

C0. Introduction

C0.1

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

Ford Motor Company is a global automotive company based in Dearborn, Michigan with 54 plants and about 186,000 employees worldwide. Our core business includes designing, manufacturing, marketing, financing and servicing a full line of Ford trucks, utility vehicles, and cars – increasingly including electrified versions – and Lincoln luxury vehicles. The company provides financial services through Ford Motor Credit Company, LLC (“Ford Credit”) which is wholly owned and fully consolidated. At the same time, Ford is pursuing leadership positions in electrification, mobility solutions, including self-driving services; and connected vehicle services. Our mobility segment primarily includes development costs related to our autonomous vehicles and our investment through Ford Smart Mobility, LLC.

Contributing to a better world is a core value at Ford, and our commitment to sustainability is a key part of who we are as a company. Guided by our purpose to help build a better world where every person is free to move and pursue their dreams, our vision is to create a more dynamic and vibrant company that improves people’s lives around the world while creating value for all stakeholders. Ford is committed to being fully carbon neutral worldwide across our vehicles, facilities and suppliers by 2050, and recently announced we have implemented new science-based targets towards this ambition, in line with terms of the Paris Climate Agreement. The risks and opportunities associated with the changing climate are shaping the way we do business, from offering electrified versions of our popular models by investing more than \$11.5 billion by 2022, to a global carbon reduction strategy focused on powering our facilities with 100% local, renewable and zero carbon energy. Ford is continuously rethinking the way we use energy at our manufacturing facilities and other sites to help address climate change. We’re creating high-performing, high-quality vehicles in environmentally and socially responsible ways, and reducing the effects of our operations and supply chains through world-class facilities. By using renewable and recycled materials in our vehicles, we’re reducing waste, using fewer natural resources and improving vehicle quality and performance. Beyond minimizing our impact on the environment, Ford is committed to creating a net positive contribution to society the environment. Through our work in advancing our planet we are contributing to the following UN SDGs – Good Health and Well-Being, Clean Water and Sanitation, Affordable and Clean Energy, Sustainable Cities and Communities, Responsible Consumption and Production, and Climate Action.

Our environmental Aspirational Goals include achieving carbon neutrality globally by 2050, attaining zero air emissions from our vehicles and facilities, using 100% local, renewable/zero carbon electricity in all manufacturing plants globally by 2035, reaching true zero waste to landfill across our operations, eliminating single-use plastics from our operations by 2030, aspiring to use only recycled and renewable content in vehicle plastics, making zero water withdrawals for manufacturing processes, and aspiring to use freshwater for human consumption only. 2035 targets for our vehicles and manufacturing facilities have been approved by the Science Base Target Initiative.

For us, mobility is about human progress and making people’s lives better in mature economies and major cities as well as helping solve problems in areas of the world that tend to be under-served by technology advances. We are reimagining what mobility will look like and foresee clean, smart vehicles communicating with each other, as well as the road infrastructure and public transit systems, orchestrated by open cloud-based platforms like our Transportation Mobility Cloud. We also promote safer behavior through a range of driver assist and semi-autonomous technologies. To help build a better world, we are doing our part to help meet the collective challenges the world faces across a range of sustainability issues and developing strategies to address them. We aim to earn trust, drive progress and make positive impacts. Ford has years of experience promoting supplier environmental disclosure through the CDP Supply Chain program Climate & Water questionnaires. We have also shared Ford facilities’ best practices in reducing our environmental footprint with key suppliers through our Partnership for A Cleaner Environment (PACE) program. In 2021, Ford will communicate updated supplier environmental requirements via our new Supply Chain Code of Conduct, including the requirement to establish science-based GHG reduction targets and report Scope 1, 2, and 3 emissions upon request. Ford suppliers will be required to minimize their impact on climate change by establishing science-based GHG reduction targets.

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2020	December 31 2020	No	<Not Applicable>

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

- Argentina
- Brazil
- Canada
- China
- France
- Germany
- India
- Mexico
- Romania
- Russian Federation
- South Africa
- Spain
- Thailand
- Turkey
- United Kingdom of Great Britain and Northern Ireland
- United States of America
- Venezuela (Bolivarian Republic of)
- Viet Nam

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-T00.7/C-TS0.7

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

- Light Duty Vehicles (LDV)
- Heavy Duty Vehicles (HDV)

C1. Governance

C1.1

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

- Yes

C1.1a

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

Position of individual(s)	Please explain
Board-level committee	The Sustainability and Innovation Board of Directors Committee is comprised of 8 Directors (including Bill Ford, our Executive Chairman) and reports to the board on all climate related issues. The functions of the Committee include: • Advising on the development of strategies, policies, and practices that assist the Company in addressing public sentiment and shaping policy in the areas of climate change, energy, emissions, waste disposal, and water use; • Maintaining and improving sustainability strategies to create value consistent with the long-term preservation and enhancement of shareholder value and social well-being, including human rights, working conditions, and responsible sourcing; and • Reviewing trends in global mobility areas such as mobility infrastructure, vehicle ownership and business models, vehicle connectivity, and automation in order to help provide accessible, personal mobility throughout the world. One climate-related decision example is our board's support of management's decision to pursue a voluntary framework with the California Air Resources Board for stronger vehicle greenhouse gas emissions standards, which essentially would create a 50-state solution to regulate GHG emissions.

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies	<Not Applicable>	The Sustainability and Innovation Board of Directors Committee meets at least four times each year to evaluate and advise on the Company's pursuit of innovative practices and technologies. Their responsibilities include: (1) Discuss and advise management regarding the development of strategies, policies, and practices that assist the Company in addressing public sentiment and shaping policy in the areas of energy consumption, climate change, greenhouse gas and other criteria pollutant emissions, waste disposal, and water use. (2) Discuss and advise management on maintaining and improving sustainability strategies that create value consistent with the long-term preservation and enhancement of shareholder value and social well-being, including human rights, working conditions, and responsible sourcing. (3) Review trends in global mobility areas such as mobility infrastructure, vehicle ownership and business models, vehicle connectivity, and automation in order to help provide accessible, personal mobility throughout the world. The Committee is responsible to annually review the Sustainability Report Summary and Company initiatives related to innovation. The Committee reports regularly to the Board (i) following meetings of the Committee, (ii) with respect to such other matters as are relevant to the Committee's discharge of its responsibilities and (iii) with respect to such recommendations as the Committee may deem appropriate. The report to the Board may take the form of an oral report by the Chair or any other member of the Committee designated by the Committee to make such report. The Committee shall perform a review and evaluation, at least annually, of the performance of the Committee and its members, including a review of adherence of the Committee to its Charter. In addition, the Committee shall review and reassess, at least annually, the adequacy of its Charter and recommend to the Nominating and Governance Committee any improvements to its Charter that the Committee considers necessary or appropriate. The Committee shall conduct such evaluation and reviews in such manner as it deems appropriate. The committee reviews items such as Environmental, Social and Governance (ESG), Carbon Dioxide (CO2 glidepath) and sustainability, as governance mechanisms for oversight of climate related issues. Our governance connection to other frameworks includes our TCFD, SASB, GRI, UN Guiding Principles Reporting Framework and UN SDG Goal 12-Responsible Consumption and Production, and 13-Climate Action.

C1.2

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

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Chief Sustainability Officer (CSO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

Ford's Chief Sustainability Officer is our Vice President of Sustainability, Environment and Safety Engineering (SE&SE). The SE&SE VP reports to the CEO.

As the CSO, the SE&SE VP assists the Chair of the Board of Directors Sustainability and Innovation Committee in coordinating topics for review by the Committee and is responsible for delivering the Sustainability Strategies including those in response to climate change and are governed by our Enterprise Risk Management (ERM) process.

Topics are requested by the Board or recommended through various corporate forums as mentioned below. The SE&SE VP also oversees the Sustainability, Homologation & Compliance (SH&C) group, the Environmental Quality Office (EQO), and the Automotive Safety Office (ASO). These Departments oversee establishing strategies for and the delivery of Vehicle Safety, Stationary and Mobile Source Emissions and Compliance attributes for the company. In particular, SH&C and EQO coordinate the development and yearly review of Climate Change Strategy including a Global Technology Migration Path for CO2 Reduction (Glidepath) in alignment with the Paris Climate Agreement to guide both product and facility actions to do our part for Climate Change initiatives. Our strategy is shaped by external factors, including government policies, physical risks such as extreme weather and other effects of climate change, market trends, and investor concern over climate change.

The ERM process is the model for how we run the company. It contains the management processes that we follow to continually improve our performance and deliver our plan. It enables us to continually monitor the ever-changing global business environment for risks and opportunities – including those related to sustainability – and use this analysis to inform and adjust our strategies as needed. It also creates stronger accountability for setting, tracking and reporting progress against our goals, objectives, revenue targets, and other financial indicators and stakeholder satisfaction. This process includes that Business Units and Skill Teams will implement the same ERM sustainability-related risk assessments, planning, strategy implementation and performance reviews consistently around the world. We monitor progress against objectives throughout the year, using the processes set out below. These allow us to respond to new internal and external developments in a timely manner and use these evaluations to inform adjustments to our management approaches where necessary.

We monitor climate related issues through the following reviews:

Operations Flash Meeting (Ops Flash): The senior leadership team, led by the CEO, and representing all business unit and global function teams. Ops Flash covers operational updates, the overall business environment, competitor actions and risks and opportunities. Ford's sustainability scorecard is reviewed alongside our business units' scorecards at these meetings.

Special Attention Review (SAR): The SAR is a meeting to review and decide on topics related to the overall enterprise. The senior leadership team reviews significant matters in more detail and develops action plans and strategies to address more specific risks and opportunities, as identified in Operations Flash or other channels.

Additional governance forums: The Strategy & Transformation Forum is a working session on key strategic issues and decisions facing each business unit, primarily focused on key strategic choices and workstreams focused on capabilities and management systems to accelerate change and deliver the strategy. Product, Platform, Service & Technology Review (PPST) is used to align on product strategic choices that lead to enterprise product capital allocation decisions and new businesses go-to-market strategies. The People Forum enables us to review key people-related matters, leadership development and organization fitness elements of our business. The SE&SE VP and the Chief Product Development and Purchasing Officer jointly lead the Global Sustainability Meeting (GSM), a multidisciplinary senior-level team to oversee actions in response to climate change and sustainable mobility strategies. The meeting is scheduled to meet monthly to provide strategic direction for compliance, govern vehicle environmental compliance policies and strategies, evaluate and report sustainability business environment and impact to Ford, approve and govern each function teams' Sustainability Integration 5-year plan, long-term goals & metrics, and provide guidance and governance for key Sustainability trends that enable "Leadership." Our connection to other frameworks includes our TCFD, SASB, GRI, UNGC, UN Guiding Principles Reporting Framework and UN SDG Goal 12-Responsible Consumption and Production.

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	The compensation Committee of the Board of Directors approved the specific performance goals and business criteria to be used for purposes of determining the cash awards for 2020 participants, including executive officers, under the Company's shareholder-approved Annual Incentive Compensation Plan. The Corporate performance criteria and weightings used for 2020 under the plan supported the Company's business plan and strategy, which incorporates our commitment to reduce CO2 through SBTi endorsed carbon reduction targets from operations and products.

C1.3a

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

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Corporate executive team	Monetary reward	Efficiency target	Many corporate officers listed at media.ford.com have various environmental objectives, including increasing energy efficiency and reduction of CO2 emissions, included in their annual performance review objectives. Performance against these personal objectives influences overall performance ratings which determines the individual payouts under our incentive plans.
Facilities manager	Monetary reward	Efficiency target	Ford's plant managers have targets for many metrics, including environmental metrics such as water use, waste sent to landfill, energy use, CO2 emissions, etc. These targets are included in the calculation of performance incentives.
Business unit manager	Monetary reward	Efficiency target	Ford's division and operations managers oversee several individual plants and, as such, have targets for many metrics, including environmental metrics such as water use, waste sent to landfill, energy use, CO2 emissions, etc. These targets are included in the calculation of performance incentives.
All employees	Monetary reward	Efficiency target	The Corporate performance criteria and weightings used for 2020 support the Company's business plan and strategy, which includes our commitment to reduce CO2
Environment/Sustainability manager	Non-monetary reward	Efficiency target	Ford's Environmental Quality Office presents annual Environmental Leadership Awards in each different region of the globe. Projects are judged by subject matter experts within the Company on environmental benefit, cost effectiveness, replicability, and several other criteria. Awards are presented at regional workshops and also re-presented in ceremonies at the winning facilities. Ford's Environmental Quality Office also presents an annual Community Outreach Award in each different region of the globe. Projects are judged by subject matter experts within the Company on positive environmental impact to the community. Awards are presented at regional workshops and also re-presented in ceremonies at the winning facilities.

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	2	Short-term horizons, what Ford calls "Now" are those situations or issues that need to be addressed immediately. Examples include unexpected events such as changes in resource availability, changes in exchange rates or tariffs, and facility shut-downs (such as a recent fire at a supplier plant that stopped production of the F-150 pick-up truck).
Medium-term	2	5	Medium-term horizons, what Ford calls "Near" allow for a complete product cycle plan rotation where consumer preferences and regulatory requirements are known and time is available to consider alternatives for orderly implementation.
Long-term	5	30	Long term horizons, or what Ford calls "Far" encompass long term strategic issues that require time to develop efficient and cost-effective solutions through research, technology development, and business strategy restructuring.

C2.1b

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

The Enterprise Risk Management (ERM) process is the model for how we run the company. Fully integrated into how we run the business, it enables us to monitor the changing global business environment for risks and opportunities – including those related to sustainability – and use this analysis to inform and adjust our strategies as needed. It also creates accountability for setting, tracking and reporting progress against our goals, objectives, revenue targets, and sustainability targets. This process ensures we implement sustainability-related risk assessments, planning, strategy implementation and performance reviews consistently across the organization.

In addition to sustainability governance, the ERM process includes our financial planning process that establishes a 5-year plan that is reviewed twice a year. The plan includes a down turn analysis (similar to the size of the 2008/2009 recession) as well as planning for events with potential substantive financial impact. Ford Motor Company defines substantive financial impact on our business if the resulting deviation from planned earnings exceeds \$250 million when identifying or assessing climate related risks. Such a reduction in revenue could be caused by a stop in production/sale of vehicles from labor issues, severe weather events, result from a regulation that would prohibit the sale of our products.

