

Welcome to your CDP Climate Change Questionnaire 2023

C0. Introduction

C0.1

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

General Motors Company (GM) is a global company with an innovative spirit and a commitment to action that will help us contribute to our world's changing needs. We design, build and sell trucks, crossovers, cars and automobile parts and provide software-enabled services and subscriptions worldwide. Our automotive operations meet the demands of our customers through our automotive segments: GM North America (GMNA) and GM International (GMI) with vehicles developed, manufactured and/or marketed under the Buick, Cadillac, Chevrolet and GMC brands. We also have equity ownership stakes in entities that meet the demands of customers in other countries, primarily in China, with vehicles developed, manufactured and/or marketed under the Baojun, Buick, Cadillac, Chevrolet and Wuling brands. Cruise is our global segment responsible for the development and commercialization of autonomous vehicle technology. We provide automotive financing services through our General Motors Financial Company, Inc. (GM Financial) segment. Unless otherwise stated, GM Financial and Cruise are not included in the responses to this questionnaire.

With global headquarters in Detroit, Michigan, GM employs 154,000 people (Approximate total. Excludes employees of DMAX Ltd, which was founded in 1999 as a joint venture and became a wholly owned subsidiary of GM in May 2022.). At December 31, 2022, we had over 100 locations in the U.S. (excluding our automotive financing operations and dealerships), which are primarily for manufacturing, assembly, distribution, warehousing, engineering and testing. We have manufacturing, assembly, distribution, office or warehousing operations in 29 countries, including equity interests in associated companies, which perform manufacturing, assembly or distribution operations. The major facilities outside the U.S., which are principally vehicle manufacturing and assembly operations, are located in Brazil, Canada, China, Mexico and South Korea. GM is reporting GHG emissions in reference to the Greenhouse Gas Protocol, unless noted otherwise, for operations (Scope 1 & 2), owned or leased facilities, and joint ventures as applicable, as well as for indirect emissions (Scope 3) from upstream and downstream activities, using operational control to define the organizational boundary. We are reporting Scope 1 and 2 emissions by North America, South America, and International (rest of world), and company-wide for Scope 3.

As a responsible corporate citizen, we provide global guidelines to help reduce the impact of our activities on the environment. GM's Management of Environmental Compliance and Guiding Environmental Commitments are the foundation of our updated Global Environmental Policy. The commitments are a guide for all GM employees worldwide, encouraging environmental awareness in daily conduct and in the planning of future products and programs. Although GM-owned and -operated facilities have their own operating plans, all function under the common Global Environmental Policy, which provides an effective foundation for environmental stewardship. We have a robust process to enhance the integration of environmental sustainability practices into daily business decisions and to:

- Comply with applicable environmental laws and regulations globally
- Monitor our performance according to our own Environmental Performance Criteria (EPCs), which are universal corporate performance requirements designed to protect human health and the environment in accordance with the GM Global Environmental Policy
- Conform to key sustainability performance indicators and environmental performance metrics

GM is a signatory to the United Nations Global Compact, which endorses a framework of principles in the areas of human rights, labor, the environment, and anti-corruption. In 2021, GM signed the UN Global Compact - CEO Water Mandate to support global water security. In addition, GM's commitment supports the Global Compact's ten principles and the company's intent to maintain the principles and to evaluate related global best practices that may be applicable to GM.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

Reporting year

Start date

January 1, 2022

End date

December 31, 2022

Indicate if you are providing emissions data for past reporting years

Yes

Select the number of past reporting years you will be providing Scope 1 emissions data for

Not providing past emissions data for Scope 1

Select the number of past reporting years you will be providing Scope 2 emissions data for

Not providing past emissions data for Scope 2

Select the number of past reporting years you will be providing Scope 3 emissions data for

1 year

C0.3

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

Argentina
Australia
Brazil
Canada
Chile
China
Colombia
Ecuador
Egypt
India
Ireland
Japan
Mexico
Philippines
Republic of Korea
Switzerland
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

C-TO0.7/C-TS0.7

(C-TO0.7/C-TS0.7) For which transport modes will you be providing data?

Light Duty Vehicles (LDV)

C0.8

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

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	37045V1008

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 or committee	Responsibilities for climate-related issues
Chief Executive Officer (CEO)	<p>The company's risk governance is facilitated through a top-down and bottom-up communication structure, with our CEO serving as our chief risk officer. Management of enterprise risks and opportunities, ultimately resides with the CEO, who leads our Senior Leadership Team (SLT). The SLT appoints members to our Risk Advisory Council, an executive-level body with delegates from each business unit, to discuss and monitor the most significant business and emerging risks in a cross-functional setting. They are tasked with championing risk management practices and integrating them into their functional or regional business units. We contemplate climate-related risks in our enterprise risk framework and continuously monitor changes to our overall risk landscape. At the management level, GM's SLT establishes and executes the company's ESG strategy.</p> <p>The SLT are supported by our Office of Sustainability (see CSO response) and ESG Disclosure Committee.</p> <p>The ESG Disclosure Committee is a cross-functional group that oversees GM's ESG disclosures. It is chaired by our vice president global business solutions and chief accounting officer, vice president sustainable workplaces and chief sustainability officer (CSO), and assistant corporate secretary and lead counsel—corporate governance, finance and securities.</p> <p>An example of climate-related decisions overseen by the CEO can be seen in the</p>

	<p>2022 Sustainability Report: A Message from Mary Barra, Chair and CEO: We remain committed to eliminating tailpipe emissions from new U.S. light-duty vehicles by 2035. Last year, we went even further, securing enough renewable energy to power our U.S. facilities by 2025—25 years earlier than we originally shared. It's a huge step toward making our business carbon neutral by 2040.</p>
<p>Chief Sustainability Officer (CSO)</p>	<p>The Office of Sustainability is a cross-functional group that uses a “team of teams” approach to guide sustainability initiatives across the company. It is chaired by the vice president of sustainable workplaces and chief sustainability officer (CSO). The CSO reports to the executive vice president of global manufacturing and sustainability, the enterprise-wide leader for sustainability initiatives who develops and coordinates sustainability strategy and efforts across the company. The Office of Sustainability:</p> <p>Monitors the execution of public commitments related to sustainability goals such as carbon neutrality and the Science-Based Targets initiative (SBTi)</p> <p>Reviews and approves certain social and environmental sustainability strategies, including human rights and sustainable materials strategies</p>
<p>Board-level committee</p>	<p>The Board is committed to sound corporate governance policies and practices that are designed and routinely assessed to enable GM to operate its business responsibly, sustain our success and build long-term shareholder value. The Board also works with management to integrate environmental, social and governance (ESG) principles into the company’s business strategy.</p> <p>The Board has overall responsibility for risk oversight and focuses on the most significant risks facing GM. It discharges these responsibilities, in part, through delegation to its committees: Audit; Executive Compensation; Finance; Governance and Corporate Responsibility(GCRC); and Risk and Cybersecurity. The GCRC oversees ESG initiatives, strategies and policies that have a material impact on the company. The GCRC deploys an ESG scorecard to track progress against GM’s public global sustainability targets, including water reduction targets, and conducts annual reviews of ESG topics such as public policy, corporate philanthropy and other sustainability initiatives (including human rights and responsible sourcing).</p> <p>As an example, in consultation with the Audit Committee, the GCRC also approves the company’s annual Sustainability Report and associated disclosures, which includes climate related metrics.</p>

C1.1b

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

Frequency with which climate-	Governance mechanisms into	Please explain
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related issues are a scheduled agenda item	which climate-related issues are integrated	
<p>Scheduled – some meetings</p>	<p>Reviewing and guiding annual budgets</p> <p>Overseeing major capital expenditures</p> <p>Overseeing acquisitions, mergers, and divestitures</p> <p>Reviewing innovation/R&D priorities</p> <p>Overseeing and guiding employee incentives</p> <p>Reviewing and guiding strategy</p> <p>Overseeing the setting of corporate targets</p> <p>Monitoring progress towards corporate targets</p> <p>Overseeing and guiding public policy engagement</p> <p>Overseeing value chain engagement</p> <p>Reviewing and guiding the risk management process</p>	<p>The Board discharges its risk oversight responsibilities, in part, through delegation to its committees.</p> <p>Each committee has a written charter setting forth its purpose, authority and duties. Overall, the committees enhance the Board’s oversight of areas that are critical to GM’s corporate responsibility and sustainability efforts, including transparent and reliable financial reporting; risk identification and mitigation (including climate change and other ESG issues); ethics and compliance; product and workplace safety; supply chain and human rights; pay-for-performance; data security; diversity, equity and inclusion; Board and management succession planning; consideration of shareholder proposals; and political and lobbying priorities and expenditures.</p> <p>Governance and Corporate Responsibility Committee (GCRC)</p> <p>The GCRC oversees ESG initiatives, strategies and policies that have a material impact on the company. The GCRC deploys an ESG scorecard to track progress against GM’s public global sustainability targets and conducts annual reviews of ESG topics such as public policy, corporate philanthropy and other sustainability initiatives (including human rights and responsible sourcing). In addition, the GCRC approves the company’s annual Sustainability Report.</p> <p>Risk and Cybersecurity Committee (RCC)</p> <p>The committee oversees risks related to the company’s key strategic, enterprise and cybersecurity risks, including climate change, workplace and product safety and privacy.</p> <p>As part of our enterprise risk framework, the RCC considers the potential impacts of climate change. This includes regular reviews of our enterprise risk trends, potential emerging risks and management’s action plans. Recently, the committee evaluated annual risk assessment results, highlighting the most significant risks to our growth strategy and key strategic initiatives.</p>

		<p>The Audit Committee (AC) In addition to its oversight of the quality, integrity and compliance of GM's financial statements, the AC reviews the disclosure process and control procedures for ESG disclosures and approves the company's annual Sustainability Report.</p> <p>Executive Compensation Committee (ECC) The ECC:</p> <ul style="list-style-type: none"> • Makes an annual determination as to whether the company's ESG and sustainability goals and milestones are effectively integrated into our compensation programs. • Oversees design and implementation of an executive compensation program that drives alignment with shareholder interests, encourages management to make decisions that drive long-term value creation and does not reward excessive risk-taking, and attracts, motivates and retains the talent required to accelerate GM's transition to EVs. • Responds to shareholder feedback relative to the alignment of executive compensation with strong performance, including with respect to sustainability goals.
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C1.1d

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

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues
Row 1	Yes	Expertise related to ESG-related issues, including climate, are among the qualifications considered when recommending incumbent, replacement or additional directors to the Board. Since 2021, the Board has undertaken an annual ESG self-evaluation, designed to ensure that the Board possesses the requisite skills and expertise to oversee the company's ESG opportunities, priorities and risks. The Governance Committee, led by our Independent Lead Director, leads this effort by asking directors to consider their expertise across 20 key ESG subject matter areas. Upon the conclusion of this evaluation in 2022, the Board determined that it has strong ESG expertise and possesses a broad

		<p>range of skills, qualifications, and attributes that will support the Company's sustainability commitments.</p> <p>As an example, one of our directors has developed environmental expertise as a member of the board of Conservation International. In that capacity, he leverages his scientific training to advocate for natural climate solutions. GM benefits from his experience in this area as it seeks to create a world with zero emissions.</p>
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C1.2

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

Position or committee

Chief Sustainability Officer (CSO)

Climate-related responsibilities of this position

Integrating climate-related issues into the strategy

Setting climate-related corporate targets

Assessing climate-related risks and opportunities

Managing climate-related risks and opportunities

Coverage of responsibilities

Reporting line

Other, please specify

Senior Leadership Team

Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

Please explain

The company's risk governance is facilitated through a top-down and bottom-up communication structure. The Senior Leadership Team (SLT) appoints members to our Risk Advisory Council, an executive-level body with delegates from each business unit, to discuss and monitor the most significant business and emerging risks in a cross-functional setting. They are tasked with championing risk management practices and integrating them into their functional or regional business units. We contemplate climate-related risks in our enterprise risk framework and continuously monitor changes to our overall risk landscape.

Our CSO leads our efforts in integrating the analysis of GM's most critical climate-related risks and opportunities. This includes working with a cross-functional group of

leaders to monitor for significant changes in our climate-related risk and opportunity landscape. The CSO/risk owner works with the SRM Team to define key risk indicators (KRIs). Enterprise-level risks are thoroughly reviewed by members of the Senior Leadership Team (SLT) and the Risk and Cybersecurity Committee (RCC) of the Board of Directors.

All enterprise risks are assessed on potential impact and probability, and management determines the appropriate response required given that assessment. Our CEO, CFO and General Counsel hold risk reviews of a subset of these risks throughout the year. Our Risk and Cybersecurity Committee is regularly updated on changes to management's risk responses as any of our enterprise risk trends increase throughout the year.

Each SLT member is involved in an annual risk assessment of their business unit to determine their main risks. These are actively managed and regularly reviewed with the business unit's leadership team.

The Board has overall responsibility for overseeing the risks facing the company, including climate change. The Board implements its risk oversight function both as a whole and through its Board Committees. Each of these committees oversees management practices for categories of risks relevant to its functions.

The SLT is supported by the Office of Sustainability, which is a cross-functional group that uses a "team of teams" approach to guide sustainability initiatives across the company. It is chaired by the vice president of sustainable workplaces and chief sustainability officer. The CSO reports to the executive vice president of global manufacturing and sustainability, the enterprise-wide leader for sustainability initiatives who develops and coordinates sustainability strategy and efforts across the company.

The Office of Sustainability:

- Monitors the execution of public commitments related to sustainability goals such as carbon neutrality and the Science Based Targets initiative (SBTi)
- Reviews and approves certain social and environmental sustainability strategies, including human rights and sustainable materials strategies

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	<p>The Executive Compensation Committee (ECC) regularly reviews and discusses plan performance at each meeting. In 2022, the committee performed an in-depth review and analysis of our long-term incentive plan and adjusted certain performance measures to further align with our EV strategy.</p> <p>The ECC:</p> <ul style="list-style-type: none"> • Makes an annual determination as to whether the company’s ESG and sustainability goals and milestones are effectively integrated into our compensation programs. • Oversees design and implementation of an executive compensation program that drives alignment with shareholder interests, encourages management to make decisions that drive long-term value creation and does not reward excessive risk-taking, and attracts, motivates and retains the talent required to accelerate GM’s transition to EVs. • Responds to shareholder feedback relative to the alignment of executive compensation with strong performance, including with respect to sustainability goals.
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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

Corporate executive team

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Shares

Profit share

Performance indicator(s)

Progress towards a climate-related target

Increased share of revenue from low-carbon products or services in product or service portfolio

Incentive plan(s) this incentive is linked to

Long-Term Incentive Plan

Further details of incentive(s)

2022-2024 Long Term Plan shares (PSUs) are based on EBIT-adjusted Margin performance, Relative TSR performance against our OEM peer group, and EV performance measures. The performance measures align our executive compensation program with our all-electric future and direct additional focus on Company growth and ESG performance, which will better support our path to EV leadership and expansion into new markets and technologies.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

GM views shareholder engagement as a continuous process and annually seeks feedback directly from our shareholders. Through these engagements, we received positive feedback in support of our executive compensation program and, in particular the Compensation Committee's decision to further drive accountability and reinforce our EV and growth strategy, safety culture, and ESG priorities. The ongoing dialog with shareholders this past year provided critical feedback that was used in the development of our 2022 LTIP design, which further aligns the interest of our executives to those of our shareholders. We considered shareholder feedback in making changes to our LTIP design. For the 2022 LTIP design, we replaced Relative ROIC-Adjusted with absolute EBIT-Adjusted Margin, maintained Relative TSR, and added Electric Vehicle performance measures that reward performance for GMNA EV Volume, GMNA EV Launch Timing, and GMNA EV Launch Quality. These changes further link the long-term compensation of our executives to the long-term EV strategy. ESG performance continues to be a focus for the Company and our shareholders. The Compensation Committee factors ESG performance into strategic goals for each NEO. We enhanced our 2023 Proxy disclosure to demonstrate our continued work towards ESG performance and provided greater detail into the goal setting process for our strategic goals portion of the STIP. We identify ESG results with a green leaf in the "Our Company Performance" section beginning on page 52 of our 2023 Proxy Statement and the "Performance Results and Compensation Decisions" section for our NEOs beginning on page 64 of our 2023 Proxy Statement.

Green leaf action examples on Executing our vision are:

Accelerated GM's EV strategy – expected to deliver 1 million units of annual capacity in North America in 2025 – with a roadmap to deliver low-to-mid single digit EBIT margins, before the benefits from the clean vehicle tax credits, by the same year.

Announced SBTi-validated, science-based emission reduction targets that align with the Paris Agreement, plans to be carbon neutral in our global products and operations by 2040, and eliminate tailpipe emissions from new light-duty vehicles in the United States by 2035.

Introduced Ultium Charge 360, a holistic charging approach integrating charging networks, GM vehicle mobile apps, and other products and services, to simplify and improve GM EV owners' overall charging experience.

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	0	3	GM defines short-term for risks and opportunities as a period covering up to three years and includes annual budgets for capital expenditures (CAPEX) and operating expenses (OPEX). This covers, for example, successfully sourcing 100% of our electricity for our U.S. sites from renewable sources by 2025.
Medium-term	3	5	GM's medium-term plan for risks and opportunities includes three to five years of budgets for resources and funds. For example, this includes our anticipated total capital spending and investments in battery cell manufacturing joint ventures of approximately \$11-\$12 billion for 2023 and \$11-13 billion per year for 2024 and 2025.
Long-term	5		Long-term is open-ended and is based on the type of risk or opportunity. For example, our SBTi-approved targets for operations and sold products have a target year of 2035 and our goal to achieve carbon neutrality in global products and operations extends to 2040.

C2.1b

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

Our Strategic Risk Management (SRM) function facilitates an enterprise risk assessment. This is conducted at least annually and is supplemented with a series of inputs throughout the year. This includes, but is not limited to, external benchmarking and insights, senior leader input through interviews and surveys, and various workshop results, such as SWOT analysis, to understand where our most critical risks and opportunities exist. ESG-related risks, including climate change, are considered as part of our risk assessment process.

We evaluate risks and opportunities based on both quantitative and qualitative criteria. We would begin to consider whether something may be substantive from a financial perspective when the potential impact on consolidated net income is greater than \$100M. We consider additional factors when making our ultimate assessment of whether a risk or opportunity is

substantive that are more qualitative in nature. This qualitative evaluation includes consideration of other relevant facts and circumstances, such as strategic significance, potential impact on reputation, and probability of occurrence, among others.

Risk owners are assigned to assess identified risks, and are tasked with evaluating probability of occurrence and potential financial, strategic, and reputational impact. We then determine whether our current response is appropriate given our appetite for the risk or if further mitigation is required.

Note: risks identified in this questionnaire as having a "substantive" impact will vary from risk to risk based on quantitative and qualitative criteria. The use of "significant," "substantive," "material," or "materiality" in this report and our other sustainability reporting is not related to or intended to convey matters or facts that could be deemed "material" to a reasonable investor as referred to under U.S. securities laws or similar requirements of other jurisdictions.

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

GM is subject to risks associated with climate change, including the impacts of increased severe weather events on our operations and infrastructure, increased regulation of GHG emissions, and changing consumer preferences. Increasing expectations on companies to address climate change may result in increased costs, reduced product demand, and reduced profits. Climate change regulations at the international, federal, state or local level could require us to further limit emissions associated with customer use of our products, change our manufacturing processes or product portfolio, or undertake other activities that may require us to incur additional expense, which may be material.

Part of our strategy to address these risks includes our transition to EVs, which itself presents additional risks, including reduced demand for and profits from our Internal Combustion Engine (ICE) vehicles, which we plan to use to fund our growth strategy and EV transition.

