and presented potential safety issues. Following recommendations from the Oberberg Environment Council, we invested over €120,000 to build two new filter systems, which now provide a safer response to extreme weather events and will prevent large volumes of water from penetrating the Gummersbach facility. The new systems help both our facility and the environment by directing water flow into a canal.

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

Acute physical	Increased severity and frequency of extreme weather events such as cyclones and floods

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
The physical risks of increased storm and hurricane/typhoon activity, as well as flooding and droughts, may place a temporary financial burden on Eaton facilities and supply chain to sustain operations and protect our employees and communities. Eaton's Business Continuity Management (BCM) Program focuses on protecting our employees and assets and establishing mitigation and recovery strategies for crisis events, including climate change threats. Given that conditions surrounding our products, customers, suppliers, personnel, equipment, operating conditions and tooling are constantly evolving, regular reviews and validations are performed at every level of the enterprise to ensure a constant state of readiness when the need/event arise. Part of this effort includes examination at the site level to ensure that facilities' plans are up to date. The results from these regular reviews are summarized and reported to the Senior Leadership Team (which reports directly to the Board of Directors) and the Corporate Risk Management (CRM) Group. For example, a series of blizzards in the southeast US recently shut down transportation lines at Eaton's Roanoke, VA warehouse facility. Because of the work of the BCM Committee, the facility was prepared for the incident, and the BCM helped with Legal, Customer, Shipping and Receiving and other issues. As a result, the facility was able to complete orders during three days of harsh weather. Without BCM planning and teamwork, the company was facing a possible loss of about $3 million in shipping orders over 3 days.

Time horizon
Short-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)
3000000

Potential financial impact figure – maximum (currency)
33000000

Explanation of financial impact figure
The physical risks of increased storm and hurricane/typhoon activity, as well as flooding and droughts, may place a temporary financial burden on Eaton facilities and supply chain to sustain operations and protect our employees and communities. For example, a series of blizzards in the southeast US shut down transportation lines at Eaton's Roanoke VA warehouse facility. About $1 million in orders per day needed to be processed. The facility was prepared for the incident due to pre-planning through Eaton's global Business Continuity Management (BCM) program. As a result, the facility was able to complete orders during three days of harsh weather. Without BCM planning, the company faced a possible loss of about $3 million in shipping orders over 3 days. If all 11 climate high risk sites were similarly affected, the financial impact to Eaton could be $33,000,000.

Cost of response to risk
3000000

Description of response and explanation of cost calculation
Eaton's Business Continuity Management (BCM) Program was developed to focus on protecting our employees and assets and establishing mitigation and recovery strategies for crisis events, including climate change threats. Given that conditions surrounding our products, customers, suppliers, personnel, equipment, operating conditions and tooling are constantly evolving, regular reviews and validations are performed at every level of the enterprise to ensure a constant state of readiness when the need/event arise. Part of this effort includes examination at the site level to ensure that facilities' plans are up to date. Costs associated with these actions are included in the annual budgets for the businesses and facilities, and represent less than $3 million per year. For example, a series of blizzards in the southeast US recently shut down transportation lines at Eaton's Roanoke VA warehouse facility for 3 days. Because of the work of the BCM Committee, the facility was prepared for the incident, and the BCM helped with Legal, Customer, Shipping and Receiving and other issues. As a result, the facility was able to successfully complete $1 million in orders per day over the 3-day event.

Comment
Costs associated with these actions are included in the annual budgets for the businesses and facilities, and represent less than $3 million per year.

Identifier
Risk 2

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

Risk type & Primary climate-related risk driver

Current regulation	Mandates on and regulation of existing products and services

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
Eaton supports EPA's proposed 2017-2025 LD CAFÉ/GHG standards, which represent an aggressive target of 4-5% improvement per year from a baseline of about 35 mpg (2016) for the national automotive fleet. However, these could be significantly relaxed or frozen under the current administration and result in decreased demand for Eaton's fuel saving and emissions reducing products. This will challenge the Eaton and OEM's in terms of commercializing the necessary technologies while balancing against changing regulations, consumer preferences in size, weight, safety, and performance features. Likely scenarios are a combination of solutions involving vehicle mix, powertrain alternatives, optimizing electronic controls and intelligence, innovative weight reduction, fuel source options, and major infrastructure investments. The lower CAFE standards could dampen demand for Eaton's innovative products and solutions, including superchargers and other fuel-saving products for vehicles. The Eaton Supercharger has been improving engine performance since 1985. Five generations later, the TVS® (Twin Vortices Series®) was a revolutionary design that provides an 12% efficiency improvement, which saves fuel and reduces GHG emissions. Also, in 2018, Eaton continues to develop its new initiative to be a leading global player in vehicle electrification; electric power capabilities; and managing electrical power, in response to the climate change aspect of global demand for innovation.

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)
2150000

Potential financial impact figure – maximum (currency)
6500000

Explanation of financial impact figure
Eaton is investing $500 million in launching this new eMobility segment and targeting additional revenue of $2 - $4 billion by 2030. If CAFE standards are eased, this revenue could be reduced. The amount depends on the size of the administration cuts. Eaton's Vehicle business represents about 16%, or $3.5 billion, of Eaton's annual revenue in 2018. Without the new demand of increasingly efficient products to meet CAFE standards, Eaton could see a reduction in sales. The financial impact would depend on the level of reduction of original standards. For example: If we sold 1-3% fewer VEH products in the USA as a result of lower CAFE standards, the amount of reduced income could be approximately $2.15 million to $6.5 million.

Cost of response to risk
408000000

Description of response and explanation of cost calculation
Eaton conducts research and development to continue to launch innovative products and solutions that help our customers meet their most demanding energy and emissions requirements. For example, Eaton's Vehicle business offers the world's most complete line-up of fuel-saving hybrid systems for commercial vehicle applications. Customers using the company's hybrid systems on delivery trucks, buses, refuse and utility vehicles and other commercial applications surpassed 2 billion miles of clean, reliable service and helped save more than 53 million gallons of fuel while reducing GHG emissions by 235,000 metric tons (using EPA conversion factor) over the past 13 years. Eaton hybrid electric, plug-in hybrid electric and hybrid hydraulic power systems achieve up to a 37 percent improvement in average fuel economy. Eaton spent $584,000,000 on Research and Development in 2018. We estimate that about 70 percent of Eaton's R & D was invested in products and solutions that reduce energy use, improve fuel economy, improve power management, cut GHG emissions and address climate change. Cost of management for 70% of R & D is about $408 million.

Comment
In 2020 CAFE standards were reduced and will require re-evaluation by Eaton as a risk and our appropriate mitigation response.

Identifier
Risk 3

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

Risk type & Primary climate-related risk driver

Technology	Transitioning to lower emissions technology

Primary potential financial impact
Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Half of the world's electricity will come from renewable sources by 2035 and Eaton has committed to significantly increasing its use of renewable electricity. As part of the

global transition to a renewable energy economy, we may be impacted by the significant change in how power is managed and optimized. For example, the United States national power grid could be impacted as more renewable energy and other new sources of power affect the quality, efficiency, availability and cost of energy. This situation may affect the grid's ability to supply peak power to prevent brownouts in the near-term, causing business disruptions and price spikes that may temporarily interrupt Eaton production, as well as that of our customers. These interruptions could impact operations at our manufacturing plants, as well as those of our suppliers, while the cost of electricity steadily increases due to reliance on more expensive and less reliable renewable sources of power. However, in the long-term, risk impacts can be offset by new economic opportunities for Eaton, including products and services for plant retrofits to accommodate natural gas fuel; electrical power control systems for the efficient use of power and lower carbon emissions; wind and solar installations; and more. For example, Uninterruptible Power Systems (UPS) help reduce electricity consumption in data centers. These award-winning systems use less energy, require less cooling, and take up less space, significantly reducing our customers' energy use, carbon emissions and operating costs. Each 9395 UPS installed avoids about 4.8 metric tons of CO2 compared to our legacy product over the product's 25 year useful life. And, in 2019, Eaton was awarded a $3 million research and development grant by the U.S. Department of Energy Solar Energy Technologies Office (SETO) to pursue more widespread adoption of solar power and energy storage. Our research will improve the ability of grid operators to integrate increasing amounts of solar generation in a cost-effective, secure, resilient, and reliable manner. Working alongside leading thinkers in academia and industry, we are supporting the U.S. energy transition while we pursue our own intelligent power management innovation.

Time horizon
Medium-term

Likelihood
About as likely as not

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
50400000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
To help improve our energy efficiency and minimize the impact of potential brownouts, Eaton facilities completed 89 energy reduction projects in 2018 that have resulted in reducing a cumulative 8,228 metric tons of GHGs at a cost of $1.37 million. To address potential price spikes and improve energy efficiency, Eaton has focused on projects for its facilities that save energy and reduce emissions. In the past six years, Eaton has completed 404 energy-saving at a cost of about $22.5 million. These projects included lighting and machine efficiency upgrades, manufacturing process optimization, heat recovery, building shell insulation, equipment upgrades, compressed air installation, ventilator control and energy management. These projects have also reduced GHG emissions by 45,604 metric tons, and generate savings of about $8.4 million per year. Eaton could be paying about $50.4 million future energy costs if the company does not continue these projects over the next 6 years.

Cost of response to risk
21600000

Description of response and explanation of cost calculation
To manage this risk, Eaton reduces its energy use, power load and costs every year through a variety efficiency projects. Throughout our facilities we completed 161 energy reduction projects in 2019 that have resulted in reducing a cumulative 48,633 metric tons of GHGs at a management cost of $6 million. To address potential price spikes and improve energy efficiency Eaton has focused on projects for its facilities that save energy and reduce emissions. In the past 6 years, Eaton has completed 417 energy-saving at a cost of $21.6 million. These projects included lighting and machine efficiency upgrades, manufacturing process optimization, heat recovery, building shell insulation, equipment upgrades, compressed air installation, ventilator control and energy management. These projects have also reduced GHG emissions by about 40,000 metric tons, and generated savings of about $9.5 million per year. Eaton could be paying about $9.5 million more per year in future energy costs if the company does not continue these projects over the next 6 years.

Comment
In addition to the energy efficiency measures above, Eaton is currently assessing strategies to increase its percentage of renewable energy, including green contracts, on-site generation and off-site power purchase agreements as well as renewable energy credits as part of its transition to lower carbon technology and operations.