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

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

We monitor climate related issues through the following reviews: · Enterprise Review (ER): The senior leadership team, led by the CEO, and representing all skill teams and business units, holds ER meetings to review our management of sustainability and review of the overall business environment, competitor actions and risks and opportunities. Ford's sustainability scorecard is reviewed alongside our business units' scorecards at these meetings. · Enterprise RAD (ERAD): The ERAD is a meeting to review and decide on topics related to the overall enterprise. The senior leadership team reviews significant matters in more detail and develops action plans and strategies to address more specific risks and opportunities. · Additional governance forums: The Strategy Forum is a working session on key strategic issues and decisions facing each business unit, primarily focused on strategy of regional items. BaseCamp is used to align on product strategic choices that lead to enterprise product capital allocation decisions. The People Forum enables us to review key people-related matters, leadership development and organization fitness elements of our business. The SE&SE VP and the Chief Product Development and Purchasing Officer jointly lead the Global Sustainability Meeting (GSM), a multidisciplinary senior-level team to oversee actions in response to climate change and sustainable mobility strategies. The meeting is scheduled to meet monthly to provide strategic direction for compliance, govern vehicle environmental compliance policies and strategies, evaluate and report sustainability business environment and impact to Ford, approve and govern each skill teams' Sustainability Integration 5-year plan, long-term goals & metrics, and provide guidance and governance for key Sustainability trends that enable "Leadership." An example of a climate related physical risk to direct operations is a catastrophic weather event such as a hurricane, tornado, tsunami, or fire. Such an event can result in the inability to produce/manufacture parts or vehicles. Physical risk case study: The situation was a recent U.S. fire at an F-150 Truck supplier causing a parts shortage and production shut-down. Task: How to refurbish and relocate tooling to resume parts and vehicle production. Action: This item was flagged for assessment in our special attention in our SAR (now ER) and a recovery plan was formulated through our management process and implemented to restore production. Teams remediated the site for safety and gained access to the site. Working with the supplier, Ford recovered, repaired and validated 19 dies that were at the U.S. facility. One, an 87,000 pound bolster die was moved then to the supplier's U.K. location. Special air cargo arrangements were secured to move the extra-large equipment across the Atlantic. Import permits were expeditiously obtained from the U.K. Result: The supplier was producing critical parts again and vehicle production resumed after only an 8-day shutdown. The consequence was a \$579M EBIT reduction. We consider this production shutdown to have a substantive financial impact. An example of transitional risk in direct operations is response to current and emerging regulations. Transitional risk case study : The situation is the risk of emerging regulations for CO2 emissions reductions in our facilities. Task: Develop a strategy that reduces both Scope 1 and Scope 2 emissions and will be robust against future regulations. Action: A cross-functional team was convened. The policy analysts determined regulations were likely to require a CO2 reduction pathway consistent with 1.5°C. The research team developed 1.5°C science based targets. The Sustainability, Environment and Safety Engineering team worked with Ford Land to develop a global strategy for efficiency improvements and renewable electricity procurement to meet the targets. The strategy was reviewed at the executive level in the SAR/ERAD and GSM forums. Result: Ford adopted robust targets of 100% renewable/low-carbon electricity and 76% reduction in S1+S2 emissions CO2 by 2035 (approved by SBTi). Following the 1.5°C pathway gives confidence we are prepared to meet future regulations such as the European Union may issue in its drive for carbon neutrality by 2050.

Value chain stage(s) covered

Upstream

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

We monitor climate related issues through the following reviews: · Enterprise Review (ER): The senior leadership team, led by the CEO, and representing all skill teams and business units, holds ER meetings to review our management of sustainability and review of the overall business environment, competitor actions and risks and opportunities. Ford's sustainability scorecard is reviewed alongside our business units' scorecards at these meetings. · Enterprise RAD (ERAD): The ERAD is a meeting to review and decide on topics related to the overall enterprise. The senior leadership team reviews significant matters in more detail and develops action plans and strategies to address more specific risks and opportunities. · Additional governance forums: The Strategy Forum is a working session on key strategic issues and decisions facing each business unit, primarily focused on strategy of regional items. BaseCamp is used to align on product strategic choices that lead to enterprise product capital allocation decisions. The People Forum enables us to review key people-related matters, leadership development and organization fitness elements of our business. The SE&SE VP and the Chief Product Development and Purchasing Officer jointly lead the Global Sustainability Meeting (GSM), a multidisciplinary senior-level team to oversee actions in response to climate change and sustainable mobility strategies. The meeting is scheduled to meet monthly to provide strategic direction for compliance, govern vehicle environmental compliance policies and strategies, evaluate and report sustainability business environment and impact to Ford, approve and govern each skill teams' Sustainability Integration 5-year plan, long-term goals & metrics, and provide guidance and governance for key Sustainability trends that enable "Leadership." An example of an upstream climate related risk are catastrophic weather events such as a hurricane, tornado, tsunami, or fire. These events can result in the inability to produce/manufacture parts or vehicles. Case study: The situation was a recent U.S. fire at an F-150 Truck supplier causing a parts shortage and production shut-down. Task: How to refurbish and relocate tooling to resume parts and vehicle production. Action: This item was flagged for assessment in our special attention in our SAR (now ER) and a recovery plan was formulated through our management process and implemented to restore production. Teams remediated the site for safety and gained access to the site. Working with the supplier, Ford recovered, repaired and validated 19 dies that were at the U.S. facility. One, an 87,000 pound bolster die was moved them to the supplier's U.K. location. Special air cargo arrangements were secured to move the extra-large equipment across the Atlantic. Import permits were expeditiously obtained from the U.K. Result: The supplier was producing critical parts again and vehicle production resumed after only an 8-day shutdown. The consequence was a \$579M EBIT reduction. We consider this production shutdown to have a substantive financial impact.

Value chain stage(s) covered

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

We monitor climate related issues through the following reviews: · Enterprise Review (ER): The senior leadership team, led by the CEO, and representing all skill teams and business units, holds ER meetings to review our management of sustainability and review of the overall business environment, competitor actions and risks and opportunities. Ford's sustainability scorecard is reviewed alongside our business units' scorecards at these meetings. · Enterprise RAD (ERAD): The ERAD is a meeting to review and decide on topics related to the overall enterprise. The senior leadership team reviews significant matters in more detail and develops action plans and strategies to address more specific risks and opportunities. · Additional governance forums: The Strategy Forum is a working session on key strategic issues and decisions facing each business unit, primarily focused on strategy of regional items. BaseCamp is used to align on product strategic choices that lead to enterprise product capital allocation decisions. The People Forum enables us to review key people-related matters, leadership development and organization fitness elements of our business. The SE&SE VP and the Chief Product Development and Purchasing Officer jointly lead the Global Sustainability Meeting (GSM), a multidisciplinary senior-level team to oversee actions in response to climate change and sustainable mobility strategies. The meeting is scheduled to meet monthly to provide strategic direction for compliance, govern vehicle environmental compliance policies and strategies, evaluate and report sustainability business environment and impact to Ford, approve and govern each skill teams' Sustainability Integration 5-year plan, long-term goals & metrics, and provide guidance and governance for key Sustainability trends that enable "Leadership." An example of a downstream climate related opportunity is customer transition to electric vehicles. Case Study Situation: Consumers are becoming more aware of climate change and increasingly "thinking green." This aligns with our sustainability goals (science-based interim vehicle targets and carbon neutrality by 2050. Task: Develop must-have electric vehicles for our customers that meet their needs and provide an easy transition to an electric future. Action: Through extensive planning and reviews in our usual processes (Strategic Programming Meeting, Product Matters Meeting Forum, Strategic Matters Meeting Forum) we made the decision to electrify our iconic, best-selling vehicles: Mustang, F-150 and Transit. The battery electric version of these vehicles were designed with the customer in mind. Result: The Mustang Mach-E has been recognized for its features and driving experience, winning Best Car to Buy in 2021 by The Car Connection and Green Car Reports. Result: Reservations for the 2021 Mustang Mach-E First Edition were filled one month after the reservations began being accepted in the U.S. and Europe. The electric F-150 will meet the needs of pickup customers. The all electric Transit offers lower cost of ownership, smart technology to improve fleet efficiency, and helps fleets achieve their sustainability goals.

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	Climate related current regulation risk is relevant because it is directly related to meeting product emission targets or sales volumes for environmentally friendly vehicles. We must comply with global greenhouse gas, fuel economy, and zero emission vehicle regulations which require significant ongoing improvements to our vehicles. We are subject to fines if we don't meet the regulatory standards. To enable continued regulatory compliance, Ford has committed more than \$11.5 billion in electrified vehicle investment through 2022. Example 1: California's Zero Emission Vehicle (ZEV) mandate requires that Ford sells a number of ZEVs (to earn credits) in California. If this number is not met, a civil penalty based on the difference between the number of ZEVs the manufacturer should have sold and the number actually sold can be imposed on Ford. The penalty amount is \$5000 x (credit shortfall for a model year). Therefore, if Ford fell 100 credits short of the mandate in a certain MY, we could face a fine of \$500,000. Ford has managed this ZEV mandate sales risk for the Ford Focus BEV and Fusion and C-MAX Energi vehicles. The Focus BEV sales were not meeting the expected targets so Ford made up the difference with discounting its Energi products. Ford minimizes the civil penalty risk by maintaining a credit bank to cover any unforeseen shortfalls. Example 2: The European and UK GHG Emission Trading Scheme (EU ETS / UK ETS) affects Ford in 30 countries focusing on emissions that can be measured, reported and verified. It is implemented in our plants in Dagenham, Dunton, Valencia, Cologne Vehicle Operations and Saarlouis powerplant. We established and maintain an accurate emission measurement and robust reporting procedure to ensure we have enough allowances to cover our emissions and avoid costly purchases of additional allowances. Example 3: EU Regulation 2019/631 setting CO2 emission performance standards for new passenger cars and new light commercial vehicles. All manufacturers must ensure that the average CO2 emissions of their passenger vehicle fleets do not exceed the limit of average 95g of CO2 per km (CO2/km) for cars. Given the supplier battery issue with the Kuga PHEV, Ford formed a pool with Volvo Car Corporation to meet the EU CO2 regulations for passenger vehicles for the year 2020 to reach compliance. Not meeting the target would result in a fine of €95 for each gCO2/km beyond the limit, multiplied by the number of vehicles in the relevant year.
Emerging regulation	Relevant, always included	In major markets where Ford conducts business (N. America, China, Europe, etc.), governments have vehicle fuel economy and/or greenhouse gas standards for both vehicles and facilities and continue to set increasingly stringent standards. Therefore, it is always relevant to our business to evaluate proposed regulations to ensure our products and facilities will be compliant and achieve the necessary CO2 reductions. The Business Planning Review process offers a forum for communicating new and emerging regulatory risk throughout the company. Example 1: We identified that California and other states could enforce unique greenhouse gas requirements if a new One National Program for fuel economy and GHG standards could not be achieved. Having to plan to comply with two different sets of standards in the U.S. would increase Ford's costs and planning complexity. When it became clear that a continuation of ONP was no longer viable, Ford decided to address this risk proactively by pursuing a voluntary framework with California for stronger vehicle greenhouse gas emissions targets based on nationwide vehicle sales. This enables Ford to engage in product planning with greater regulatory certainty. Example 2: California's Advanced Clean Truck Initiative seeks to electrify the medium / heavy duty truck fleet. California is a large market for Ford's medium and heavy-duty vehicles. Depending on how these requirements are phased in they could result in multiple investments in new vehicle programs each requiring tens to hundreds of millions of dollars depending on the degree of change required. In cases such as these Ford seeks requirements be phased-in so that environmental goals are reached in an investment efficient way that aligns with product change cadences. Example 3: The European Green Deal is a set of policy initiatives by the European Commission with the future vision to be climate neutral in 2050. The Commission will review, and where necessary propose to revise, by July 2021, all relevant policy instruments. Passenger cars CO2 targets at least to be reduced by 50% vs 2021 demanding a higher share of electrified vehicles. Moreover, we are testing new concepts on how to reduce CO2 emissions in city centers. One example is our last mile delivery pilot in London with Hermes using Ford's smart MoDe:Link software to coordinate traditional delivery vans with pedestrian couriers. Not complying with future CO2 targets could lead to high financial penalties.
Technology	Relevant, always included	Technology is always included and relevant because hardware and software solutions need to be available in a timeframe that allow us to meet our CO2 reduction goals in a cost-effective manner. As we make further CO2 reductions, it becomes increasingly more challenging and costly to continue making incremental improvements because the technology that is simplest to implement has already been utilized. Additionally, technology may not be available to make the improvements at the rate required to meet regulatory or internal requirements. Example 1: We are subject to the capacity of the battery production sector, which may not be advancing as quickly as demand from Ford and other OEMs. Battery technology risks include not only the production infrastructure but the underlying global supply of raw materials such as lithium and cobalt. Any battery technology gap brings with it the risk that we might have to limit EV sales, unable to meet market demand because the supply isn't in place. Example 2: We have studied technology solutions that allow PHEVs to operate as ZEVs in Urban Low Emission Zones (LEZ), where vehicle access is restricted to limit urban emissions. One of our test fleets used geofencing to automatically switch PHEVs to ZEV operation in LEZs and blockchain accounting to verify CO2 emissions. We are also testing dynamic geofencing, where the pilot constantly adjusted the boundaries based on external air quality data. The risk of developing this technology is that it may not be accepted by LEZ authorities resulting in wasted research investment. Example 3: Ford's reputation could be negatively affected if we launch CO2 reducing technologies that were not well received by our customers affecting sales of the vehicles with those technologies. The Ford Focus BEV was launched in 2011 with a range of 76 miles and sales of this vehicle were not as high as planned and did not meet financial targets. Focus BEV sales and customer satisfactions metrics were flagged at business planning reviews, and a subsequent product freshening action took place to improve range. Subsequent BEVs implemented learnings from Focus and will have longer range. Example 4: The charging infrastructure in Europe as well as the forecast for implementing additional charging infrastructure by 2030 is not sufficient to meet future demand. Investment of all stakeholders is needed to develop a sustainable growing EV market and to reach the defined environmental goals.
Legal	Relevant, always included	Our primary legal risks are tied to potential non-compliance with current and the development of future regulations that may cause a non-compliance. Non-compliance can result in enforcement actions seeking to impose civil penalties and other remedies. These potential consequences are always considered. Mitigation of enforcement risk can involve a number of potential strategies, including efforts to reduce regulatory complexity, effective communications with regulators, and implementation of more robust planning processes. The voluntary California Framework Agreement represents an example of mitigating legal risk by reducing regulatory complexity. As it became clear that One National Program for fuel economy and GHG standards was about to dissolve, we focused on the emerging risk of having to comply with two different sets of fleet average GHG standards. California and the states adopting California's GHG standards would have one program, and other states would follow the Federal program. Having to meet different sets of GHG standards in different geographic areas would increase Ford's planning and distribution complexity, giving rise to increased compliance risk. Ford decided to address this risk proactively by pursuing and signing a voluntary framework with California based on a nationwide fleet average structure. When California sued the federal government over its new rules, many other automakers joined the litigation against California. Ford did not. Ford had reduced its regulatory complexity by entering into the voluntary framework agreement with California and did not need to rely on litigation to resolve the regulatory issues. Timely and effective communications with regulators can also help to mitigate the risk of enforcement actions. Whether we are engaged in certifying electrified vehicles, commenting on proposed GHG rules, or attempting to manage our business operations and maintain compliance with legal requirements in the face of obstacles, we strive keep regulatory agencies well-informed of our operational status and our views on pending matters. Constructive communications can help identify solutions to emerging problems and can help shape the development of future regulatory standards that are both effective and realistic.