Our Strategic Risk Management (SRM) function facilitates an enterprise risk assessment. This is conducted at least annually and supplemented with a series of inputs throughout any given year. This includes, but is not limited to, external benchmarking and insights, senior leader input through interviews and surveys, and various workshop results, such as SWOT analysis, to understand where our most critical risks and opportunities exist. ESG-related risks, including climate change, are considered throughout our risk assessment process.

We evaluate risk and opportunities based on both quantitative and qualitative criteria. We consider additional factors when making our ultimate assessment of whether a risk or opportunity is substantive that are more qualitative in nature. This qualitative evaluation includes consideration of other relevant facts and circumstances, such as strategic significance, potential impact on reputation, speed of onset, and probability of occurrence. Our enterprise risk assessment aims to identify significant risks that could impact our business over a roughly five year horizon.

Risk owners are assigned to assess identified risks, and are tasked with evaluating probability of occurrence and potential financial, strategic and reputational impact. We then determine whether our current response is appropriate, given our appetite for the risk or if further mitigation is required.

Note: Risks identified in this report as having a "substantive" impact will vary from risk to risk in terms of quantitative and qualitative perspectives. The use of "significant," "substantive," "material," or "materiality" in this questionnaire and our other sustainability reporting is not related to or intended to convey matters or facts that could be deemed "material" to a reasonable investor as referred to under U.S. securities laws or similar requirements of other jurisdictions.

In 2021, our Global Sustainability Strategies team worked with a third-party consultant to host a series of workshops with leaders from key functions of the business to develop and validate a process for identifying and analysing climate-related risks. We discussed dozens of potential risks and opportunities to determine those most applicable to our business, and then qualitatively prioritized them. The results were shared with the Office of Sustainability.

In early 2023, we continued our work with the third-party consultant and re-engaged key internal stakeholders to conduct a qualitative climate risk assessment, discussing climate-related risks and opportunities, as well as our preparedness to mitigate the risks and leverage the opportunities.

Our CSO leads our efforts in integrating the analysis of GM's most critical climate-related risks and opportunities. This includes working with a cross-functional group of leaders to monitor for significant changes in our climate-related risk and opportunity landscape. The CSO/risk owner works with the SRM Team to define key risk indicators (KRIs). Enterprise-level risks are thoroughly reviewed by members of the Senior Leadership Team (SLT) and the Risk and Cybersecurity Committee (RCC) of the Board of Directors.

The process for assessing the relative significance of all identified risks, including climate-related risks, is as follows:

All enterprise risks are assessed on potential impact and probability, and management determines the appropriate response required given that assessment. Our CEO, CFO and General Counsel hold risk reviews of a subset of these risks throughout the year. Our Risk and Cybersecurity Committee is regularly updated on changes to management's risk responses as any of our enterprise risk trends increase throughout the year.

Each SLT member is involved in an annual risk assessment of their business unit to determine their main risks. These are actively managed and regularly reviewed with the business unit's leadership team.

The Board has overall responsibility for overseeing the risks facing the company, including climate change. The Board implements its risk oversight function both as a whole and through its Board Committees. Each of these committees oversees management practices for categories of risks relevant to its functions.

The SLT is supported by the Office of Sustainability, which is a cross-functional group that uses a "team of teams" approach to guide sustainability initiatives across the company. It is chaired by the vice president of sustainable workplaces and chief sustainability officer. The CSO reports to the executive vice president of global manufacturing and sustainability, the enterprise-wide leader for sustainability initiatives who develops and coordinates sustainability strategy and efforts across the company. The Office of Sustainability:

- Monitors the execution of public commitments related to sustainability goals such as carbon neutrality and the Science Based Targets initiative (SBTi)
- Reviews and approves certain social and environmental sustainability strategies, including human rights and sustainable materials strategies

C2.2a

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Our operations and products are subject to extensive laws, regulations and policies, including those related to vehicle emissions and fuel economy standards, which can significantly increase our costs and affect how we do business. We are significantly affected by governmental regulations on a global basis that can increase costs related to the production of our vehicles and affect our product portfolio, particularly regulations relating to fuel economy standards and GHG emissions. Meeting or exceeding the requirements of these regulations is costly, often technologically challenging and may require phase-out of internal combustion propulsion in certain major jurisdictions, and these standards are often not harmonized across jurisdictions. We anticipate that the number and extent of these and other regulations, laws and policies, and the related costs and changes to our product portfolio, may increase significantly in the future, primarily motivated by efforts to reduce GHG emissions. Specifically, fuel economy and GHG emission regulations at the federal, state or local level or in international jurisdictions could require us to further limit the sale of certain profitable products, subsidize the sale of less profitable ones, change our manufacturing processes, pay penalties or undertake other activities that may require us to incur additional expense, which may be material. These requirements may increase the cost of, and/or diminish demand for, our vehicles. These regulatory requirements, among others, could significantly affect our plans for global product development and, given the uncertainty surrounding enforcement and regulatory definitions and interpretations, may result in substantial costs, including civil or criminal penalties. In addition, an evolving but un-harmonized emissions and fuel economy regulatory framework that could include specific sales mandates may limit or dictate the types of vehicles we sell and where we sell them, which can affect our revenues.
Emerging regulation	Relevant, always included	We expect that to comply with fuel economy and GHG emission standards and mandates to sell specific volumes of ZEV in certain jurisdictions, we will be required to sell a significant volume of EVs, and potentially develop and implement new technologies for conventional internal combustion engines (ICE), all of which will require substantial investment and expense. There are limits on our ability to achieve fuel economy improvements over a given time frame, primarily relating to the cost and effectiveness of available technologies, lack of sufficient consumer acceptance of new technologies and of changes in vehicle mix, lack of willingness of consumers to absorb the additional costs of new technologies, the appropriateness (or lack thereof) of certain technologies for use in particular vehicles, the widespread availability (or lack thereof) of supporting infrastructure for new technologies,

		<p>especially for EVs, and the human, engineering and financial resources necessary to deploy new technologies across a wide range of products and powertrains in a short time. There is no assurance that we will be able to produce and sell vehicles that use such new technologies on a profitable basis or that our customers will purchase such vehicles in the quantities necessary for us to comply with current or future regulatory requirements.</p> <p>In addition, many of our advanced technologies, including autonomous vehicles (AVs), present novel issues with which domestic and foreign regulators have only limited experience, and will be subject to evolving regulatory frameworks. Any current or future regulations in these areas could impede the successful commercialization of these technologies and impact whether and how these technologies are designed and integrated into our products, and may ultimately subject us to increased costs and uncertainty.</p>
Technology	Relevant, always included	<p>If we do not deliver new products, services, technologies and customer experiences in response to increased competition and changing consumer preferences in the automotive industry, our business could suffer. We believe that the automotive industry will continue to experience significant change in the coming years, particularly as traditional automotive original equipment manufacturers shift resources to the development of EVs. In addition to our traditional competitors, we must also be responsive to the entrance of start-ups and other non-traditional competitors in the automotive industry. These new competitors, as well as established industry participants, are disrupting the historic business model of our industry through the introduction of new technologies, products, services, direct-to-consumer sales channels, methods of transportation and vehicle ownership. To successfully execute our long-term strategy, we must continue to develop new products and services, including products and services that are outside of our historically core ICE business, such as EVs and AVs, software-enabled connected services and other new businesses.</p>
Legal	Relevant, always included	<p>We could be materially adversely affected by unusual or significant litigation, governmental investigations or other proceedings. We are subject to legal proceedings in the U.S. and elsewhere involving various issues, including product liability lawsuits, warranty litigation, class action litigations alleging product defects, emissions litigation, stockholder litigation, labor and employment litigation and claims and actions arising from restructurings and divestitures of operations and assets. In addition, we are subject to governmental proceedings and investigations. A negative outcome in one or more of these legal proceedings could result in the imposition of damages, including</p>

		punitive damages, fines, reputational harm, civil lawsuits and criminal penalties, interruptions of business, modification of business practices, equitable remedies and other sanctions against us or our personnel as well as legal and other costs, all of which may be significant.
Market	Relevant, always included	<p>Our long-term strategy is dependent upon our ability to profitably deliver a broad portfolio of EVs. The production and profitable sale of EVs has become increasingly important to our long-term business as we accelerate our transition to an all-electric future. Our EV strategy is dependent on our ability to deliver a broad portfolio of high-quality EVs that are competitive and meet consumer demands; scale our EV manufacturing capabilities; reduce the costs associated with the manufacture of EVs, particularly with respect to battery cells and packs; increase vehicle range and the energy density of our batteries; efficiently source sufficient materials for the manufacture of EV battery cells; license and monetize our proprietary platforms and related innovations; successfully invest in new technologies relative to our peers; develop new software and services; and leverage our scale, manufacturing capabilities and synergies with existing ICE vehicles.</p> <p>In addition, consumer adoption of EVs will be critical to the success of our strategy. Consumer adoption of EVs could be impacted by numerous factors, including the breadth of the portfolio of EVs available; perceptions about EV features, quality, safety, performance and cost relative to ICE vehicles; the range over which EVs may be driven on a given battery charge; the proliferation of charging infrastructure, in particular with respect to public EV charging stations, and the success of the Company's charging infrastructure programs and strategic joint ventures and other relationships; cost and availability of high fuel-economy ICE vehicles; volatility, or a sustained decrease, in the cost of petroleum-based fuel; failure by governments and other third parties to make the investments necessary to make infrastructure improvements, such as greater availability of cleaner energy grids and EV charging stations, and to provide economic incentives promoting the adoption of EVs, including those contemplated by the Inflation Reduction Act; and negative feedback from stakeholders impacting investor and consumer confidence in our company or industry. If we are unable to successfully deliver on our EV strategy, it could materially and adversely affect our results of operations, financial condition and growth prospects, and could negatively impact our brand and reputation.</p>
Reputation	Relevant, always included	The costs and effect on our reputation of product safety recalls and alleged defects in products and services could materially adversely affect our business. Government safety standards require

		<p>manufacturers to remedy certain product safety defects through recall campaigns and vehicle repurchases. Under these standards, we could be subject to civil or criminal penalties or may incur various costs, including significant costs for repairs made at no cost to the consumer. The costs we incur in connection with these recalls typically include the cost of the part being replaced and labor to remove and replace the defective part. The costs to complete a recall could be exacerbated to the extent that such action relates to a global platform. Concerns about the safety of our products, including advanced technologies like AVs, whether raised internally or by regulators or consumer advocates, and whether or not based on scientific evidence or supported by data, can result in product delays, recalls, field actions, lost sales, governmental investigations, regulatory action, private claims, lawsuits and settlements and reputational damage. These circumstances can also result in damage to brand image, brand equity and consumer trust in our products and ability to lead the disruption occurring in the automotive industry.</p> <p>We currently source a variety of systems, components, raw materials and parts from third parties. From time to time these items may have performance or quality issues that could harm our reputation and cause us to incur significant costs, particularly if the affected items relate to global platforms or involve defects that are identified years after production. Our ability to recover costs associated with recalls or other campaigns caused by parts or components purchased from suppliers may be limited by the suppliers' financial condition or a number of other reasons or defenses.</p>
Acute physical	Relevant, always included	Increased intensity, frequency or duration of storms, droughts or other severe weather events as a result of climate change may disrupt our production and the production, logistics, cost and procurement of products from our suppliers and timely delivery of vehicles to customers, and could negatively impact working conditions at our plants and those of our suppliers. Such weather events may also adversely impact the financial condition of our customers, and thereby reduce demand for our products and services. Any of the foregoing could have a material adverse effect on our financial condition and results of operations.
Chronic physical	Relevant, always included	Chronic physical considerations for our facilities from climate change are included in risk assessments on a case-by-case basis. GM's Manufacturing Leadership Team (MLT) manages mitigation of chronic physical risks associated with our production facilities. If material to the business, the executive vice president of global manufacturing, a member of the SLT, would work with the Board's Risk & Cybersecurity

		<p>Committee for assistance, if needed.</p> <p>For example, the MLT developed a risk mitigation plan for one of our production sites in Mexico, a region that accounts for a meaningful amount of GM's global production and that has an increased risk of drought and water stress. At our Silao Assembly plant, where non-renewable wells were identified as stressed, we installed additional water reuse equipment which increases the amount of recycled water and reduces the water stress risk at this facility.</p>
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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

Tornado

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

Increased climate events disrupting GM production: In some cases, certain GM facilities produce products, systems, components and parts that disproportionately contribute a greater degree to our profitability than others and create significant interdependencies among manufacturing facilities around the world. Should these or other facilities become unavailable either temporarily or permanently, the inability to manufacture at the affected facility may in the future result in harm to our reputation, increased costs, lower revenues and the loss of customers. We may not be able to easily shift production to other facilities or to make up for lost production.

Each region faces unique climate-related risks that are expected to increase in

frequency and intensity. GM production facilities in the United States could be threatened by flooding, severe storms, and the long-term impacts of heat and drought. For example, GM has production facilities in Michigan, Ohio and Indiana, states impacted by the derecho windstorm in the summer of 2022 that caused flooding, tornados and wind damage, and sites that were threatened by Winter Storm Elliot in December 2022. GM also has a key vehicle assembly facility in Arlington, Texas, a state impacted by a severe flooding event in the summer of 2022, and where freezing temperatures and grid failures caused by Winter Storm Uri resulted in a temporary disruption to production and increased electricity costs at the GM Arlington Assembly plant in February 2021.

For example, we have a 1.7 million square foot facility in Bowling Green, Kentucky, the exclusive production site of our Chevrolet Corvettes, where the risk of tornado damage is higher than average. If this plant were impacted by a tornado, it may affect our production, as was the case when an EF-3 tornado hit the GM Bowling Green Assembly plant in December 2021, delaying production as the teams worked to restore tooling, equipment and the facility to standard. Collaboration with other GM facilities allowed plant leaders to form a recovery plan to resume operations in a timely manner. Among other actions, high resolution imagery via drone was used to quickly assess damage and prepare a plan of action for repairs, and materials and resources were redirected from other GM locations to the plant.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

100,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

GM's financial impact estimate is based on consideration of repair costs, loss of sales, vehicle damages, logistics, and time and resources from other plants – using estimated

historical impacts from the 2021 tornado at the GM Bowling Green Assembly plant as an example, and not considering any potential recoveries from insurance. The potential financial impact of a future tornado (or other severe weather event) at one of our key production facilities could exceed \$100 million and would depend on the extent of repair, support, collaboration and other efforts required based on damage incurred, and would be approached with an objective of resuming production safely and without disruption to the customer experience. Such costs would be case specific, and vary depending on the specific plant impacted, the vehicle models produced at that plant, production capacity, profitability of such vehicles, and other plant and product-specific details.

Cost of response to risk

50,000,000

Description of response and explanation of cost calculation

Our response to this risk includes the work of our Global Energy Strategy Team who develop proactive and reactive strategies to mitigate the impact of grid interruptions, including development of a robust Utility Restoration Plan for when facilities are impacted. When an event occurs, this plan supports sites in restoring power as quickly as possible by leveraging GM's relationships with utilities companies. Grid interruptions and their effect on facility operations are tracked and analyzed for trends by specific sites and utilities. Site Utility Managers and the Global Energy Strategy Team are evaluating tools and technologies to help mitigate risk to critical equipment and to reduce production downtime for sites that are susceptible to frequent outages. We continue to strive for efficiency and use of renewable energy to transition towards a low-carbon pathway, and we make capital investments for maintenance and upgrades to our facilities to build resilience into our operational infrastructure. Further, we insure GM against potential negative financial impact by transferring risk by obtaining insurance on our facilities.

The cost of responding to this risk is not tracked separately from our overall costs in performing risk management and business continuity planning, as we perform this activity encompassing many other drivers of disruptions (i.e., our process is not limited to climate-related disruptions). However, as an example, much of the damage to our GM Bowling Green Assembly plant from the 2021 tornado was related to the roof, and to enhance infrastructure resilience and proactively manage this risk in case of future severe weather events at this site, our approximate cost of \$50 million in roof repairs included the selection of certain roof materials specifically designed to mitigate wind impact.

Comment

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Market

Changing customer behavior

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

Lack of EV charging infrastructure impacting consumer demand for EVs: Consumer adoption of EVs will be critical to the success of GM's strategy. Consumer adoption of EVs could be impacted by numerous factors, including among other factors, the proliferation of charging infrastructure, in particular with respect to public EV charging stations, and the success of the Company's charging infrastructure programs and strategic joint ventures and other relationships; and failure by governments and other third parties to make the investments necessary to make infrastructure improvements, such as greater availability of cleaner energy grids and EV charging stations. If we are unable to successfully deliver on our EV strategy, it could materially and adversely affect our results of operations, financial condition and growth prospects, and could negatively impact our brand and reputation.

As we move toward a low-carbon future, an increasing number of electric vehicles on the road could create increasing demand for charging infrastructure. Vehicle sales in the U.S. and China make up a significant portion of GM's market, and, along with Europe, these regions are estimated to have the largest markets for EVs. According to International Energy Agency Global EV Outlook 2022, government commitments in China are already in place to meet the projected demands of growth there, while the U.S. could see a 376% increase in EV uptake by 2030 with existing government commitments only meeting around 60% of the infrastructure needs.

As an example of this growth, in the next three years, GM plans to move aggressively toward EV leadership as EV adoption is expected to approach 20% of U.S. industry sales in 2025. We are planning to rapidly scale our annual capacity to 1 million EVs for North America by 2025. A lack of charging infrastructure can be an inhibitor for purchasing EVs. If charging infrastructure is unable to keep up with EV growth, consumer demand for EVs may be negatively impacted, which may impact our EV strategy.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

50,000,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Our strategy is dependent upon our ability to profitably deliver a broad portfolio of EVs, and consumer adoption of EVs generally will be critical to the success of our strategy. GM does not have one specific financial estimate for the impact of this risk on our EV revenue as the financial implications of a scenario would vary widely depending on various factors and assumptions, including proliferation of charging infrastructure, government investments in infrastructure improvements, current market and economic conditions, the geographical regions impacted, and our specific strategic response. As an example, a negative impact to consumer adoption could negatively impact any portion of our EV revenue, which was previously announced to have an expected growth to \$50 billion or more by 2025.

Cost of response to risk

0

Description of response and explanation of cost calculation

In line with our commitment to a zero-emissions future, we are working to create the largest integrated charging ecosystem. Ultium Charge 360 is our holistic approach to charging in the United States and Canada, which provides broad charging access and simplifies the charging experience for EV drivers at home, in the community or on the highway. Through Ultium Charge 360 we have integrations with 12 charging networks, products and services to help bring a unified charging experience to GM EV customers. GM has announced plans, through strategic collaborations, to install more than 5,000 DC fast chargers in the United States, and up to 40,000 Level 2 chargers throughout the United States and Canada, in addition to providing access to the nearly 13,000 existing DC fast chargers in North America today and growing. Through GM's metropolitan fast-charging program, GM and EVgo will install 3,250 DC fast chargers in 50+ major metro areas for EV drivers who live in multi-unit homes, rentals or are otherwise unable to charge at home or work. Through our highway fast-charging program, GM, Pilot Company and EVgo will install 2,000 DC fast chargers at up to 500 Pilot and Flying J travel centers to enable long-distance travel and road trips. We anticipate having about 200 chargers available for use by the end of 2023.

In 2023, GM announced a collaboration with Tesla to integrate the North American Charging Standard (NACS) in our EVs beginning in 2025. Additionally, the collaboration

will expand access to charging for GM EV drivers at 12,000 Tesla Superchargers, and growing, throughout North America beginning in 2024. This agreement complements GM's ongoing investments in charging, reinforcing the company's focus on expanding charging access across home, workplace, and public spaces and builds on the more than 134,000 chargers available to GM EV drivers today through the company's Ultium Charge 360 initiative and mobile apps. These initiatives, combined with this new collaboration with Tesla, will offer GM customers access to one of the largest integrated networks of high-power charging stations in North America.