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
Energy source

Primary climate-related opportunity driver
Shift toward decentralized energy generation

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Electrical demand is trending up: by 2050, analysts expect a 50 percent increase in global building energy share. The traditional model of a centralized electricity supply has been upended, and half of electricity generation will be from renewable resources by 2035. The energy transition is driving fundamental changes to electrical infrastructure with the rapid increase of many forms of distributed energy resources installed on customer sites. These factors are creating an environment in which energy consumers are able to produce, consume and sell energy back through a more dynamic grid. Energy consumers are increasingly interested in becoming more sustainable, lowering energy costs and improving resiliency. This is an opportunity for Eaton to enable customers to integrate distributed energy resources to reduce carbon footprint in homes, buildings and industrial environments. We expect a 13x installed base growth for energy storage by 2030 and an increase of renewables 40% by 2035. U.S. federal tax credits for renewable energy, specifically wind and solar power will be good through 2019. After that, the credit will begin to drop, declining to 10% by 2022 where it will remain. These actions provide market certainty for Eaton, and offer the opportunity for the company's portfolio of renewable energy, energy storage and grid management solutions. For example, Eaton's Microgrid Energy Systems help provide electrical energy surety independent of power provided by the utility grid or can also help provide demand/load management and renewable energy integration. To accomplish this, a combination of multiple generation sources, including gensets, solar arrays, wind turbines and energy storage, can be integrated on a common grid structure with necessary loads seamlessly islanded from or paralleled with the main grid. The Catholic University of Lille in France aspires to be a zero-carbon campus by 2035. To help them reach their goal, Eaton worked with the university to install our xStorage Buildings energy storage system. The system consists of two power conversion systems (40 kW discharging / 20 kW charging power) and 25 new battery packs with a capacity of 10 kWh each. Once installed, the system enabled the university to store the renewable energy produced by its solar panels and use it to power the building or charge electric vehicles. In 2019, the system reduced the university's carbon emissions by more than 175 kg.

Time horizon
Medium-term

Likelihood
Virtually certain

Magnitude of impact
Medium-low

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)
12000000000

Potential financial impact figure – maximum (currency)
18000000000

Explanation of financial impact figure

Eaton is targeting 50% revenue growth in the electrical sector by 2025 related to related to electrification, decentralized energy supply and supporting infrastructure. This will be achieved through base business expansion, energy transition leadership and digital solutions. There is significant potential for electrical sector base business growth driven by safety requirements, resilience investments, data growth, and electrification. For example, we expect a 5% increase in building energy consumption in developed economies and a 20% increase in developing economies by 2050. Eaton is well-positioned to benefit from the energy transition to more renewable and distributed energy system by enabling integration of renewables and sustainability solutions. New types of equipment, service, and software pulling through traditional equipment. Organic revenue and revenue from acquisition are expected to be between $12 billion to $18 billion by 2025 as reported in Eaton's recent in investor conference.

Cost to realize opportunity
838000000

Strategy to realize opportunity and explanation of cost calculation

Eaton is targeting 50% revenue growth in the electrical sector by 2025 related to related to electrification, decentralized energy supply and supporting infrastructure. This will be achieved through base business expansion, energy transition leadership and digital solutions. There is significant potential for electrical sector base business growth driven by safety requirements, resilience investments, data growth, and electrification. For example, we expect a 5% increase in building energy consumption in developed economies and a 20% increase in developing economies by 2050. Eaton is well-positioned to benefit from the energy transition to more renewable and distributed energy system by enabling integration of renewables and sustainability solutions. New types of equipment, service, and software pulling through traditional equipment. Organic revenue and revenue from acquisition are expected to be between $12 billion to $18 billion by 2025. In 2019, Eaton invested $606 million in research and development a large portion of which focused on distributed energy research and product development. Cost to realize opportunity includes $232 million in acquisitions, plus $606 million in research and development investments in 2019 provided the products and processes to realize this and other opportunities.

Comment

Climate change and finite fossil fuel resources make the switch to renewable energy a priority worldwide. We have to harness renewable sources of energy.

Identifier
Opp2

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Use of more efficient modes of transport

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description

Fuel economy and emissions regulations for combustion engines provide an opportunity for Eaton to help our Original Equipment Manufacturer (OEM) customers meet requirements. CO2 reductions requirements between 30- 56% between now and 2030 in US, EU and China are driving innovations. The US Environmental Protection Agency (EPA), along with local and regional regulators, will soon increase already stringent carbon dioxide (CO2) and oxides of nitrogen (NOx) emissions regulations for heavy duty vehicles. This will create new challenges for truck manufacturers in terms of cold engine start-up and low-load operation. Eaton's OEMs will need a plan to incorporate new technologies into their diesel engines and to adopt new electric commercial vehicle powertrain options that provide greater fuel efficiency, lower transportation costs and reduce toxic emissions for a healthier, more sustainable environment. To realize this opportunity, Eaton supports EPA's Cleaner Trucks Initiative and CA Air Board's Advanced Clean Truck Initiative due to 1) Stringent NOx emissions standards are critical to advancing supplier and U.S. economic growth; 2) NOx

emissions standards should preserve domestic supplier investments and competitiveness globally; and 3) A NOx standard of 20 mg/bhp-hr (about 90 percent reduction in HD NOx emissions) can be achieved with adding only about 1 percent to the cost of a MY2027 HD Class 8 vehicle approximately $1500 to $2050. Eaton works with MEMA (Motor and Equipment Manufacturers Association) in support of new stringent NOx emission standards feasible with technologies now commercially available and possible with no increase in fuel consumption. Eaton expects these efforts will influence regulations in Europe, the Middle East and Africa (EMEA), where regulators have already started working on NOx reductions, and Asia-Pacific (APAC) regions and expect to see a convergence of standards across the world. Specifically, Eaton supplies truck OEMs with solutions that help meet these standards like Eaton's eVAPTIVE Electronically controlled fuel tank vapor venting system; Advanced Valvetrain which optimizes air injected in the cylinder resulting in a 4-9% co2 emissions reduction and exhaust gas recirculation pump which can reduce heavy duty vehicle co2 emissions by up to 5%.

Time horizon
Medium-term

Likelihood
More likely than not

Magnitude of impact
High

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
3000000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Eaton's core Vehicle Group is expected to be a $3 billion with 18% margins by 2030 driven by its portfolio of products, market access and partnerships.

Cost to realize opportunity
606000000

Strategy to realize opportunity and explanation of cost calculation
Technology will be a major global factor in reducing emissions. MEMA supports HD NOx standards in the range of 15 to 30 milligrams per brake horsepower per hour (mg/bhp-hr) for FTP/RMC for MY2027. This range of HD NOx standards is feasible with technologies now commercially available. Standards in this range are possible with no increase in fuel consumption. The motor vehicle supplier industry has made significant investments in HD emissions-reducing technologies and is at a critical point with R&D and domestic investments. HD NOx standards in the range of 15 – 30 mg/bhp-hr will drive best available technology adoption and will provide investment payoff for motor vehicle suppliers that have made significant investments in these important Eaton spent $606 million in 2019 on R&D, approximately 70% of which was devoted to products and services that improve efficiency and reduce emissions. Our network of global innovation centers gives all businesses access to cutting-edge technology to develop the sustainable technologies needed for a healthier planet. We expect to spend approximately a total of $3 billion in Research and Development over the next six years as part of the strategy to realize this opportunity.

Comment
Innovations in Eaton's vehicle technology are helping reduce GHG emissions.

Identifier
Opp3

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Use of more efficient modes of transport

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
By 2030, the International Energy Agency estimates that 125 million of the 2 billion vehicles on the road will be electric with 2030 global passenger car battery electric hybrids and hybrid electric vehicles sales comprising 31 million units a year. To meet this growing need, in 2018 we launched our eMobility business specializing in intelligent power electronics, power systems and advanced power distribution and circuit protection. Consumers in China buy 60 percent of all global electric vehicles (EVs). Sales are continuing to increase due to government subsidies, tighter emission standards and China's New Energy Vehicles (NEV) mandates to reduce environmental pollution. In 2019, we introduced our eMobility technologies in electric and hybrid vehicles to help Chinese EV manufacturers meet the increased demand. EV manufacturers must balance competing needs related to vehicle weight, power requirements, consumer expectations and cost. To meet the growing demand for longer battery life and range, we are designing components that make electric vehicles more efficient. And as voltage rates increase in EVs, our power protection components address risks and improve safety. We are also boosting intelligence in EVs by connecting systems and providing data that helps original equipment manufacturers improve vehicle power balance and helps drivers better understand the status of their vehicle. Limited driving range is one of the greatest barriers to large-scale adoption of EVs, with drivers concerned about having sufficient power to reach their destination. To increase the range of electric vehicles, we developed compact power-dense automotive inverters capable of increasing EV range. Leveraging Eaton's expertise in high-voltage power management, our eMobility segment developed these vehicle inverters with a power density of 35 kilowatts per liter and 98 percent operating efficiency. The inverter's high-power density and compact, lightweight design helps maximize range while taking up minimal space in the vehicle.

Time horizon
Medium-term

Likelihood
Very likely

Magnitude of impact
High

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)
2000000000

Potential financial impact figure – maximum (currency)
4000000000

Explanation of financial impact figure
Electric vehicles are considered a high growth market with a $33 billion addressable market by 2030. Eaton is targeting $2-$4 billion in revenue by the year 2030 for its eMobility business.

Cost to realize opportunity
408000000

Strategy to realize opportunity and explanation of cost calculation
To realize this opportunity, Eaton uses research and development to create comprehensive solutions to customers to address the risks of climate change. Eaton's eMobility segment addresses opportunities created by the need for technologies that help mitigate climate change. Eaton expects cost of management to be $500 million over 5 years to design, manufacture, market and supply electrical and hybrid solutions for on- and off-road vehicles. The name eMobility symbolizes our initial focus on the electrification of vehicles and our desire to go beyond the vehicle segment. This move signals our commitment to being a leader in the emerging electrified vehicle market. By 2030, we expect to be a leading global player in the electrified vehicle market with annual revenues between $2 billion to $4 billion – that's roughly the same level of annual revenue our Vehicle Group generates today - $3.5 billion in 2018.

Comment
Eaton is helping to drive adoption and evolve EV technology with our expertise at the convergence of electrical and mechanical power.

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?
Yes, and we have developed a low-carbon transition plan

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?
Yes, qualitative, but we plan to add quantitative in the next two years

C3.1b

(C3.1b) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenarios and models applied	Details
2DS IEA Sustainable development scenario	Eaton then developed carbon reduction targets consistent with the challenge presented to corporations by the Intergovernmental Panel on Climate Change (IPCC), the United Nations body for assessing the science related to climate change. The group recently declared a climate emergency and issued an urgent request to companies around the world to limit global warming to 1.5o C. We will achieve this ambitious target by reducing carbon emissions from our operations by 50% and reducing scope 3, or indirect emissions generated through our value chain, 15% by 2030. Eaton's strategy has long been influenced by climate change related scenarios including: 1) An evolving regulatory regime focusing on carbon reduction; 2) customers demanding new carbon reduction technologies to respond to the potential impact of climate change; 3) the continuing efforts of governments to jump start robust green energy industries through credits, grants, and other incentives; opportunities are increasing for companies to grow by providing innovative products and services that help mitigate the impact of climate change. Over the next five years, we will work to accelerate the transition to a renewable energy economy, with investments in research and development while also repositioning our product portfolio and reducing our own energy use. Eaton is also helping drive the movement to a more circular economy by focusing on product life extension, more recycling and product take-back programs, and reducing our own footprint with zero-waste initiatives. To further address the climate crisis, we are committing to a goal of carbon neutral operations by 2030, a target we'll achieve through a combination of carbon offsets, such as reforestation initiatives, and continuing to source 100% of the electricity we need for operations from renewable energy sources. Driving innovations in energy storage solutions and technologies that support our Industry 4.0 efforts will help to advance our transformation into a carbon-neutral company. Climate-related issues are integrated into our business objectives and strategy through the Eaton Business System (EBS), which provides a disciplined set of internal processes and tools that ensure enterprise-wide alignment and compliance, collection and reporting information to influence various business strategies, and rapid recognition and transfer of best practices. EBS encompasses Eaton's core values, policies and processes used to conduct business and measure, assess and improve performance, including factors influenced by climate change. For example, one of the top risks identified in 2019 was Natural Disasters and Business Continuity Management. In 2019 BCM identified all climate risk sites in order to update their site-level BCM plans. These sites are undergoing backup power assessments and table top risk assessments; their mitigation plans and activities are slated to be assessed as part of Eaton Business System's Operational Assessment program in the near term.