	Relevance & inclusion	Please explain
Market	Relevant, always included	Ford always considers it relevant to consider changing market conditions that may impact our company's goals. To meet vehicle GHG regulations and our internal CO2 reduction targets aligning with the Paris Climate Agreement, technological improvements are needed. For example, we are investing over \$11.5 billion for the development of electrified vehicle solutions by 2022. However, although we have invested heavily, our CO2 goals are at risk due to market conditions. There is a risk of continued low market acceptance of fuel-efficient technologies. In the U.S., the battery electric vehicle market last year was around 2%, partially due to low gasoline prices. Although Ford has invested heavily in this market, it is unclear whether consumers will widely accept these technologies without significant incentives. Meeting our climate goals relies on wide market acceptance of electrified vehicles. Beyond vehicles, Ford is focused on enabling emerging transportation technology to improve safety, accessibility and mobility. Ford established Ford Smart Mobility LLC and purchased Spin, a dockless electric scooter sharing service. Spin has active operations in more than 70 cities and campuses in North America and Europe. Additionally, we had an Urban Electrified Vehicle – UEV Transit PHEV (blockchain supported) fleet trial in London, Valencia and Cologne where we worked together to optimize fleet LCVs for the future to help Cities in air quality issues. Our Ford-specific SBTi-approved vehicle use gCO2/km emissions targets are calculated for our major operating regions. This enables the regions to design a product plan specific to their market's needs. The Enterprise Risk Management Process offers a forum for reviewing analyses of the effects of any possible global market changes on our CO2 climate goals. This is so Ford can ensure market changes are considered in product planning.
Reputation	Relevant, sometimes included	Climate related reputation risk is relevant as it is often tied to other risks such as meeting product emission targets or sales volumes for environmentally friendly vehicles. Example 1: Our reputation can suffer if we do not reduce vehicle CO2 in line with expected progress for climate stabilization. Our vehicle fleet CO2 intensity and trends are reported publicly by regulatory agencies including the U.S. EPA/NHTSA and the European Environment Agency (EEA). Customers, investors, NGOs and others see this regulatory data as well as our absolute emissions reported to CDP. By looking at the trend in our CO2 performance and comparing it against that of other OEMs, our customers and investors judge how well we are progressing on our announced climate goals and aspirations. If the data show a poor performance year, our reputation suffers and customers may choose to take their business elsewhere. For example, the 2018 EPA Automotive Trends Report (released March 2019) showed Ford improved both car and truck tailpipe CO2 emissions between 2012-2017. But the data also showed we had a higher CO2 intensity than many of the major OEMs. Although our higher CO2 and lower ranking is influenced by our customers buying larger vehicles from us than from other OEMs, our reputation can suffer. Example 2: Climate concerns are part of the impetus for ICE-bans and ZEV mandates in U.S. states and the European Union. Ford must offer a range of ZEV models to meet customers' needs and sell enough ZEVs to meet sales requirements. If Ford's models do not sell as well as expected, sales may not meet the mandated levels, restricting our ability to sell other vehicle types in ZEV states. This could be perceived negatively and our reputation could suffer putting our income at risk. Vehicle and fleet CO2 emissions and ZEV sales are assessed and managed through our Sustainability Environment and Safety Engineering (SE&SE) team's Business Planning Review. When an item of concern is identified through these metrics, it is flagged for special attention and proceeds to a SAR (Special Attention Review). At the SAR the risk root cause would be assessed and preventative/corrective actions is evaluated, selected, and implemented.
Acute physical	Relevant, sometimes included	We consider acute physical risks as relevant in our climate change assessments. Evaluating this type of risk is dependent on the topic. For example, we are active in the Health Effects Institute (HEI) to remain aware of possible human health risks. For facilities that may be in zones with a higher risk of water stress or floods from an analysis using the WRI Aqueduct data source, such as our manufacturing sites in Vietnam or India, actions are taken to ensure continued availability of water to minimize production disruptions. Example of acute physical risk: Purchasing operations engages in an organization wide Supply Risk Management process that focuses on strategic and tactical planning to minimize disruption for the Ford vehicle and component assembly plants due to supply chain events. In 2015, we used these tools to understand the potential business disruption exposure of typhoons hitting the Philippines. Disruption to the supply chain can result in significant production losses at our vehicle assembly plants, as well as incremental costs to expedite shipping of components to our plants. We assess the risks each of our facilities faces based on continuously updated data and consider the risk of exposure to hurricanes, tornadoes, other storms, flooding, heatwaves, water stress and wildfires. These potential disruptions to production include climate change-induced weather events or other natural or man-made disasters. Our supply risk strategy has evolved with the launch of a predictive tool developed internally by our Supply Risk and Data Analytics teams. This system, named Supply Risk Intelligence (SRI), allows us to monitor a host of predictive data inputs on a real time basis to mitigate potential supply disruptions. We continue to launch new versions of the SRI tool as predictive modelling techniques become more accurate based on machine learning and other progressive techniques. Ford has made over \$1.5 million in research and capital investments to implement the supply chain monitoring program. Purchasing Supply Risk along with the Ford Material Planning and Logistics teams continue to develop new risk identification and mitigation tools, such as Geo-Fencing and sub-Tier assessments.
Chronic physical	Relevant, sometimes included	We sometimes consider chronic physical risks as relevant in our climate change assessments. Evaluating this type of risk is dependent on the topic. Example of chronic physical risk: We are active in the Health Effects Institute (HEI) to remain aware of possible human health risks resulting from vehicle emissions such as criteria pollutants or GHG. We have also identified that approximately 25 percent of our operations, including the Cuautitlán, Mexico facility, are at risk for water stress based on the WRI Aqueduct analysis. Water availability is a local issue, therefore, we conducted our analysis using detailed watershed-level and consumption data. According to our analysis, about 25 percent of our operations are located in regions that are now or will be considered to be at risk for water stress over the long term trend to 2050. To address this issue, Ford implemented a water reduction strategy to reduce water utilization at all manufacturing facilities with special attention to reduce utilization of potable water sources. Ford also engages suppliers to take similar actions at their facilities.

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?

Upstream

Risk type & Primary climate-related risk driver

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

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Global climate change has the potential to lead to increased extreme precipitation events that produce flooding which can disrupt production either directly or through interruptions to the supply chain. Ford has both direct operations plants and suppliers' facilities in areas at the risk of flooding. In 2011, flooding in Thailand led to 34,000 units of lost production at the Ford Auto Alliance Thailand site (AAT) in Rayong. The floods overwhelmed our suppliers' manufacturing sites causing parts production to stop. Without parts, our AAT site had to cease production of the popular Ranger and Everest vehicles. Our revenue decreased as our sales were reduced by the 34,000 vehicle lost production.

Time horizon

Short-term

Likelihood

About as likely as not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

170000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

An example of a possible financial impact due to an acute weather event could be lost production due to either a Ford facility or a supplier facility production being disrupted. Based on data from our experience with flooding in Thailand in 2011, over \$5,000 was lost for each unit of reduced production (34,000 units) resulting in a loss of revenue for the company (potential \$170 million).

Cost of response to risk

1500000

Description of response and explanation of cost calculation

Purchasing operations engages in an organization wide Supply Risk Management process that focuses on strategic and tactical planning to minimize disruption for the Ford vehicle and component assembly plants due to supply chain events. These potential disruptions to production include climate change-induced weather events or other natural or man-made disasters. Our supply risk strategy has evolved with the launch of a predictive tool developed internally by our Supply Risk and Data Analytics teams. This system, named Supply Risk Intelligence (SRI), allows us to monitor a host of predictive data inputs on a real time basis to mitigate potential supply disruptions. We continue to launch new versions of the SRI tool as predictive modeling techniques become more accurate based on machine learning and other progressive techniques. Ford has made over \$1.5 million in research and capital investments to implement the supply chain monitoring program. Research expenses include model development, data acquisition, software engineering, and scientists' and engineers' salaries. Capital investments include computing hardware to run the SRI system. Purchasing Supply Risk along with the Ford Material Planning and Logistics teams continue to develop new risk identification and mitigation tools, such as Geo-Fencing and sub-Tier assessments. In 2015, we used these tools to understand the potential business disruption exposure of typhoons hitting the Philippines. We assess the risks each of our facilities faces based on continuously updated data and takes into account the risk of exposure to hurricanes, tornadoes, other storms, flooding, heatwaves, water stress and wildfires.

Comment**Identifier**

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical	Other, please specify (Drought)
------------------	---------------------------------

Primary potential financial impact

Decreased revenues due to reduced production capacity

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Global climate change has the potential to exacerbate droughts. We cannot be certain that we will always have access to water of the quantity and quality that our operations require. If water is not available due to drought, our production must stop because critical components of assembly, including the paint shop, require water. When production is lost due to shutdowns, we have fewer vehicle sales and reduced revenue. We have identified that approximately 25 percent of our operations, including the Cuautitlán, Mexico facility, where we build the Mustang Mach-E, and are at risk to be water-scarce based on the Global Water Tool, developed by the World Business Council for Sustainable Development (WBCSD). Hermosillo, Mexico, where we build the Fusion and new Bronco Sport, is already subject to water-withdrawal limitations. Water availability is a local issue, therefore we conducted our analysis using detailed watershed-level data. According to our analysis, about 25 percent of our operations are located in regions including A, B and C including India (Chennai Assembly), Turkey (Ford Otosan in Kocaeli), Spain (Valencia Assembly), and South Africa (Pretoria Assembly) that are now or will be considered to be at risk for water scarcity by 2025.

Time horizon

Long-term

Likelihood

About as likely as not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

109000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Our facilities in Mexico are located in water-scarce regions. The Hermosillo, Mexico plant produced over 128,800 vehicles in 2020 (Fusion, MKZ, and the new Bronco

Sport), 6.3% of North American production. If Hermosillo production was stopped due to the unavailability of water, vehicle sales would decrease. This loss of sales could possibly, on average, incur a 6.3% reduction in 2020 North American earnings before taxes (about \$229 million), assuming production of those products could not be moved to another facility.

Cost of response to risk

1600000

Description of response and explanation of cost calculation

Our water strategy aligns with the core elements of the CEO Water Mandate. Companies that support the CEO Water Mandate commit to implementing the framework's six core elements for water management and pledge to publicly report their progress annually. Ford endorsed the Water Mandate in 2014. We developed our water strategy to prioritize addressing our water use, supplier water use and community water issues in water-stressed regions identified using the Global Water Tool, developed by the World Business Council for Sustainable Development (WBCSD). We are investing in water-saving technologies and process improvements across our global operations. Wherever feasible, we take successful projects and mirror them in other locations. Our newest plants use a set of advanced and environmentally friendly technologies to dramatically cut water use such as implementing membrane biological reactors (MBR) and reverse-osmosis processes to recycle water from our on-site wastewater treatment plants in arid regions, such as at plants in Chihuahua and Hermosillo, Mexico; Pretoria, South Africa; Chennai, India; and Chongqing, China. The cost to respond to water stress is \$1.6 million. At our Ford Cuautitlan Stamping and Assembly Plant in Mexico, the \$1.6 million dollars in capital investment provided 3 major water saving/reuse projects: Waste Water Treatment Plant recycling system; utilizing a gray water source; and separation of drinking water from industrial recycled water to name a few. These projects resulted in a 50% reduction in withdrawal of fresh drinking water.

Comment

Many of these new systems require substantial capital investments, so we have been adding them on a rolling basis as we update equipment and bring new facilities online, especially in areas where water is more scarce.

Identifier

Risk 3

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

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Climate change has increased consumer interest not only for clean transportation, including alternative transportation solutions. In many cities, consumers are dealing with inconvenient, congested transportation systems that create pollution, reduce fuel economy and waste travellers' time. With more people living in congested urban areas, consumers desire more and different forms of mobility. As a provider of personal transportation vehicles and mobility solutions, Ford must be prepared to respond to these changing customer needs in large metropolitan areas. In early actions, Ford purchased Spin, a dockless electric scooter sharing service in 2018 which operates in more than 70 cities and campuses in North America and Europe. We are also active in autonomous vehicle research and development including investment in Argo AI in 2017.

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)

36000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Our ability to satisfy changing consumer preferences with respect to type or size of vehicle, as well as design and performance characteristics, affects our sales and earnings significantly. Financial risk due to changing consumer behavior is possible as the demand for our traditional vehicles could decrease as consumers seek alternatives to personal vehicle transportation. Financial implications would vary depending on the specific details of a given scenario, including the type and extent of changes in the marketplace and personal transportation. For illustration purposes, changing consumer behavior that drove a 1% decrease in North American sales could lead to an estimated decrease in earnings of nearly \$36 million, based on 2020 earnings and sales rates. It should be noted that financial impacts are not necessarily "linear" in nature. The adverse financial impacts of large changes in consumer behavior could be exponentially greater than the impacts of less drastic changes.

Cost of response to risk

5329000000

Description of response and explanation of cost calculation

We created a new subsidiary to respond to changing customer behavior called Ford Smart Mobility LLC, to develop commercially ready mobility services and invest in promising mobility-related ventures. Our Smart Mobility plan's focus areas are on key areas of mobility – flexible use and ownership, and multimodal urban travel solutions, and autonomous driving. Ford has responded to changing customer needs in large metropolitan areas by purchasing Spin, a dockless electric scooter sharing service in 2018 which operates in more than 70 cities and campuses in North America and Europe. The cost of management in 2020 was our Mobility segment costs and expenses of \$1.3 billion, which includes development costs for Ford's autonomous vehicles and related businesses, Ford's equity ownership in Argo AI (a developer of autonomous driving systems), and other mobility businesses and investments (including Spin, a micro-mobility service provider). Ford has announced total investment of \$4 billion in autonomous vehicles by 2023, including our \$1 billion investment in Argo AI.