We have responded \$0 for the total cost of responding to this risk as the costs associated with the examples noted above are confidential and part of our overall EV strategy. Further, as market factors continue to evolve (e.g., government incentives, strategic relationships, our response to various scenarios, etc.), the total cost/investment amount is dynamic.

Comment

C2.4

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

Yes

C2.4a

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

Identifier

Opp1

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Shift in consumer preferences toward EVs creating sales and new customer opportunities: We have an opportunity to grow our vehicle and financing revenue by

continuing to capitalize on the strength of our established vehicle franchises and customer base, and scaling our EV production through this decade. We also have the potential of growing our revenue through our software-enabled services and subscriptions, including OnStar, our advanced driver-assistance systems (ADAS), including Super Cruise, and future offerings, such as our next-generation ADAS, Ultra Cruise and Ultifi, our end-to-end software platform. Additionally, we are incubating several new businesses with a start-up mindset that we believe will enable us to attract new customers and generate revenues in new areas.

EV software and drivetrain is projected to account for 40% of the global automotive component market in 2030, up from 17% in 2019, according to Lazard's Global Automotive Supplier Study 2022. Market opportunities for ICE vehicles typically flow from vehicle hardware and design. For EVs, computing is the key component, creating market opportunities for central software processors able to manage the battery, run electric motors and provide over-the-air vehicle upgrades. Additionally, for technologies such as AVs, EVs are better equipped to handle the advanced sensing and computing hardware, since the battery is a more stable power source, able to support higher-powered AV components. Investment banks have identified several new markets with high margin potential, which include software-driven advanced driver assistance, connectivity and infotainment systems, as well as powertrain technologies related to charging, thermal management and battery cells.

As an example, we plan to rapidly scale our capacity to build 1 million EVs in North America by the end of 2025. Additionally, Ultifi is our end-to-end software platform that will provide customers with software-defined features, apps and services over-the-air starting in 2023. To transform delivery and logistics, we also launched BrightDrop, a wholly owned subsidiary currently operating in the United States and Canada that primarily serves two markets: last-mile package deliveries and online grocery deliveries.

Time horizon

Long-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

50,000,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

GM's financial impact estimate varies widely depending on markets, initiatives, sales and other assumptions, but is shown here using potential future EV revenue as an example, which was previously announced to have an expected growth to \$50 billion or more by 2025.

Ultifi and the apps it enables will empower customers to update their ownership experiences with desirable features such as services and subscriptions, vehicle performance, Super Cruise and, when launched, Ultra Cruise, safety and security features, climate and comfort options, personal themes and EV ownership experience elements. We see the opportunity for Ultifi to help open up \$20-25 billion in annual software and service revenue by 2030, including OnStar.

Cost to realize opportunity

11,700,000,000

Strategy to realize opportunity and explanation of cost calculation

Our vision for the future is a world with zero crashes, zero emissions and zero congestion, which guides our growth-focused strategy to invest in EVs and AVs, software-enabled services and subscriptions and new business opportunities, while strengthening our market position in profitable ICE vehicles, such as trucks and sport utility vehicles (SUVs).

GM is working to accelerate EV adoption by delivering a range of EV models across categories and through investments in the EV ecosystem including home, workplace and public charging, energy management and education. We are also focusing on bidirectional and V2X technologies including vehicle to home (V2H) and vehicle to grid (V2G) to help minimize energy costs and capitalize on new streams of revenue.

A key element in our EV strategy is Ultium, our dedicated electric vehicle propulsion architecture. This platform is flexible and will be leveraged across multiple brands and vehicle sizes, styles and drive configurations, allowing for quick response to customer preferences and a shorter design and development lead time compared to our ICE vehicles. We plan to leverage the versatility and flexibility of Ultium to expand our EV portfolio over a wide variety of segments and price points.

In support of our ambition to expand our EV manufacturing capacity, we will continue to invest in EVs, EV software and autonomous electric vehicles. Since 2020, we have announced investments of \$11.7 billion across 14 sites in North America. This includes our previously announced investment of approximately \$800 million (\$1 billion CAD) at the CAMI Assembly plant in Ontario, which has subsequently commenced production of

the BrightDrop Zevo 600 and BrightDrop Zevo 400.

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased access to capital

Company-specific description

Increased capital availability due to investor interest in sustainability: Companies with high ESG scores, generally experience lower costs of capital compared to companies with poor ESG scores. According to the 2022 EY Global Corporate Reporting and Institutional Investor Survey, 99% of investors surveyed use ESG disclosures as part of their investment decision-making, including 74% who use a rigorous and structured approach.

Under a low-carbon pathway, the automotive sector could potentially be included in sustainable funds which hold stocks with larger market capitalization and outperform traditional peer funds. GM's top four investors, which own 22.5% of the company's shares collectively, support TCFD and other ESG frameworks and alliances.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

2,250,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

There are many factors that may affect the scope and size of this opportunity including market size, interest rates, sustainability strategy and performance.

GM's financial impact estimate is based on one example: In 2022, we created a Sustainable Finance Framework to further align our financing activities with our sustainability strategy and commitments. Under this Framework, we issued \$2.25 billion of investment-grade green bonds. our first capital markets activity that specifically supports our EV strategy. The net proceeds of our inaugural green bond, issued in August 2022, have been allocated exclusively to Clean Transportation, specifically two Eligible Projects in the GM Green – Clean Transportation category: capital expenditures toward Factory ZERO Center in Detroit-Hamtramck, Michigan and Orion Assembly, in Orion Township, Michigan. Both facilities once produced gasoline-powered vehicles and will be dedicated to building EVs. See our 2023 Sustainable Finance Report at investor.gm.com/esg.

Cost to realize opportunity

14,000,000

Strategy to realize opportunity and explanation of cost calculation

GM is focused on advancing an all-electric future that is accessible to all. The incredible momentum we are achieving in our growth strategy is being driven by the rapid scaling of electric vehicles, advancement of autonomous vehicles and our ongoing commitment to sustainability. To accelerate change and help us progress toward our vision of a more sustainable future, we plan to make a number of strategic investments, including anticipated total capital spending and investments in battery cell manufacturing joint ventures of approximately \$11-\$12 billion for 2023 and \$11-13 billion per year for 2024 and 2025. In support of our ambition to expand our EV manufacturing capacity, we will continue to invest in EVs, EV software and autonomous electric vehicles. Since 2020, we have announced investments of \$11.7 billion across 14 sites in North America.

In 2022, we created a Sustainable Finance Framework to further align our financing activities with our sustainability strategy and commitments. Proceeds from future issuances under the framework may be used to fund projects supporting clean transportation or socioeconomic advancement and empowerment.

As an example, we issued \$2.25 billion of investment-grade green bonds pursuant to

our Sustainable Finance Framework. The net proceeds of our inaugural Green Bond in August 2022 have been allocated exclusively to Clean Transportation, specifically two Eligible Projects in the GM Green – Clean Transportation category: capital expenditures toward Factory ZERO Center in Detroit-Hamtramck, Michigan and Orion Assembly, in Orion Township, Michigan. Both facilities once produced gasoline-powered vehicles and will be dedicated to building EVs. See our 2023 Sustainable Finance Report at investor.gm.com/esg.

There are many factors that may affect the cost to obtain capital. Our response to the cost to realize this opportunity uses one example: the issuance costs of our August 2022 green bonds were approximately \$14 million (cost does not include the costs to prepare and publish the Sustainable Finance Report).

Comment

C3. Business Strategy

C3.1

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

Row 1

Climate transition plan

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

Publicly available climate transition plan

Yes

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

We have a different feedback mechanism in place

Description of feedback mechanism

The company has an extensive shareholder outreach program and engages with institutional investors and other stakeholders to help the board and management gain feedback on a variety of topics.

In 2022, members of our board and management team conducted over 45 stakeholder engagements, including with shareholders representing a majority of our common stock. In addition, to those sessions, we participate in a number of activities throughout the year that provide the opportunity to communicate our strategy to shareholders and listen to a diverse set of opinions.

Frequency of feedback collection

More frequently than annually

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

GM 2022 Sustainability Report - Emissions Reduction Plan GM 2022 Task Force on Climate-related Financial Disclosures (TCFD) Report

C3.2

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

Use of climate-related scenario analysis to inform strategy	
Row 1	Yes, qualitative and quantitative

C3.2a

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

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios IEA NZE 2050	Company-wide		GM has Science Based Targets initiative (SBTi)-approved targets. GM utilized SBTi's tools and guidance, based on the latest climate science, to ensure alignment with 1.5-degree climate scenarios. We use these targets to help drive our goal to achieve carbon neutrality in global products and operations by 2040. Within the parameters required by SBTi, we used 2018 as our baseline year and we set science-based near-term targets set for 2035. We have also committed to set long-term net zero targets in the future.
Transition scenarios Customized publicly available transition scenario	Company-wide	Unknown	GM performed a qualitative assessment on our transition risks using inputs to develop low-carbon and high-carbon scenarios. Key sources of input for the assessment were the IEA report on "Role of Critical Minerals in Clean Energy Transitions"; IEA report on Global EV Outlook 2022; IEA report on Global EV sales by scenario, 2020-2030; IEA report on Latin America’s opportunity in critical minerals for the clean energy transition; IEA report on Trends in charging infrastructure; IRMA’s Standard for Responsible Mining; and the U.S. Inflation Reduction Act. We

			looked at short-term (zero to three years), medium-term (three to five years) and long-term (over five years) outlooks.
Physical climate scenarios RCP 8.5	Company-wide		<p>GM's qualitative climate risk assessment considered two potential climate pathways and builds on previous work to identify, prioritize and mitigate climate risks. Extreme weather and climate related events may continue to get more frequent and intense. Understanding the different emissions pathways enables us to plan for a range of possible climate responses and associated impacts.</p> <p>Under a "business as usual", high-carbon pathway (RCP 8.5)*, global carbon emissions could potentially continue to rise at the current rate with global temperature rises as likely as not to exceed 4°C. Under such a scenario, businesses may experience climate change impacts including:</p> <ul style="list-style-type: none"> • More intense storms and monsoons, heatwaves and droughts • Widespread supply chain disruption due to severe weather events • Crop failures and biodiversity loss • Loss of land due to sea level rises of up to one meter • More acidic oceans • Atmospheric CO2 concentrations three to four times higher than pre-industrial levels • Demographic shifts as people move to more habitable areas <p>*Source: https://www.fsb.org/wp-content/uploads/Technical-Supplement-1.pdf</p>
Physical climate scenarios RCP 2.6	Company-wide		<p>GM's qualitative climate risk assessment considers two potential climate pathways and builds on previous work to identify, prioritize and mitigate climate risks. Extreme weather and climate related events may continue to get more frequent and intense. Understanding the different emissions pathways enables us to plan for a range of possible climate responses and associated impacts.</p> <p>Alternatively, under a lower-carbon pathway (RCP 2.6, 2°C or lower)*, aggressive mitigation efforts will halve emissions by 2050. The assumption is that we</p>

			<p>may expect:</p> <ul style="list-style-type: none"> • Major shifts in policy and regulations, such as the introduction of carbon pricing mechanisms • Significant shifts away from fossil fuels • Cheaper, cleaner forms of energy • Atmospheric CO2 concentrations falling by the end of the century • Widespread adoption of electric vehicles • Climate impacts will be largely constrained but not avoided, and the risk of “tipping points” and irreversible change will be reduced. This approach may require “negative emissions” (removing CO2 from the air) before 2100. <p>*Source: https://www.fsb.org/wp-content/uploads/Technical-Supplement-1.pdf</p>
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C3.2b

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

Row 1

Focal questions

- Could availability of raw materials impact cost of vehicle production?
- Could charging infrastructure availability impact consumer adoption of EVs?
- Could increased climate events create disruption to production?

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

High carbon pathway (HCP): A slower transition to EVs could keep raw material costs generally lower, but more physical climate impacts may cause more frequent supply disruptions and price spikes. By 2040, demand for lithium and cobalt could be notably higher than in 2020, while copper and nickel demand may see modest growth. Low-carbon pathway (LCP): Faster adoption of EVs and clean energy could drive demand for key minerals, increasing costs and difficulties in procuring raw materials. In the next few decades, the demand for lithium and cobalt, copper and nickel would be likely to increase significantly compared to 2020. We are prioritizing the development of a resilient and sustainable supply chain of raw materials to manufacture our battery chemistry. We have made critical investments to contractually secure all battery raw materials to support our transition goals

HCP: Slow EV growth and current charging infrastructure commitments may meet near-

term demand, with ICE vehicles representing 80% of 2030 sales. In both the US and China, existing commitments are expected to be sufficient to meet near-term demand. LCP: Strong EV growth will demand heavy investment, or customer demand may be negatively impacted. Public and private investors will be needed, and deployment of charging infrastructure may cause material prices to increase. In the US, existing commitments are sufficient to meet around 60% of this demand, while in China, sufficient commitments have already been made. Ultium Charge 360 is our holistic approach to charging in the US and Canada that provides broad charging access and simplifies the charging experience for EV drivers at home, in the community or on the highway. Through Ultium Charge 360 we have integrations with 12 charging networks, products and services to help bring a unified charging experience to customers HCP: Severe weather events may occur with increasing frequency and intensity in previously unaffected locations while impacts at high-risk locations could become unmanageable. Critical infrastructure could be regularly disrupted, leading to production stoppages, increased downtime, and loss of assets or inventory, while increasing utility and maintenance costs could affect profitability. LCP: Climate change could continue to disrupt livelihoods across the world, but economies are expected to recover as the worst physical impacts of climate change may have been avoided. Most health and safety impacts would remain at manageable levels while critical transportation, electric and telecommunications and production facilities are expected to be disrupted occasionally by extreme weather events. Our Global Energy Strategy Team works on strategies to mitigate the impact of grid interruptions. This includes developing a robust Utility Restoration Plan for when facilities are impacted. When an event occurs, this plan supports sites in restoring power as quickly as possible, leveraging GM's relationships with utilities companies

C3.3

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

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	GM's long term product portfolio strategy is shifting from internal combustion engine vehicles (ICE) to electric vehicles (EVs) consistent with our vision of zero emissions and decarbonization. Future regulatory risks and business market opportunities, often influenced by the threat of climate change, were key drivers of our all-electric future strategy. As we prepare for an all-electric future, we continue to expand our portfolio across several segments, including affordable and accessible EVs, luxury models and

		<p>software-defined vehicles, with a focus on building trust and understanding among our customers. This involves:</p> <ul style="list-style-type: none"> •Rolling out a comprehensive portfolio of EVs •Building a robust charging network •Integrating autonomy, ride-hailing and electrification into a single vehicle •Creating new electric delivery solutions <p>In the next three years, GM plans to move aggressively toward EV leadership as EV adoption is expected to approach 20% of U.S. industry sales in 2025. By then, we will have EVs in one-third of vehicle segments, representing nearly 70% of the U.S. industry by volume, and we will continue to grow from there. To achieve this, we are planning to rapidly scale our annual capacity to 1 million EVs for North America in 2025.</p>
Supply chain and/or value chain	Yes	<p>Scope 3 emissions make up the vast majority of our GHG emissions we are trying to address, and are where we focus many of our initiatives and programs. Scope 3 Category 1 emissions indicate purchased goods and services, which made up 18% of our global carbon footprint in 2022. In recognition of this, starting in 2021, we encouraged our suppliers to sign GM's Environmental, Social & Governance (ESG) Partnership Pledge. In 2022, we continued inviting Tier I supplier to sign GM's ESG Partnership Pledge. This pledge holistically embraces sustainability and asks our suppliers to commit to carbon neutrality for their Scope 1 and Scope 2 emissions relevant to products or services they provide us. The timeline for a supplier to reach carbon neutrality is based on their industry. For additional information see GM's 2022 Sustainability Report.</p> <p>GM has participated in the CDP supply chain since 2013 and have collaborated with CDP and our suppliers to accelerate environmental action. All of our direct material strategic suppliers are invited to complete the CDP Climate Change and Water Security surveys, in addition to a subset of indirect suppliers and our top strategic logistics suppliers. In 2022, direct suppliers representing 90% of our budgeted annual purchase value participated in CDP. We reached a response rate of over 84% in 2022 among in-scope Strategic Supplier Engagement (SSE) and key logistic suppliers with the Climate Change survey. We are now aiming to increase participation beyond our targeted and</p>

		strategic suppliers.
Investment in R&D	Yes	R&D investment in battery technology is important to our vision of zero emissions and a shift from ICE to EVs. We are helping to pioneer cell manufacturing processes at our Wallace Battery Cell Innovation Center. The facility, located at our Global Technical Center (GTC) in Warren, Michigan, complements our two other existing facilities, the Estes Battery Systems Lab and our global R&D center. This collaboration between our lab operations, R&D and product engineering teams will allow us to replicate large-format prototype battery cells in the same facility where we are developing them. It typically takes many years working with a cell supplier to develop and evaluate a new chemistry in a large-format cell. The Wallace Center will allow us to do this much faster and use our own technology, increasing speed to market for our future battery technologies. The Wallace Center builds on the work of our R&D team, which already has more than 2,000 granted and pending patents in EV battery technology.
Operations	Yes	Our strategy to manage energy in our operations and reduce our Scope 1 and 2 emissions involves a combination of improved energy efficiency, using more renewable power, mitigating against intermittent supply and advocacy work. We continue to work on improving energy efficiency at our facilities through a global energy management system (EMS). Driven by a determination to achieve our science-based targets, we are focusing our efforts on the areas of highest use, such as reducing electricity consumption and using less fuel from nonrenewable sources. We support the growth of renewable power generation through direct investments, on-site power generation, green tariffs and power purchase agreements. As well as working to reduce the energy we use in our operations through improved efficiency, we source renewable energy through direct investment, on-site generation, green tariffs and power purchase agreements (PPAs). According to Bloomberg New Energy Finance, GM has sourced more renewable electricity than any other automaker over the last decade, giving us the scale to help drive the transition to renewable power across the United States. In October 2022, we announced that we have successfully sourced 100% of the renewable energy needed to power all our U.S. sites by 2025 *. *Based on estimated forecasted global renewable energy

		sourced through currently executed agreements, subject to change depending on actual future electric usage in operations and actual future renewable generation.
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C3.4

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

	Financial planning elements that have been influenced	Description of influence
Row 1	Capital expenditures Access to capital	<p>We plan to make a number of strategic investments to help us progress toward our vision of a more sustainable future. These include:</p> <ul style="list-style-type: none"> • Announced investments of \$11.7 billion across 14 sites in North America to support EV manufacturing • Anticipated total capital spending and investments in battery cell manufacturing joint ventures of approximately \$11-\$12 billion for 2023 and \$11-13 billion per year for 2024 and 2025 • Investing in home, workplace and public charging infrastructure in the United States and Canada • Collaborating with Tesla to integrate the North American Charging Standard (NACS) in our EVs beginning in 2025 • Signed agreements to build a more sustainable and resilient supply chain focused on North America and free trade partners, including a \$650 million equity investment and supply agreement with Lithium Americas to develop the Thacker Pass lithium mine in Nevada • We have created a Sustainable Finance Framework to further align our financing activities with our sustainability strategy and commitments, thereby bringing us closer to achieving our vision. Proceeds from future issuances under the framework may be used to fund projects supporting clean transportation or socioeconomic advancement and empowerment. Under this framework, we issued \$2.25 billion of investment-grade green bonds, our first capital markets activity that specifically supports our EV strategy. Our first Sustainable Finance Report was published in June 2023 and discusses the allocation of proceeds and certain estimated impacts of investments from our inaugural green bond issuance.

C3.5

(C3.5) In your organization’s financial accounting, do you identify spending/revenue that is aligned with your organization’s climate transition?

Identification of spending/revenue that is aligned with your organization's climate transition	
Row 1	Yes, we identify alignment with our climate transition plan

C3.5a

(C3.5a) Quantify the percentage share of your spending/revenue that is aligned with your organization's climate transition.