C3.1d

(C3.1d) 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	We see customers determined to reduce their carbon footprint. And countries are committing to ambitious targets for reducing greenhouse gas emissions and even achieving carbon neutrality. Eaton is responding by designing new solutions that address climate change, energy efficiency and increasing regulations. Our new Positive Impact Portfolio of products perform across broad criteria for sustainability, including reduced environmental impact, increased use-phase efficiency, safety and reliability. These products also align with Sustainable Development Goals set by the United Nations. We are using Design for the Environment (DfE) techniques to reduce the overall impact of a product across its lifecycle—including production, distribution, use and end of life. Our efficient and lower carbon products help our customers reduce their carbon emissions and meet their own sustainability goals. In 2019, 54% of our trade sales was from diversified solutions that meet our sustainability criteria for positive impact and our long-term goal is that 60% of our products will help with climate change mitigation or adaptation by 2050 — and we will responsibly source and re-use materials by increasing recyclability, repair-ability, remanufacture initiatives and product take-back programs. By committing to these actions, we will reduce the life-cycle greenhouse gas emissions of our products and generate more of our revenue from lower carbon emitting products.
Supply chain and/or value chain	Yes	Environmental considerations are critical in our interactions with suppliers including their greenhouse gas emissions. Our Supplier Site Assessment process includes a review of supplier EHS performance and product stewardship practices, and we invite key suppliers to disclose emissions data through the CDP Supply Chain Program. Select strategic suppliers are evaluated in our supplier risk management program, which includes key sustainability metrics, adverse media and other screening tools that generally cover a broad range of community impacts. We share our Supplier Code of Conduct with all our suppliers, outlining Eaton's expectations for supplier workplace standards and business practices. And we require adherence to our Supplier Code of Conduct, including our governance policies on topics such as ethics, slavery, human trafficking and conflict minerals. Suppliers representing 87 percent of our supplier spend have affirmed our Supplier Code of Conduct. Our goal is for 100 percent of our suppliers to affirm our code by 2030. Our customers are increasingly determined to conserve resources and reduce their carbon footprint. And countries are committing to ambitious targets for reducing greenhouse gas emissions and even achieving carbon neutrality. Eaton is responding to this opportunity through defining its portfolio of sustainable products and working to increase product offerings to meet this demand.
Investment in R&D	Yes	Eaton invests significant resources in Research and Development each year, through 2030 we are focusing on developing efficient and low carbon products and solutions. Our recent addition of a Chief Digital Officer is an important driver in how we will become an intelligent power management company to further this focus. Digitization is impacting every part of the company and allowing Eaton to grow and expand margins. We have organized around four work streams that will enable us to enhance internal productivity, improve customer-facing processes, create the intelligent factory of the future, and generate new revenue from connected and intelligent products. A few examples of digital innovations we're investing in to address a number of the world's most pressing challenges: 1) Enabling the smart grid of the future and improving grid reliability and efficiency with advanced intelligence. 2) Embedding intelligent products in the electrical infrastructure of buildings to help customers better manage their energy use.3) Combining our vehicle and electrical expertise to develop differentiated electric vehicle technologies. 4)Designing intelligent and connected solutions that improve uptime and reduce total life cycle costs for aerospace customers.
Operations	Yes	Climate risks and opportunities are part of our business strategy for our operations. Our risk management involves integrating the physical risks of climate change into our Enterprise Risk Management Process, our Business Continuity Management and our planning at the asset level. From an opportunity perspective, mitigating climate change through reduced greenhouse gas emissions can provide operational savings in the long-term and cost savings related to current and emerging regulation around regulations, mandated reporting and future carbon pricing. From our executive offices to the factory floors, we are continuously working to further reduce our energy, emissions, water and waste footprints. And we expect all our employees to take an active role in conserving resources, working efficiently and improving our communities. We are working to both reduce our energy demand and green our energy supply. Our emissions reduction efforts include improving the energy efficiency of our buildings and manufacturing processes and emphasizing energy conservation by employees. Our own manufacturing sites are the critical proving ground in our vision to become a carbon neutral company by 2050. While we help our customers meet their sustainability goals, we are also making meaningful progress to advance the sustainability within our own operations. For example, our new Engine Valve plant in Aguascalientes, Mexico was completed in 2019. The site incorporates green building practices and Eaton solutions for efficient manufacturing. Rainwater harvesting, permeable pavement and non-irrigated landscapes help to conserve water and reduce runoff. The building shell uses day-lighting, natural ventilation and reflective roofing for efficient lighting and thermal comfort. LED lights with Eaton's LumaWatt Pro Wireless controls and motion sensors which will result in up to 70 percent reduction in energy consumption compared to a standard system. Energy and water process emissions will be reduced by an efficient air compressor system and industrial wastewater treatment that includes ultra-filtration and reverse osmosis systems for treatment of chrome and industrial process water which will recycle approximately 5,500 gallons of oil water per day and reuse 10,000 gallons of water per month.

C3.1e

(C3.1e) 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	Acquisitions and divestments	Eaton is actively managing our portfolio and expects to deliver higher margins and more consistent earnings supported by secular growth trends: sustainability, intelligent and connected products, and electrification and energy transition. Responding to the climate transition opportunities positions Eaton to deliver 8% -10% EPS growth over the next 5 years. Recent divestitures and acquisitions advance this strategy including the expansion of our electrical sector from the acquisition of Cooper Industries. In 2019 Eaton acquired Innovative Switchgear for $18 million and 90% controlling interest in Ulusoy Electrik for $214 million in support of this opportunity expanding Eaton's offerings in medium voltage switchgear and other medium voltage equipment for utility customers including SF6 free solutions. SF6 free switchgear is more environmentally friendly than traditional gas insulated switchgears. And in 2019, Eaton acquired Souriau-Sunbank Connection Technologies to enable us to provide customers with highly engineered electrical interconnect solutions for harsh environments in the aerospace, defense, industrial, energy and transport industries. Harsh environments will be more frequent as customers mitigate climate risks, making harsh environment solutions more important in the future.

C3.1f

(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

C4. Targets and performance

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 1

Year target was set
2019

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 1+2 (market-based)

Base year
2018

Covered emissions in base year (metric tons CO2e)
1099044

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

Target year
2030

Targeted reduction from base year (%)
50

Covered emissions in target year (metric tons CO2e) [auto-calculated]
549522

Covered emissions in reporting year (metric tons CO2e)
1066163

% of target achieved [auto-calculated]
5.98356389735079

Target status in reporting year
Underway

Is this a science-based target?
Yes, this target has been approved as science-based by the Science-Based Targets initiative

Please explain (including target coverage)
In 2019, we developed carbon reduction targets consistent with the challenge presented to corporations by the Intergovernmental Panel on Climate Change (IPCC), the United Nations body for assessing the science related to climate change. The group recently declared a climate emergency and issued an urgent request to companies around the world to limit global warming to 1.5o C. Those targets were submitted to the Science Based Target Initiative and approved.

Target reference number
Abs 2

Year target was set
2019

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 3 (upstream & downstream)

Base year
2018

Covered emissions in base year (metric tons CO2e)
67455149

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

Target year
2030

Targeted reduction from base year (%)
15

Covered emissions in target year (metric tons CO2e) [auto-calculated]
57336876.65

Covered emissions in reporting year (metric tons CO2e)

% of target achieved [auto-calculated]
<Calculated field>

Target status in reporting year
Underway

Is this a science-based target?

Yes, this target has been approved as science-based by the Science-Based Targets initiative

Please explain (including target coverage)
Our scope 3 science-based target is in line with a 2-degree scenario pathway. Our proposed scope 3 emissions reduction target of 15% absolute reduction by 2030, addresses 100% of Eaton's scope 3 emissions. We used the SBTi Tool to calculate this target. Progress toward our scope 3 SBT will be measured using our annual GHG inventory calculations for all relevant Scope 3 category emissions and reported in our annual sustainability report and CDP disclosure.

Target reference number
Abs 3

Year target was set
2015

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 1+2 (market-based)

Base year
2015

Covered emissions in base year (metric tons CO2e)
1272709

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

Target year
2025

Targeted reduction from base year (%)
20

Covered emissions in target year (metric tons CO2e) [auto-calculated]
1018167.2

Covered emissions in reporting year (metric tons CO2e)
1066163

% of target achieved [auto-calculated]
81.1442364279659

Target status in reporting year
Underway

Is this a science-based target?
No, but we are reporting another target that is science-based

Please explain (including target coverage)
Our leadership set a long-term goal of 20 percent absolute Scope 1 and Scope 2 GHG emissions reduction (2015-2025). In 2019, we were 81% of the way to our target and achieved 16% reduction from our 2015 baseline. Our Science-based target has been approved by SBTi and Eaton will be replacing this target with SBTs beginning in our 2020 reporting year.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?
No other climate-related targets

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 CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	15	
To be implemented*	95	3532
Implementation commenced*	116	1293
Implemented*	161	7127.92
Not to be implemented	25	

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	Lighting

Estimated annual CO2e savings (metric tonnes CO2e)
3228.06

Scope(s)
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
228457

Investment required (unit currency – as specified in C0.4)
708406

Payback period
1-3 years

Estimated lifetime of the initiative
3-5 years

Comment
Lighting projects have a range of payback periods and lifetime durations across our global enterprise.

Initiative category & Initiative type

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

Estimated annual CO2e savings (metric tonnes CO2e)
380

Scope(s)
Scope 1
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
71434

Investment required (unit currency – as specified in C0.4)
224267

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment
Lifetime duration's of various HVAC initiatives vary by project.

Initiative category & Initiative type

Energy efficiency in buildings	Other, please specify (Building Envelope)

Estimated annual CO2e savings (metric tonnes CO2e)
400

Scope(s)
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
51275

Investment required (unit currency – as specified in C0.4)
466000

Payback period

4-10 years

Estimated lifetime of the initiative

6-10 years

Comment

Lifetime durations of various Building Envelope initiatives vary by project.