Comment

Identifier

Risk 4

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Current regulation	Mandates on and regulation of existing products and services
--------------------	--

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

In our global markets (e.g. North America, EU, China, etc.), Ford is required to comply with fuel economy and/or GHG standards. If these governments implement more stringent fuel economy or GHG standards in periods of unfavorable market conditions or inadequate technology development, we likely would have to take actions that could have adverse effects on our sales volume and profits. Such actions could include restricting engines and options; increasing market support programs for our most fuel-efficient vehicles including the Escape/Kuga PHEV and hybrid, F-150, Figo, and Fiesta; and curtailing the production and sale of certain vehicles in order to maintain compliance. In the U.S., we are carefully monitoring the expansion of the California ZEV mandates to the 11 other states that follow California's lead in regulating GHG emissions. This is very challenging since free market demand in those states has historically not reached the share required by the ZEV mandates. To sell BEVs in those regions may require Ford market support if government policy does not incentivize customer demand.

Time horizon

Long-term

Likelihood

About as likely as not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

36000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Financial implications would vary depending on the specific details of a given scenario, including the stringency of the standard relative to market conditions, and the degree of flexibility in the regulatory framework. For illustration purposes, a regulatory program that drove a 1% decrease in sales within North America could lead to an estimated decrease in earnings of over \$36 million. The earnings loss is estimated as the per vehicle earnings (North American automotive EBIT / sales volume) multiplied by the 1% of sales lost (sales volume x 0.01), based on 2020 North American sales (2.1 million) and earnings \$(3.6 billion). It should be noted that financial impacts are not necessarily "linear" in nature. The adverse financial impacts of large initiatives that drive product restrictions and/or production shutdowns could be exponentially greater than the impacts of less drastic initiatives.

Cost of response to risk

9100000000

Description of response and explanation of cost calculation

We manage the risk by being an active participant in the legislative and regulatory processes used to set standards by providing information on the effects of proposed regulations on our business while supporting the goal of decreasing CO2 emissions with our scientific approach. We identified the emerging regulatory risk that California and other states could have unique greenhouse gas requirements if a new One National Program for fuel economy and GHG standards could not be achieved. Having to plan to comply with two different sets of standards in different geographic areas would increase Ford's costs and planning complexity. When it became clear that a continuation of One National Program was no longer viable, Ford decided to address this risk proactively by pursuing the Framework Agreement with California, the basic terms of which were announced in July 2019. The Framework offers a pathway that allows Ford to better manage costs and complexity while at the same time enabling greater CO2 reductions. We also manage risk through offering a wide range of fuel-efficient vehicles and powertrains to meet customers' needs (e.g., advanced EcoBoost engines, HEV, PHEV, BEV and in some regions advanced diesel) to allow for increased flexibility and customer choice. We have also invested in light-weighting through use of aluminium in our F-150 and Super Duty, and more recently in our Lincoln Navigator and Ford Expedition. The cost of managing this risk is calculated from the sum of Ford's Engineering, Research and Development expenses of \$7.1 billion in 2020 and Ford's over \$11.5 billion investment in the development of electrified vehicle solutions by 2022, or \$2 billion per year. \$7.1B + \$2B = \$9.1B in 2020.

Comment

There are limits on our ability to achieve fuel economy improvements over a given timeframe primarily relating to the cost and effectiveness of available technologies, consumer acceptance of new technologies, the appropriateness of certain technologies for use in particular vehicles, the availability of supporting infrastructure for new technologies, and the resources necessary to deploy new technologies across a wide range of products and powertrains in a short time.

Identifier

Risk 5

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

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Fuel prices are volatile. Consumers are sensitive to fuel price and tend to buy vehicles with higher fuel economy when gasoline is expensive, but historically have chosen vehicles with lower fuel economy when fuel prices have been low. From 2006 to 2010 gasoline prices increased significantly, and sales of our higher fuel economy vehicles increased. But from mid-2014 through 2016, there was a significant decline in gasoline prices, resulting in decreased sales of our vehicles with higher fuel economy and alternative powertrains. Fuel prices in the US remain low in 2020. Ford is a global manufacturer, but we are based out of the U.S., which is our largest vehicle market. In the U.S., consumer preference has been shifting toward larger vehicles such as crossover utility vehicles (CUVs), SUVs, and trucks (e.g. Escape, Explorer, F150), all of which are strengths in Ford's portfolio. Other regions are also showing a consumer preference for CUVs and SUVs. However, increased sales of these vehicles may result in higher CO2 emissions. To pursue our internal carbon reduction goals and meet increasingly stringent regulatory requirements as customer demand changes, Ford continues to improve the fuel efficiency and CO2 of our conventional gasoline and diesel vehicles. For example, our 2020 Escape small SUV in the U.S. emits 11-14% less CO2/mile (www.fueleconomy.gov) than the previous model year with the same engine.

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)

31000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

When fuel prices are low, customers tend to choose less fuel-efficient vehicles. This fluctuation may not follow long-term cycle planning for compliance with CO2 regulations. Negative financial implications result if we have to provide price support to encourage the purchase of advanced-technology vehicles to meet regulations. For example, in the 2020 model year, Ford produced over 62,800 HEVs (Fusion, MKZ, Escape, Explorer) and PHEVs (Fusion, Escape, Aviator) in the United States. If we had to supply \$500 price incentives to customers to encourage the purchase of these fuel-efficient electrified vehicles that would amount to an expense of \$31 million.

Cost of response to risk

7100000000

Description of response and explanation of cost calculation

We manage the risk of fuel price volatility through offering our customers a wide range of fuel-efficient conventional vehicles and powertrains including EcoBoost turbocharged direct-injection gasoline engines, as well as hybrid vehicles, plug-in hybrid electric vehicles and battery electric vehicles. We will add new electrified vehicle solutions to our global portfolio. Our European plan introduces 14 electrified vehicle models in 2020, including S-MAX hybrid, Galaxy hybrid, Kuga hybrid, and Kuga plug-in hybrid. . We have increased EcoBoost offerings to include more than 80 percent of our global nameplates. We have also invested in light weighting through use of aluminium in our F-150 and Super Duty, and more recently the Lincoln Navigator and Ford Expedition. This global approach puts us in a better position to be able to respond to changes in market demand due to fuel price volatility. We will increase the number and variety of fuel-efficient options in the near future. We're dedicated globally to doing our part to meet our commitment to the Paris Climate Agreement. The annual cost of management to bring efficient conventional and electrified vehicles to market is Ford's Engineering, Research and Development expenses of \$7.1 billion in 2020. Ford is investing over \$11.5 billion for the development of electrified vehicle solutions by 2022.

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

Shift in consumer preferences

Primary potential financial impact

Returns on investment in low-emission technology

Company-specific description

CO2-related taxation in Europe drives the market to low CO2 vehicles and incentivizes the up-take of new fuel-efficient vehicles in two waves: the first for vehicles less than 50g CO2/km by 2025, and the second for zero emission vehicles by 2030. Our global portfolio includes a range of fuel-efficient technologies including EcoBoost and we announced over \$11.5 billion investment in global EV products, including batteries. In Europe we will introduce 14 electrified vehicles by the end of 2020, including S-MAX hybrid, Galaxy hybrid, Kuga hybrid, and Kuga plug-in hybrid. The new Kuga PHEV is rated at 29 gCO2/km, meeting the low tax incentive. The Kuga line up also includes mild-hybrid and full-hybrid powertrains. We also announced we will sell the Mustang Mach-E BEV in Europe beginning in 2021. Ford is well-positioned to meet the need of such a shift in Europe and should perform well relative to other manufacturers, providing opportunities for growth and increased market share.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

113000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Investments in vehicle technology can potentially be recouped if there is sufficient customer demand for the advanced-technology vehicles. Financial implications would vary depending on the specific details of a given scenario, including the extent of market demand for advanced-technology vehicles and the profitability of the vehicles responsible for an increase in sales. For illustration purposes, an increase in sales within Europe of 0.5% could lead to an estimated increase in revenue by about \$113 million, based on 2020 EU sales (1.02 billion) and revenue (\$22.6 billion). It should be noted that financial impacts are not necessarily "linear" in nature. The financial impacts of increased sales of advanced technology vehicles could be different than those of conventional vehicles and could be positive (if purchase price offset the cost and investment of the technology) or negative (if it did not).

Cost to realize opportunity

7100000000

Strategy to realize opportunity and explanation of cost calculation

Ford has institutionalized the Enterprise Risk Management (ERM) Process, which includes a Sustainability Environment & Safety Engineering- (SE&SE) Business Plan Review and Special Attention Review process where the SE&SE senior leadership reviews the status of the business, the risks and opportunities presented to the business, and develops plans to address those risks and opportunities. If consumer demand shifts toward different products, such as vehicles with higher fuel economy and advanced technology powertrains in response to tax incentives, we increase their output. Our current and announced product offerings include a variety of low-CO2 vehicles: small diesel and gasoline vehicles, EcoBoost engines, and hybrid, plug-in hybrid, and battery electric vehicles; we will add 14 electrified vehicle solutions to our European portfolio by 2020, including S-MAX hybrid, Galaxy hybrid, Kuga hybrid, and Kuga plug-in hybrid, giving us flexibility to meet changing consumer demand. The Mustang Mach-E will be available in Europe in 2021. There are currently 15 different CO2 taxation schemes in EU member states, requiring us to manage our products on a country-by-country basis and limiting financial opportunity in the near term. The annual cost to realize the opportunity of providing customers with desirable, efficient conventional and electrified vehicles to market is Ford's Engineering, Research and Development expenses of \$7.1 billion in 2020. E, R & D includes vehicle engineering, internal combustion engine engineering, electric machine engineering, battery research, lightweight and sustainable materials, and controls and software development and engineering. Ford is investing over \$11.5 billion for the development of electrified vehicle solutions by 2022.

Comment**Identifier**

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Move to more efficient buildings

Primary potential financial impact

Reduced indirect (operating) costs

Company-specific description

Ford has a global Carbon Reduction Strategy with a goal to reduce our absolute tCO2e emissions by 76% from all our operations by 2035. We also have a manufacturing specific Carbon Reduction Strategy to reduce our absolute tCO2e by 18% from all our manufacturing locations by 2023 from at 2017 baseline. One element of that strategy is the continued focus on energy efficiency projects to reduce the overall energy footprint of Ford Motor Company. One example of the investments Ford is making to improve energy efficiency are the new compressed air generating stations installed at the Rouge site, Sterling Axle, and Windsor Engine. The new systems use a modularized design approach and include efficient compressors, heat of compression dryers, and modern controls. The new compressor stations, implemented in 2020, are expected to reduce annual energy consumption by 31,886 MWh and CO2 emissions by 16,825 tCO2e. Ford also has a global year over year energy efficiency target of 1% and facility specific kwh/unit targets which drive energy efficiency programs at each manufacturing location globally.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

326000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Achieving the corporate goal of improving global facility energy use per vehicle produced by 25 percent between 2011 and 2016 also reduced our costs for the energy. Since 2011, Ford facilities have reduced total scope 1 + scope 2 tCO₂e emissions by 40%, which is approximately 2,100,000 tCO₂e. Many Ford manufacturing lighting systems have been replaced by LED lighting fixtures providing a significant energy cost savings per site of approximately \$326,000 per year. This is estimated based on the cost of electricity in \$/MWh and the total MWh savings from the installation (MWh saved * cost of electricity (\$/MWh)).

Cost to realize opportunity

28000000

Strategy to realize opportunity and explanation of cost calculation

We have a global year over year energy efficiency goal of 1% and facility-specific kWh/unit targets which drive energy efficiency programs globally. The installation of modern, efficient compressed air generating stations at the Rouge, Sterling Axle, and Windsor Engine is an example of Ford's focus on improving energy efficiency. The total investment at the three locations of close to \$28MM is expected to reduce energy and operating costs by more than \$5MM annually. The Energy Management Operating System (EMOS) is a primary example of Ford's commitment to energy efficiency. EMOS is Ford's global standardized process for managing and driving energy efficiency at our facilities and it is integrated into the Ford Production System (FPS). The main elements of the system are active Energy Teams, facility modernization, data management, and energy supply. The tools and resources organized within EMOS drive the development of annual energy forecasts and year over year targets; the forecasts and targets are documented and cascaded during the annual policy deployment process.

Comment**Identifier**

Opp3

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 revenues resulting from increased demand for products and services

Company-specific description

Ford is investing in electrification to address consumers becoming more aware of climate change and increasingly "think green". Our projected vehicle fleet mix is expected to shift toward vehicles with higher fuel economy and electrified powertrains. As a customer- and product-driven company, our vehicles are the foundation of our business. Our products are also a major focal point of our environmental impacts and our efforts to reduce those impacts. The Company's product plans are well positioned to meet different regional demands for this shift in consumer demand to electrified vehicles. We continue to offer regional solutions with a number of higher fuel economy and advanced technology powertrains, including HEVs (Fusion/Mondeo, Police Responder Hybrid Sedan, Lincoln MKZ, Escape/Kuga, Explorer); PHEVs (Fusion/Mondeo Energi, Escape/Kuga, Explorer, Aviator, Transit Custom); and BEVs (Mustang Mach-E). We have announced the e-Transit all-electric van to meet the needs of commercial vehicle customers. We have also started investing in microtransit options. In 2018 we purchased Spin, a dockless scooter sharing service. Spin is now operating in over 70 cities and campuses in North America and Europe.

Time horizon

Short-term

Likelihood

About as likely as not

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

215000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

We announced the 2021 Mustang Mach-E in 2019 and customers were excited. Reservations for the Mustang Mach-E First Edition were filled one month after the reservations began being accepted in the U.S. and Europe. For example, in the US if Ford produces 50,000 Mach-Es per year, and 10% of those BEVs are purchased by conquest customers (customers that are new to Ford vehicles), that is an increase of 5,000 vehicles sold. The Mach-E manufacturer's suggested retail price is approximately \$43,000. That leads to a potential financial opportunity impact of \$43,000 x 5,000 = \$215,000,000 increase in revenue. We have more opportunities for

attracting more new Ford customers with our future BEV models: E-Transit and F-150 BEV. We note that opportunity is limited somewhat because our current customers may substitute a new BEV purchase for a conventional gas or diesel vehicle, giving a relatively neutral financial impact. Our investments in microtransit (e.g. Spin Scooters) open up financial opportunities in new areas but are minor compared to our core automotive business at this time.