Financial Metric

Revenue/Turnover

Type of alignment being reported for this financial metric

Alignment with our climate transition plan

Taxonomy under which information is being reported

Objective under which alignment is being reported

Amount of selected financial metric that is aligned in the reporting year (unit currency as selected in C0.4)

Percentage share of selected financial metric aligned in the reporting year (%)

2

Percentage share of selected financial metric planned to align in 2025 (%)

22

Percentage share of selected financial metric planned to align in 2030 (%)

33

Describe the methodology used to identify spending/revenue that is aligned

As highlighted in our November 2022 Investor Day, the 2025 and 2030 figures represent our projected sales (\$50B and \$90B, respectively) as a percentage of projected auto sales and financing revenue (\$225B and a range of \$275-315B, respectively). The 2022 figure represents an approximation based on total US EV sales volume as a percent of US sales volume.

C4. Targets and performance

C4.1

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

Absolute target

Intensity target

C4.1a

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

Target reference number

Abs 1

Is this a science-based target?

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

Target ambition

1.5°C aligned

Year target was set

2021

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Base year

2018

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

1,763,555

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

3,924,338

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)

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

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

5,687,893

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

100

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

100

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year

emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO₂e)

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO₂e)

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO₂e)

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO₂e)

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO₂e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO₂e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO₂e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO₂e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO₂e)

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO₂e)

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)

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

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

100

Target year

2035

Targeted reduction from base year (%)

71.4

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

1,626,737.398

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

1,466,452

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

2,078,737.98

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO₂e)

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO₂e)

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO₂e)

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO₂e)

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO₂e)

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO₂e)

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO₂e)

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO₂e)

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO₂e)

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO₂e)

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO₂e)

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO₂e)

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)

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

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

3,545,189.98

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

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

52.7609190582

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

Our Scope 1 & 2 GHG target includes all of our major operations globally, including our JV operations in China, major non-manufacturing locations and numerous leased facilities. Not included in our Science-Based Targets are: GM Financial, Cruise, and Ultium Cells.

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

We plan to achieve our Scope 1 & 2 target by improving the efficiency of our operations and increasing our use of renewable power for electricity. We source renewable energy through direct investment, on-site generation, green tariffs and power purchase agreements (PPAs). According to Bloomberg New Energy Finance, GM has sourced more renewable electricity than any other automaker over the last decade, giving us the

scale to help drive the transition to renewable power across the United States. In October 2022, we announced that we have successfully sourced 100% of the renewable energy needed to power all our U.S. sites by 2025 *.

*Based on estimated forecasted global renewable energy sourced through currently executed agreements, subject to change depending on actual future electric usage in operations and actual future renewable generation.

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

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number

Int 1

Is this a science-based target?

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

Target ambition

Well-below 2°C aligned

Year target was set

2021

Target coverage

Company-wide

Scope(s)

Scope 3

Scope 2 accounting method

Scope 3 category(ies)

Category 11: Use of sold products

Intensity metric

Grams CO₂e per kilometer

Base year

2018

Intensity figure in base year for Scope 1 (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 2 (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO₂e per unit of activity)

0.0002466

Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Other (upstream) (metric tons CO₂e per unit of activity)

Intensity figure in base year for Scope 3, Other (downstream) (metric tons CO₂e per unit of activity)

Intensity figure in base year for total Scope 3 (metric tons CO₂e per unit of activity)

0.0002466

Intensity figure in base year for all selected Scopes (metric tons CO₂e per unit of activity)

0.0002466

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure

% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure

% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure

% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure

% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure

% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure

% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure

% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure

% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure

100

% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure

% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure

% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure

% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure

% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure

% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure

85

% of total base year emissions in all selected Scopes covered by this intensity figure

85

Target year

2035

Targeted reduction from base year (%)

50.4

Intensity figure in target year for all selected Scopes (metric tons CO₂e per unit of activity) [auto-calculated]

0.0001223136

% change anticipated in absolute Scope 1+2 emissions

0

% change anticipated in absolute Scope 3 emissions

-50.4

Intensity figure in reporting year for Scope 1 (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 2 (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO₂e per unit of activity)

0.0002332

Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Other (upstream) (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for Scope 3, Other (downstream) (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for total Scope 3 (metric tons CO₂e per unit of activity)

0.0002332

Intensity figure in reporting year for all selected Scopes (metric tons CO₂e per unit of activity)

0.0002332

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

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

10.781549711

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

GM commits to reduce Scope 3 GHG emissions from use of sold products of light duty vehicles 51% per vehicle kilometer by 2035 from a 2018 base year. The aggressive target was approved by SBTi organization in April 2021 and includes 100% of our light duty vehicles sold globally, including our JVs in China. The Well-below 2C aligned model is the most aggressive one available at this time for the Auto Transport OEM sector.

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

Our plan to meet this Scope 3 target is through our plans to eliminate tailpipe emissions from all light-duty vehicles. Our Scope 3 category 11, use of sold products intensity continues to drop as our EV portfolio grows and the ICE offerings we still provide become more efficient. The following initiatives will help us achieve this target:

- Anticipating total capital spending and investments in battery cell manufacturing joint ventures of approximately \$11-\$12 billion for 2023 and \$11-13 billion per year for 2024 and 2025
- Operating Factory ZERO, GM's first fully dedicated EV assembly plant, in Detroit Hamtramck
- Investing in home, workplace and public charging infrastructure in the United States and Canada
- Collaborating with Tesla to integrate the North American Charging Standard (NACS) in our EVs beginning in 2025
- Decarbonizing through hydrogen fuel cell technology
- Engaging in climate partnerships:
 - oBreakthrough Energy Catalyst: public-private partnership working to commercialize green hydrogen, long-term energy storage and sustainable aviation fuel
 - oTPG Rise Climate: helping the research community, investors and climate innovation accelerators develop clean energy, decarbonized transport and agricultural technologies

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

C4.2

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

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

Net-zero target(s)

Other climate-related target(s)

C4.2a

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

Target reference number

Low 1

Year target was set

2017

Target coverage

Company-wide

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Base year

2016

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

292,536

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

3

Target year

2035

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

100

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

29.9

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

27.7319587629

Target status in reporting year

Underway

Is this target part of an emissions target?

Yes, our RE-100 goal for renewable electricity by 2035, globally complements our Scope 1&2 absolute emissions target of 71.4% GHG reduction by 2035 from a baseline of 2018.

Is this target part of an overarching initiative?

RE100

Please explain target coverage and identify any exclusions

GM announced a renewable energy goal in September 2016 to use 100% renewable electricity by 2050 in our global facilities operations. Our four-tier approach includes - increasing energy efficiency in our operations, sourcing renewable electricity, addressing intermittent supply through storage, and influencing policy to drive scale. In early 2020, we pulled forward our 100% global renewable energy commitment to 2035 with interim goals of achieving 100% of U.S. sites by 2030. The target was accelerated again in September 2021, which is 5 years ahead of the 2030 target announced in early

2021 and 25 years ahead of the initial target of 2050, set in 2016. In the second quarter of 2020, we executed our largest solar project of 300 MW in Michigan through a green tariff agreement, making all GM sites in Southeast Michigan served by DTE on renewable power, including our global headquarters in Detroit and Global Technical Center in Warren Michigan. In 2022, we announced the finalization of energy sourcing agreements required to secure 100% of the energy needed to power all our U.S. facilities by 2025. We are the 12th-largest off-taker of renewable power purchase agreements (PPAs) in the world, and the second-largest off-taker in the manufacturing sector. In recognition of our efforts, GM received the 2020 Green Power Leadership Award in the Excellence in Green Power Use category from the U.S. Environmental Protection Agency. The awards recognize companies for their commitment and contribution to helping advance the development of the nation's voluntary green power market.

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

GM follows a four pillar approach to achieve our renewable energy goals. The first pillar is energy efficiency; making investments in our operations for more efficient equipment. The second pillar is renewable energy procurement. This is primarily done through power purchase agreements and green tariffs, sourcing renewable energy from projects as close to our operations as possible. The third pillar is addressing intermittency; mitigating gaps in renewable energy transition: working to ensure we're using carbon free electricity when the sun isn't shining and wind isn't blowing, and improving grid reliability. The last pillar is policy advocacy: GM is highly engaged via trade organizations & directly to legislators, voicing our support for clean energy legislation. In 2021, GM executed a green tariff offering for 28 MW of solar energy to supply the Bowling Green Assembly Plant with renewable energy. Furthermore, Phase 1 of a Green Tariff agreement with DTE in Michigan for 300,000 MWh of wind assets began producing renewable energy.

In 2021, we contracted an agreement with the Tennessee Valley Authority for 28 MW of solar energy to supply the Bowling Green Assembly Plant with renewable energy. In 2022, we announced that we have successfully sourced 100% of the renewable energy needed to power all our U.S. sites by 2025 (based on estimated forecasted global energy sourced through currently operating and executed agreements, subject to change depending on actual future electric usage in operations and actual future renewable generation).

List the actions which contributed most to achieving this target

C4.2b

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

Target reference number

Oth 1

Year target was set

2020

Target coverage

Company-wide

Target type: absolute or intensity

Absolute

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

Waste management

Percentage of total waste generated that is recycled

Target denominator (intensity targets only)

Base year

2017

Figure or percentage in base year

0.8081

Target year

2025

Figure or percentage in target year

0.9

Figure or percentage in reporting year

0.9178

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

119.3688792165

Target status in reporting year

Achieved

Is this target part of an emissions target?

Transitioning GM to a zero waste company aligns with GM's overarching carbon neutral commitment. Currently, GM's Zero Waste program only has a publicly stated tonnage based target to divert more than 90% of total operational waste from landfills and thermal recovery facilities by 2025.

Is this target part of an overarching initiative?

Other, please specify

Transitioning GM to a zero waste company aligns with GM's overarching carbon neutral commitment.

Please explain target coverage and identify any exclusions

GM's Zero Waste goal is to divert more than 90% of our total operational waste from landfills, incinerators and energy recovery facilities by 2025. Total operational waste is defined as all relevant waste streams (≥98% of reported operational waste) that are not generated due to construction, demolition or remediation activities. The baseline line year uses the GHG Protocol recommendation to average the data to assuage variations. Therefore, GM's waste program represents the percentage of waste diverted from landfill, incinerators and energy recovery compared to a three-year average (2017–2019) baseline of total operational waste generated and is based on the Zero Waste International Alliance (ZWIA) to reflect a 90% diversion threshold.

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

List the actions which contributed most to achieving this target

We have created a wide range of Zero Waste resources to provide support, funding and guidance to all relevant stakeholders to push the company's zero waste targets forward on local, regional, and global level:

- Onsite visits by the Zero Waste team to problem solve waste management & handling issues
- Individualized zero waste smart targets on the local & regional level that scale based on production volume and population, ensuring engaging and relevant waste targets
- Zero Waste Treasure Hunts to engage all employees in the Zero Waste program to assist sites in achieving their zero waste targets, while also identifying best practices to share throughout the company.
- Specific zero waste budget to fund waste diversion opportunities
- Alignment with suppliers and contractors towards a unified zero waste target

Through the use of the program resources, a variety of projects have been implemented to design out waste and improve reuse and recycling across the company portfolio, enabling a global 2022 waste diversion rate of 91.8%, examples of which include:

- In 2022, we reused approximately 60 tons of steel structure from an old press line and an old area of die storage at our São José dos Campos site in Brazil, reworking and reinforcing them to be reinstalled in the new press line. This process reduced costs, avoided the need for purchasing new steel structures and reduced our CO2 impact.
- Two GM foundries that manufacture engine components have teamed up to reuse waste sand, completely replacing the need for virgin sand on a block production line. This project diverts sand waste from Defiance Foundry, OH, to our foundry in Saginaw, MI. This initiative reused more than 4,000 metric tons in 2022, with a cost saving of nearly \$230,000.
- In partnership with the Ohio Department of Natural Resources, Defiance Foundry has also collaborated with our Biodiversity program to restore its on-site sludge ponds into a native wildlife habitat. In 2022, this habitat restoration project reused nearly 99,000 metric tons of sand.

Target reference number

Oth 2

Year target was set

2020

Target coverage

Business division

Target type: absolute or intensity

Absolute

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

Engagement with suppliers

Percentage of suppliers (by emissions) actively engaged on climate-related issues

Target denominator (intensity targets only)

Base year

2019

Figure or percentage in base year

68

Target year

2022

Figure or percentage in target year

100

Figure or percentage in reporting year

84

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

50

Target status in reporting year

Underway

Is this target part of an emissions target?

This target is a part of reducing GM's overall carbon footprint. In order to help reduce our Scope 3, category 1 purchased goods and services GHG life cycle emissions, we need support from our supply chain. All our direct material strategic suppliers are invited to complete the CDP Climate Change and Water Security surveys, in addition to a subset of indirect suppliers and our top strategic logistics suppliers. In 2022, direct suppliers representing 90% of our budgeted annual purchase value participated in CDP. We reached a response rate of over 84% in 2022 among in-scope SSE and key logistic

suppliers with the Climate Change survey. We are now aiming to increase participation beyond our targeted and strategic suppliers.

Is this target part of an overarching initiative?

Other, please specify

Reducing GM's total Scope 3 GHG emissions

Please explain target coverage and identify any exclusions

Although Scope 3, category 1 is not currently part of our SBTi targets, it could be in the future as electrification of our fleet will make Scope 3 category 11 GHG emissions from vehicle emissions less impactful. Purchased goods and services GHG is our 2nd highest scope 3 emission, and we need 100% of our strategic suppliers to assist in decarbonization.

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

We have participated in the CDP supply chain survey since 2013 and have collaborated with CDP and our suppliers to accelerate environmental action.

We reached a response rate of over 84% in 2022 among in-scope SSE and key logistic suppliers with the Climate Change survey. We are now aiming to increase participation beyond our targeted and strategic suppliers.

GM's Supplier Sustainability Goals Framework Guide enables us to assess sustainability within our Tier I supplier community, including Strategic Supplier Engagement (SSE) and key indirect and logistic suppliers. Additionally, it creates a pathway for GM suppliers to take increasingly bold steps toward a more sustainable future. Our GM ESG Partnership Pledge Guide and Supplier Sustainability Goals Framework for our Tier I suppliers communicate our supply chain goals, priorities and processes. Our Framework includes increasing levels of engagement from our suppliers with four distinct levels: compliance, commitment, growth and leadership. The framework allows for supplier-specific goals based on their priority assessments. Key to supplier engagement in 2022, we held our third annual Energy Symposium focused on energy management and mapping, and renewable energy. The event featured speakers from the U.S. Department of Energy's (DOE) Better Plants program, Consumers Energy, Clean Energy Buyers Association (CEBA), Adient and Edison Energy. The GPSC Sustainability Team, suppliers and stakeholders discussed carbon neutrality and highlighted immediate tangible opportunities and resources available to accelerate action. We provide external training to support suppliers in the areas of environmental management, workplace conditions, sustainability, ethics and human rights. In 2022, we conducted supplier educational sessions, covering topics that included energy reduction. In 2022, we also launched our Platform for ESG Educational Resources for Suppliers (PEERS), an eLearning platform with scenario-based learning that references specific challenges to sustainability. The platform offers webinars, content from Tier I suppliers that supports our supply base and other free resources.

List the actions which contributed most to achieving this target

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number

NZ1

Target coverage

Company-wide

Absolute/intensity emission target(s) linked to this net-zero target

Abs1

Int1

Target year for achieving net zero

2050

Is this a science-based target?

Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years

Please explain target coverage and identify any exclusions

GM is aligning with the goals of the Paris Agreement, and we are campaign members of the Business Ambition Pledge for 1.5°C, an urgent call to action from a global coalition of United Nations agencies, businesses, and industry leaders. GM will work to set a science-based emission reduction target aligned with the SBTi's target-setting criteria to achieve net-zero before 2050.

We are committed to achieve carbon neutrality in global products and operations by 2040, we are committed to achieving the following Science Based Targets initiative (SBTi) - approved targets. Reduce Scope 3 GHG emissions from the use of sold products of light-duty vehicles by 51% per vehicle kilometer by 2035 against a 2018 baseline • Reduce Scope 1 and 2 operations emissions by 72% by 2035 against a 2018 baseline

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?

Unsure

Planned milestones and/or near-term investments for neutralization at target year

Planned actions to mitigate emissions beyond your value chain (optional)

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 CO ₂ e savings in metric tonnes CO ₂ e (only for rows marked *)
Under investigation	142	
To be implemented*	170	79,747
Implementation commenced*	4	2,241
Implemented*	399	179,174
Not to be implemented	0	

C4.3b

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

Initiative category & Initiative type

Low-carbon energy generation
Wind

Estimated annual CO₂e savings (metric tonnes CO₂e)

66,907.25

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

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

0

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

0

Payback period

No payback

Estimated lifetime of the initiative

6-10 years

Comment

Our renewable electricity RE-100 commitment and implementation for our operations provides carbon reduction to help us meet our Science Based Target glide path. Furthermore, Consumers Energy Green Tariffs commenced at 7 additional sites in 2022.

Initiative category & Initiative type

Company policy or behavioral change
Resource efficiency

Estimated annual CO2e savings (metric tonnes CO2e)

15,058

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

Scope 1
Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

4,102,928

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

26,654

Payback period

<1 year

Estimated lifetime of the initiative

1-2 years

Comment

2022 presented the opportunity to continue on some of the learnings from 2021 such as temporary shutdowns due to production interruptions and production volume volatility. Initiatives included improvements in weekend and daily shutdown, production volume efficiency, compressed air leak repair, floor temperature setpoint optimization and other energy conservation measures.

Initiative category & Initiative type

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

Estimated annual CO₂e savings (metric tonnes CO₂e)

33,184

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

Scope 1
Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

8,163,023

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

7,833,489

Payback period

1-3 years

Estimated lifetime of the initiative

16-20 years

Comment

Although many facilities continue to be impacted by supply chain interruptions and semiconductor shortage, we were able to implement energy efficiency projects using Energy Performance Contracts and other methods focusing on HVAC optimization, installing LED lights, improving building management systems, and other measures.

Initiative category & Initiative type

Energy efficiency in production processes
Process optimization

Estimated annual CO₂e savings (metric tonnes CO₂e)

61,313

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

Scope 1
Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

12,910,275

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

17,407,270

Payback period

1-3 years

Estimated lifetime of the initiative

6-10 years

Comment

In 2022, GM implemented 175 energy improvements in our processes from new more efficient equipment, variable speed drives on motors, process controls, and other energy conservation measures

C4.3c

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

Method	Comment
Dedicated budget for energy efficiency	GM uses a dedicated budget for energy efficiency projects in operations and Energy Performance Contracting (EPC) methods to supplement. In 2022, we reduced our focus on EPC and began to shift to internal funding sources in an effort to focus specifically on energy savings. A blended approach of EPC & direct funding will be used as best suits our needs in meeting our energy efficiency goals.
Employee engagement	GM uses an energy management system (EMS), capital spending, and performance contracts to achieve energy-reduction goals. The basis of the system originates from Energy Star model and is integrated into our plan, do, check, act business plan. As of December 2022, we had 28 sites in the United States recognized by the program, up from 25 in 2021. While not officially recognized by the U.S. DOE program, we have 16 other sites that have met the same criteria. ISO 50001 Ready has been implemented at three sites in Canada, four in Mexico, eight in GM South America and one site in Korea.