Initiative category & Initiative type

Energy efficiency in production processes	Compressed air

Estimated annual CO2e savings (metric tonnes CO2e)

263.75

Scope(s)

Scope 1
Scope 2 (location-based)
Scope 2 (market-based)
Scope 3

Voluntary/Mandatory

Voluntary

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

375560

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

330164

Payback period

1-3 years

Estimated lifetime of the initiative

3-5 years

Comment

Lifetime durations of various compressed air initiatives vary by project, especially maintenance versus replacement of equipment.

Initiative category & Initiative type

Energy efficiency in production processes	Smart control system

Estimated annual CO2e savings (metric tonnes CO2e)

2.71

Scope(s)

Scope 1
Scope 2 (location-based)
Scope 2 (market-based)
Scope 3

Voluntary/Mandatory

Voluntary

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

38000

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

167000

Payback period

4-10 years

Estimated lifetime of the initiative

6-10 years

Comment

Lifetime durations of various smart controls initiatives vary by project and the equipment that they control.

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

1115.15

Scope(s)

Scope 1
Scope 2 (location-based)
Scope 2 (market-based)
Scope 3

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
579658

Investment required (unit currency – as specified in C0.4)
2477144

Payback period
4-10 years

Estimated lifetime of the initiative
3-5 years

Comment
Lifetime durations of various process improvement initiatives vary greatly by project.

Initiative category & Initiative type

Energy efficiency in production processes	Machine/equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)
134.43

Scope(s)
Scope 1
Scope 2 (location-based)
Scope 2 (market-based)
Scope 3

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
64605

Investment required (unit currency – as specified in C0.4)
713635

Payback period
11-15 years

Estimated lifetime of the initiative
16-20 years

Comment
Lifetime durations of various equipment replacements vary greatly by project.

Initiative category & Initiative type

Energy efficiency in production processes	Other, please specify (Heat cost avoidance/insulation of various equipment)

Estimated annual CO2e savings (metric tonnes CO2e)
1575.81

Scope(s)
Scope 1
Scope 2 (location-based)
Scope 2 (market-based)
Scope 3

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
94577

Investment required (unit currency – as specified in C0.4)
0

Payback period
<1 year

Estimated lifetime of the initiative
3-5 years

Comment
Lifetime durations of various heat cost avoidance/insulation initiatives vary greatly by project.

Initiative category & Initiative type

Energy efficiency in production processes	Motors and drives

Estimated annual CO2e savings (metric tonnes CO2e)
27.63

Scope(s)
Scope 1
Scope 2 (location-based)
Scope 2 (market-based)
Scope 3

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
94577

Investment required (unit currency – as specified in C0.4)
0

Payback period
<1 year

Estimated lifetime of the initiative
6-10 years

Comment
Lifetime duration's of various Motors/Drives initiatives vary greatly by project.

Initiative category & Initiative type

| Energy efficiency in production processes | Other, please specify (Various other energy efficiency projects) |

Estimated annual CO2e savings (metric tonnes CO2e)
0.35

Scope(s)
Scope 1
Scope 2 (location-based)
Scope 2 (market-based)
Scope 3

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
1000

Investment required (unit currency – as specified in C0.4)
125478

Payback period
<1 year

Estimated lifetime of the initiative
1-2 years

Comment
Lifetime duration's of various other energy efficiency initiatives vary greatly by project.

C4.3c

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

Method	Comment
Dedicated budget for energy efficiency	Energy/GHG reduction projects budgeted: We're using new technologies and processes to make our manufacturing plants around the world more energy efficient. In 2019, many of our aerospace, hydraulics, electrical and vehicle plants upgraded their facilities with energy-saving projects. One of our most substantial decisions influenced by the need to address climate change is the continued investment in projects that make our buildings and manufacturing processes more efficient. Throughout our facilities we completed 161 energy reduction projects in 2019 that have resulted in reducing a cumulative 48,633 metric tons of GHGs at a cost of $6 million. These projects included lighting and machine efficiency upgrades, manufacturing process optimization, heat recovery and other efforts. The projects will save $1.8 million per year with an average payback of 3 years. Potential financial implications: annual energy savings projected at $1.8 million.
Employee engagement	Employee engagement is a key pillar of Eaton's sustainability strategy. We engage our employees in the aspects of our approach, from design and manufacturing, customer support, internal footprint reduction through Green Teams and other programs. From 2014-19, more than 50,000 employees worldwide participated in our World Environment Month program, which extends the annual Worldwide Environment Day into a month of sustainability activities in the workplace, home and communities.
Dedicated budget for low-carbon product R&D	Eaton spent $606 million for research and development in 2019, the majority of which went to develop innovative products and processes that improve energy efficiency and reduce emissions.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?
Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation
Group of products

Description of product/Group of products
Eaton's Vehicle segment has products that help our OEM customers reduce emissions and increase efficiency in passenger cars, light duty and heavy-duty vehicles. Products include transmissions, clutches, hybrid power systems, superchargers, engine valves and valve actuation systems, cylinder heads, locking and limited slip differentials, transmission controls, fuel vapor components, fluid connectors and conveyance products for the global vehicle industry. The principal markets for the Vehicle segment are original equipment manufacturers and aftermarket customers of heavy-, medium-, and light-duty trucks, SUVs, CUVs, passenger cars and agricultural equipment. For example, The Eaton Twin Vortices Series® (TVS®) supercharger will help the automotive industry provide improved fuel economy while at the same time lowering carbon GHG emissions up to 20 percent. The supercharger pumps air into an engine boosting its overall performance which allows vehicle manufacturers to replace larger engines with smaller, more fuel efficient engines. The Eaton TVS allowed Audi to downsize its powertrain offerings. Rather than offering a normally aspirated 4.2L V-8 in the previous-generation S4, Audi now offers the more compact supercharged V-6, while achieving 27% better fuel economy (a 6 mpg improvement) and a reduction of about 12 metric tons of CO2 over five years of operation (based on fuel use for 15,000 miles per year). Our cylinder deactivation system is the most direct way to reduce emissions and improve fuel economy through the driving cycle. Eaton was an early leader in the research and development of onboard refueling vapor recovery (ORVR) systems, which reduce hydrocarbon emissions by about 95 percent during refueling. China—the world's largest market for passenger and commercial vehicles—implemented ORVR in 2017-18. Our product portfolio also includes hybrid powertrains that boost fuel economy and reduce emissions in commercial vehicles; hydraulic aircraft systems that reduce weight and save fuel; automotive superchargers for enhanced fuel economy.

Are these low-carbon product(s) or do they enable avoided emissions?
Low-carbon product

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions
Other, please specify (Eaton uses Life Cycle Assessment (LCA) to calculate the potential environmental impacts of a growing selection of products adhering to ISO 14040/14044 standards.)

% revenue from low carbon product(s) in the reporting year
54

% of total portfolio value
<Not Applicable>

Asset classes/ product types
<Not Applicable>

Comment
With millions of SKUs and tens of thousands of products, Eaton has classified our product families into sustainability-related categories including low-carbon / energy efficiency. We have not calculated an exact number for percent of revenue. However, in 2019 we calculated that 54% of trade sales were from our differentiated solutions which perform across 6 sustainable criteria including efficiency, enabling renewable energy and reducing fossil fuel use.

Level of aggregation
Group of products

Description of product/Group of products
In 2017-18, Eaton created a new business segment called eMobility to address opportunities created by the need for technologies that help mitigate climate change. Eaton expects cost of management to be $500 million over 5 years to design, manufacture, market and supply electrical and hybrid solutions for on- and off-road vehicles. The name eMobility symbolizes our initial focus on the electrification of vehicles and our desire to go beyond the vehicle segment. This move signals our commitment to being a leader in the emerging electrified vehicle market. eMobility focuses on three primary areas for both automotive and commercial vehicle customers: intelligent power electronics, power systems, and advanced power distribution and circuit protection. The power distribution and protection category includes fuses, super-capacitors and power distribution units (PDUs), while converters and on-board chargers fall under the power electronics umbrella. Power systems include electric vehicle (EV) transmissions for a variety of medium- and heavy-duty applications, as well as a 48-volt regenerative accessory drive system for heavy-duty trucks. By 2030, we expect to be a leading global player in the electrified vehicle market with annual revenues between $2 billion to $4 billion, nearly all of which represents revenue from low carbon and/or low emissions products and services. In 2018, this segment reported $320 million in revenues from these products and services.

Are these low-carbon product(s) or do they enable avoided emissions?
Low-carbon product and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions
Other, please specify (Eaton uses Life Cycle Assessment (LCA) to calculate the potential environmental impacts of a growing selection of products adhering to ISO 14040/14044 standards.)

% revenue from low carbon product(s) in the reporting year
90

% of total portfolio value
<Not Applicable>

Asset classes/ product types
<Not Applicable>

Comment
By 2030, we expect to be a leading global player in the electrified vehicle market with annual revenues between $2 billion to $4 billion, nearly all of which represents revenue from low carbon and/or low emissions products and services. In 2019, this segment reported $320 million in revenues from these products and services.

Level of aggregation
Group of products

Description of product/Group of products

Eaton's Electrical Sector business provide a variety of products and solutions that increase energy efficiency, allow for the integration of renewable energy and help with the transition to more distributed and renewable power. For example, Eaton's electrical power control systems reduce power use and carbon emissions in buildings and homes. Our Protection Station 650 and 800 are combined Uninterruptible Power System (UPS), surge suppressor, and multiple socket devices with improved energy efficiency provided by an EcoControl function that automatically disables peripherals when the master drive is turned off. Laboratory testing of a typical home computer system demonstrated annual power consumption of 165 kWh for the Protection Station compared to 231 kWh for similar products without the EcoControl function. For 100,000 computers, the annual savings of 6,600,000 kWh reduces carbon emissions by 4,551 metric tons.

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (Eaton uses Life Cycle Assessment (LCA) to calculate the potential environmental impacts of a growing selection of products adhering to ISO 14040/14044 standards.)

% revenue from low carbon product(s) in the reporting year

54

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

With millions of SKUs and tens of thousands of products, Eaton has classified our product families into sustainability-related categories including low-carbon / energy efficiency. We have not calculated an exact number for percent of revenue. However, in 2019 we calculated that 54% of trade sales were from our differentiated solutions which perform across 6 sustainable criteria including efficiency, enabling renewable energy and reducing fossil fuel use.

Level of aggregation

Group of products

Description of product/Group of products

Eaton Electrical Solutions combine several energy saving products into the most energy efficient package to address specific customer needs. Michigan's Detroit Metropolitan Airport recently selected Eaton's Cooper Lighting business to replace 6,050 existing parking garage fixtures with Eaton's energy-saving lighting products (from 210 watts to 60 watts). The conversion – using Eaton's McGraw-Edison Valet and Ventus light-emitting diode luminaires – will result in a 66 percent reduction in power consumption. The LED products also incorporate Eaton's Cooper Lighting LumaWatt Outdoor Wireless Control and Monitoring System to make it easier for the airport to effectively manage its lighting levels. The system reduces power usage by approx. 5 million kWh, resulting in a reduction of 35,000 metric tons of carbon dioxide (Scope 2) in a five-year period.