Cost to realize opportunity

1040000000

Strategy to realize opportunity and explanation of cost calculation

Ford has institutionalized the Enterprise Risk Management (ERM) Process, which includes an SE&SE monthly Business Plan Review and Special Attention Review process where the senior leadership from each of the Business Units and the Functional Skill Teams reviews the status of the business, opportunities, and develops plans to address opportunities. The Sustainability and Innovation Board of Directors Committee evaluates and advises on the Company's pursuit of innovative practices and technologies that improve sustainability and innovation strategies and practices used to develop and commercialize technologies. We are exploring the integration of mobility solutions, connectivity, autonomy, and data analytics developing more ways to transform the consumer experience. As a result, we created Ford Smart Mobility LLC, to develop commercially ready mobility services and invest in promising mobility-related ventures. The strategy is to maintain strength in core business that generates profits, helping to kick-off new mobility business until it is self-sustaining and profitable. There are costs associated with maintaining such flexibility. The cost of management in 2020 is \$10.4 billion, the sum of our Mobility segment costs and expenses (\$1.3 billion), our Engineering, Research and Development expenses (\$7.1 billion), and our average annual investment of \$2 billion in electrification. (Ford is investing over \$11.5 billion for the development of electrified vehicle solutions by 2022, about \$2 billion per year.)

Comment

Identifier

Opp4

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Shift in consumer preferences

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Not all consumers will move to electrified vehicles in the near term, and customer demand varies by region. Innovative and fuel efficient internal combustion engines and vehicles help the reputation of Ford Motor Company. Technology such as the EcoBoost engine and mild hybrid (48V) positions Ford as an innovative company that is democratizing fuel economy technology for all customers now - rather than focusing only on expensive future technologies. In 2020 we launched the all-new Kuga, our best-selling SUV in Europe, with a mild hybrid powertrain option. Kuga will also include full-hybrid, plug-in hybrid, EcoBlue diesel, and EcoBoost petrol versions to meet the needs of every customer in a fuel-efficient way.

Time horizon

Short-term

Likelihood

About as likely as not

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

500000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

We launched the EcoBoost engine in 2009 and have produced more than 5 million of them. By 2015, annual global EcoBoost engine capacity reached approximately 2.5 million units, and more than 80 percent of our global nameplates are available with EcoBoost. If 2.5 million vehicles with an EcoBoost engine were sold at \$200 premium compared to the base engine, it would increase Ford revenues by \$0.5B.

Cost to realize opportunity

500000000

Strategy to realize opportunity and explanation of cost calculation

Ford monitors consumer behaviours, buying habits and other influential factors such as public policy and fuel costs to ensure we are providing customers the products they want and need. Providing Innovative and fuel-efficient products helps our reputation which in turn increases vehicle sales. As a result, Ford's strategy is to provide multiple pathways to fuel efficiency for customers. For example, Ford's fuel-efficient and powerful 1.0-litre EcoBoost was named International Engine of the Year in 2012-2014 and Best Sub-1 Liter engine in 2012-2017 and 2019 .and is available in 72 countries worldwide. In 2016, Ford hit 1 million sales of the EcoBoost F-150 in the US. The 2.7-liter EcoBoost engine and 3.5-liter EcoBoost engine are most popular among F-150 customers and save customers more than 110 million gallons of gasoline annually. Mild hybrids are just starting to be introduced, with the first major application on the Territory model in China and the Kuga SUV in Europe. Through our mild hybrid and EcoBoost strategy, we offer conventional, affordable, fuel-efficient vehicles to all customers. After 10 years of building our EcoBoost portfolio, applying EcoBoost in Asia, Europe and North America in a multitude of vehicle nameplates helps manage the costs through economies of scale. However, engineering costs can offset the purchase price premium. EcoBoost and mild hybrid engine engineering costs are roughly estimated at \$0.5B, offsetting any price premiums we might charge.

Comment

Identifier

Opp5

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of more efficient production and distribution processes

Primary potential financial impact

Reduced indirect (operating) costs

Company-specific description

Ford's global Energy Management Operating System (EMOS) provides standardized processes and tools for managing energy efficiency at Ford facilities. Energy Efficiency opportunities are evaluated in coordination with Plant Energy Teams and documented on the plant energy roadmaps.

Time horizon

Medium-term

Likelihood

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)

5000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Identification, development, and implementation of energy efficiency opportunities to improve energy intensity (kWh/Unit).

Cost to realize opportunity

45000000

Strategy to realize opportunity and explanation of cost calculation

In North America, Ford continues to leverage our performance contracting process to implement energy efficiency projects. Ford is actively installing or developing lighting, compressed air, and process optimization projects at Louisville Assembly, Michigan Assembly, Dearborn Truck, Oakville Assembly, Windsor Engine and the Rouge. The cost to realize opportunity is based on financial agreements we have with our suppliers.

Comment

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?

Yes, and we have developed a low-carbon transition plan

C3.1a

(C3.1a) Is your organization's low-carbon transition plan a scheduled resolution item at Annual General Meetings (AGMs)?

	Is your low-carbon transition plan a scheduled resolution item at AGMs?	Comment
Row 1	No, and we do not intend it to become a scheduled resolution item within the next two years	

C3.2

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

Yes, qualitative and quantitative

C3.2a

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

Climate-related scenarios and models applied	Details
IEA B2DS	<p>Methodology: Since 2007, Ford has developed CO2 pathways for the CO2 intensity (gCO2/km) vehicles must achieve to stabilize atmospheric CO2 and temperature change. We focus our scenario analyses on vehicles because Scope 3, Use of Sold Products, represents over 75% of our CO2. We originally published our methodology in 2014 (dx.doi.org/10.1021/es405651p, Environ. Sci. Technol. 2014, 48, 6453–6460), and it has evolved over time. Currently we use the SBTi Transport Tool (v2018) which includes the IEA 2DS and B2DS scenarios from ETP2017. We selected the SBTi tool because the two CO2-intensity pathways are provided by vehicle type: passenger, light commercial and heavy-duty. Inputs of regional regulatory gCO2/km are converted to on-road well-to-wheel intensity using appropriate physical and empirical factors and run in the model with our forecast of vehicle activity. The scenario output is gCO2e/km WTW targets for our future vehicles, by region and fleet, which we combine into a global all-fleet average target. Organizational scope and time horizons: The scenario analysis covers the years 2019 to 2050. From the SBTi model we calculate pathways for the passenger, light commercial and heavy-duty fleets in the major regions where we do business (U.S., EU+U.K., China) through 2035. We then extend the paths to our goal of carbon neutrality by 2050, expecting new vehicles in EU to reach C.N. by 2040 due to favorable conditions. Results: The B2DS pathway requires our WTW activity-weighted global fleet average gCO2e/km to decrease 50% from 2019 to 2035. The 2035 global target is approved by SBTi. Regional fleet CO2 reduction varies depending on 1) the starting point relative to the industry average and 2) the expected growth in activity (sales x travel distance). The US LDV fleet requires more reduction due to higher than the industry average gCO2e/km in the base year. The China LDV fleet target has more than 50% reduction due to expected growth. Heavy-duty decreases less than the global average. Informing our strategy: The near-term targets (5-10 years) indicate the reduction needed within the current business plan. The mid-term (10-15 years) targets provide strategic guidance. Alignment of our near-term vehicle plans with the B2DS targets is assessed at least twice a year, reported at the Global Sustainability Meeting and also reviewed by the Board of Directors Sustainability and Innovation Committee. On the path to B2DS in 2035, Ford's business plan includes investing over \$11.5 billion in electrification of the vehicle fleet through 2022. We have electrified key vehicles including our flagship 2019 Explorer SUV and 2020 Escape/Kuga CUV, adding HEV and PHEV versions. We are producing full battery electric versions of our most iconic products: Mustang Mach-E in 2020, E-Transit in 2021, and F-150 Lightning in 2022. Case study: The B2DS scenario is crucial for mid-term planning. Using the 2030-2035 targets, we conducted scenario analyses to estimate fleet electrification shares of each EV type that could achieve the targets and the associated costs. We tested several electrification scenarios (e.g. BEV-intense, BEV-PHEV mixes, HEV-intense) and assessed the cost associated with the solutions. We found that an all-HEV fleet would not meet the average targets in most regions and must be supplemented with PHEVs or BEVs. This confirmed our strategy of offering conventional ICE, HEV, PHEV, and BEV across many vehicle lines. Ford also does qualitative climate change scenario analysis considering 4 scenarios in 2030-40 for low and high future technology and climate futures. We look at the resiliency of our strategies against these potential futures to determine if any adjustments are needed to better prepare for potential futures: https://corporate.ford.com/microsites/integrated-sustainability-and-financial-report-2021/files/ir21-climate-change-scenario-2020.pdf</p>
RCP 2.6	<p>Methodology: The RCP2.6 scenario represents the 2015 Paris Climate Agreement for a 1.5 deg stabilization. We use it to understand the relative stringency of 1.5°C compared to our beyond 2°C (B2DS) scenario. A 1.5°C vehicle CO2 intensity pathway is not available from the SBTi Transport Tool, so we have used our previous WTW LDV model, described in 2014 (dx.doi.org/10.1021/es405651p, Environ. Sci. Technol. 2014, 48, 6453–6460). We apply the IPCC RCP2.6 global CO2 rate of change to set 1.5°C LDV global WTW emissions limits. Given fleet absolute CO2 emission estimates based on vehicle and the above data, we calculate the annual improvement in new vehicle TTW efficiency needed to keep the well-to-wheels CO2 below the CO2 cap prescribed by the RCP2.6 scenario. The scenario output is gCO2/km TTW targets for our future new vehicle fleets in U.S., European Union+U.K., and China that support 1.5-degree temperature change stabilization. Organizational scope and time horizons: We model the years 2000 to 2100, a longer time horizon than the B2DS scenario to capture the 2070 time frame where the RCP2.6 CO2 emissions become negative. From the model we extract results for the major regions where we do business (U.S., European Union+U.K., China) over the near- (5 yrs), mid- (15 yrs) & very long-term (50+ yrs), recognizing the significant uncertainty in the very-long-term input and output. Results: The RCP2.6 (1.5 degree) scenario requires more long-term CO2 reduction than the B2DS scenario. Annual gCO2/km reductions are 50-60% greater than the 2DS scenario. The RCP2.6 targets provide a mid-term outlook for CO2 emissions, beyond where regulations end. Internal strategy: Internally, we report and assess progress towards B2DS. RCP2.6 is used as a sensitivity scenario. Using the RCP2.6 allows us to understand the incremental product actions that are needed to be on a 1.5°C pathway. Sensitivity analyses against 1.5°C are presented as requested to the VPs of Sustainability, Safety and Environment Engineering and Enterprise Product Line Management to accompany the annual assessment of the near-term vehicle cycle plans against our B2DS SBTi CO2 targets reported least twice a year at the Global Sustainability Meeting and also reviewed by the Board of Directors Sustainability and Innovation Committee. Case study: The RCP2.6 pathway shows that this scenario cannot be satisfied with vehicle actions alone. The vehicle efficiency (TTW) gCO2/km reduction must be supported by low-carbon energy (WTT). Our electrification strategy requires vehicles be charged with renewable or low carbon electricity. Since energy supply is outside our immediate control we are engaging in university and government research to inform policy actions and support system-wide understanding of future vehicle/fuel systems (e.g. USDRIVE Cradle to Grave (C2G), European JRC WTW Study) and encouraging system-wide thinking. Qualitatively Ford also does climate change scenario analysis considering 4 scenarios in the 2030 – 2040 timeframe for low and high technology and low and high climate futures. We look at the resiliency of our strategies against these potential futures to determine if any adjustments are needed to better prepare for potential futures. We have published this analysis along with our yearly sustainability report: https://corporate.ford.com/microsites/integrated-sustainability-and-financial-report-2021/files/ir21.pdf and https://corporate.ford.com/microsites/integrated-sustainability-and-financial-report-2021/files/ir21-climate-change-scenario-2020.pdf</p>