C4.5

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

Yes

C4.5a

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

Level of aggregation

Group of products or services

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

Other, please specify

SBTi methodology for Well to Wheel Scope 3, Category 11, Use of sold products and difference between average ICE fleet and average EV fleet (gCO₂e/km) for 150,000 lifetime vkm and 554,694 EVs from 2022 sold

Type of product(s) or service(s)

Other

Other, please specify

EV Production

Description of product(s) or service(s)

Our 2022 EV portfolio includes electric vehicles—such as our Cadillac Lyric, Chevy Bolt and our Baojun E100, E200, and E300, sold in China. These vehicles have zero tailpipe emissions and lower overall emissions compared to internal combustion engine (ICE) vehicles. The Bolt offers an EPA estimated range of 259 miles on a full charge. The E100, E200, and E300 offer an estimated range of 100, 200, 300 km on a full charge, respectively. Electric vehicles sold globally with lower emissions than comparable ICE vehicles available for sale provide our customers GHG reduction opportunities.

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

Yes

Methodology used to calculate avoided emissions

Other, please specify

SBTi methodology for Well to Wheel Scope 3, Category 11, Use of sold products and difference between ICE and EV gCO₂e/km for 150,000 lifetime vkm and 554,694 EVs from 2022 sold Life cycle stage(s) covered for the low-carbon product(s) or services(s)

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

Use stage

Functional unit used

Metric Tons of CO₂e

Reference product/service or baseline scenario used

SBTi methodology for Well to Wheel Scope 3, Category 11, Use of sold products and difference between average ICE fleet and average EV fleet (gCO₂e/km) for 150,000 lifetime vkm and 554,694 EVs from 2022 sold

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

Use stage

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

16,707,199

Explain your calculation of avoided emissions, including any assumptions

SBTi methodology for Well to Wheel Scope 3, Category 11, Use of sold products and difference between ICE and EV gCO₂e/km for 150,000 lifetime vkm and 554,694 EVs from 2022 sold

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

1

C5. Emissions methodology

C5.1

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

No

C5.1a

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

Row 1

Has there been a structural change?

Yes, an acquisition

Yes, a divestment

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

Moscow VSSM Office (Formerly Moscow Cadillac) (Russia)

RFO Austin Call Center (U.S.)

Wentzville LOC VAA (U.S.)

Tri-County Commerce Center III (U.S.)

GM Defense Production Fac (U.S.)

Details of structural change(s), including completion dates

Moscow VSSM Office (Formerly Moscow Cadillac) (Russia)-09/2021
 RFO Austin Call Center (U.S.)-12/31/21
 Wentzville LOC VAA (U.S.)-02/2022
 Tri-County Commerce Center-01/2022
 GM Defense Production Facility-01/2022

C5.1b

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

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in boundary	Boundary change includes the divestment in Moscow VSSM Office (formerly Moscow Cadillac) and RFO Austin Call Center as well as the acquisition of Wentzville LOC VAA, Tri County Commerce Center and GM Defense Production Facility

C5.1c

(C5.1c) Have your organization's base year emissions and past years' emissions been recalculated as a result of any changes or errors reported in C5.1a and/or C5.1b?

	Base year recalculation	Base year emissions recalculation policy, including significance threshold	Past years' recalculation
Row 1	No, because the impact does not meet our significance threshold	The divestment reduction in 2022 is calculated at 0.0003% and is below our materiality threshold at 5%.	No

C5.2

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

Scope 1

Base year start

January 1, 2018

Base year end

December 31, 2018

Base year emissions (metric tons CO2e)

1,763,555

Comment

GM's baseline of 2018 for our Science Based Target for scope 1 was selected to be the best representation of our business as usual. 2019 and 2020 were assessed but not

selected due to production anomalies in due to work stoppage and pandemic production stoppages globally. The scope 1 baseline was verified by an independent third party.

Scope 2 (location-based)

Base year start

January 1, 2018

Base year end

December 31, 2018

Base year emissions (metric tons CO2e)

4,322,761

Comment

GM used Scope 2 Market-based emissions for our Science Based Targets.

Scope 2 (market-based)

Base year start

January 1, 2018

Base year end

December 31, 2018

Base year emissions (metric tons CO2e)

3,924,338

Comment

GM's baseline of 2018 for our Science Based Target for scope 2 was selected to be the best representation of our business as usual. 2019 and 2020 were assessed but not selected due to production anomalies in due to work stoppage and pandemic production stoppages globally. The scope 2 baseline was verified by an independent third party.

Scope 3 category 1: Purchased goods and services

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 2: Capital goods

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 4: Upstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 5: Waste generated in operations

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 6: Business travel

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

Scope 3 category 7: Employee commuting

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

Scope 3 category 8: Upstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

Scope 3 category 9: Downstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 10: Processing of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 11: Use of sold products

Base year start

January 1, 2018

Base year end

December 31, 2018

Base year emissions (metric tons CO2e)

312,896,052

Comment

GM's Science Based Target for vehicle emissions is based on average intensity, not absolute. The base year value here is from our SBTi application and is extrapolated to 10 year lifecycle GHG in tons.

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

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 13: Downstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

Scope 3 category 15: Investments

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

C5.3

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

- Australia - National Greenhouse and Energy Reporting Act
- Defra Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance, 2019
- Energy Information Administration 1605(b)
- IEA CO₂ Emissions from Fuel Combustion
- IPCC Guidelines for National Greenhouse Gas Inventories, 2006
- Programa GEI Mexico
- The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
- The Greenhouse Gas Protocol: Scope 2 Guidance
- The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Standard
- US EPA Center for Corporate Climate Leadership: Direct Emissions from Stationary Combustion Sources
- US EPA Mandatory Greenhouse Gas Reporting Rule
- US EPA Emissions & Generation Resource Integrated Database (eGRID)
- Other, please specify
- RE100 Reporting Guidance 2021; EPA EEIO v.2; Australian National Greenhouse Accounts; USEPA SmartWAY; Simplified GHG Emissions Calculator

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)

1,466,452

Start date

January 1, 2022

End date

December 31, 2022

Comment

GM's scope 1 emissions are generated from the use of fossil fuels, primarily natural gas for process and building heat. Reported emissions were verified by an independent third party.

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

Based on GM's RE-100 commitment, we chose to use market based GHG emissions for our Science based target reduction goal.

C6.3

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

Reporting year

Scope 2, location-based

2,996,074

Scope 2, market-based (if applicable)

2,078,738

Start date

January 1, 2022

End date

December 31, 2022

Comment

GM's scope 2 emissions are mostly from electricity used in our operations for process and building with some purchased steam, purchased chilled water and delivered heat by third parties. Scope 2 Location and Market-Based emissions have been verified by an independent third party.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?

Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1, Scope 2, or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source of excluded emissions

Small office type buildings where tracking energy use is difficult due to energy inclusion in building leases or other factors and are insignificant to our GHG disclosure.

Scope(s) or Scope 3 category(ies)

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

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of Scope 3 emissions from this source

Date of completion of acquisition or merger

Estimated percentage of total Scope 1+2 emissions this excluded source represents

0

Estimated percentage of total Scope 3 emissions this excluded source represents

Explain why this source is excluded

Based on reviews from these type of buildings, the amount of emissions consumed relative to the rest of the portfolio has been determine not to be relevant.

Explain how you estimated the percentage of emissions this excluded source represents

Using the average GHG emissions per square foot for typical GM office-type building included in our reporting times the total excluded square feet allows us to estimate the GHG Scope 1 and 2 emissions that are excluded from our reporting. We then compared the excluded, estimated emissions to the total Scope 1 and 2 emissions to arrive at the estimated percentage represented by the exclusions.

C6.5

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

Purchased goods and services

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

49,388,347

Emissions calculation methodology

Spend-based method

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

0

Please explain

Purchased goods and services are relevant as they are greater than the combined Scope 1 and 2 emissions. Based on the GHG Protocol Guidelines the spend-based method was used to estimate emissions by taking the economic values and multiplying by the relevant secondary emission factors within the USEPA Environmentally-Extended Input-Output (USEEIO) database (v 2.0).

Capital goods

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

3,148,823

Emissions calculation methodology

Spend-based method

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

0

Please explain

Capital goods are relevant as they are greater than the combined Scope 1 and 2 emissions. Based on the GHG Protocol Guidelines the spend-based method was used to estimate emissions by taking the economic values and multiplying by the relevant secondary emission factors within the USEPA Environmentally-Extended Input-Output (USEEIO) database (v 2.0).

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

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO₂e)

281,515

Emissions calculation methodology

Average data method

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

0

Please explain

Fuel-and-energy-related activities (not included in Scope 1 and 2) are not relevant as they are less than the combined Scope 1 and 2 emissions. Based on the GHG Protocol Guidelines the average-data method was used to estimate emissions from the transmission and distribution losses for Scope 1 and 2 usages. Scope 1 estimate emissions were calculated using the average fugitive emissions from natural gas distribution based on data from Australia. Scope 2 estimated emissions were calculated using the electrical supply and distribution emission loss from the EIA.

Upstream transportation and distribution

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO₂e)

2,741,620

Emissions calculation methodology

Spend-based method
Distance-based method

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

44

Please explain

Upstream transportation and distribution are not relevant as they are less than the combined Scope 1 and 2 emissions. Based on the GHG Protocol Guidelines a hybrid of distance-based method and the spend-based method was used to estimate the emissions from upstream transportation and distribution. USEPA SmartWay provides data from carriers using fuel use and from GM shipments for distances travelled and load weights for truck and rail. For ocean and air, a spend-based approach was used to estimate the amount of fuel used and the associated emissions based on that fuel usage. Data from USEPA SmartWay was provided by GM's logistics business partners. Note, emissions' data from USEPA SmartWay were from 2021 and to calculate the 2022 emissions the 2021 value was normalized to production.

Waste generated in operations

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO₂e)

444,452

Emissions calculation methodology

Average data method
Waste-type-specific method

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

0

Please explain

Waste generated in operations are not relevant as they are less than the combined Scope 1 and 2 emissions. Based on the GHG Protocol Guidelines a hybrid of waste-type-specific method and average-data method was used to estimate the emission from waste generated in operations. USEPA waste emission factors were derived from the WARM model. Where possible the waste-type-specific methodology was used, and all other waste streams were calculated based on best-available data within the categories. Note, avoided emissions impact from the disposal method were not considered in the emissions and the emissions include average transportation emissions based on the emission factors used.

Business travel

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO₂e)

20,664

Emissions calculation methodology

Spend-based method

Distance-based method

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

95

Please explain

Business travel is not relevant as it is less than the combined Scope 1 and 2 emissions. Based on the GHG Protocol Guidelines a hybrid of distance-based method and spend-data method was used to estimate the emission from business travel. Air travel emissions were provided by AMEX based on the distance traveled per flight within the calendar year. The ground transportation travel was calculated using a spend-based approach to approximate the distance traveled.

Employee commuting

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO₂e)

510,011

Emissions calculation methodology

Average data method

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

0

Please explain

Employee commuting is not relevant as it is less than the combined Scope 1 and 2 emissions. Based on the GHG Protocol Guidelines an average-data method was used to estimate the emission from employee commuting. An average value for the number of miles traveled for a commute based on the US Census Bureau was used times the number of employees. The number of employees was broken down between full-time on site, hybrid, and remote with each assignment having a different number of days a week commuting.

Upstream leased assets

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

106,380

Emissions calculation methodology

Average data method

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

0

Please explain

Upstream leased facilities are not relevant as they are less than the combined Scope 1 and 2 emissions. Based on the GHG Protocol Guidelines an average-data method was used to estimate the emission from upstream leased facilities. EIA values for average kWh per square foot was applied to the leased building based on usage multiplied by the country specific carbon intensity of energy to calculate the emissions.

Downstream transportation and distribution

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

1,030,317

Emissions calculation methodology

Spend-based method

Distance-based method

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

65

Please explain

Downstream transportation and distribution are not relevant as they are less than the combined Scope 1 and 2 emissions. Based on the GHG Protocol Guidelines a hybrid of distance-based method and the spend-based method was used to estimate the emissions from downstream transportation and distribution. USEPA SmartWay provides data from carriers using fuel use and from GM shipments for distances travelled and load weights for truck and rail. For ocean, a spend-based approach was used to estimate the amount of fuel used and the associated emissions based on that fuel usage. Data from USEPA SmartWay was provided by GM's logistics business partners. Note, emissions' data from USEPA SmartWay were from 2021 and to calculate the 2022 the emissions the 2021 value normalized to production.

Processing of sold products

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO₂e)

2,831,687

Emissions calculation methodology

Average data method

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

0

Please explain

Processing of sold products is not relevant as it is less than the combined Scope 1 and 2 emissions. Based on the GHG Protocol Guidelines an average-data method was used to estimate the emission from use of sold products. The number of engines that were built to be used within watercrafts were multiplied by the average horsepower of personal boat engines, the average run hours, and the fuel emission factors.

Use of sold products

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

208,553,229

Emissions calculation methodology

Average product method

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

0

Please explain

Use of sold products is relevant as it is greater than the combined Scope 1 and 2 emissions. Based on the GHG Protocol Guidelines an average product-based method was used to estimate emissions. A well to wheel methodology was used to calculate emissions over the lifetime of the vehicles sold based on CAFÉ models. Note, emissions from use of sold products includes mobile air conditioning emissions over the lifetime of the vehicle.

End of life treatment of sold products

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO₂e)

2,375,600

Emissions calculation methodology

Average data method

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

0

Please explain

End of life treatment of sold products is not relevant as it is less than the combined Scope 1 and 2 emissions. Based on the GHG Protocol Guidelines an average-data method was used to estimate the emission from the end of life treatment of sold products. Emissions were calculated using the end of life emissions from a life cycle analysis (LCA) that was performed on behalf of General Motors multiplied by the number of vehicles sold in the year.

Downstream leased assets

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO₂e)

42,793

Emissions calculation methodology

Average data method

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

0

Please explain

Downstream leased facilities are not relevant as they are less than the combined Scope 1 and 2 emissions. Based on the GHG Protocol Guidelines an average-data method was used to estimate the emission from downstream leased facilities. EIA values for average kWh per square foot was applied to the leased building based on usage multiplied by the country specific carbon intensity of energy to calculate the emissions.

Franchises

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO₂e)

1,181,771

Emissions calculation methodology

Average data method

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

0

Please explain

Franchises (vehicle dealerships) are not relevant as they are less than the combined Scope 1 and 2 emissions. Based on the GHG Protocol Guidelines an average-data method was used to estimate the emission from franchises. EIA values for average square footage and kWh per square foot was applied to each of the dealerships multiplied by the country specific carbon intensity of energy to calculate the emissions.

Investments

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO₂e)

65,396

Emissions calculation methodology

Average data method

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

0

Please explain

Investments are not relevant as they are less than the combined Scope 1 and 2 emissions. Based on the GHG Protocol Guidelines an average-data method was used to estimate the emission from investments.

Other (upstream)

Evaluation status

Not evaluated

Please explain

Not applicable

Other (downstream)

Evaluation status

Not evaluated

Please explain

Not applicable

C6.5a

(C6.5a) Disclose or restate your Scope 3 emissions data for previous years.

Past year 1

Start date

January 1, 2021

End date

December 31, 2021

Scope 3: Purchased goods and services (metric tons CO2e)

38,440,492.567

Scope 3: Capital goods (metric tons CO2e)

2,962,993.124

**Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)
(metric tons CO2e)**

252,913.167

Scope 3: Upstream transportation and distribution (metric tons CO2e)

3,017,286.857

Scope 3: Waste generated in operations (metric tons CO2e)

555,019.2

Scope 3: Business travel (metric tons CO2e)

10,492.236

Scope 3: Employee commuting (metric tons CO2e)

524,130.137

Scope 3: Upstream leased assets (metric tons CO2e)

116,109.074

Scope 3: Downstream transportation and distribution (metric tons CO2e)

1,092,533.742

Scope 3: Processing of sold products (metric tons CO2e)

2,444,134.098

Scope 3: Use of sold products (metric tons CO2e)

233,167,875

Scope 3: End of life treatment of sold products (metric tons CO2e)

2,516,400

Scope 3: Downstream leased assets (metric tons CO2e)

46,640.829

Scope 3: Franchises (metric tons CO2e)

1,214,326.06

Scope 3: Investments (metric tons CO2e)

66,599.29

Scope 3: Other (upstream) (metric tons CO2e)

Scope 3: Other (downstream) (metric tons CO2e)

Comment

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	60,866.88	CO2 portion of LFG use at 3 sites in GMNA

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

0.0000246

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

3,545,190

Metric denominator

unit total revenue

Metric denominator: Unit total

143,974,000,000

Scope 2 figure used

Market-based

% change from previous year

18

Direction of change

Decreased

Reason(s) for change

Change in renewable energy consumption
Change in output
Change in revenue

Please explain

We saw an increase in revenue and an increase in gross global CO₂e emissions and operations GHG intensities in 2022 as compared to 2021. We saw an overall increase in production, primarily in GMNA and a 26.8% increase in revenues in 2022 compared to 2021, and an increase in combined scope 1 and 2 GHG emissions of 4.2%. The decrease in revenue intensity is as expected given the small increase in emissions compared to the increase in revenue.

Intensity figure

0.58

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

3,545,190

Metric denominator

vehicle produced

Metric denominator: Unit total

6,075,449

Scope 2 figure used

Market-based

% change from previous year

4.92

Direction of change

Decreased

Reason(s) for change

Change in renewable energy consumption
Other emissions reduction activities
Change in output

Please explain

We saw a reduction of 4.9% in tons of CO₂e per vehicle in 2022 compared to 2021. There was an increase of scope 1 and 2 emissions of 4.2% compared to an increase in production of 8.8% in 2022 compared to 2021.

C7. Emissions breakdowns

C7.1

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

Yes

C7.1a

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

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	1,398,655	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	67,797	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

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

Country/area/region	Scope 1 emissions (metric tons CO2e)
North America	1,079,846
South America	68,651
Other, please specify GM International (rest of world)	317,954

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)
GM North America	1,079,846
GM South America	68,651
GM International (rest of world)	317,954

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

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

	Gross Scope 1 emissions, metric tons CO ₂ e	Comment
Transport OEM activities	1,466,452	We are including 100% of our scope 1 emissions as resulting from Transport OEM activities.

C7.5

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

Country/area/region	Scope 2, location-based (metric tons CO ₂ e)	Scope 2, market-based (metric tons CO ₂ e)
North America	1,986,158	1,074,481
South America	66,236	60,577
Other, please specify GM International (rest of world)	943,680	943,680

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 CO ₂ e)	Scope 2, market-based (metric tons CO ₂ e)
GM North America	1,986,158	1,074,481
GM South America	66,236	60,577
GM International (rest of world)	943,680	943,680

C7.7

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

No

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

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

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Transport OEM activities	2,996,074	2,078,738	We are including 100% of our scope 2 emissions as resulting from Transport OEM activities.

C-TO7.8

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

Activity

Light Duty Vehicles (LDV)

Emissions intensity figure

0.0002332

Metric numerator (Scope 3 emissions: use of sold products) in Metric tons CO2e

208,553,229

Metric denominator

p.km

Metric denominator: Unit total

890,850,000,000

% change from previous year

5.6

Vehicle unit sales in reporting year

5,939,000

Vehicle lifetime in years

10

Annual distance in km or miles (unit specified by column 4)

15,000

Load factor

GM does not track passengers per vehicle and used 1.45 as the average of EEA, “Occupancy Rates of Passenger Vehicles” (European Environment Agency, 2015), or range of 1.2 and 1.7

Please explain the changes, and relevant standards/methodologies used

SBTi methodology for Well to Wheel gCO2e/km Scope 3, Use of Sold Products, Category 11. Metric numerator includes MVAC emissions.