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (Eaton uses Life Cycle Assessment (LCA) to calculate the potential environmental impacts of a growing selection of products adhering to ISO 14040/14044 standards.)

% revenue from low carbon product(s) in the reporting year

54

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

With millions of SKUs and tens of thousands of products, Eaton has classified our product families into sustainability-related categories including low-carbon / energy efficiency. We have not calculated an exact number for percent of revenue. However, in 2019 we calculated that 54% of trade sales were from our differentiated solutions which perform across 6 sustainable criteria including efficiency, enabling renewable energy and reducing fossil fuel use.

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start
January 1 2015

Base year end
December 31 2015

Base year emissions (metric tons CO2e)
310661.29

Comment
In 2018, Eaton expanded the scope of our GHG inventory to capture smaller sources of emissions, shifted to calendar-year accounting and updated our methodology. Those changes triggered a recalculation of our 2015 baseline. For consistency, we also recalculated the intervening years. The inventory period corresponds to the calendar year (i.e. January 1 through December 31).

Scope 2 (location-based)

Base year start
January 1 2015

Base year end
December 31 2015

Base year emissions (metric tons CO2e)
962047.81

Comment
In 2018, Eaton expanded the scope of our GHG inventory to capture smaller sources of emissions, shifted to calendar-year accounting and updated our methodology. Those changes triggered a recalculation of our 2015 baseline. For consistency, we also recalculated the intervening years. The inventory period corresponds to the calendar year (i.e. January 1 through December 31).

Scope 2 (market-based)

Base year start
January 1 2017

Base year end
December 31 2017

Base year emissions (metric tons CO2e)
870897.11

Comment
2017 is the first year we have reported market-based Scope 2 emissions. In 2018, Eaton expanded the scope of our GHG inventory to capture smaller sources of emissions, shifted to calendar-year accounting and updated our methodology. Those changes triggered a recalculation of our 2015 baseline. For consistency, we also recalculated the intervening years. The inventory period corresponds to the calendar year (i.e. January 1 through December 31). We use location based only for scope 2 emissions in 2015 and 2016. Starting in 2017, we have both market-based and location-based scope 2 emissions in our GHG inventory.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

C6. Emissions data

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)
285954.74

Start date
January 1 2019

End date
December 31 2019

Comment
Scope 1 emissions include: Stationary Combustion: The burning of fuels to generate electricity, steam, heat, or power in stationary equipment including boilers, furnaces, burners, turbines, heaters, incinerators, engines, flares, etc. Mobile Combustion: The combustion of fuels in transportation sources (e.g., cars, trucks, buses, trains, aircraft, and marine vessels); non-road equipment such as equipment used in construction, agriculture, and forestry; and other mobile sources. Fugitive Emissions: Intentional or unintentional releases from the production, processing, transmission, storage, and use of fuels and other substances that do not pass through a stack, chimney, vent, exhaust pipe or other functionally-equivalent opening. Process Emissions: Emissions resulting from physical or chemical processes other than from fuel combustion.

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)
294374.24

Start date
January 1 2018

End date
December 31 2018

Comment
Scope 1 emissions include: Stationary Combustion: The burning of fuels to generate electricity, steam, heat, or power in stationary equipment including boilers, furnaces, burners, turbines, heaters, incinerators, engines, flares, etc. Mobile Combustion: The combustion of fuels in transportation sources (e.g., cars, trucks, buses, trains, aircraft, and marine vessels); non-road equipment such as equipment used in construction, agriculture, and forestry; and other mobile sources. Fugitive Emissions: Intentional or unintentional releases from the production, processing, transmission, storage, and use of fuels and other substances that do not pass through a stack, chimney, vent, exhaust pipe or other functionally-equivalent opening. Process Emissions: Emissions resulting from physical or chemical processes other than from fuel combustion.

Past year 2

Gross global Scope 1 emissions (metric tons CO2e)
294374.24

Start date
January 1 2017

End date
December 31 2017

Comment
Scope 1 emissions include: Stationary Combustion: The burning of fuels to generate electricity, steam, heat, or power in stationary equipment including boilers, furnaces, burners, turbines, heaters, incinerators, engines, flares, etc. Mobile Combustion: The combustion of fuels in transportation sources (e.g., cars, trucks, buses, trains, aircraft, and marine vessels); non-road equipment such as equipment used in construction, agriculture, and forestry; and other mobile sources. Fugitive Emissions: Intentional or unintentional releases from the production, processing, transmission, storage, and use of fuels and other substances that do not pass through a stack, chimney, vent, exhaust pipe or other functionally-equivalent opening. Process Emissions: Emissions resulting from physical or chemical processes other than from fuel combustion.

Past year 3

Gross global Scope 1 emissions (metric tons CO2e)
290148.78

Start date
January 1 2016

End date
December 31 2016

Comment
Scope 1 emissions include: Stationary Combustion: The burning of fuels to generate electricity, steam, heat, or power in stationary equipment including boilers, furnaces, burners, turbines, heaters, incinerators, engines, flares, etc. Mobile Combustion: The combustion of fuels in transportation sources (e.g., cars, trucks, buses, trains, aircraft, and marine vessels); non-road equipment such as equipment used in construction, agriculture, and forestry; and other mobile sources. Fugitive Emissions: Intentional or unintentional releases from the production, processing, transmission, storage, and use of fuels and other substances that do not pass through a stack, chimney, vent, exhaust pipe or other functionally-equivalent opening. Process Emissions: Emissions resulting from physical or chemical processes other than from fuel combustion.

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
Eaton's scope 2 emissions include purchased electricity: The consumption of electricity acquired from generation facilities or sources that are not owned or controlled by Eaton, such as utilities, cooperatives, power authorities as well as direct access from independent power plants and other generation facilities. Consistent with GHG Protocol Scope 2 Guidance, Eaton calculates indirect emissions from purchased electricity twice using two different accounting methods: -The location-based method using average energy generation emission factors for defined geographic locations. -The market-based method from electricity based on the GHG emissions of the generators from which electricity was contractually purchased, specific electricity product purchased, or a contractual instrument. In 2018, we expanded the scope of our GHG inventory in 2018 to capture smaller sources of scope 1 emissions, shifted to calendar-year accounting and updated our methodology. Those changes triggered a recalculation of our 2015 baseline. For consistency, we also recalculated the intervening years.

C6.3

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

Reporting year

Scope 2, location-based
834441.49

Scope 2, market-based (if applicable)
780208.23

Start date
January 1 2019

End date
December 31 2019

Comment
Scope 2 includes: Purchased Electricity – The consumption of electricity acquired from generation facilities or sources that are not owned or controlled by Eaton, such as utilities, cooperatives, power authorities as well as direct access from independent power plants and other generation facilities. Purchased Heat/Steam – The consumption of thermal energy (i.e. heat or steam) acquired from facilities or sources that are not owned or controlled by Eaton, such as district heating systems or cogeneration facilities

Past year 1

Scope 2, location-based
885396.03

Scope 2, market-based (if applicable)
805552.48

Start date
January 1 2018

End date
December 31 2018

Comment
Scope 2 includes: Purchased Electricity – The consumption of electricity acquired from generation facilities or sources that are not owned or controlled by Eaton, such as utilities, cooperatives, power authorities as well as direct access from independent power plants and other generation facilities. Purchased Heat/Steam – The consumption of thermal energy (i.e. heat or steam) acquired from facilities or sources that are not owned or controlled by Eaton, such as district heating systems or cogeneration facilities

Past year 2

Scope 2, location-based
870897.11

Scope 2, market-based (if applicable)
870897.11

Start date
January 1 2017

End date
December 31 2017

Comment
Scope 2 includes: Purchased Electricity – The consumption of electricity acquired from generation facilities or sources that are not owned or controlled by Eaton, such as utilities, cooperatives, power authorities as well as direct access from independent power plants and other generation facilities. Purchased Heat/Steam – The consumption of thermal energy (i.e. heat or steam) acquired from facilities or sources that are not owned or controlled by Eaton, such as district heating systems or cogeneration facilities

Past year 3

Scope 2, location-based
872935.83

Scope 2, market-based (if applicable)

Start date
January 1 2016

End date
December 31 2016

Comment
Scope 2 includes: Purchased Electricity – The consumption of electricity acquired from generation facilities or sources that are not owned or controlled by Eaton, such as utilities, cooperatives, power authorities as well as direct access from independent power plants and other generation facilities. Purchased Heat/Steam – The consumption of thermal energy (i.e. heat or steam) acquired from facilities or sources that are not owned or controlled by Eaton, such as district heating systems or cogeneration facilities

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

Metric tonnes CO2e
8129412.42

Emissions calculation methodology
Eaton's CDP Supply Chain Report is filtered to identify "purchased goods" suppliers who reported revenues, scope 1, scope 2, and upstream scope 3 emissions. This data is used to calculate an emissions per unit revenue factor for each of these suppliers. These emission factors are multiplied by Eaton's annual spend on each supplier to determine purchased goods emissions from this subset of suppliers, and then extrapolated using total annual purchased goods spend (excluding intercompany sales) to estimate the entire purchased goods emissions for the corporation.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
2

Please explain
Eaton's spend with the suppliers in the CDP Supply Chain Report for the Purchased Goods category represented 2 percent of Eaton's total spend on purchased goods.

Capital goods

Evaluation status
Relevant, calculated

Metric tonnes CO2e
127395.31

Emissions calculation methodology
Eaton's CDP Supply Chain Report is filtered to identify "capital goods" suppliers who reported revenues, scope 1, scope 2, and upstream scope 3 emissions. This data is used to calculate an emissions per unit revenue factor for each of these suppliers. These emission factors are multiplied by Eaton's annual spend on each supplier to determine capital goods emissions from this subset of suppliers, and then extrapolated using total annual capital goods spend (excluding intercompany sales) to estimate the entire capital goods emissions for the corporation.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
14

Please explain
We use our top suppliers to estimate an emissions factor based on purchased goods spending.

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

Evaluation status
Relevant, calculated

Metric tonnes CO2e
111606.3

Emissions calculation methodology
Publicly available databases were used to identify the percent of emissions from fossil fuels' and electricity's life cycle phases including use, upstream and transportation and distribution losses. The ratios are applied to calculated Scope 1 and Scope 2 emissions (i.e. the use phase) for Eaton's energy consumption to extrapolate the upstream emissions from these activities.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
We use data from our utility bill management system and publicly available databases to calculate our upstream emissions from these activities.

Upstream transportation and distribution

Evaluation status
Relevant, calculated

Metric tonnes CO2e
181002.34

Emissions calculation methodology
FedEx, who manages Eaton's logistics, provides an annual emissions report for in-bound truck, air, and small package shipments in the North America region. Air and Ocean forwarders provided additional emissions data to account for global shipments.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
We are able to report on this scope 3 category using data provided to us from our logistics suppliers.