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	Our product and service plans in the 2020-2030 time horizon are influenced by climate change-related elements such as current and future CO2 regulations and changing market demand for mobility. Beyond 2030, our plans are influenced by our commitment to the Paris Climate Agreement. These climate influences have resulted in our global product and service strategy in 2020-2030, with strong investment in fuel efficiency, electrification, Autonomous Vehicles and Smart City Solutions. For example, our most substantial decision made based on these influences is our electrification strategy, where we are investing \$11.5B through 2022 to add many new electrified vehicles to our portfolio including BEVs, PHEVs, and HEVs such as the Lincoln Aviator PHEV, Escape/Kuga HEV and PHEV, and Explorer HEV and PHEV. In 2020 we launched Mustang Mach-E BEV in North America and announced the E-Transit BEV. Our fuel efficiency strategy to reduce CO2 includes our conventional vehicles and powertrains. We have increased fuel-efficient EcoBoost offerings to include more than 80 percent of our global nameplates and invested in light weighting through use of aluminium in our F-150 and Super Duty, Lincoln Navigator and Ford Expedition. For a longer time horizon (now and beyond 2030), we created a new subsidiary, Ford Smart Mobility LLC, to develop commercially ready mobility services and invest in promising mobility-related ventures. Our focus is flexible use and ownership, and multimodal urban travel solutions. Ford has responded to changing customer needs in large metropolitan areas by purchasing Spin, a dockless electric scooter sharing service in 2018. Spin has active operations in more than 70 cities and campuses in North America and Europe. Ford is investing \$4 billion in autonomous vehicles by 2023, including a \$1 billion investment in Argo AI.
Supply chain and/or value chain	Yes	Extreme weather events or other effects of climate changes including droughts and floods, can pose a risk and influence management of our supply chain. Ford has long been committed to reducing its impact on the environment by implementing leading sustainable practices at our facilities. After proven progress, Ford wanted to share best practices with our suppliers around the globe through the Partnership for A Cleaner Environment (PACE) program. Each year since 2014, Ford actively engages with suppliers through the PACE program, with the goal of helping them reduce their environmental impacts and be more responsive to climate change issues such as CO2 emissions and extreme weather events such as droughts and floods. Following an increase in environmental regulatory requirements in the Asia Pacific markets, Ford was prompted to implement risk reduction efforts to ensure business continuity. In 2019, Ford made a substantial business decision to launch an incremental streamlined version of the PACE program, called FastPACE. The initiative was offered to China, India and Thailand Supplier Forum members, which focused our engagement with suppliers located in regions that could face exposure to climate-related risks such as floods, water stress and environmental regulatory requirements. In early 2020, Ford made the decision to continue and regionally expand the FastPACE program in the near term (2020-2025). In August 2020, Ford launched the second continuous year of the FastPACE program and made the decision to expand the initiative to South African Supplier Forum members, as well as to China, India and Thailand Supplier Forum members included in the previous year. Through the PACE and FastPACE programs, Ford shares leading environmental actions with suppliers and encourages them to plan and apply these actions in their own facilities in the near and far term time horizon (2020s through mid-2030s) in an effort to improve operational efficiencies, minimize supply risk and improve human and environmental health. Both initiatives encourage target setting and action on air and CO2 emissions, water use and waste (PACE only).
Investment in R&D	Yes	Climate change affects current and future vehicle regulations and led to our commitment to the Paris Climate Agreement beyond the regulatory timeframe. The influences have resulted in increased investment in global R&D to support EV implementation, light-weighting and other CO2 and fuel economy initiatives in the 2012-2030 time frame. The most substantial business decision is to invest in electrification R&D as part of our comprehensive \$11.5 B investment to add many new electrified vehicle (EV) solutions to our global portfolio by 2022. In 2020 we launched Mustang Mach-E BEV and announced the E-Transit BEV. Our R&D budget has increased from \$6.2 billion in 2013 to \$7.1 billion in 2020, including research in electrification, fuel economy and light-weighting. We have increased fuel economy by developing more EcoBoost engines that are now offered on over 80 percent of our global nameplates. Another significant R&D investment was for research and development of light-weighting to improve fuel efficiency through increasing use of aluminium in our vehicles from 2015-2018 which continues with current models: F-150 (2015), Super Duty trucks (2017), and Lincoln Navigator and Ford Expedition (2018).
Operations	Yes	Our operational strategy has been influenced by climate particularly in operating locations where there are risks of floods and drought. We've developed our water strategy in the near and the far time horizons (2020s through 2030s) to prioritize addressing our water use, supplier water use and community water issues in water-stressed regions identified using WRI Aqueduct and WWF Water Risk Filter. We are investing in water-saving technologies and process improvements across our global operations. One of the most substantial business decisions made was at our Ford Cuautitlan SAP in Mexico, where we have invested over \$1.6 million dollars over 2009-2011 in water saving/reuse projects like WWTP recycling system, utilizing a gray water source and separation of drinking water from industrial recycled water. Wherever feasible, we take successful projects and mirror them in other locations. Our newest plants use a set of advanced and environmentally friendly technologies to dramatically cut water use such as implementing membrane biological reactors (MBR) and reverse-osmosis processes to recycle water from our on-site wastewater treatment plants in arid regions, such as at plants in Chihuahua and Hermosillo, Mexico; Pretoria, South Africa; Chennai, India; and Chongqing, China. We assess the risks each of our facilities faces (with input from third-party engineers) at least annually. This risk assessment is updated based on new data and takes into account the risk of exposure to hurricanes, tornadoes, other storms, flooding and earthquakes. Extreme weather has the potential to disrupt the production of natural gas, a fuel necessary for the manufacture of vehicles. Supply disruptions raise market rates and jeopardize the consistency of vehicle production. The magnitude of impact is significant in areas where there is extreme weather that could disrupt the production of natural gas.

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	Revenues Indirect costs Capital expenditures Capital allocation Acquisitions and divestments Access to capital	Indirect Costs: Climate-related issues have an influence on our indirect cost strategy. Our plans to meet the CO2 reductions required for climate stabilization call for significant vehicle electrification. This influence also increases indirect costs such as production and engineering wages, development, and testing costs. In 2019 we announced Ford will add 300 jobs and invest about \$700 million (part of our global \$11.5B investment), at Ford's Dearborn manufacturing site, to support production of new electrified variants of our F-150 truck, producing both an F-150 hybrid and fully electric F-150. Ford will also create a new operation in Dearborn where battery cells will be assembled into a battery pack for the F-150 hybrid and all-electric F-150. The time horizon is from 2018-2022. The \$700 million investment is part of our announced global \$11.5B investment from 2018-2022. The F-150 hybrid was launched in 2020. Differing types of electrification (BEVs, PHEVs, HEVs, and mHEVs) require their own engineering development and testing costs. For this reason, we also work to commonize designs and parts in order to scale these costs while still meeting customer needs. Our indirect costs for electricity are also influenced as we plan to address climate change by procuring renewable/zero carbon electricity for our facilities. This time horizon began from 2019 and extends to 2035. Our aspirational goal is to power all our global manufacturing plants globally with 100% local, renewable/zero carbon energy by 2035. We have contracted with DTE to procure 500,000 MWh of locally sourced renewable electricity to power our Southeast Michigan portfolio of facilities by January 2022. Ford is already using 100 per cent renewable/zero carbon electricity to power all Ford facilities in UK, our facility in Craiova, Romania, and our site in Cologne, Germany. To address climate change our indirect maintenance costs were influenced by including upgrades to more efficient systems to reduce energy use and CO2 emissions. In 2020, Ford implemented more than \$19.7M in energy efficiency projects which will deliver more than \$2.5M in annual energy and operations savings. The projects included interior and site LED lighting conversions and paint system optimization. The time horizon for indirect cost savings is from installation through the lifetime of the equipment. In 2019, Ford implemented more than \$19.7M in energy efficiency projects which will deliver more than \$3.7M in annual energy savings. The projects included LED lighting conversions, paint system optimization, and compressed air system controls modernization. Climate-change can also cause supply disruption events resulting in an influence of increased indirect costs for transportation. These increased costs can be due to premium logistics, an increase in internal resource allocation required to manage the events, and potentially increased costs of business interruption (including increased insurance for plant shutdowns). Although major climate related events affecting production are not frequent, given the unpredictability and potential impact on company financials, Ford continually evaluates risk mitigation strategies (i.e. supplier offsite inventory storage) where the business case makes sense. As the frequency of these events increase, ongoing financial provisions are necessary to plan and prepare for the mitigation efforts. Actions taken to mitigate climate change such as water treatment facilities particularly in drought-prone areas or natural gas reserves may result in increased costs.

C3.4a

(C3.4a) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

Please also reference our report on the Task Force on Climate-related Financial Disclosures (TCFD):

<https://corporate.ford.com/microsites/integrated-sustainability-and-financial-report-2021/files/ir21-tcfd.pdf>

C4. Targets and performance

C4.1

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

Both absolute and intensity targets

C4.1a

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

Target reference number

Abs 1

Year target was set

2018

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (market-based)

Base year

2017

Covered emissions in base year (metric tons CO2e)

4653734

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

100

Target year

2035

Targeted reduction from base year (%)

76

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

1116896.16

Covered emissions in reporting year (metric tons CO2e)

3572034

% of target achieved [auto-calculated]

30.5838166445313

Target status in reporting year

New

Is this a science-based target?

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

Target ambition

1.5°C aligned

Please explain (including target coverage)

An original goal was set in 2010, aiming to reduce the company's global carbon dioxide emissions from manufacturing operations by 30 percent per vehicle produced by 2025. Ford achieved that goal in 2017, eight years ahead of schedule. A new goal has been developed using science-based methodology for 1.5C. With 2017 as the baseline year, our goal of 100% renewable/zero carbon scope 2 electricity at manufacturing locations gives us 76% reduction in scope 1+scope 2 absolute tCO2e by 2035. SBTi approved this absolute CO2 reduction target as aligned with 1.5 degrees C on March 23, 2021. Progress: ABSOLUTE TARGET 1 is a 76% reduction in Scope 1+Scope 2(market-based) between 2017 and 2035. The 2017 base year emissions are 4,653,734 t CO2e. 76% of 4,653,734 is 3,536,838 tCO2e reduction required by 2035. In 2020 our S1+S2(market) emissions are 3,572,034 t CO2e, which is 4,653,734-3,572,034=1,081,700 t CO2e lower than 2017. We have reduced 1,081,700 t CO2e out of the 3,536,838 tCO2e needed to meet the reduction target. $1,081,700/3,536,838 = 0.3058=30.6\%$ of the reduction target has been achieved.

Target reference number

Abs 2

Year target was set

2018

Target coverage

Business activity

Scope(s) (or Scope 3 category)

Scope 1+2 (market-based)

Base year

2017

Covered emissions in base year (metric tons CO₂e)

3985890

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

100

Target year

2023

Targeted reduction from base year (%)

18

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

3268429.8

Covered emissions in reporting year (metric tons CO₂e)

3074244

% of target achieved [auto-calculated]

127.065724342619

Target status in reporting year

New

Is this a science-based target?

Yes, we consider this a science-based target, but it has not been approved by the Science-Based Targets initiative

Target ambition

2°C aligned

Please explain (including target coverage)

An original goal was set in 2010, aiming to reduce the company's global carbon dioxide emissions from manufacturing operations by 30 percent per vehicle produced by 2025. Ford achieved that goal in 2017, eight years ahead of schedule. A new goal has been developed using science-based methodology and 2DS. With 2017 as the baseline year, an absolute target has been set for an absolute tCO₂e reduction of 18% by 2023 for our manufacturing facilities. Progress: ABSOLUTE TARGET 2 is a 18% reduction in Scope 1+Scope 2(market-based) between 2017 and 2023 for our manufacturing facilities. The 2017 base year emissions are 3,985,890 t CO₂e. 18% of 3,985,890 is 717,460 tCO₂e reduction required by 2023. In 2020 our S1+S2(market-based) emissions are 3,07,244 t CO₂e, which is 3,985,890-3,074,244= 911,646 t CO₂e lower than 2017. We have reduced 194,186 more than the 717,460 tCO₂e needed to meet the reduction target. 911,646/717,460=1.270=127.0% of the reduction target has been achieved.

Target reference number

Abs 3

Year target was set

2018

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (location-based)

Base year

2017

Covered emissions in base year (metric tons CO₂e)

4168442

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

100

Target year

2023

Targeted reduction from base year (%)

16.2

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

3493154.396

Covered emissions in reporting year (metric tons CO₂e)

3636301

% of target achieved [auto-calculated]

78.8021276931362

Target status in reporting year

Replaced

Is this a science-based target?

No, but we are reporting another target that is science-based

Target ambition

<Not Applicable>

Please explain (including target coverage)

An original goal was set in 2010, aiming to reduce the company's global carbon dioxide emissions from manufacturing operations by 30 percent per vehicle produced by 2025. Ford achieved that goal in 2017, eight years ahead of schedule. A new goal has been developed using science-based methodology and 2DS. With 2017 as the baseline year, an absolute target has been set for an absolute tCO₂e reduction of 16.2% by 2023. (SBTi). We plan on submitting targets for Scope 1, 2, and 3 (use of sold products) for SBTi approval within 2 years. Progress: ABSOLUTE TARGET 3 is a 16.2% reduction in Scope 1+Scope 2(location-based) between 2017 and 2023. The 2017 base year emissions are 4168442 t CO₂e. 16.2% of 4168442 is 675287.6 tCO₂e reduction required by 2023. In 2019 our S1+S2(loc) emissions are 3636301 t CO₂e, which is 4,168,442-3,636,301=532,141 t CO₂e lower than 2017. We have reduced 532,141 t out of the 675,287.6 t needed to meet the reduction target. $532,141 / 675,287.6 = 0.788 = 78.8\%$ of the reduction target has been achieved.

Target reference number

Abs 4

Year target was set

2018

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (location-based)

Base year

2017

Covered emissions in base year (metric tons CO₂e)

4168442

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

100

Target year

2035

Targeted reduction from base year (%)

75

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

1042110.5

Covered emissions in reporting year (metric tons CO₂e)

3636301

% of target achieved [auto-calculated]

17.0212595817174

Target status in reporting year

Replaced

Is this a science-based target?

No, but we are reporting another target that is science-based

Target ambition

<Not Applicable>

Please explain (including target coverage)

An original goal was set in 2010, aiming to reduce the company's global carbon dioxide emissions from manufacturing operations by 30 percent per vehicle produced by 2025. Ford achieved that goal in 2017, eight years ahead of schedule. A new goal has been developed using science-based methodology and 2DS. With 2017 as the baseline year, our goal of 100% renewable scope 2 energy at manufacturing locations gives us 75% reduction in scope 1+scope 2 absolute tCO₂e by 2035. We plan on submitting targets for Scope 1, 2, and 3 (use of sold products) for SBTi approval within 2 years. Ford intends to establish targets and metrics for select suppliers starting in early 2021. Progress: ABSOLUTE TARGET 4 is a 75% reduction in Scope 1+Scope 2(location-based) between 2017 and 2035. The 2017 base year emissions are 4,168,442 t CO₂e. 75% of 4,168,442 is 3,126,332 tCO₂e reduction required by 2035. In 2019 our S1+S2(loc) emissions are 3,636,301 t CO₂e, which is 4,168,442-3,636,301=532,141 t CO₂e lower than 2017. We have reduced 532,141 t out of the 3,126,332 t needed to meet the reduction target. $532,141 / 3,126,332 = 0.17 = 17\%$ of the reduction target has been achieved.

C4.1b

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

Target reference number

Int 1

Year target was set

2020

Target coverage

Country/region

Scope(s) (or Scope 3 category)

Scope 3: Use of sold products

Intensity metric

Grams CO₂e per kilometer

Base year

2019

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

330

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure

88

Target year

2035

Targeted reduction from base year (%)

50

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

165

% change anticipated in absolute Scope 1+2 emissions

0

% change anticipated in absolute Scope 3 emissions

-49

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

311

% of target achieved [auto-calculated]

11.5151515151515

Target status in reporting year

Underway

Is this a science-based target?

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

Target ambition

Well-below 2°C aligned

Please explain (including target coverage)

Our Scope 3 use of sold products (UoSP) intensity target was approved by SBTi on March 23, 2021. Use of sold products is the dominant emission category for Ford Motor Company, representing the lifetime emissions of the vehicles we sell each year. UoSP GHGs are 85% of scope 3 emissions, and 84% of scope 1+2+3 emissions. Our 2035 intensity target for the gCO₂e/km emissions represents the fleet average well-to-wheels on-road CO₂e of our vehicles sold each year. We calculate emissions targets for vehicles sold in our 3 major markets with robust regulatory data tracking (United States, European Union, and China). These regions represent 88% of the UoSP absolute CO₂e. Vehicle engineering improvements in these main regions cascade to other regions where we operate, reducing emissions in the entire fleet. Our target is based on the well-below 2°C path in the SBTi transport tool. The 11% intensity reduction from 2019-2020 is not influenced greatly by the impacts of the COVID-19 pandemic because both the numerator (absolute CO₂) and denominator (lifetime km) are reduced by the lower sales in 2020. The reduction is due to fleet efficiency improvements.