C7.9

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

Increased

C7.9a

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

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	184,173	Decreased	5.41	GM added a large green tariff (renewable electric) account to our Renewable Energy Portfolio, covering multiple production facilities in the U.S. This increased our consumption of renewable energy in 2021. In addition, existing green tariff accounts for two facilities in the U.S. were added mid year 2020, however, in 2021 these facilities consumed renewable electric for the full year. Calculation: Change in emissions in column 2) /previous year emissions * 100% - 184173/3403600 *100 = -5.41%
Other emissions reduction activities	71,715.83	Decreased	2.11	GM implemented energy conservation initiatives in 2022 including behavioral changes, HVAC improvements, Building Management Systems, LED lights, and paint process improvements (Variable Speed Drives on motors and process controls). Calculation: Change in

				emissions in column 2) / Previous year emissions * 100% - 71715.83/3403600 x 100% = -2.11%
Divestment	12.11	Decreased	0.0004	GM divested of operations in US, and Russia resulting in reduced emissions compared to 2021. Calculation: Change in emissions in column 2) / Previous year emissions * 100% - 12.11/3403600x100 = -0.00036%
Acquisitions	5,169.94	Increased	0.15	GM acquired operations in the US resulting in increased emissions compared to 2021. Calculation: Change in emissions in column 2/Previous year emissions *100%- 5169.94/3403600*100=0.15
Mergers	0	No change	0	GM had minimal mergers that affect GHG emissions.
Change in output	392,321	Increased	8.36	GM's vehicle production increased by 8.8% in 2022 vs. 2021, with the majority of change in GMNA. GMNA has an average 0.80 tons per vehicle, we estimated the change in GHG due to volume increases. Calculation: Change in emissions in column 2) /Previous year emissions * 100% - 392321/3,403600 = 11.5%
Change in methodology	0	No change	0	Not applicable
Change in boundary	0	No change	0	Not applicable
Change in physical operating conditions	0	No change	0	Cooling degree and Heating degree days were similar year over year so the effect on operating conditions was negligible.
Unidentified	0		0	Not applicable
Other	0	No change	0	Not applicable

C7.9b

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

Market-based

C8. Energy

C8.1

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

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

C8.2

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

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	Yes
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	342,584	6,942,099.71	7,284,683.71
Consumption of purchased or acquired electricity		1,868,313	4,642,349.62	6,510,662.62

Consumption of purchased or acquired heat		0	15,891.39	15,891.39
Consumption of purchased or acquired steam		0	258,676	258,676
Consumption of purchased or acquired cooling		0	281	281
Consumption of self-generated non-fuel renewable energy		0		0
Total energy consumption		2,210,897	11,859,297.72	14,070,194.72

C8.2b

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

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	Yes
Consumption of fuel for co-generation or tri-generation	Yes

C8.2c

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

Sustainable biomass

Heating value

HHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self- cogeneration or self-trigeneration

0

Comment

Not applicable

Other biomass

Heating value

HHV

Total fuel MWh consumed by the organization

342,583.9

MWh fuel consumed for self-generation of electricity

342,583.9

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self- cogeneration or self-trigeneration

0

Comment

Landfill Gas is used as a boiler fuel and to self-generate electricity. We don't currently have the ability to break out the landfill gas used for strictly electricity generation vrs co-generation, so it is all listed as MWh fuel consumed for self-generation of electricity.

Other renewable fuels (e.g. renewable hydrogen)

Heating value

HHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self- cogeneration or self-trigeneration

0

Comment

Not Applicable

Coal

Heating value

HHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self- cogeneration or self-trigeneration

0

Comment

Not applicable

Oil

Heating value

HHV

Total fuel MWh consumed by the organization

11,034.77

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

11,034.77

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self- cogeneration or self-trigeneration

0

Comment

Kerosene is used in paint ovens to cure paint, Oil & Diesel use is primarily for small heater use and back up testing for boilers.

Gas

Heating value

HHV

Total fuel MWh consumed by the organization

6,906,662.18

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

3,218,504.58

MWh fuel consumed for self-generation of steam

3,577,651.01

MWh fuel consumed for self-generation of cooling

110,506.59

MWh fuel consumed for self- cogeneration or self-trigeneration

0

Comment

Natural Gas is used for ovens to cure paint, building heating, and generation of hot water and steam in boilers.

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

Heating value

HHV

Total fuel MWh consumed by the organization

24,402.76

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self- cogeneration or self-trigeneration

0

Comment

LPG is used for mobile equipment.

Total fuel

Heating value

HHV

Total fuel MWh consumed by the organization

7,284,683.61

MWh fuel consumed for self-generation of electricity

342,583.9

MWh fuel consumed for self-generation of heat

3,229,539.35

MWh fuel consumed for self-generation of steam

3,577,651.01

MWh fuel consumed for self-generation of cooling

110,506.59

MWh fuel consumed for self- cogeneration or self-trigeneration

0

Comment

The sum of all fuel consumed by MWh

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	109,410	105,945	109,410	105,945
Heat	3,229,539.35	3,229,539.35	0	0
Steam	3,577,651.01	3,577,651.01	0	0
Cooling	110,506.59	110,506.59	0	0

C8.2g

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

Country/area

Argentina

Consumption of purchased electricity (MWh)

50,328.38

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

No

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

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

50,328.38

Country/area

Australia

Consumption of purchased electricity (MWh)

1,313.96

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

No

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

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

1,313.96

Country/area

Canada

Consumption of purchased electricity (MWh)

327,171.54

Consumption of self-generated electricity (MWh)

44,747.84

Is this electricity consumption excluded from your RE100 commitment?

No

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

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

371,919.38

Country/area

China

Consumption of purchased electricity (MWh)

1,163,182.6

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

No

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

108,217.92

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

1,271,400.52

Country/area

Colombia

Consumption of purchased electricity (MWh)

10,598.96

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

No

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

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

10,598.96

Country/area

Ecuador

Consumption of purchased electricity (MWh)

7,551.48

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

No

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

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

7,551.48

Country/area

Egypt

Consumption of purchased electricity (MWh)

18,044.81

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

No

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

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

18,044.81

Country/area

Ireland

Consumption of purchased electricity (MWh)

2,219.06

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

No

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

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

2,219.06

Country/area

Japan

Consumption of purchased electricity (MWh)

35.93

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

No

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

16.63

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

52.56

Country/area

Republic of Korea

Consumption of purchased electricity (MWh)

356,051.84

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

No

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

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

356,051.84

Country/area

Mexico

Consumption of purchased electricity (MWh)

811,209

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

No

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

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

811,209

Country/area

Philippines

Consumption of purchased electricity (MWh)

136.8

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

No

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

270.19

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

406.99

Country/area

India

Consumption of purchased electricity (MWh)

9,529.75

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

No

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

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

9,529.75

Country/area

Switzerland

Consumption of purchased electricity (MWh)

18.95

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

No

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

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

18.95

Country/area

United States of America

Consumption of purchased electricity (MWh)

3,384,995.11

Consumption of self-generated electricity (MWh)

105,945.41

Is this electricity consumption excluded from your RE100 commitment?

No

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

166,349.71

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

3,657,290.23

Country/area

Brazil

Consumption of purchased electricity (MWh)

368,274.46

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

No

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

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

368,274.46

C8.2h

(C8.2h) Provide details of your organization's renewable electricity purchases in the reporting year by country/area.

Country/area of consumption of purchased renewable electricity

United States of America

Sourcing method

Default delivered renewable electricity from the grid, supported by energy attribute certificates

Renewable electricity technology type

Renewable electricity mix, please specify
Grid Renewable Mix, Michigan RPS

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)

226,618.74

Tracking instrument used

US-REC

Country/area of origin (generation) of purchased renewable electricity

United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

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

2008

Vintage of the renewable energy/attribute (i.e. year of generation)

2022

Supply arrangement start year

2008

Additional, voluntary label associated with purchased renewable electricity

Other, please specify
Retired on our behalf

Comment

Michigan RPS, commissioning year listed as RPS enactment year

Country/area of consumption of purchased renewable electricity

United States of America

Sourcing method

Default delivered renewable electricity from the grid, supported by energy attribute certificates

Renewable electricity technology type

Renewable electricity mix, please specify
Grid Renewable Mix, Missouri RPS

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)

26,856.39

Tracking instrument used

US-REC

Country/area of origin (generation) of purchased renewable electricity

United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

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

2008

Vintage of the renewable energy/attribute (i.e. year of generation)

2022

Supply arrangement start year

2008

Additional, voluntary label associated with purchased renewable electricity

Other, please specify
Retired on our behalf

Comment

Missouri RPS, commissioning year listed as RPS enactment year

Country/area of consumption of purchased renewable electricity

United States of America

Sourcing method

Retail supply contract with an electricity supplier (retail green electricity)

Renewable electricity technology type

Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)

34,417.65

Tracking instrument used

US-REC

Country/area of origin (generation) of purchased renewable electricity

United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

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

2018

Vintage of the renewable energy/attribute (i.e. year of generation)

2022

Supply arrangement start year

2019

Additional, voluntary label associated with purchased renewable electricity

Other, please specify

Retired on our behalf

Comment

CMS Green Tariff – Bay City

Country/area of consumption of purchased renewable electricity

United States of America

Sourcing method

Retail supply contract with an electricity supplier (retail green electricity)

Renewable electricity technology type

Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)

213,739.66

Tracking instrument used

US-REC

Country/area of origin (generation) of purchased renewable electricity

United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

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

2018

Vintage of the renewable energy/attribute (i.e. year of generation)

2022

Supply arrangement start year

2018

Additional, voluntary label associated with purchased renewable electricity

Other, please specify

Retired on our behalf

Comment

CMS Green Tariff - Flint

Country/area of consumption of purchased renewable electricity

United States of America

Sourcing method

Retail supply contract with an electricity supplier (retail green electricity)

Renewable electricity technology type

Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)

312,527.31

Tracking instrument used

US-REC

Country/area of origin (generation) of purchased renewable electricity

United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

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

2016

Vintage of the renewable energy/attribute (i.e. year of generation)

2022

Supply arrangement start year

2019

Additional, voluntary label associated with purchased renewable electricity

Other, please specify

Retired on our behalf

Comment

DTE Green Tariff Phase I, DTE Green Tariffs utilize a collection of projects that renewable energy and RECs are sourced from to allocate to each subscriber. These projects with commissioning years include Isabella (2021), Fairbanks (2022), Assembly (2022), and Big Turtle II (2016).

Country/area of consumption of purchased renewable electricity

United States of America

Sourcing method

Financial (virtual) power purchase agreement (VPPA)

Renewable electricity technology type

Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)

316,722.99

Tracking instrument used

US-REC

Country/area of origin (generation) of purchased renewable electricity

United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

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

2018

Vintage of the renewable energy/attribute (i.e. year of generation)

2022

Supply arrangement start year

2018

Additional, voluntary label associated with purchased renewable electricity

Other, please specify

ERCOT - State of TX Renewable Energy Trading Program

Comment

NW Ohio Wind VPPA - We are in a financial PPA for this project that generates wind energy, but the supplier sells the RECs to another party. However, the supplier purchases replacement RECs on our behalf to account for 100% of the energy produced by the project.

Country/area of consumption of purchased renewable electricity

United States of America

Sourcing method

Financial (virtual) power purchase agreement (VPPA)

Renewable electricity technology type

Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)

334,772.83

Tracking instrument used

US-REC

Country/area of origin (generation) of purchased renewable electricity

United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

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

2019

Vintage of the renewable energy/attribute (i.e. year of generation)

2022

Supply arrangement start year

2019

Additional, voluntary label associated with purchased renewable electricity

Other, please specify

ERCOT - State of TX Renewable Energy Trading Program

Comment

Hill Topper/Trishe Wind VPPA - We are in a financial PPA for this project that generates wind energy, but the supplier sells the RECs to another party. However, the supplier purchases replacement RECs on our behalf to account for 100% of the energy produced by the project.

Country/area of consumption of purchased renewable electricity

United States of America

Sourcing method

Financial (virtual) power purchase agreement (VPPA)

Renewable electricity technology type

Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)

146,315.8

Tracking instrument used

US-REC

Country/area of origin (generation) of purchased renewable electricity

United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

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

2018

Vintage of the renewable energy/attribute (i.e. year of generation)

2022

Supply arrangement start year

2018

Additional, voluntary label associated with purchased renewable electricity

Other, please specify

ERCOT - State of TX Renewable Energy Trading Program

Comment

Cactus Flats Wind VPPA

Country/area of consumption of purchased renewable electricity

United States of America

Sourcing method

Financial (virtual) power purchase agreement (VPPA)

Renewable electricity technology type

Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)

84,331.78

Tracking instrument used

US-REC

Country/area of origin (generation) of purchased renewable electricity

United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

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

2017

Vintage of the renewable energy/attribute (i.e. year of generation)

2022

Supply arrangement start year

2017

Additional, voluntary label associated with purchased renewable electricity

Other, please specify

ERCOT - State of TX Renewable Energy Trading Program

Comment

Hidalgo Wind VPPA

Country/area of consumption of purchased renewable electricity

United States of America

Sourcing method

Retail supply contract with an electricity supplier (retail green electricity)

Renewable electricity technology type

Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)

20,136.8

Tracking instrument used

US-REC

Country/area of origin (generation) of purchased renewable electricity

United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

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

2019

Vintage of the renewable energy/attribute (i.e. year of generation)

2022

Supply arrangement start year

2022

Additional, voluntary label associated with purchased renewable electricity

Other, please specify

Retired on our behalf

Comment

CMS Green Tariff-Saginaw Metal Casting

Country/area of consumption of purchased renewable electricity

United States of America

Sourcing method

Retail supply contract with an electricity supplier (retail green electricity)

Renewable electricity technology type

Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)

10,463.3

Tracking instrument used

US-REC

Country/area of origin (generation) of purchased renewable electricity

United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

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

2019

Vintage of the renewable energy/attribute (i.e. year of generation)

2022

Supply arrangement start year

2022

Additional, voluntary label associated with purchased renewable electricity

Other, please specify

Retired on our behalf

Comment

CMS Green Tariff-Swartz Creek

Country/area of consumption of purchased renewable electricity

United States of America

Sourcing method

Retail supply contract with an electricity supplier (retail green electricity)

Renewable electricity technology type

Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)

4,832.1

Tracking instrument used

US-REC

Country/area of origin (generation) of purchased renewable electricity

United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

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

2019

Vintage of the renewable energy/attribute (i.e. year of generation)

2022

Supply arrangement start year

2022

Additional, voluntary label associated with purchased renewable electricity

Other, please specify

Retired on our behalf

Comment

CMS Green Tariff-CCA Davison

Country/area of consumption of purchased renewable electricity

United States of America

Sourcing method

Retail supply contract with an electricity supplier (retail green electricity)

Renewable electricity technology type

Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)

404.92

Tracking instrument used

US-REC

Country/area of origin (generation) of purchased renewable electricity

United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

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

2019

Vintage of the renewable energy/attribute (i.e. year of generation)

2022

Supply arrangement start year

2022

Additional, voluntary label associated with purchased renewable electricity

Other, please specify

Retired on our behalf

Comment

CMS Green Tariff-Burton

Country/area of consumption of purchased renewable electricity

United States of America

Sourcing method

Retail supply contract with an electricity supplier (retail green electricity)

Renewable electricity technology type

Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)

6,937.16

Tracking instrument used

US-REC

Country/area of origin (generation) of purchased renewable electricity

United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

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

2019

Vintage of the renewable energy/attribute (i.e. year of generation)

2022

Supply arrangement start year

2022

Additional, voluntary label associated with purchased renewable electricity

Other, please specify

Retired on our behalf

Comment

CMS Green Tariff-Flint Tool and Die

Country/area of consumption of purchased renewable electricity

United States of America

Sourcing method

Retail supply contract with an electricity supplier (retail green electricity)

Renewable electricity technology type

Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)

80,769.76

Tracking instrument used

US-REC

Country/area of origin (generation) of purchased renewable electricity

United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

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

2019

Vintage of the renewable energy/attribute (i.e. year of generation)

2022

Supply arrangement start year

2022

Additional, voluntary label associated with purchased renewable electricity

Other, please specify

Retired on our behalf

Comment

CMS Green Tariff-GMCH Grand Rapids

C8.2i

(C8.2i) Provide details of your organization's low-carbon heat, steam, and cooling purchases in the reporting year by country/area..

Sourcing method

None (no purchases of low-carbon heat, steam, or cooling)

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

Energy carrier

Low-carbon technology type

Low-carbon heat, steam, or cooling consumed (MWh)

Comment

N/A we do not currently purchase low carbon heat, steam or cooling

C8.2j

(C8.2j) Provide details of your organization's renewable electricity generation by country/area in the reporting year.

Country/area of generation

Brazil

Renewable electricity technology type

Solar

Facility capacity (MW)

0.3

Total renewable electricity generated by this facility in the reporting year (MWh)

178.73

Renewable electricity consumed by your organization from this facility in the reporting year (MWh)

178.73

Energy attribute certificates issued for this generation

No

Type of energy attribute certificate

Comment

Electricity generated from solar consumed on site.

Country/area of generation

United States of America

Renewable electricity technology type

Solar

Facility capacity (MW)

1.8

Total renewable electricity generated by this facility in the reporting year (MWh)

0

Renewable electricity consumed by your organization from this facility in the reporting year (MWh)

0

Energy attribute certificates issued for this generation

No

Type of energy attribute certificate

Comment

Electricity generated from solar consumed on site. Solar array was not operational in 2022 due to damage.

Country/area of generation

United States of America

Renewable electricity technology type

Sustainable biomass

Facility capacity (MW)

8

Total renewable electricity generated by this facility in the reporting year (MWh)

35,867.14

Renewable electricity consumed by your organization from this facility in the reporting year (MWh)

32,403.01

Energy attribute certificates issued for this generation

No

Type of energy attribute certificate

Comment

GM Retained the renewable energy attributes for the electric (generated from landfill gas) that was sold to the grid at this site.

Country/area of generation

United States of America

Renewable electricity technology type

Sustainable biomass

Facility capacity (MW)

6.4

Total renewable electricity generated by this facility in the reporting year (MWh)

28,794.56

Renewable electricity consumed by your organization from this facility in the reporting year (MWh)

28,794.56

Energy attribute certificates issued for this generation

No

Type of energy attribute certificate

Comment

Electricity generated from landfill gas consumed on site.

Country/area of generation

Canada

Renewable electricity technology type

Sustainable biomass

Facility capacity (MW)

6.4

Total renewable electricity generated by this facility in the reporting year (MWh)

44,747.84

Renewable electricity consumed by your organization from this facility in the reporting year (MWh)

44,747.84

Energy attribute certificates issued for this generation

No

Type of energy attribute certificate

Comment

Electricity generated from landfill gas consumed on site.

C8.2k

(C8.2k) Describe how your organization’s renewable electricity sourcing strategy directly or indirectly contributes to bringing new capacity into the grid in the countries/areas in which you operate.

GM primarily procures renewable energy through Virtual Power Purchase Agreements (VPPAs) and Green Tariffs. With VPPAs we work directly with a developer to create new renewable generation sources, such as wind or solar. GM also partners with local utilities through their Green Tariff offerings, which enables utilities to make investments to develop new renewable generation assets. For example, GM signed a Green Tariff with the Tennessee Valley Authority in 2021 to source 28 MW of solar for Bowling Green Assembly in Kentucky. Furthermore, Phase 1 of a Green Tariff agreement with DTE in Michigan for 300,000 MWh of wind assets began producing renewable energy in 2021. Additionally, GM is a founding member of the Clean Energy Buyers’ Association, an organization which advocates for the addition of low-cost renewable assets to the US electricity system, so our membership indirectly helps add new capacity to the grid. Furthermore, GM supports our suppliers in setting and achieving renewable energy goals, which is another way we indirectly contribute to bringing new renewable capacity to the grid. In 2022, we announced that we have successfully sourced 100% of the renewable energy needed to power all our U.S. facilities by 2025 (based on estimated forecasted renewable energy sourced through currently executed agreements, subject to change depending on actual future electric usage in operations and actual future renewable generation).

C8.2l

(C8.2l) In the reporting year, has your organization faced any challenges to sourcing renewable electricity?