Waste generated in operations

Evaluation status
Relevant, calculated

Metric tonnes CO2e
8965.36

Emissions calculation methodology
MESH data on total annual waste disposal at Eaton facilities is apportioned to landfilled and incineration waste categories based on waste stream characterization study ratios. These waste category quantities are multiplied by emission factors sourced from the US EPA WARM model.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
We use data collected by our sites and reported into an internal database for this scope 3 category.

Business travel

Evaluation status
Relevant, calculated

Metric tonnes CO2e
36686.74

Emissions calculation methodology
Eaton's travel coordinators, BCD Travel and Egencia, provide reports identifying Eaton business travel flight segments and the length of those flight segments in miles. For each travel company, this segment mileage is aggregated based on segment length into three flight categories: short haul; medium haul; and long haul. The individual company flight category subtotals are then summed together to quantify Eaton's total mileage in each flight category. These flight category mileage totals are multiplied by flight category-specific emission factors (CO2, CH4, and N2O), sourced from the US EPA Center for Corporate Climate Leadership Emission Factors for Greenhouse Gas Inventories, to identify GHG emissions. These GHG sub-totals are summed for all flights categories, and then converted to a single CO2e total for all air travel emissions. Finally, a historical de minimis estimate of non-air travel emissions, calculated from 2017 spend data from the Concur database, is added to the air travel emissions to quantify total emissions from business travel.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
95

Please explain
Nearly all data comes from our business travel coordinator suppliers.

Employee commuting

Evaluation status
Relevant, calculated

Metric tonnes CO2e
163218.17

Emissions calculation methodology
Data on regional commuting distances, modes, and emission rates are applied relative to Eaton employee totals in those regions to calculate average commuting emissions per employee. This emission factor is multiplied by Eaton's worldwide employee total to estimate total commuting emissions for the entire corporation.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Data on regional commuting distances, modes, and emission rates are applied relative to Eaton employee totals in those regions to calculate average commuting emissions per employee. This emission factor is multiplied by Eaton's worldwide employee total to estimate total commuting emissions for the entire corporation.

Upstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes 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
All leased assets are accounted for in reported Scope 1 and/or Scope 2 emissions.

Downstream transportation and distribution

Evaluation status
 Relevant, calculated

Metric tonnes CO2e
 101426.13

Emissions calculation methodology
 FedEx, who manages Eaton's logistics, provides an annual emissions report for out-bound truck, air, and small package shipments in the North America region. Air and Ocean forwarders provided additional emissions data to account for global shipments.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
 100

Please explain
 We are able to report on this scope 3 category using data provided to us from our logistics suppliers.

Processing of sold products

Evaluation status
 Not relevant, explanation provided

Metric tonnes 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
 Eaton does not manufacture products that act as raw materials that require further processing.

Use of sold products

Evaluation status
 Relevant, calculated

Metric tonnes CO2e
 39322014.7

Emissions calculation methodology
 Eaton product life cycle assessment study data were used to identify the percent of emissions from product life cycle phases including production and use. These ratios are applied to the sum of Eaton's calculated Scope 1, Scope 2, and Scope 3 Category 1-3 upstream emissions (i.e. the production phase) to extrapolate the use emissions from Eaton's manufactured products. In addition, these product use emissions are adjusted by a direct energy use factor determined from the energy consumption characteristics of Eaton's top product lines.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
 2

Please explain
 Category 1 and 2 upstream emissions are derived from supplier data submitted to CDP and are used to calculate our emissions from use of sold products.

End of life treatment of sold products

Evaluation status
 Relevant, calculated

Metric tonnes CO2e
 19203.73

Emissions calculation methodology
 Eaton product life cycle assessment study data were used to identify the percent of emissions from product life cycle phases including production and end-of-life. These ratios are applied to the sum of Eaton's calculated Scope 1, Scope 2, and Scope 3 Category 1-3 upstream emissions (i.e. the production phase) to extrapolate the end-of-life emissions from Eaton's manufactured products. In addition, these product end-of-life emissions are adjusted by an end-of-life treatment factor determined from Eaton's top product lines.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
 2

Please explain
 Category 1 and 2 upstream emissions are derived from supplier data submitted to CDP and are used to calculate our emissions from end of life treatment of sold products.

Downstream leased assets

Evaluation status
 Not relevant, explanation provided

Metric tonnes 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
 Eaton does not lease company-owned assets to customers.

Franchises

Evaluation status
 Not relevant, explanation provided

Metric tonnes 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
 Eaton sells products directly to customers without the use of a franchised network.

Investments

Evaluation status
 Not relevant, explanation provided

Metric tonnes 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
 Eaton is not a private or public financial institution with investments not accounted for in Scope 1 and/or Scope 2 emissions.

Other (upstream)

Evaluation status
 Not relevant, explanation provided

Metric tonnes 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
 There are no other relevant upstream categories to report.

Other (downstream)

Evaluation status
 Not relevant, explanation provided

Metric tonnes 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
 There are no other relevant downstream categories to report.

C-CG6.6

(C-CG6.6) Does your organization assess the life cycle emissions of any of its products or services?

	Assessment of life cycle emissions	Comment
Row 1	Yes	Eaton conducts Lifecycle assessments on a variety of its products that calculate the environmental impacts, including carbon emissions from its products. In addition, we are in the process of defining a sustainable product portfolio and calculating our customers' avoided carbon emissions through the use of these products.

C-CG6.6a

(C-CG6.6a) Provide details of how your organization assesses the life cycle emissions of its products or services.

	Products/services assessed	Life cycle stage(s) most commonly covered	Methodologies/standards/tools applied	Comment
Row 1	On a case-by-case basis	Cradle-to-grave	ISO 14040 & 14044	We use Design for the Environment (DfE) to reduce the overall impact of a product across its lifecycle. We use Life Cycle Assessment (LCA) adhering to ISO 14040/14044 standards.

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	1325.8	Eaton has calculated 1,325.80 MT of CO2 generated from biogenic purchased heat. Per the GHG Corporate Standard, based on the Corporate Standard, CO2 portion of the biofuel combustion shall be reported outside Scopes 1,2 and 3. This means that any market-based method data that includes biofuels should report the CO2 portion of the biofuel combustion separately from the scopes.

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
0.00004982

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
1066162.97

Metric denominator
unit total revenue

Metric denominator: Unit total
21400000000

Scope 2 figure used
Market-based

% change from previous year
2

Direction of change
Decreased

Reason for change
Eaton's greenhouse gas intensity is measured by Metric Tons of CO2e per Million USD of sales. In 2019 we increased renewable energy purchases while implementing energy efficiency initiatives resulting in the decrease of greenhouse gas intensity.

C7. Emissions breakdowns

C7.1

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

No

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Asia Pacific (or JAPA)	30307.67
Europe, Middle East and Africa (EMEA)	54711.1
North America	193166.22
South America	7769.75

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)
Crouse Hinds/B-Line	23802.36
Electrical Americas	87848.12
Lighting	22176.91
EMEA Electrical	29281.2
APAC Electrical	15975.48
Hydraulics	34117.35
Aerospace	28501.73
Vehicle	44251.59

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)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Asia Pacific (or JAPA)		82692.44		
Europe, Middle East and Africa (EMEA)		149275.54		
North America		527041.02		
South America		21199.23		

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)
Crouse Hinds/B-Line		64943.13
Electrical Americas		239687.67
Lighting		60508.21
EMEA Electrical		79891.77
APAC Electrical		43588.03
Hydraulics		93086.89
Aerospace		77765.05
Vehicle		120737.48

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?
Decreased

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	34510	Decreased	3.2	We increased our renewable energy consumption by approximately 30,000 MWH compared to 2018 usage. Our average emission factor for purchased electricity is 0.4 MT CO2e/MWH. Therefore, we calculate avoided emissions to be 30,000 MTCO2e which represents a 3.2% reduction over 2018 Market-Based Totals. Change in Scope 1 and 2 emissions attributed to renewable energy consumption account for about 30,000 MT Co2e reduced. The calculation is as follows: (34,510/1,066,162.79) *100
Other emissions reduction activities	7128	Decreased	0.7	In 2019 we completed projects related to energy efficiency that resulted in approximately 7,000 MT of greenhouse gas reductions. These represent nearly 1% of the reduction achieved in 2019. The calculation is as follows: (7128/1,066,162.79)*100
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output		<Not Applicable>		
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other	7874	Increased	0.7	While increases in renewable energy projects and energy efficiency projects reduced GHG emissions by approximately 4 percent in 2019 compared to 2018, increases elsewhere in our GHG inventory resulted in an increase of approximately .7% resulting in a total decrease in emissions Year-over-year of 3%. Increases in the square footage attributed to warehouse and distribution space eroded some of the scope 1 and scope 2 reductions. In addition, slight increases in fugitive emissions also eroded some of the Scope 1 and 2 reductions resulting in a net decrease of GHG emissions of 3%

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?
Market-based

C-CG7.10

(C-CG7.10) How do your total Scope 3 emissions for the reporting year compare to those of the previous reporting year?
Please select

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	Yes
Consumption of purchased or acquired steam	No
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)	Unable to confirm heating value		1183485.01	1183485.01
Consumption of purchased or acquired electricity	<Not Applicable>	201740	1573272.81	1775012.81
Consumption of purchased or acquired heat	<Not Applicable>	3316.46	6228.67	9545.13
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>		<Not Applicable>	
Total energy consumption	<Not Applicable>	205056.46	2762986.5	2968042.95

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	No
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	No

C8.2c

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

Fuels (excluding feedstocks)
Natural Gas

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
914136.94

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
0.1812

Unit
kg CO2e per KWh

Emissions factor source
The Climate Registry

Comment

We don't track natural gas use for self-generation of heat, self-generation of steam or self-generation of cooling at the corporate level. Therefore it is unknown what portion is used for heating, cooling or steam generation respectively.

Fuels (excluding feedstocks)
Diesel

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
32848.57

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
10.21

Unit
kg CO2 per gallon

Emissions factor source
US EPA Center for Corporate Climate Leadership Emission Factors for Greenhouse Gas Inventories (26 March 2020)

Comment
Diesel MWh data represents stationary and mobile sources using heating value weighted averages for stationary and mobile respectively. We don't track diesel use for self-generation of heat, self-generation of steam or self-generation of cooling at the corporate level. Therefore it is unknown what portion is used for heating, cooling or steam generation respectively.

Fuels (excluding feedstocks)
Motor Gasoline

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
151583.03

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
8.78

Unit
kg CO2 per gallon

Emissions factor source
US EPA Center for Corporate Climate Leadership Emission Factors for Greenhouse Gas Inventories (26 March 2020)

Comment
Gasoline MWh represents stationary and mobile sources using heating value weighted averages for stationary and mobile respectively. We don't track gasoline use for self-generation of heat, self-generation of steam or self-generation of cooling at the corporate level. Therefore it is unknown what portion is used for heating, cooling or steam generation respectively.