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)

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

2018

Target coverage

Company-wide

Target type: absolute or intensity

Absolute

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Metric (target numerator if reporting an intensity target)

Percentage

Target denominator (intensity targets only)

<Not Applicable>

Base year

2017

Figure or percentage in base year

23.3

Target year

2035

Figure or percentage in target year

100

Figure or percentage in reporting year

31.6

% of target achieved [auto-calculated]

10.8213820078227

Target status in reporting year

Underway

Is this target part of an emissions target?

Yes. This target is our carbon reduction strategy, with an aspirational goal of increasing the share of renewable/zero carbon scope 2 energy used at our plants. We combine this energy target with our 1.5 degrees C absolute CO2 emissions target for Scope 1 CO2 emissions to set our Scope 1+Scope 2 targets described in question C4.1a.

Is this target part of an overarching initiative?

Science-based targets initiative

Please explain (including target coverage)

With 2017 as the baseline year, we have a goal of achieving 100% /zero carbon scope 2 energy by 2035 at our manufacturing locations. This is a company-wide target. It includes all global manufacturing locations where we have operational control. We are in the third year of this target and have finalized additional renewable energy contracts to date, one in Michigan, USA, one in Mexico, one in Romania, and one for all our locations in the UK. Through DTE's MIGreenPower program Ford will procure 500,000 megawatt hours of locally sourced Michigan wind energy. In the UK, Ford has been procuring renewable electricity for all our UK locations, translating to approximately 190,000 megawatt hours, since October 1, 2019. Ford is evaluating renewable electricity supply and on-site solar power for South Africa. We continue to work with local utilities to increase the share of renewable electricity each year. At the Cologne manufacturing site, we continue to procure renewable electricity. Ford has partnered with DTE for many years to allow them to generate RE at several of our locations. This is also expanding to one of our new parking decks. However, DTE retains carbon credits from these installations. For many years Ford has partnered with a third party who provides onsite renewable energy via wind turbines at one of our UK facilities. This target helps meet our Scope 1+Scope 2 Science Based Targets initiative targets.

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, but we have not committed to seek validation of this target by the Science Based Targets initiative in the next 2 years

Please explain (including target coverage)

In our 2020 we signed the Business Ambition for 1.5°C Net Zero Commitment following our announcement of our aspirational goal of being carbon-neutral across our vehicles, suppliers and facilities by 2050 in our 2020 Sustainability Report. Our SBTi-approved science-based targets of 76% reduction of Scope 1+Scope 2 CO2e by 2035 and 50% reduction of Scope 3 Use of Sold products vehicle CO2e-intensity per km by 2035 are steps toward this end goal. Our pathway to carbon neutrality is focused on emissions abatement in line with 1.5°C. We are monitoring SBTi's development of standards for Net Zero target-setting.

C4.3

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

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	3	6113
Implementation commenced*	3	1638
Implemented*	5	23689
Not to be implemented	0	0

C4.3b

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

Initiative category & Initiative type

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

Estimated annual CO2e savings (metric tonnes CO2e)

11153

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

1823103

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

7346681

Payback period

4-10 years

Estimated lifetime of the initiative

16-20 years

Comment

LED Lighting in multiple locations

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization
---	----------------------

Estimated annual CO2e savings (metric tonnes CO2e)

12536

Scope(s)

Scope 1

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

1925861

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

12390419

Payback period

4-10 years

Estimated lifetime of the initiative

16-20 years

Comment

Paint system optimization

C4.3c

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

Method	Comment
Other	In North America, Ford continues to use energy performance contracting as a financing tool to upgrade and replace infrastructure and improve energy efficiency at its plants, commercial buildings and research facilities. Through these contracts, Ford partners with suppliers to replace inefficient equipment, funding the capital investment over time through energy savings. Projects have been implemented to upgrade lighting systems, building management systems, paint booth process equipment compressed air systems, and to significantly reduce the use of steam in Ford's manufacturing facilities.
Partnering with governments on technology development	In 2013, Ford joined the U.S. Department of Energy's (DOE) Better Buildings, Better Plants program, a national partnership initiative to drive a 25 percent reduction in industrial energy intensity in 10 years against a 2011 baseline. 24 of Ford's U.S. plants are part of this initiative. In May 2021, the Better Plants program and Ford announced that Ford had achieved this goal in 2020.
Dedicated budget for low-carbon product R&D	For the past eight years, Ford has been following an ambitious plan of vehicle technology and alternative powertrain and fuel actions. By implementing this consistently, we are improving fuel economy and reducing CO2 emissions across our product portfolio consistent with the Paris Climate Accord and working toward a more sustainable future. Our Global Technology Migration Path for CO2 Reduction detailing now, near and far actions related to IC engines, transmissions, alternative fuels, hydrogen, electrification, energy management, weight reduction, and mobility, is available at https://corporate.ford.com/microsites/integrated-sustainability-and-financial-report-2021/files/ir21-sr20.pdf . Ford announced in 2018 that we are investing over \$11.5 billion for the development of electrified vehicle solutions by 2022. In 2018, we also announced plans to invest \$4 billion through 2023 in autonomous vehicles, including a \$1 billion investment in Argo AI.
Partnering with governments on technology development	Ford has developed a Paint Emissions Concentrator (PEC) technology which uses a fluidized bed adsorber, coupled with desorption and condensation equipment to collect and concentrate solvent emissions into a liquid. The intent of the technology is to collect a portion of the VOCs from the spraybooth exhaust, super-concentrate them in the PEC, then condense and store them on-site for possible use as a fuel or recycle back to the production process. In this way, overall VOC emissions from the paintshop are reduced. Ford is currently working to optimize this technology at our Oakville facility. Ford's PEC technology has the potential to reduce CO emissions by 20 – 50% compared to traditional abatement equipment. Also, PEC technology, combined with recycle of the collected solvents has the potential to eliminate nitrogen oxide emissions compared to conventional abatement approaches which involve the oxidation of solvents. Ford is currently working to optimize adsorbent performance and recycle of collected solvents back to the production process.
Compliance with regulatory requirements/standards	Investments in our products can be driven by environmental regulatory requirements and it is Ford's policy to comply with all environmental regulations. For example, regulatory requirements have driven vehicle improvements such as light-weighting or the introduction of the EcoBoost engine.

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

Yes

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

Group of products

Description of product/Group of products

Ford offers a wide-variety of electrified vehicles which enable our customers to reduce their CO2 emissions while driving. Our electrified vehicle types include battery electric vehicles, plug-in hybrid electric vehicles, hybrid electric vehicles, and mild hybrid vehicles. We also have redesigned our F-150, F-250, F-350, Expedition and Navigator to use light-weight aluminium to reduce vehicle weight and improve fuel economy for the vehicle owners.

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

Avoided emissions

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

Climate Bonds Taxonomy

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

0.6

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

In 2020 the Ford Escape/Kuga PHEV provided lower fuel consumption for our customers resulting in reduced CO2 emissions. The Climate Bonds Taxonomy (CBT) is used to determine if the Escape/Kuga PHEV can be classified as low-carbon transport. From Table 4 of the CBT document "Land Transport Criteria: Version 2", to be classified as low-carbon, passenger vehicle direct emissions must reach 50 gCO2e/p-km in 2020. The 2020 Escape PHEV (U.S.) EPA rating is 48 g CO2/km (77 g CO2/mile, www.fueleconomy.gov) and the Kuga PHEV (Europe) rating is 32 g CO2/km (WLTP test), meeting the Climate Bond criterion for a low carbon passenger vehicle. We engage in engineering, research, and development primarily to improve the performance (including fuel efficiency), safety, and customer satisfaction of our products, and to develop new products and services (including for emerging opportunities). Engineering, research, and development expenses for 2018, 2019, and 2020 were \$8.2B, \$7.4B, and \$7.1B respectively.

C5. Emissions methodology**C5.1**

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

Scope 1

Base year start
January 1 2017

Base year end
December 31 2017

Base year emissions (metric tons CO2e)
1389740

Comment
New Ford Carbon Reduction Strategy with 2017 as the baseline year for absolute tCO2e reductions.

Scope 2 (location-based)

Base year start
January 1 2017

Base year end
December 31 2017

Base year emissions (metric tons CO2e)
3402552

Comment
New Ford Carbon Reduction Strategy with 2017 as the baseline year for absolute tCO2e reductions.

Scope 2 (market-based)

Base year start
January 1 2017

Base year end
December 31 2017

Base year emissions (metric tons CO2e)
3263994

Comment
Ford has met its 2025 target in 2017 with 2010 as a base year.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

ISO 14064-1
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
Other, please specify (As required by regulation or requirement)

C5.2a

(C5.2a) Provide details of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

ISO 14064-1, , US EPA Mandatory Greenhouse Gas Reporting Rule, US EPA Mandatory Greenhouse Gas Reporting Rule The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition), Ontario's GHG Emissions Reporting Regulation, Ontario Regulation 452/09

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)

1124798

Start date

<Not Applicable>

End date

<Not Applicable>

Comment

In 2019 we emitted 1,418,056 t CO2e. In 2020 we emitted 1,124,798 tCO2e. The change in our Scope 1 emissions from 2019 to 2020 is a decrease of 20.6: [(1124798/1418056)-1=0.203] Past Year 1 Start Date End Date 1,418,056 1/1/2019 31/12/2019 Past Year 2 Start Date End Date 1,442,963 1/1/2018 31/12/2018 Past Year 3 Start Date End Date 1,389,740 1/1/2017 31/12/2017

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

C6.3

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

Reporting year

Scope 2, location-based

2715328

Scope 2, market-based (if applicable)

2447236

Start date

<Not Applicable>

End date

<Not Applicable>

Comment

Ford implemented an updated methodology in the 2017 emissions year data, by using updated IEA emission factors for all locations outside the United States. For locations in the US, Ford used the USEPA emission factors. In 2019, Ford also added additional Scope 1 and Scope 2 data through a new Ford global office building inventory system (TRIRIGA). Progress S2 location-based: In 2019 we emitted 3195704 t CO2e. In 2020 we emitted 2715328 tCO2e. The change in our Scope 2 location-based emissions from 2019 to 2020 is a decrease of 15.0%: [(2715328/3195704)-1=-0.150] Progress S2 market-based In 2019 we emitted 3040292 t CO2e. In 2020 we emitted 2447236 tCO2e. The change in our Scope 2 market-based emissions from 2019 to 2020 is a decrease of 19.5%: [(2447236/3040292)-1=-0.195] Past Year 1 Scope 2, Location-based Scope 2, Market-based Start Date End Date 3,195,704 3,040,292 1/1/2019 31/12/2019 Past Year 2 Scope 2, Location-based Scope 2, Market-based Start Date End Date 3,264,668 3,113,210 1/1/2018 31/12/2018 Past Year 3 Scope 2, Location-based Scope 2, Market-based Start Date End Date 3,402,552 3,263,994 1/1/2017 31/12/2017

C6.4

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

Yes

C6.4a

<p>(C6.4a) Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.</p> <p>Source Equipment and Vehicle Testing Fuels (at various manufacturing sites): Small amounts of gasoline, diesel, and propane combustion for vehicle testing, emergency equipment operation, onsite vehicles, small space heating, and other applications at manufacturing sites and vehicle testing sites.</p> <p>Relevance of Scope 1 emissions from this source Emissions are not relevant</p> <p>Relevance of location-based Scope 2 emissions from this source No emissions from this source</p> <p>Relevance of market-based Scope 2 emissions from this source (if applicable) No emissions from this source</p> <p>Explain why this source is excluded Compared to our Scope 1 and Scope 2 Reported Emissions, the GHG Emissions from this fuel group were estimated to be about 2.19% the size of our reported emissions.</p>	
<p>Source Refrigerant Leakage from refrigeration equipment at manufacturing sites and large research sites.</p> <p>Relevance of Scope 1 emissions from this source Emissions are not relevant</p> <p>Relevance of location-based Scope 2 emissions from this source No emissions from this source</p> <p>Relevance of market-based Scope 2 emissions from this source (if applicable) No emissions from this source</p> <p>Explain why this source is excluded Compared to our Scope 1 and Scope 2 Reported Emissions, the GWP impact from refrigerant leakages at manufacturing sites and large research sites was estimated to be about 1.11% the size of our reported emissions.</p>	
<p>Source Refrigerant Leakage occurring during vehicle A/C system charging at Assembly Plants</p> <p>Relevance of Scope 1 emissions from this source Emissions are not relevant</p> <p>Relevance of location-based Scope 2 emissions from this source No emissions from this source</p> <p>Relevance of market-based Scope 2 emissions from this source (if applicable) No emissions from this source</p> <p>Explain why this source is excluded Compared to our Scope 1 and Scope 2 Reported Emissions, the GWP impact from refrigerant leakages occurring during vehicle A/C system charging at assembly plants was estimated to be about 0.01% the size of our reported emissions. As the automotive industry transitions to using refrigerant 1234yf for vehicle A/C systems, we expect the GWP impact from this category of emissions to fall below 0.01%.</p>	

C6.5

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

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO2e

45137148

Emissions calculation methodology

Emissions for purchased goods and services are estimated using a combination of primary and secondary data. Primary data from suppliers who reported validated Scope 1, 2, and 3 emissions (in categories 1, 4, and 5) to Ford through the 2020 CDP Supply Chain climate change questionnaire was considered reliable for this analysis. Primary data accounted for approximately 19% of total spend and 18% of total emissions in this category. To estimate emissions from another portion of remaining spend activity in this category, we applied spend-based emissions factors from the US EPA Environmentally-Extended Input-Output (USEEIO) database (V1.1). As the USEEIO factors are based on 2013 emissions data and currency values, we adjusted the factors to account for currency inflation and electric grid decarbonization in the year 2020. USEEIO factors were applied to Ford's spend activity with suppliers who responded to the 2020 CDP Supply Chain climate change questionnaire, but who's reported emissions data did not meet Ford's internal validation criteria for primary data. Thus, secondary data via the use of USEEIO emissions factors accounted for approximately 46% of total spend and 47% of total emissions in Purchased Goods and Services. The remaining emissions associated with the remaining 35% of spend activity in this category were extrapolated by applying an average emissions intensity (metric tonnes CO2e/\$) calculated from both the primary data and secondary data (USEEIO). Note, the integration of USEEIO factors to support secondary calculations is a methodology change compared to the prior year and we have recalculated our 2019 Purchased Goods and Services emissions with this updated methodology. 2019 emissions changed from 39,676,648 mt CO2e (previous methodology) to 45,688,535 (current methodology). We believe that the use of USEEIO factors, which leads to a reduction in extrapolated emissions calculations, will yield more consistent and accurate results in absence of primary supplier data. Please note that CO2 emissions from suppliers of upstream transportation are not included in this category as indicated in the GHG protocol to avoid double counting with scope 3, category 4 (upstream transportation and distribution).