	Challenges to sourcing renewable electricity	Challenges faced by your organization which were not country/area-specific
Row 1	Yes, both in specific countries/areas and in general	In 2022, material supply chain shortages delayed asset development, as well as impacted project pricing.

C8.2m

(C8.2m) Provide details of the country/area-specific challenges to sourcing renewable electricity faced by your organization in the reporting year.

Country/area	Reason(s) why it was challenging to source renewable electricity within selected country/area	Provide additional details of the barriers faced within this country/area
United States of America	Other, please specify In the U.S., projects that were evaluated for potential investment in PJM territory had to be eliminated after the RTO stopped new capacity applications for interconnection, due to a backlog	In the U.S., projects that were evaluated for potential investment in PJM territory had to be eliminated after the RTO stopped new capacity applications for interconnection, due to a backlog in the interconnection queue.

C-T08.5

(C-T08.5) Provide any efficiency metrics that are appropriate for your organization's transport products and/or services.

Activity

Light Duty Vehicles (LDV)

Metric figure

35.11588304

Metric numerator

tCO₂e

Metric denominator

Other, please specify
Vehicle Sales

Metric numerator: Unit total

208,553,229

Metric denominator: Unit total

5,939,000

% change from previous year

4.96

Please explain

Total use of sold products is calculated annually for 2022. The method is consistent with SBTi methodology for Well to Wheel gCO₂e/km Scope 3, Use of Sold Products, Category 11 multiplied by 2022 global volume and 150,000 lifetime vehicle kilometers

plus annual assumed HFC losses from MVAC units (3% per year, 805,752 tCO₂e for 2022) over the lifetime of the vehicle, 10 years. Metric tons are normalized by sold vehicles in 2022 for metric figure reported.

C9. Additional metrics

C9.1

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

Description

Waste

Metric value

152,605.42

Metric numerator

Total nondiverted operational waste in metric tons

Metric denominator (intensity metric only)

% change from previous year

39.68

Direction of change

Decreased

Please explain

GM has reduced its total non-diverted operational waste in metric tons from 253,008.59 in 2021 to 152,605.42 in 2022, leading to a zero waste diversion of 91.8%. This surpasses GM's waste reduction target of 90% three years ahead of schedule.

C-TO9.3/C-TS9.3

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

Activity

Light Duty Vehicles (LDV)

Metric

Sales

Technology

Battery electric vehicle (BEV)

Metric figure

9.3

Metric unit

% of total sales

Explanation

Our global sales of electric vehicles in 2022 was 554,694 vehicles and the metric reported is based on sales volumes in 2022 of 5.9 M vehicles. We are focusing on accelerating our transition toward EVs. We are building our EV portfolio to be inclusive, with models to suit a range of lifestyles and price points. We are on track to produce 400,000 EVs in North America from 2022 through mid-2024, which will help lower the emissions intensity from the use of sold products significantly.

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	GM's innovations around electrification and mobility include EVs and charging infrastructure, self-driving ride-hailing services and low-carbon delivery vehicles . Costs for research, manufacturing engineering, product engineering and design and development activities primarily relate to developing new products or services or improving existing products or services, including activities related to vehicle and greenhouse gas (GHG) emissions control, improved fuel economy, EVs, AVs and the safety of drivers and passengers . As reported in GM's 2022 Form 10-K, our R&D expenditures were \$9.8 billion in 2022 . As an example, in 2021, we announced our investment in the Wallace Battery Cell Innovation Center, an all-new facility that has significantly expanded the Company's battery technology operations and will continue to accelerate the development and commercialization of longer range, more affordable EV batteries .

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

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

Activity

Light Duty Vehicles (LDV)

Technology area

Battery electric vehicle

Stage of development in the reporting year

Full/commercial-scale demonstration

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

46

**R&D investment figure in the reporting year (unit currency as selected in C0.4)
(optional)**

Average % of total R&D investment planned over the next 5 years

**Explain how your R&D investment in this technology area is aligned with your
climate commitments and/or climate transition plan**

We plan to be carbon neutral by 2040 in our global products and operations, supported by a commitment to science-based targets. In addition, GM envisions an all-electric future and plans to eliminate tailpipe emissions from new U.S. light-duty vehicles by 2035. These targets align with our growth and transformation plan including our commitment to an all-electric future, which will be enabled by our Ultium platform and HYDROTEC technology. We also announced that we anticipate total capital spending and investments in battery cell manufacturing joint ventures of approximately \$11–\$12 billion for 2023 and \$11–13 billion per year for 2024 and 2025, primarily to accelerate our transformation plan.

A key element in our EV strategy is Ultium, our dedicated electric vehicle propulsion architecture. This platform is flexible and will be leveraged across multiple brands and vehicle sizes, styles and drive configurations, allowing for quick response to customer preferences and a shorter design and development lead time compared to our ICE vehicles. Our first Ultium-based products launched in 2021 with the GMC HUMMER EV and BrightDrop Zevo 600, followed by the Cadillac LYRIQ in 2022. We plan to leverage the versatility and flexibility of Ultium to expand our EV portfolio over a wide variety of segments and price points including the Chevrolet Equinox EV, the Chevrolet Blazer EV, the Chevrolet Silverado EV and the GMC Sierra EV, which are expected to be launched over 2023 and 2024. GM's hydrogen fuel cell technology, HYDROTEC, allows us to extend electrification technologies to more industries and a broader range of applications, from transportation to mobile power generation. Our focus on transportation modes includes work to make medium- and heavy-duty trucks more efficient while reducing carbon emissions.

We also continue to invest in key ICE segments, which are critical to fund our all-electric future. Cross-segment part sharing is an essential enabler to optimize our vehicle

portfolio profitability, with more than 75% of our global internal combustion vehicle sales volume expected to come from five internal combustion vehicle architectures through this decade.

C10. Verification

C10.1

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

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

C10.1a

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

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

 ver_stmt_2022_GM_Global_20230331.pdf

Page/ section reference

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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

Limited assurance

Attach the statement

 ver_stmt_2022_GM_Global_20230331.pdf

Page/ section reference

2

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: Purchased goods and services

Scope 3: Capital goods

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

Scope 3: Upstream transportation and distribution

Scope 3: Business travel

Scope 3: Downstream transportation and distribution

Scope 3: Use of sold products

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

 ver_stmt_2022_GM_Global_20230331.pdf

Page/section reference

2

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Purchased goods and services

Scope 3: Capital goods

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

Scope 3: Upstream transportation and distribution

Scope 3: Business travel

Scope 3: Downstream transportation and distribution

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

 ver_stmt_2021_Scope3_GM_Global_20230331.pdf

Page/section reference

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

0

C10.2

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

Yes

C10.2a

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

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C4. Targets and performance	Year on year change in emissions (Scope 1 and 2)	ISO-14064-3	Our independent third party verified that GM increased absolute Scope 1 & 2 emissions by 7.9% in 2022 compared to 2021. We also verify production, renewable electricity, waste, water, and energy use.  1

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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.

- Canada federal Output Based Pricing System (OBPS) - ETS
- China national ETS
- Korea ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

Canada federal OBPS - ETS

% of Scope 1 emissions covered by the ETS

99

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2021

Period end date

December 31, 2021

Allowances allocated

40,892

Allowances purchased

19,756

Verified Scope 1 emissions in metric tons CO₂e

69,909

Verified Scope 2 emissions in metric tons CO₂e

0

Details of ownership

Facilities we own and operate

Comment

GM's primary focus for global ETS is energy efficiency to minimize allocations purchased and maximize carbon credits for sale. 9,261 banked credit.

China national ETS

% of Scope 1 emissions covered by the ETS

19.4

% of Scope 2 emissions covered by the ETS

80.6

Period start date

January 1, 2022

Period end date

December 31, 2022

Allowances allocated

286,268

Allowances purchased

0

Verified Scope 1 emissions in metric tons CO₂e

56,327

Verified Scope 2 emissions in metric tons CO₂e

233,333

Details of ownership

Facilities we own but do not operate

Comment

As our China and US Joint Venture ownerships include a managing director from GM for operations, we include active JV's in our carbon reporting and jointly share best practices.)

Korea ETS

% of Scope 1 emissions covered by the ETS

33.7

% of Scope 2 emissions covered by the ETS

66.3

Period start date

January 1, 2022

Period end date

December 31, 2022

Allowances allocated

275,908

Allowances purchased

0

Verified Scope 1 emissions in metric tons CO₂e

74,741

Verified Scope 2 emissions in metric tons CO₂e

147,216

Details of ownership

Facilities we own and operate

Comment

Current balance is +87,022 CO₂e tons. We'll sell (30,000) tons in July and then carry over the remains to 2023 credits.

C11.1d

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

GM's 2035 energy reduction goals of 35% from a baseline of 2010, coupled with our Science-based targets for operations of 72% reduction in absolute GHG from 2018 to 2035 require continuous improvement in energy efficiency. To meet these targets, GM needs to implement energy efficiency projects as part of our business plan. Our strategy for participating in regulated emissions trading schemes in Korea and China is to continue implementing energy efficiency projects and initiatives to reduce GHG and provide value from the sale of carbon credits in the marketplace to provide additional funding for continuous improvement.

C11.2

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?

No

C11.3

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

No, but we 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/clients

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

Provide training, support, and best practices on how to make credible renewable energy usage claims

Provide training, support, and best practices on how to set science-based targets

Climate change performance is featured in supplier awards scheme

Facilitate adoption of a unified climate transition approach with suppliers

% of suppliers by number

3

% total procurement spend (direct and indirect)

84

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

18

Rationale for the coverage of your engagement

To help create a more sustainable world, we aim to achieve carbon neutrality in global products and operations by 2040. To that end, we engage our suppliers through the following initiatives, focusing on spend, strategic relationships, and high emitting industries. Many of our suppliers fall under the indirect category, with relatively low procurement spend. This impacts the supplier by number percentage.

- In 2022, GM paid for ~500 suppliers to complete the CDP Climate questionnaire, where scores may be used in sourcing decisions. In addition, 55% of suppliers are engaging their own suppliers, maximizing the impact.
- Inviting Tier 1 suppliers to sign the GM ESG Partnership Pledge and enhance emissions tracking. Our pledge asks for a commitment to carbon neutrality in their own Scope 1 and Scope 2 emissions by 2025 or earlier for professional service companies, by 2035 or earlier for manufacturing companies, and by 2038 or earlier for raw materials and logistics companies.
- Our GM ESG Partnership Pledge Guide and Supplier Sustainability Goals Framework communicate our supply chain goals, priorities and processes. Our Framework includes increasing levels of engagement from our suppliers with four levels: compliance, commitment, growth, & leadership.
- Monitoring participating suppliers' sustainability performance through CDP and EcoVadis and reaching out to encourage participation and engagement.
- Joining the First Movers Coalition through commitments to low-carbon steel, aluminum, concrete, and cement.
- The Supplier Sustainability Sub-Council. Currently there are 13 strategic suppliers leading different areas like logistics, services, and parts manufacture actively participating. The focus of the council is to develop the best method for sharing ideas on reducing energy, emissions, and water usage throughout GM's entire supply chain as well as their own.
- Provide live training webinars and bring in outside experts to discuss timely topics related to energy savings and we record the webinars and house them on our supplier portal "Supply Power". Suppliers have unlimited free access.
- Launched our Platform for ESG Educational Resources for Suppliers (PEERS) scenario-based learning. The platform offers webinars, & content from Tier I suppliers that supports our supply base and other free resources.

Impact of engagement, including measures of success

All our direct material strategic suppliers are invited to complete the CDP surveys, in addition to a subset of indirect suppliers and our top strategic logistics suppliers. In 2022, direct suppliers representing 90% of our budgeted annual purchase value participated. We reached a response rate of over 84% in 2022 among in-scope SSE and key logistic suppliers with the Climate Change survey. We are aiming to increase participation beyond our targeted and strategic suppliers.

The analysis of the data collected has shown that through our initiatives we have saved and estimated 35 million metric tonnes of CO₂e and that 60% of reporting suppliers are reporting active targets to reduce their emissions.

By the end of 2022, 68% of our direct suppliers, by budgeted annual purchase value, had committed to the ESG Partnership Pledge, and we continue inviting Tier 1 suppliers to sign. This Pledge asks our suppliers to commit to carbon neutrality for Scope 1 and 2 emissions relevant to products or services they provide us. Timeline to achieve carbon neutrality by supplier category is by 2025 or sooner for professional services, 2035 or sooner for manufacturing companies and 2038 or sooner for raw materials and logistics companies. GM's Supplier Sustainability Goals Framework enables us to assess sustainability within our Tier I supplier community, including Strategic Supplier Engagement (SSE) and key indirect and logistic suppliers. We continue inviting Tier 1 suppliers to sign, tracking success by how much percentage of our spend have signed the Pledge.

Through our energy treasure hunts at supplier locations, we have provided recommendations to save ~14,000 MWh of energy and eliminating ~4,600 metric tons of CO₂ emissions.

GM held the 3rd Annual Supplier Energy Symposium that was viewed by ~1200 people across 27 different countries.

Hosted 10 Energy Webinars for our suppliers where we bring in energy experts to discuss timely topics related to energy savings.

GM Ventures made an investment in Wind Catching Systems (WCS), an offshore wind company. Our strategic agreement for collaboration covers technology development, project execution, offshore wind policy and the advancement of sustainable technology applications. .

Through our supplier portal, Supply Power, there were 5,000 views through ~2300 visits to PEERS, and 1,133 views into our Energy Resources portal.

Comment

Scope 3 categories 1 and 2 represent 18% of our total Scope 3 emissions

C12.1b

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

Type of engagement & Details of engagement

Education/information sharing

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

% of customers by number

75

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

0.01

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

Our strategy to accelerate the transition to an all-electric future involves demystifying EV ownership by addressing the barriers to adoption and creating a network of highly trained EV experts at our dealerships. By engaging our dealers (our direct customers) we are creating another pathway for consumer education and engagement. The initiatives and tools we have in place to support education and engagement include:

- EV Live, our interactive and immersive experience
- Explore EV, which offers our vehicle brand app users additional information about the benefits of EV ownership
- A new Electric Vehicle Experience (EVX) program that designates EV specialists for Chevrolet and GMC dealers, while Cadillac dealers promote learning and training through their own dedicated dealer program, Pinnacle
- A dedicated curriculum of EV courses, teaching dealership personnel how to navigate customers through the EV ownership experience
- A new gamified micro-learning app
- A collection of dedicated EV literature to support retail readiness
- EV Showroom, a purpose-built online tool for dealers to guide customer conversations and amplify EV learning, covering topics such as fuel savings and charging calculators
- An "EV Ready" dealership, including the training, tools, requirements and special equipment to support the sale and service of EVs
- Transparency in GM's advertised pricing to improve the shopping experience

Impact of engagement, including measures of success

Putting customers at the center of everything we do extends to the experience they have when visiting GM dealerships. It is foundational that dealerships deliver a consistent level of sales and aftersales excellence to earn and maintain customer trust.

There are two elements of quality management systems that help us achieve this consistency across dealers: facility/customer experience conformance and sales performance. These elements are measured over five Dealer Quality programs, one of which highlights the EV Experience (EVX). It provides CX standards to assist dealers in offering EV customers an educational and transparent experience in their shopping and purchase of an EV. Includes specific training, equipment, tools and advertising guidelines. The EVX program also includes a sales performance opportunity for the EV specialist at the dealership. Out of GM's 3,820 dealers that have either a Chevy and/or GMC franchise, 164 are enrolled.

For illustrative purposes, approximately 75% of our Chevy and/or GMC dealers (our direct customers) have received education through the EVX program. We are aiming to engage 100% of our dealers.

C12.2

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

Yes, climate-related requirements are included in our supplier contracts

C12.2a

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

Climate-related requirement

Complying with regulatory requirements

Description of this climate related requirement

We take pride in knowing that our suppliers and partners are equally dedicated to protecting our planet and fostering a healthy work environment. In recognition of this commitment, General Motors has included in our Supplier Code of Conduct environmental components consisting of Continuous Improvement and Responsible Stewardship that articulate to suppliers that they take measures to reduce their carbon footprint, energy use, water use, waste, and other emissions. In addition, suppliers will seek opportunities to conserve resources and protect the communities and environment that surround them. GM encourages its suppliers to develop and diffuse environmentally friendly technologies and to increase the use of renewable energies.

GM has added the requirement to participate in annual CDP questionnaire (if invited) to our RFQ language. We have also added mandatory EcoVadis assessment for all suppliers to our RFQ language.

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

100

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

100

Mechanisms for monitoring compliance with this climate-related requirement

Supplier self-assessment

Supplier scorecard or rating

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

Retain and engage

C12.3

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

Row 1

External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers

Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

Yes, we fund organizations or individuals whose activities could influence policy, law, or regulation that may impact the climate

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

Yes

Attach commitment or position statement(s)

1. "In the following pages, we discuss the company's advocacy efforts across a range of sustainability issues, in the context of ambitious goals to address climate change and support the goals of the Paris Agreement." (page 3 of 41 GM 2022 Sustainability Advocacy Report) 2. "GM plans to achieve sales of 40-50% of annual U.S. volumes of BEVs by 2030 in order to move the nation closer to a zero-emissions future consistent with the Paris Agreement." (page 6 of 41 GM 2022 Sustainability Advocacy Report) 3. "Our efforts to decarbonize on-road transportation are guided by GM's business objectives and policy commitments, including climate stewardship, and will be an essential part of helping the United States and other countries achieve their Paris Climate Agreement commitments." (page 7 of 41 GM 2022 Sustainability Advocacy Report) 4. "While we are prepared for any policy environment, we strongly support provisions that will allow the transition to accelerate so we can go bigger, move faster, and be globally competitive. GM's mission transcends generations and administrations. New technologies take time to scale and reduce costs, and EVs are no different, but we are determined to ensure that the U.S. auto industry leads the way." (page 19 of 41 GM 2022 Sustainability Advocacy Report)

 GM Sustainability Advocacy Report.pdf

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan

"As part of our responsible participation in these memberships, GM regularly assesses alignment of their positions and advocacy strategy with our company's priorities and values. We also reference the work of independent third-party organizations that assess corporate engagement and lobbying activity. GM also engages directly with the organizations to collaborate on the development of policy positions and recommendations that support the goals of the Paris Agreement." (page 25 of 41 GM 2022 Sustainability Advocacy Report)

C12.3a

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

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

Inflation Reduction Act

Category of policy, law, or regulation that may impact the climate

Carbon pricing, taxes, and subsidies

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

Subsidies on products or services

Subsidies on infrastructure

Taxes on products or services

Policy, law, or regulation geographic coverage

National

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

United States of America

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

Support with minor exceptions

Description of engagement with policy makers

1."GM advocated for the climate provisions included in the Inflation Reduction Act of 2022 such as the consumer purchase incentives for new and used light-duty EVs and commercial EV incentives, support for EV supply chain and manufacturing such as the advanced energy project investment tax credits, production tax credits to invest in critical minerals processing, batteries, solar and wind, the advanced technology manufacturing grant program, tax credits for EV charger investments, and support for greening the federal fleets." (page 6 of 41 in 2022 Sustainability Advocacy Report) 2. "GM was the first original equipment manufacturer (OEM) to publicly support the IRA. On August 1, 2022, GM published a statement in support of the climate provisions in the IRA: 'We are encouraged by the framework set forth in the legislative text. While some of the provisions are challenging and cannot be achieved overnight, we are confident that the significant investments we are making in manufacturing, infrastructure, and

supply chain along with the timely deployment of complementary policies can establish the U.S. as a global leader in electrification today, and into the future. We will continue to review the details and we look forward to engaging all stakeholders and working collaboratively on these important issues." (page 19 of 41 in 2022 Sustainability Advocacy Report) 3. "GM welcomes the new clean energy tax credits—in particular, the consumer BEV purchase incentives for new, used, and commercial BEVs, the production tax credits to support domestic critical mineral processing and BEV battery production as well as grants to support transition of auto manufacturing facilities to BEV production. The new clean energy tax credits will support continued investments associated in our BEV transformation. In addition, the credits will enable us to strategically increase our footprint domestically and with free-trade agreement partners. In turn, this creates jobs, accelerates scale and BEV adoption, and allows us to more quickly deliver affordable BEVs and infrastructure to support their enjoyment." (page 19 of 41 in 2022 Sustainability Advocacy Report)

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

A competitive tax rate is one of the most important components of the U.S. tax system, as it allows American companies to compete and expand investments in the United States.