Fuels (excluding feedstocks)
Propane Liquid

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
60316.66

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
5.72

Unit
kg CO2 per gallon

Emissions factor source
US EPA Center for Corporate Climate Leadership Emission Factors for Greenhouse Gas Inventories (26 March 2020)

Comment
Propane MWh data represents stationary and mobile sources using heating value weighted averages for stationary and mobile respectively. We don't track Propane/LPG use for self-generation of heat, self-generation of steam or self-generation of cooling at the corporate level. Therefore it is unknown what portion is used for heating, cooling or steam generation respectively.

Fuels (excluding feedstocks)
Acetylene

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
400.26

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
3385

Unit
kg CO2 per Mg

Emissions factor source
Calculated based on molecular weight

Comment
We don't track Acetylene use for self-generation of heat, self-generation of steam or self-generation of cooling at the corporate level. Therefore it is unknown what portion is used for heating, cooling or steam generation respectively.

Fuels (excluding feedstocks)
Butane

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
0.31

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
6.67

Unit
kg CO2 per gallon

Emissions factor source
US EPA Center for Corporate Climate Leadership Emission Factors for Greenhouse Gas Inventories (26 March 2020)

Comment
We don't track butane use for self-generation of heat, self-generation of steam or self-generation of cooling at the corporate level. Therefore it is unknown what portion is used for heating, cooling or steam generation respectively.

Fuels (excluding feedstocks)
Other, please specify (Methanol)

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
2851.2

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
4.1

Unit
kg CO2 per gallon

Emissions factor source
The Climate Registry

Comment
Methanol MWh data represents stationary sources using heating value weighted averages. We don't track Methanol use for self generation of heat, self-generation of steam or self-generation of cooling at the corporate level. Therefore it is unknown what portion is used for heating, cooling or steam generation respectively.

Fuels (excluding feedstocks)
Kerosene

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
3667.86

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
10.15

Unit
kg CO2 per gallon

Emissions factor source
US EPA Center for Corporate Climate Leadership Emission Factors for Greenhouse Gas Inventories (26 March 2020)

Comment
Kerosene MWh data represents stationary sources using heating value weighted averages. We don't track kerosene use for self generation of heat, self-generation of steam or self-generation of cooling at the corporate level. Therefore it is unknown what portion is used for heating, cooling or steam generation respectively.

Fuels (excluding feedstocks)
Jet Kerosene

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
17680.17

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor

9.75

Unit

kg CO2 per gallon

Emissions factor source

US EPA Center for Corporate Climate Leadership Emission Factors for Greenhouse Gas Inventories (26 March 2020)

Comment

Jet Kerosene MWh data represents mobile sources.

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	9366.71	9366.71	9366.71	9366.71
Heat	0	0	0	0
Steam	0	0	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 emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method

Power purchase agreement (PPA) with a grid-connected generator with energy attribute certificates

Low-carbon technology type

Solar

Country/region of consumption of low-carbon electricity, heat, steam or cooling

Asia Pacific (or JAPA)

MWh consumed accounted for at a zero emission factor

182.32

Comment

Includes solar installations at several sites in India and China.

Sourcing method

Power purchase agreement (PPA) with a grid-connected generator with energy attribute certificates

Low-carbon technology type

Solar

Country/region of consumption of low-carbon electricity, heat, steam or cooling

Europe, Middle East and Africa (EMEA)

MWh consumed accounted for at a zero emission factor

1086.67

Comment

Includes solar installations in The Netherlands, Germany, UK and South Africa.

Sourcing method

Power purchase agreement (PPA) with a grid-connected generator without energy attribute certificates

Low-carbon technology type

Solar

Country/region of consumption of low-carbon electricity, heat, steam or cooling

North America

MWh consumed accounted for at a zero emission factor

1447.7

Comment

Includes solar installations primary in the United States of America.

Sourcing method

Power purchase agreement (PPA) with a grid-connected generator without energy attribute certificates

Low-carbon technology type

Solar

Country/region of consumption of low-carbon electricity, heat, steam or cooling
Asia Pacific (or JAPA)

MWh consumed accounted for at a zero emission factor
6650

Comment
Includes solar installations in China.

Sourcing method
Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type
Low-carbon energy mix

Country/region of consumption of low-carbon electricity, heat, steam or cooling
North America

MWh consumed accounted for at a zero emission factor
64347.4

Comment
Includes contracts in Canada, United States and Mexico.

Sourcing method
Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type
Low-carbon energy mix

Country/region of consumption of low-carbon electricity, heat, steam or cooling
Europe, Middle East and Africa (EMEA)

MWh consumed accounted for at a zero emission factor
128065.44

Comment
Includes contracts in UK, Italy, Germany, Spain and other countries.

Sourcing method
Power purchase agreement (PPA) with a grid-connected generator with energy attribute certificates

Low-carbon technology type
Solar

Country/region of consumption of low-carbon electricity, heat, steam or cooling
North America

MWh consumed accounted for at a zero emission factor
40.03

Comment
Includes contracts in the United States.

C-CG8.5

(C-CG8.5) Does your organization measure the efficiency of any of its products or services?

	Measurement of product/service efficiency	Comment
Row 1	Yes	

C-CG8.5a

(C-CG8.5a) Provide details of the metrics used to measure the efficiency of your organization's products or services.

Category of product or service
Power transmission, transformation and distribution equipment

Product or service (optional)
Uninterrupted Power Supply, Energy Saver System

% of revenue from this product or service in the reporting year
0.47

Efficiency figure in the reporting year
99

Metric numerator
%

Metric denominator
Not applicable

Comment
ESS provides highest efficiency available from any UPS.

Category of product or service
Power generation equipment

Product or service (optional)
Supercharger

% of revenue from this product or service in the reporting year
0.68

Efficiency figure in the reporting year
70

Metric numerator
%

Metric denominator
Not applicable

Comment
Most superchargers first operated at around 60% efficiency – in terms of how well the system could utilise the energy powering it – and span at speeds of around 14,000 revolutions per minute (RPM). Today, certain applications can hit 24,000 RPM and run at efficiencies well above 70%. The devices themselves have also become physically smaller without sacrificing performance.

C9. Additional metrics

C9.1

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

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

(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	

C-CG9.6a

(C-CG9.6a) Provide details of your organization's investments in low-carbon R&D for capital goods products and services over the last three years.

Technology area
Unable to disaggregate by technology area

Stage of development in the reporting year
<Not Applicable>

Average % of total R&D investment over the last 3 years
61 - 80%

R&D investment figure in the reporting year (optional)
606000000

Comment
With millions of SKUs and tens of thousands of products, Eaton is still in the process of classifying them into sustainability-related categories including low-carbon / energy efficiency. We have not calculated an exact number for percent of revenue. However, based on product manager and engineering services team knowledge, we estimate a range of 60-80% of Eaton's 2019 sales ($21.4 billion) are from sales of low carbon and low emissions products. In the box above, we used the figure of 70% as an average, which represents about $15 billion in 2019 revenue from these sustainable products. $4.2 billion represent sales from low carbon and low emissions products, or about 70% of revenue.

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
Reasonable assurance

Attach the statement
Verification Statement_Eaton CY2019 Scope 1_2 GHG_final.pdf

Page/ section reference
Page 3 has concluding statement.

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 market-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Reasonable assurance

Attach the statement
Verification Statement_Eaton CY2019 Scope 1_2 GHG_final.pdf

Page/ section reference
Page 3 has concluding statement.

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.1c

(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 (upstream & downstream)

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
Eaton CY2019 Scope 3 Verification Statement_final.pdf

Page/section reference
Page 2-3 has concluding statement on our verification.

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?
No, we do not verify any other climate-related information reported in our CDP disclosure

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)?
Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.
Other carbon tax, please specify (Eaton pays carbon tax in UK for applicable sites under the Carbon Reduction Commitment which is now called Streamlined Energy and Carbon Reporting (SECR).)

C11.1c

(C11.1c) Complete the following table for each of the tax systems you are regulated by.

Other carbon tax, please specify

Period start date
January 1 2019

Period end date
December 31 2019

% of total Scope 1 emissions covered by tax
1

Total cost of tax paid
400000

Comment
Under CRC we have paid annually ranging from $250K USD to $400K annually.

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

The price of carbon at our UK sites is determined by UK government within the Carbon Reduction Commitment scheme, that was replaced by the Streamlined Energy and Carbon Reporting scheme in April 2019.

The carbon price depends on how much energy is produced from renewable sources within the country.

Our monthly SECR payments are based on our energy consumption. The more energy efficient we are, the lower our monthly carbon tax bills. Therefore, our strategy for reducing this carbon tax is to reduce our energy consumption.

An example of this is in 2019 our Worksop facility upgraded their injection moulding machine to a more energy efficient model. This upgrade reduced our energy usage by approximately 240,000 kWh per year, or approximately 91 tons of CO2.

We continue to strive to reduce our carbon tax by reducing consumption by increasing plant efficiencies.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?
No

C11.3

(C11.3) Does your organization use an internal price on carbon?
No, and we do not currently anticipate doing so in the next two years

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?
Yes, our suppliers
Yes, our customers

C12.1a

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

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

% total procurement spend (direct and indirect)
21

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

Rationale for the coverage of your engagement
Environmental considerations are critical in our interactions with suppliers. We invite key suppliers (using risk-based and other prioritization factors that including indicators such as greenhouse gas emission impacts) to disclose emissions data through the CDP Supply Chain Program annually. Select strategic suppliers are also evaluated in our supplier risk management program, which includes key sustainability metrics, adverse media and other screening tools that generally cover a broad range of community impacts. Additionally, our Supplier Site Assessment process includes a review of supplier EHS performance and product stewardship practices. Supplier performance and participation in these key performance indicator areas is also evaluated as part of Eaton's supplier awards program.

Impact of engagement, including measures of success
Eaton again earned an A- Supplier Engagement Rating from the CDP Supply Chain Program in 2019-2020. Eaton tracks a number of KPIs across the CDP supply chain program and other supplier engagement initiatives, including emission reductions initiatives undertaken by suppliers. Based on responses from suppliers via CDP, we have seen continuous improvement year over year in suppliers undertaking and disclosing climate change management actions, including 75% of responding suppliers reporting having emission reductions initiatives, Eaton is also actively engaging with a targeted group of focus suppliers through the CDP supply Chain process to support, guide and encourage their continuous improvement in climate change management activities and reporting.

Comment
We work with suppliers on quality and product stewardship as part of our standard processes.

Type of engagement
Compliance & onboarding

Details of engagement
Code of conduct featuring climate change KPIs
Climate change is integrated into supplier evaluation processes

% of suppliers by number
45

% total procurement spend (direct and indirect)
87

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

Rationale for the coverage of your engagement
We seek to do business with suppliers that share our values and approach to responsible business. As such, we require suppliers to affirm commitments to responsible labor and human rights practices in order to gain and maintain our business. We share our Supplier Code of Conduct with all our suppliers, outlining Eaton's expectations for supplier workplace standards and business practices. And we require adherence to our Supplier Code of Conduct, including our governance policies on topics such as ethics, slavery, human trafficking and conflict minerals.

Impact of engagement, including measures of success
Suppliers representing 87 percent of our supplier spend have affirmed our Supplier Code of Conduct. Our goal is for 100 percent of our suppliers to affirm our code by 2030.

Comment

C12.1b

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

Type of engagement
Education/information sharing

Details of engagement
Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services

% of customers by number
37

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

Portfolio coverage (total or outstanding)
<Not Applicable>

Please explain the rationale for selecting this group of customers and scope of engagement
Eaton engages customers in education and information-sharing about our solutions that reduce carbon emissions and help enable the energy transition to a more electrified and renewable grid. Our engagement efforts are targeted to current and potential customers across industries, including machinery, electric utilities, commercial buildings, manufacturing, data centers and transportation. Through our What Matters campaign, thought leadership white papers, videos, infographics and articles, we engage customers on our website, social media and traditional media on these climate-related solutions: Energy transition: We focus on helping customers unlock the door to a low-carbon energy future. Distributed energy resources enable more homes, businesses and communities to produce and sell energy, as well as consume it. This energy transition is changing how power needs to be managed and optimized. We have taken the "Everything as a Grid" approach to energy transition and are helping customers safely add more renewables, energy storage and electric vehicle infrastructure to their energy mix to become more resilient. SF6-free switchgear: How SF6 impacts climate change and about SF6-free alternatives, including Eaton solutions that have available to the market for 60 years. Information sharing includes case studies, white papers, brochures, articles, regulatory updates and more through targeted email and social media outreach. Targeted customers include utilities, rail, heavy industry and more that use medium-voltage power. We are also part of the Green Switching Forum, campaigning for environmentally-friendly power distribution technologies. Microgrids: How microgrids help drive energy savings, independence from utility power for enhanced reliability and better enable multiple distributed energy resources, like solar power. Microgrids are an ideal solution to assure energy resiliency and optimized usage. Emissions regulations: What truck manufacturers need to know about the future of emissions and how electric powertrain options can help. Vehicle electrification: Focus on helping vehicle OEMs build efficient vehicles that travel faster, farther, higher and safer at a lower overall cost to consumers and the environment by driving adoption and evolution of EV technology at the convergence of electrical and mechanical power.

Impact of engagement, including measures of success
Eaton's customers value and are interested in sustainability and climate-related information. To meet this need, we offer a wide variety of educational page content, white papers, videos, podcasts, infographics and more on our website. Our global size and adherence to privacy regulations mean that we cannot always track specific customer engagement on our site; however we can say that at least 37% of the visitors coming to our site for educational content engaged with sustainability-related content.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?
Direct engagement with policy makers
Trade associations

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Other, please specify (CAFE regulations)	Support	Eaton endorses the EPA's original Corporate Average Fuel Economy (CAFÉ) and GHG standards for automotive passenger vehicles which mandate that vehicle fleets achieve an average of 54.5 mpg by 2025, thereby reducing fuel use and carbon emissions. However, CAFÉ standards could be significantly relaxed or frozen under the Trump administration and would make it harder for the U.S. to avoid a two-degree-Celsius global warming scenario as per the Paris Agreement. We also believe the weaker standards could lower demand for Eaton's fuel-saving and emissions-reducing products. For example, the Eaton Supercharger has been improving engine performance since 1985. Five generations later, the TVS® (Twin Vortices Series®) was a revolutionary design that provides a 12% efficiency improvement, which saves fuel and reduces GHG emissions. Eaton also supports the current US EPA phase two of the CAFE and GHG rule for commercial trucks that will set standards for 2018 thru 2025. Our work relates to testing, compliance and incentives to drive adoption of fuel efficient technologies through aggressive GHG and CAFÉ standards. We worked with stakeholders and the agencies to identify technologies that will help OEM's meet the standards with improved performance in the next phase of rulemaking.	Preserve the CAFE standards for automotive passenger vehicles which mandate that vehicle fleets achieve an average of 54.5 mpg by 2025, thereby reducing fuel use and carbon emissions. Also, propose rules in the commercial vehicle segment that drive adoption of fuel efficient technologies, improve performance, and reduce costs for truck fleets. The EPA is reviewing the CAFE standards as part of its ongoing process of setting standards. Eaton submitted comments regarding technologies to meet the standards.

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?
Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association
National Electrical Manufacturers Association

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
NEMA strongly supports a climate policy that achieves meaningful greenhouse gas reductions at the lowest practicable costs. NEMA members are leaders in providing demand management and energy-efficient products and technologies to the market. These technologies, if deployed and utilized, lead to far more efficient use of energy sources, be they fossil fuels or others, and, in turn, reduce the amount of greenhouse gases across all sectors of our economy. NEMA's member companies stand committed to incorporating the energy-efficient products and equipment that our members manufacture, all as part of our industry's efforts to reduce GHGs.

How have you influenced, or are you attempting to influence their position?
Eaton has worked with advocates at the State level to promote the adoption of legislation, regulations, codes and standards for energy efficient measures that reduce GHG emissions and facility operational costs. Topic: Eaton supports public policies that encourage schools and public buildings to follow Leadership in Energy and Environmental Design (LEED) practices. We believe that LEED serves as a vital blueprint for building design, construction, operation, and maintenance, providing cost-effective, best practice specifications that ensure that public buildings are using the energy efficient technologies that provide operational savings and reduce emissions. Method: we are working through trade organizations and the government (DOE). Actions advocating: develop rule-making and products/technologies strategies for reasonable LEED practices in public buildings that will help customers meet LEED requirements and evolving carbon emissions regulations. Nature of engagement: meet with legislators; provide information on Eaton's energy efficiency products.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

Eaton's Executive VP, Eaton Business System (EBS) & Sustainability has major responsibility to ensure that direct and indirect activities are consistent with our overall climate change strategy. As a member of Eaton's Senior Leadership Committee (SLC), the EVP, EBS and Sustainability reports (inter alia) climate related issues on a monthly, quarterly and annual basis. The SLC is the highest level non-Board committee and reports directly to the Board of Directors on major corporate and business issues. Other members of the SLC who are directly involved in policy, legal, strategy and other functions coordinate with the EVP, EBS and Sustainability to ensure a consistent approach on climate change issues both internal and external to our organization. For environmental and safety risks, issues planning, and climate change strategy, Eaton uses MESH (Management of Environment, Safety, Security and Health), a globally deployed, unified system that consolidates all EHS and compliance programs and voluntary action into one integrated management system that conforms to the well-known ISO14001 standard and OHSAS 18001. MESH has three components: Process & Compliance; Culture; and Results. Process & Compliance sets requirements in 34 elements grouped into 10 EHS categories and drives compliance with EHS legal requirements and Eaton's global EHS requirements and voluntary action at the facility. Culture relates to how well each facility drives ownership of EHS management through cross-functional leadership and engagement of all employees. Results component focuses on achieving performance metrics. Targets, objectives, priorities and performance goals are set for each component. Eaton facilities conduct self-assessments each year, and undergo a corporate MESH assessment and OpA assessment led by independent internal teams every three years. Results are reported each year to Business operations leadership; EVP, EBS and Sustainability; and, if necessary, the Board of Directors.

C12.4

(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
eaton-sustainability-report_2019_FINAL.pdf

Page/Section reference
See pages: 3, 8, 15, 29-36, 54-55

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment
Our annual Sustainability Report and associated metrics and disclosures can be found online at www.eaton.com/sustainability.

Publication
In mainstream reports

Status
Complete

Attach the document
eaton-complete-annual-report-2019.pdf

Page/Section reference
5-6

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

C15. 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.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Chairman and Chief Executive Officer	Chief Executive Officer (CEO)

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	21390000000

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

Yes

SC0.2a

(SC0.2a) Please use the table below to share your ISIN.

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	IE	00B8KQN827

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.

Requesting member
Alphabet, Inc.

Scope of emissions
Scope 1

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
1306

Uncertainty (±%)

Major sources of emissions

Verified
Yes

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Requesting member
Alphabet, Inc.

Scope of emissions
Scope 2

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
3562

Uncertainty (±%)

Major sources of emissions

Verified
Yes

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

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
Diversity of product lines makes accurately accounting for each product/product line cost ineffective	Challenge: Being unable to measure where and how energy is used. Generally we do not sub meter our factories. Therefore, it is difficult to determine a footprint of a single unit of production. Eaton produces close to eight million products at more than 200 manufacturing facilities worldwide. We have no method of allocating products to a specific facility, then connecting them to one of our thousands of customers. Potential solution: Sub-metering of plants would overcome this challenge.
Customer base is too large and diverse to accurately track emissions to the customer level	Challenge: Eaton sells over eight million SKUs to a diversified set of components to our customer base, which are used in a variety of different situations, making it challenging to estimate the impact of our products in use. Potential solution: implementing lifecycle assessment methodology into all new product development to keep a database of downstream emissions, including customer use phase.
Other, please specify (Monitoring for all product deliveries)	Potential solution: Developing a logistic process to measure energy would overcome this challenge.
Other, please specify (Product packaging disposal emissions)	Potential Solution: Developing a package disposal profile would overcome this challenge.

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.

In the future Eaton plans to enhance scope 3 emissions tracking. Additional enhancements would include: • Continue to develop our Life Cycle Assessment (LCA) process to include more products and achieve a better understanding of a product's GHG impact, including allocation to customers. Establish a process to monitor finished products including transport and packaging waste disposal. • Eaton Corporation is committed to improving our environmental footprint – not only around our own emissions, energy and water consumption but also by helping our suppliers reduce theirs. • We asked our most strategic suppliers to join us in our sustainability efforts by working with our partner CDP and completing the Supplier Questionnaire. Eaton engaged GZA GeoEnvironmental, Inc. as an additional resource to assist our suppliers in responding to the questionnaire offering training and one on one consultation. These suppliers are strategic to our operations representing approximately 20% of Eaton's total upstream spend on goods and services. Success was measured by the number of respondents and the quality of information submitted. The CDP supply chain results showed Eaton as a leading company in both number of suppliers asked and number accepting our invitation. •Increase employee awareness and understanding of emissions worldwide to provide support to our programs to reduce environmental footprints.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?
No

SC3.1

(SC3.1) Do you want to enroll in the 2020-2021 CDP Action Exchange initiative?
Yes

SC3.1a

(SC3.1a) Identify which member(s), if any, have motivated you to take part in Action Exchange this year.
Alphabet, Inc.

SC3.1b

(SC3.1b) Select the types of emissions reduction activities that your company would like support in analyzing or in implementing in the next reporting year.
Energy efficiency in production processes
Fugitive emissions reductions
Low-carbon energy consumption

SC3.1c

(SC3.1c) As part of Action Exchange, would you like facility level analysis?
No

SC3.2

(SC3.2) Is your company a participating supplier in CDP's 2019-2020 Action Exchange initiative?
No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?
No, I am not providing data

Submit your response

In which language are you submitting your response?
English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain Questions?
I am submitting my response	Investors Customers	Public	Yes, submit Supply Chain Questions now

Please confirm below
I have read and accept the applicable Terms