While raising the U.S. corporate tax rate may produce additional revenue in the short term, we understand the economic research consensus is that higher corporate taxes slow growth and investment. An increase in the corporate tax rate would make the U.S. tax rate one of the highest in the OECD.

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?

"GM advocated for the EV provisions within the Inflation Reduction Act (IRA) of 2022 passed by the U.S. Congress in 2021-22, as we believe it puts the United States on the path toward onshoring our supply chain, strengthening the economy, and advancing innovation." (page 16 of 41 2022 Sustainability Advocacy Report)

C12.3b

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

Trade association

Alliance for Automotive Innovation

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

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, and they have changed their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

Consistent position: "GM shares AAI's goal of a net-zero carbon transportation future. GM held the Chairmanship position during AAI's first year and helped guide AAI's positioning on what is needed to achieve this goal with a focus on the needed complementary policies and consumer education. AAI continues to work with stakeholders and NGOs in a manner consistent with this goal and a focus on a net-zero carbon future." "AAI is aligned with the Paris Agreement as it relates to the auto sector. 1. "The auto industry is working toward a net-zero carbon transportation future and will invest \$515 billion in electrification by 2030." 2. "Auto manufacturers are committed to a net-zero carbon transportation future," AAI President and CEO John Bozzella said in a statement." 3. "The U.S. auto industry is aligned with the Biden administration's goals to achieve net-zero carbon transportation and an accelerated shift to electric-drive vehicles..." AAI advocates for stringent GHG and fuel economy standards. With the right complementary policies in place, AAI believes that the auto industry is poised to accept the challenge of driving EV purchases to between 40 and 50% of new vehicle sales by the end of the decade." Differing position: "GM and AAI are not fully aligned on the policy merits of the IRA." Action taken: "GM engaged with AAI about the economic advantages and climate benefits of the incentives provided by the clean energy provisions, namely the on-shoring and ally-shoring of the BEV supply chain." (page 26 of 41 2022 Sustainability Advocacy Report)

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

Describe the aim of your organization's funding

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

Yes, we have evaluated, and it is aligned

Trade association

Business Roundtable

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

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we attempted to influence them but they did not change their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

Consistent position: "GM's Chair and CEO Mary Barra is the Chair of the Roundtable. Barra began a two-year term on January 1, 2022. BRT is unambiguously aligned with the Paris Agreement. Business Roundtable believes that to avoid the worst impacts of climate change, the world must work together to limit global temperature rise this century to well below 2 degrees Celsius above pre-industrial levels, consistent with the Paris Agreement. Business Roundtable CEOs believe market-based solutions are the best approach to combating climate change. Business Roundtable CEOs are calling for a well-designed market-based mechanism and other supporting policies to provide certainty and unleash innovation to lift America toward a cleaner, brighter future. GM and the BRT are aligned on numerous climate policy positions and advocate for solutions that address climate change through multiple pathways. These include, for example, market-based strategies and encouraging the importance of placing a value on carbon, investing in advanced technologies that eliminate carbon emissions, and driving energy efficiency economy-wide. GM and the BRT members expressed this alignment in September 2020 through the release of a report focused on pathways to address climate change. BRT encompasses a diverse member base and GM is ahead of some member companies as it relates to transitioning to net zero. BRT's positions on climate including cap and trade policies have been evolving in recent years, and in 2021 they issued a new principles document: Addressing Climate Change. GM has determined it can best influence BRT by continuing to participate as an active member and leader both of BRT and in the transition to zero emissions." Differing position: "While GM supported the passage of the IRA, the BRT opposed it due to a majority of BRT members who opposed the corporate tax increases that were contained in the bill." Action taken: "GM worked with the BRT on positive language regarding the climate provisions to include in its position of the Inflation Reduction Act." (page 29 of 41 2022 Sustainability Advocacy Report)

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

Describe the aim of your organization's funding

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

Yes, we have evaluated, and it is aligned

Trade association

National Association of Manufacturers

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

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we attempted to influence them but they did not change their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

Consistent positioning: "NAM supports the Paris Agreement. In a 2021 publication titled *The Promise Ahead: Manufacturers Taking Action on Climate*, NAM highlighted, 'The purpose of a climate treaty is to keep post-industrial warming of the planet to 'well below 2 degrees and approaching 1.5 degrees.' The association's climate policy maintains three core principles:

1. One unified policy: Instead of the patchwork of federal, state, and local climate change regulations that manufacturers currently face, the industry needs a clear federal policy that offers predictability, consistency, and certainty while meeting science-based targets. Businesses should be able to plan for the future—and shouldn't have to worry that the policies of today will be different tomorrow.
2. A level playing field: Any national policy to address emissions should be economy-wide and apply to all emitters. Congress should develop plans that don't unduly burden one sector over another, and manufacturers shouldn't be expected to shoulder the already-high cost of new regulations alone.
3. Consumer choice and competitiveness: This policy approach shouldn't automatically involve a mandated phaseout of any manufactured product. Instead, policymakers should lead with the tools and strategies manufacturers need to improve products, preserve consumer choice, and support the innovation that manufacturing provides. NAM has a diverse membership base and GM has determined it can best influence NAM by continuing to participate as an active member and leader in the economy-wide transition to zero emissions." Differing positioning: "GM and NAM are not fully aligned on the policy merits of the IRA." Action taken: "GM repeatedly engaged with NAM about the many advantages of the beneficial economic incentives provided by the clean energy provisions, namely the on-shoring and ally-shoring of the BEV supply chain." (page 32 of 41 2022 Sustainability Advocacy Report)

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

Describe the aim of your organization's funding

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

Yes, we have evaluated, and it is aligned

Trade association

US Chamber of Commerce

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

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we attempted to influence them but they did not change their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

Consistent positioning: "The Chamber focuses on areas of common ground to address climate change with policies that are practical, flexible, predictable, and durable. The Chamber supported the Biden administration's decision to rejoin the Paris Climate Agreement and was an official observer to the UN Conference of the party's climate negotiations in Scotland. The Chamber believes in a policy approach that acknowledges the costs of action and inaction and the competitiveness of the U.S. economy. The Chamber's climate policy principles are to: • Support a market-based approach to accelerate GHG emissions reductions across the U.S. economy • Leverage the power of business • Maintain U.S. leadership in climate science • Embrace technology and innovation • Aggressively pursue greater energy efficiency • Promote climate-resilient infrastructure • Support trade in U.S. technologies and products • Encourage international cooperation The Chamber has progressed on its climate change position. This includes putting forth a comprehensive position that includes supporting U.S. participation in the Paris Climate Agreement as well as calling on policymakers to act on climate. Additionally, The Chamber has launched a task force open to its entire membership to inform the organization's climate policy." Differing positioning: "GM and the Chamber are not fully aligned on the policy merits of the IRA." Action taken: "GM engaged with the Chamber about the advantages and benefits of the economic incentives provided by the clean energy provisions, namely the on-shoring and ally-shoring of the BEV supply chain." (page 34 of 41 2022 Sustainability Advocacy Report)

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

Describe the aim of your organization's funding

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

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Truck and Engine Manufacturers Association

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

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, and they have changed their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

Consistent positioning:

"CARB and truck and engine manufacturers announce unprecedented partnership to meet clean air goals. The new Clean Truck Partnership agreement offers flexibility to address public health of Californians and the needs of fleet manufacturers that build the technology required for the transition to zero-emissions. The California Air Resources Board announced a Clean Truck Partnership today with the nation's leading truck manufacturers and the Truck and Engine Manufacturers Association that advances the development of zero-emission vehicles (ZEVs) for the commercial trucking industry, which includes flexibility for manufacturers to meet emissions requirements while still reaching the state's climate and emission reduction goals." (reference)

GM, "...recognizing the importance of preserving and protecting the environment," (reference) signed on to the Clean Truck Partnership and reaffirmed our commitment to meet, "...CARB's zero-emission and criteria pollutant regulations in the state regardless of any attempts by other entities to challenge California's authority." (reference)

Differing positioning:

"EMA does not have a formal position on the Paris Agreement." (reference)

Action taken:

GM, working alongside other members, urged EMA leadership to deepen the technical engagement with CARB that was necessary to bring about the Clean Truck Partnership. "GM supports emission standards and complementary policies that will help accelerate the transition to zero-emissions vehicles and reduce air pollution." (reference)

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

Describe the aim of your organization's funding

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

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

American Automotive Policy Council

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

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, and they have changed their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

Consistent positioning: "GM actively supported and funded AAPC's efforts to study and understand how trade policies could be used to enable more EV exports from the United States. GM also encouraged AAPC to provide industry-representative comments on the U.S. government's development of a Clean Technologies Export Competitiveness Strategy. Because international trade is within the scope of AAPC's efforts, AAPC's policy priority is to advance regulatory harmonization. GM has always been a proponent of harmonizing standards, where possible, to enable the export of U.S. products that meet strict U.S. standards on emissions and safety to global markets." Differing position: "AAPC has not taken a public position on the Paris Agreement because it is outside of the scope of AAPC's agreed scope of advocacy efforts. However, all three AAPC member companies (Ford, GM, and Stellantis) do support the Paris goals. (page 28 of 41 2022 Sustainability Advocacy Report)

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

Describe the aim of your organization's funding

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

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Electric Drive Transportation Association

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

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

Consistent positioning: "The Electric Drive Transportation Association (EDTA) is a trade association that includes the entire electric drive value chain, including vehicle, battery, and component manufacturers; electricity providers; and smart grid and infrastructure developers. EDTA and GM are aligned on eliminating all tailpipe emissions from new light-duty vehicles in the U.S. by 2035, working with stakeholders to enable sufficient EV charging infrastructure, and promoting consumer acceptance while maintaining high-quality jobs. EDTA has been a consistent voice in advocating for the needed complementary policies for EVs such as consumer incentives, infrastructure incentives, and consumer education. EDTA Position on Inflation Reduction Act - "The Inflation Reduction Act is a historic step in addressing climate change. The Electric Drive Transportation Association is encouraged by its investments in the electric vehicle supply chain, manufacturing, and support for building out charging infrastructure, which will help build U.S. leadership in e-mobility." (page 31 of 41 2022 Sustainability Advocacy Report)

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

Describe the aim of your organization's funding

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

Yes, we have evaluated, and it is aligned

C12.3c

(C12.3c) Provide details of the funding you provided to other organizations or individuals in the reporting year whose activities could influence policy, law, or regulation that may impact the climate.

Type of organization or individual

Non-Governmental Organization (NGO) or charitable organization

State the organization or individual to which you provided funding

Clean Energy Buyer's Association (CEBA) (funding figure below includes CEBA Summit Sponsorship)

Funding figure your organization provided to this organization or individual in the reporting year (currency as selected in C0.4)

150,000

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate

"The Clean Energy Buyers Association (CEBA) is a membership association for energy customers seeking to procure clean energy across the United States. Today, its membership of over 300 includes stakeholders from across the commercial and industrial sectors, non-profit organizations, as well as energy providers, and service providers. GM's Director, Global Energy Strategy, is a Board Member and Vice-Chair of CEBA. GM and the CEBA are aligned on working towards a carbon-free U.S. electricity system this decade. GM is a founding member of the organization and serves as a member of the executive board." (page 30 of 41 in 2022 Sustainability Advocacy Report)

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Type of organization or individual

Non-Governmental Organization (NGO) or charitable organization

State the organization or individual to which you provided funding

American Clean Power Association (ACP)

Funding figure your organization provided to this organization or individual in the reporting year (currency as selected in C0.4)

25,000

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate

GM joined ACP in 2022 and is also a board member. The organization is focused on removing barriers to clean energy and accelerating the growth of clean energy.

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Type of organization or individual

Non-Governmental Organization (NGO) or charitable organization

State the organization or individual to which you provided funding

RE100 / The Climate Group

Funding figure your organization provided to this organization or individual in the reporting year (currency as selected in C0.4)

15,000

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate

RE100 helps drive energy policy changes needed to be realized in order for us to meet our RE100 goals. This includes country specific efforts.

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Type of organization or individual

Non-Governmental Organization (NGO) or charitable organization

State the organization or individual to which you provided funding

Renewable Thermal Collaborative

Funding figure your organization provided to this organization or individual in the reporting year (currency as selected in C0.4)

25,000

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate

A global group of companies, governments, and institutions committed to scaling up renewable heating and cooling to support cutting carbon emissions. The coalition

includes organizations on both the buy-side and supply-side of renewable thermal energy. Their technology focus includes RNG, biomass, green hydrogen, solar thermal, electrification, and thermal storage with federally focused policy work. Working groups include electrification, hydrogen, and policy.

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Type of organization or individual

Non-Governmental Organization (NGO) or charitable organization

State the organization or individual to which you provided funding

Michigan Energy Innovation Business Council (MI EIBC)

Funding figure your organization provided to this organization or individual in the reporting year (currency as selected in C0.4)

4,000

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate

Michigan Energy Innovation Business Council's mission is to grow Michigan's advanced energy economy by fostering opportunities for innovation and business growth and offering a unified voice in creating a business-friendly environment for the advanced energy industry in Michigan.

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Type of organization or individual

University or other educational institution

State the organization or individual to which you provided funding

Clean Energy Sourcing Research Initiative (CESRI) through Carnegie Mellon University's Public Policy Department

Funding figure your organization provided to this organization or individual in the reporting year (currency as selected in C0.4)

5,000

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate

Our partnership with Carnegie Mellon University's Policy Institute is helping us with advocacy for an electricity market in China that provides access to low-cost renewable energy. This is critical to meet our global RE100 commitment.

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

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 mainstream reports, incorporating the TCFD recommendations

Status

Complete

Attach the document

 GM 2021 TCFD.pdf

 GM_2022_SR.pdf

Page/Section reference

GM's 2022 Sustainability Report includes 17 references to Climate Change, here are some references - Page/Section: 4/1, 8/2, 38/4, 53/5, 81/5, 90/5, as well GM's TCFD Report. GM's 2022 TCFD Report will be published August 1 here:
<https://www.gmsustainability.com/esg-resources/>

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

Our 2022 Sustainability Report was kicked off with statements from our Chair and CEO, and our CSO:
We know climate change is an urgent priority, and we are advancing toward our bold goal to be carbon neutral in our global products and operations by 2040 so that we can

be a part of the solution. We are on track to produce 400,000 EVs in North America by mid-2024 and have built production capacity for 1 million units in North America in 2025. We remain committed to eliminating tailpipe emissions from new U.S. light-duty vehicles by 2035. Last year, we went even further, securing enough renewable energy to power our U.S. facilities by 2025 - 25 years earlier than we originally shared. In support of our ambition to expand our EV manufacturing capacity, we will continue to invest in EVs, EV software and autonomous electric vehicles. Since 2020, we have announced investments of \$11.7 billion across 14 sites in North America.

Though I am confident that we will reach our most ambitious goals, I recognize that we cannot, and will not, achieve them alone. That's why we're continuing to pursue collaborative opportunities with stakeholders across the globe, including suppliers, dealers, policymakers, climate thought leaders and others. In fact, we have invited all Tier I suppliers to sign our Environmental, Social and Governance (ESG) Partnership Pledge to embrace sustainability in a holistic manner, focusing on ESG practices. We will continue along this journey, recognizing that it is on us to lead positive change and implement inclusive solutions that bring everyone along. Our sights are set on continuing to excite and inspire people about the road ahead and we know that our culture, strong values, robust strategies and proven execution will allow us to accelerate toward our vision of a more sustainable, electric future together.

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	Business Ambition for 1.5C Climate Action 100+ Global Reporting Initiative (GRI) Community Member RE100 Science Based Targets Network (SBTN) Task Force on Climate-related Financial Disclosures (TCFD) UN Global Compact	Frameworks Climate Action 100+: We support this voluntary initiative by responding to the Net Zero Company Benchmark as one of the 166 companies who have a major role to play in the transition to a net-zero emissions economy. Global Reporting Initiative (GRI): We create a GRI index annually that is in reference to the GRI standards. Task Force on Climate-related Financial Disclosures (TCFD): We respond to the TCFD framework annually. U.N. Global Compact: We participate in the Communication on Progress annually. Initiative and/or commitment GM signed the Business Ambition for 1.5C at COP26. Global Reporting Initiative (GRI) Community Member: We have

		<p>participate in a membership program over the past several years.</p> <p>RE100: We are members and have committed to becoming 100% renewable.</p> <p>SBNT: We participate in this network, working on nature targets such as water.</p> <p>Please reference GRI 2-28 for a list of other membership associations.</p> <p>2022 Sustainability Advocacy Report, pages 13–22, 40 also list and explains our participation in public policy groups (as referenced above).</p>
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C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity
Row 1	Yes, executive management-level responsibility	<p>GM's Senior Leadership Team (SLT) establishes and executes the company's ESG strategy. This cross-functional group of senior leaders drives GM's ESG initiatives throughout the company, from global product development, portfolio planning, manufacturing and supply chain to human resources (including DEI and other workforce matters), legal, compliance, social and community impact projects. The SLT is supported in this work by a number of cross-functional groups across the business.</p> <p>The Office of Sustainability is a cross-functional group that uses a "team of teams" approach to guide sustainability initiatives across the company. It is chaired by the vice president of sustainable workplaces and chief sustainability officer (CSO). The CSO reports to the executive vice president of global manufacturing and sustainability, the enterprise-wide leader for sustainability initiatives who develops and coordinates sustainability strategy and efforts across the company. The Office of Sustainability:</p> <ul style="list-style-type: none"> • Monitors the execution of public commitments related to sustainability goals such as carbon neutrality and the Science

	<p>Based Targets initiative (SBTi)</p> <ul style="list-style-type: none"> • Reviews and approves certain social and environmental sustainability strategies, including human rights and sustainable materials strategies <p>Through key collaborations, we are working to preserve biodiversity and restore natural ecosystems at our facilities and in surrounding communities, as they are linked to our business. We rely on the natural world for many of the materials used in our products, including metals, wood and rubber. The production and use of our vehicles also has an impact on the environment. GM is also:</p> <ul style="list-style-type: none"> • An engagement member of Science Based Targets for Nature • An active member of the Suppliers Partnership for the Environment Biodiversity working group
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C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	Yes, we have made public commitments and publicly endorsed initiatives related to biodiversity	Other, please specify GM's Sustainable Natural Rubber Policy commits to the protection of critical wildlife habitats and GM Environmental Policy commits to education of environmental conservation and biodiversity	Other, please specify Wildlife Habitat protection program certified through the Wildlife Habitat Council. Global Platform for Sustainable Natural Rubber, which supports models for a more sustainable rubber supply chain, reducing the pressure on tropical forests.

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment

No, but we plan to within the next two years

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity-sensitive areas in the reporting year?

Not assessed

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity-related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Land/water protection Land/water management Species management Education & awareness Law & policy

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	Yes, we use indicators	Other, please specify GM uses the indicators within the wildlife certification process from the Wildlife Habitat Council. Some indicators are Scope/Area, Habitat Creation/Expansion, Management, Monitoring, number of participants, Species Management, and others.

C15.7

(C15.7) Have you published information about your organization’s response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Details on biodiversity indicators Biodiversity strategy	Pg 50 Nature  1

 1GM_2022_SR.pdf

C16. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Vice President Sustainable Workplaces & Chief Sustainability Officer	Chief Sustainability Officer (CSO)