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

18

Please explain

We consider Scope 3 emissions to be relevant if they are comparable to Scope 1+Scope 2 emissions. Purchased goods and services are 13 times greater than S1+S2 and therefore determined to be relevant. In 2020, Ford asked approximately 253 selected production and indirect suppliers to report their greenhouse gas emissions and management program through CDP Supply Chain's climate change questionnaire and 233 responded. However, only data from a fraction of those purchased goods and services suppliers, which had been independently reviewed and validated, was considered reliable for our Scope 3 calculations. These suppliers represent about 19% of spend on purchased goods and services. Therefore, we applied spend-based emissions factors from the US EPA Environmentally-Extended Input-Output (USEEIO) database (V1.1) to estimate emissions from the remaining suppliers who did not respond or report valid emissions data through CDP, a method which encapsulated another 46% of spend on purchased goods & services. The remaining emissions associated with the 35% of spend activity in this category were extrapolated by applying an average emissions intensity (metric tonnes CO2e/\$) calculated from both the primary data and secondary data (USEEIO). As we continue to increase the quantity and quality of supplier-reported data, we will revise these estimates. Ford intends to establish new supplier requirements surrounding reporting Scope 1, 2 & 3 GHG emissions to Ford if requested as well as setting science-based GHG reduction targets starting in 2021.

Capital goods

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1510600

Emissions calculation methodology

Emissions for capital goods are estimated using a combination of primary and secondary data. Primary data from suppliers who reported validated Scope 1, 2, and 3 emissions (in categories 1, 4, and 5) to Ford through the 2020 CDP Supply Chain climate change questionnaire was considered reliable for this analysis. Primary data accounted for 2.4% of total spend and 1.6% of total emissions in this category. To estimate emissions from another portion of spend activity in this category, we applied spend-based emissions factors from the US EPA Environmentally-Extended Input-Output (USEEIO) database (V1.1). As the USEEIO factors are based on 2013 emissions data and currency values, we adjusted the factors to account for currency inflation and electric grid decarbonization in the year 2020. USEEIO factors were applied to Ford's spend activity with suppliers who responded to the 2020 CDP Supply Chain climate change questionnaire, but who's reported emissions data did not meet Ford's internal validation criteria for primary data. Thus, secondary data via the use of USEEIO emissions factors accounted for approximately 15% of total spend and 15.7% of total emissions in Capital Goods. The remaining emissions associated with the remaining 82.6% of spend activity in this category were extrapolated by applying an average emissions intensity (metric tonnes CO2e/\$) calculated by both the primary data and secondary data (USEEIO). Note, the integration of USEEIO factors to support secondary calculations is a methodology change compared to the prior year and we have recalculated our 2019 Capital Goods emissions with this updated methodology. 2019 emissions changed from 1,280,384 mt CO2e (previous methodology) to 1,393,904 mt CO2e (current methodology). We believe that the use of USEEIO factors, which leads to a reduction in extrapolated emissions calculations, will yield more consistent and accurate results in absence of primary supplier data.

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

1.6

Please explain

We consider Scope 3 emissions to be relevant if they are comparable to Scope 1+Scope 2 emissions. Capital goods are 43% of S1+S2 and therefore determined to be relevant. In 2020, Ford asked approximately 253 selected production and indirect suppliers to report their greenhouse gas emissions and management through CDP Supply Chain's climate change questionnaire and 233 responded. However, only data from a small fraction of those capital goods suppliers, which had been independently reviewed and validated, was considered reliable for our Scope 3 calculations. These suppliers represent about 2.4% of spend on capital goods. Therefore, we applied spend-based emissions factors from the US EPA Environmentally-Extended Input-Output (USEEIO) database (V1.1) to estimate emissions from the remaining suppliers who did not respond or report valid emissions data through CDP, a method which encapsulated another 15% of spend on capital goods. The remaining emissions associated with the remaining 82.6% of spend activity in this category were extrapolated by applying an average emissions intensity (metric tonnes CO2e/\$) calculated from both the primary data and secondary data (USEEIO).

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

Evaluation status

Relevant, calculated

Metric tonnes CO2e

652600

Emissions calculation methodology

Following the GHG protocol, we identified upstream emission factors and applied them to our scope 1 and scope 2 energy consumption. The energy was itemized by fuel type or electricity and represents both our manufacturing facilities and non-manufacturing locations globally. The upstream emission factors for fuels and purchased electricity are obtained from the Argonne National Lab's GREET 2020 model. Electricity T&D loss rates are from the World Bank database recommended by the GHG protocol. The reduction from 2019 to 2020 is due to 1) less energy use, in part because of COVID-19 shutdowns; and 2) lower CO2 factors for electricity and fuels from GREET2020 compared to GREET2019.

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

0

Please explain

We consider Scope 3 emissions to be relevant if they are comparable to Scope 1+Scope 2 emissions. Fuel and energy-related activities are 18% of S1+S2 and therefore determined to be relevant

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1565659

Emissions calculation methodology

Our calculation methods are aligned to the Greenhouse Gas Protocol and to EN 16258 and similar initiatives. Our standardized approach calculates CO2e emissions for each of our freight networks. For analysis we then divide the figures by the number of vehicles we have manufactured using the parts and other material transported on these networks. This allows us to compare the relative performance for different vehicle programs and against year on year improvement targets. We base our calculations on secondary data of distance travelled, loading etc. provided by our logistics service providers and use detailed emissions factors from internationally recognized bodies appropriate to the transport mode. Where possible, we update these factors with data with average fuel economy from our carriers. For rail and ocean, we get usage data direct from our freight operators or service provider. We here consider our freight in two categories: 1) Inbound freight from our parts suppliers to our manufacturing & assembly plants the inbound freight network is generally on a collect basis using contracted carriers paid by us. For reporting purposes, we include all emissions from collected tier 1 suppliers to our manufacturing sites as well as an allowance for transport of empty packaging back to our supply base. This includes road, rail and ocean modes. We consider freight emissions from suppliers upstream of our tier 1 suppliers to be covered within their own scope 3 submissions. Our outbound data considers transport from factory gate to handover to dealer. 2) Transport of finished vehicles from our manufacturing & assembly plants to our dealers This freight is generally using dedicated car carrying equipment carried out by contracted carriers and paid for by us. In many regions we have the same Lead Logistics Providers supporting both inbound and finished vehicles which helps ensure consistency of approach in CO2 reporting. To produce global data, we have used our calculated CO2e per unit figures for appropriate networks and multiplied these figures against vehicles produced in each region. We have added a 10% contingency to allow for other elements of freight not covered in the main calculations including premium freight. Note: Inbound (upstream) = 1,026,373 Metric Tonnes CO2e, Finished vehicle (downstream) = 539,286 Metric Tonnes CO2e

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

0

Please explain

This value includes downstream T&D (Scope 3, category 9) as well as upstream T&D. We consider Scope 3 emissions to be relevant if they are comparable to Scope 1+Scope 2 emissions. Upstream and downstream transportation and distribution are 44% of S1+S2 and therefore determined to be relevant. Ford carries out comprehensive CO2 emissions reporting for all our major upstream freight networks. Over the years we have expanded the coverage to include all regions and developed the calculation processes in line with industry best practices. From 2011, we began reporting CO2e figures to take account of emissions of other greenhouse gases including N2O and Methane. The great majority of greenhouse gas emissions from our transportation and distribution operations consists of CO2 exhaust emissions from our transport. We have a clear policy to measure & reduce our CO2 emissions. Our corporate business policies include specific objectives on monitoring freight CO2 emissions, reducing fleet fuel usage, improving average fleet emissions levels, improving freight utilization and carrying out business case studies to improve the % usage of green routes. Activities that directly reduce our reported emissions include network redesign, use of alternative fuels and lubricants, use of aerodynamics and driver training. We recognize that work on reducing CO2 emissions has additional benefits in reducing levels of other pollutants and reducing volumes of heavy goods traffic. In some locations we use truck fleets we own and directly control. In these cases, we are able to monitor fuel usage in detail and apply best practices to improve our operational efficiency as recognized by appropriate authorities such as EPA SmartWay and the Freight Transport Association (in the UK). Our reporting processes are aligned to the GHG Protocol and the recently published European Standard EN 16258. We work proactively with industry bodies to promote best practice in freight GHG reporting. In Europe we were lead writer within the initiative by Odette to publish standard guidelines for freight GHG emissions reporting for the Automotive Sector

Waste generated in operations

Evaluation status

Not relevant, calculated

Metric tonnes CO2e

5719

Emissions calculation methodology

In order to estimate scope 3 emissions from waste generated at Ford's facilities, the US EPA WARM model Version 15 was used. Metric Tons CO2e estimate is based on global, landfilled waste.

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

0

Please explain

We consider waste generated in operations to be not relevant because it is very small compared to Scope 1 + Scope 2. In 2020, Ford avoided over 3.7 million metric tons of greenhouse gas emissions through recycling and non-landfill alternative disposal options. We are continuing to reduce the amount of waste sent to landfill every year through our Global Waste Strategy. 103 Ford manufacturing and non-manufacturing facilities send zero waste to landfill. Of particular note is the closed loop aluminium recycling process used in the production of Ford's trucks. As the scrap aluminium goes directly from a Ford facility to the supplier, it is not included in the calculations here. Ford recycles as much as 20 million pounds of aluminium stamping scrap per month using the closed-loop system at Dearborn Stamping Plant, which provides parts to build F-150 at Ford's Dearborn Truck and Kansas City Assembly Plants. Recycled aluminium avoids 95 percent of the greenhouse gas emissions associated with primary aluminium production. It uses significantly less energy and water also.

Business travel

Evaluation status

Not relevant, calculated

Metric tonnes CO2e

13400

Emissions calculation methodology

Ford utilized total global booked air, rail and rental car miles travelled in 2020 and applied emission factors based on the methodology described in the GHG Protocol. The emissions factors came from the US EPA GHG Emissions Factor Hub. For air and rail we applied the distance-based method, using miles x kgCO2e/passenger-mile factors. For rental cars, we used the fuel-based method: average miles/gallon x miles x gCO2e/gallon. The GWP factors for CH4 and N2O emissions are from IPCC AR5. Air Travel: 10,500; Rail Travel: 60; Car: 2840

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

100

Please explain

We consider Scope 3 emissions to be relevant if they are comparable to Scope 1+Scope 2 emissions. Business travel is less than 1% of S1+S2, therefore not relevant, but calculated nonetheless. Business travel and emissions were significantly lower in 2020 due to the COVID-19 pandemic. Though this is a very small element in our overall GHG footprint, we are reducing employee travel and commuting emissions in a number of ways, including allowing telecommuting, encouraging virtual meetings, and facilitating employee's use of electric vehicles by offering on-site vehicle charging at many facilities.

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO2e

517066

Emissions calculation methodology

We conducted a global employee commuting survey in 2019, gathering data about commute distance, number of commuting days, travel mode, and vehicle make/model/year. CO2 emissions for each employee were calculated as # Days x Distance per Day x CO2/distance factors and summed to get total emissions by region. The regional totals were extrapolated from the survey sample to the entire 2020 employee population. Due to the COVID-19 pandemic, we scaled the number of commuting days based on regional shutdowns and work from home orders. Using 2019 and 2020 monthly building entry count data (electronic "badge swipes") we calculated the reduction in onsite employees. Globally, 2020 experienced a 34% reduction in the number of employees commuting to work over the course of the entire year. Hourly manufacturing employees are ~60% of the workforce and were onsite most of the year, while most salaried employees have worked remotely since March 2020. Regional commuting reductions vary depending on the mix of hourly and salaried employees. The CO2/distance emission factors were obtained from multiple sources as follows. For cars and light trucks, vehicle efficiency (MPG, L/100 km, kWh/100 km, or g CO2/km) are from www.fueleconomy.gov (U.S.) or UK Vehicle Certification Agency (rest of the world). The vehicle factors are multiplied by fuel emission factors (g CO2/L fuel) from Argonne National Laboratory's GREET model to get gCO2/km. For public transit modes, the CO2/distance factors are from UK DEFRA and US EPA. Electricity CO2 factors (kg/MWh) are from US EPA eGRID.

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

0

Please explain

We consider Scope 3 emissions to be relevant if they are comparable to Scope 1+Scope 2 emissions. Employee commuting is 14% of S1+S2, and therefore deemed to be relevant. The 36% emissions reduction from 2019 to 2020 is due primarily to the shutdowns and work from home orders during the COVID-19 pandemic, but total Ford employment was also lower in 2020. We note that emissions are double counted in this category and Scope 3 Use of Sold products because some of our employees commute using Ford vehicles purchased in 2020. Though this is a small element in our overall GHG footprint, we are reducing employee travel and commuting emissions in a number of ways, including allowing telecommuting, encouraging virtual meetings, and facilitating employees' use of electric vehicles by offering on-site vehicle charging at many facilities.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Leased assets are included in Scope 1 and Scope 2 calculations

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Downstream data for this category is reported under category 4, Upstream T&D. Downstream transport of finished product (vehicles) to our retail network (dealerships) is carried out using freight that we pay for and control. Based on our understanding of GHG Protocol Scope 3 Category definitions we have therefore included these emissions within Category 4- Upstream Transportation.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Most of our vehicles are finished products requiring no processing for customer use. A small fraction, 6.5% of our US vehicle production volume, is "incomplete vehicles". An incomplete vehicle consists of, at a minimum, a chassis and powertrain and often includes some front body and may require some post-processing. Such post-processing is deemed to be not relevant as it is considerably less CO2-intensive than production of the incomplete vehicles themselves, which is captured in our Scope 1 and Scope 2 emissions.

Use of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

296900000

Emissions calculation methodology

This methodology has been updated for the 2020 data calculation. It uses 2020 sales and gCO2/km emissions data for cars, light commercial vehicles, and heavy-duty vehicles were collected for US, EU+U.K., China, Canada, Mexico, Brazil, Australia, India, S. Korea, and Saudi Arabia. These regions represent about 93% of all vehicles sold in 2020. The lifetime on-road well-to-wheels (WTW) absolute CO2 emissions were calculated for each regional sub-fleet as follows. Using the methodology, first, convert the regulatory tank-to-wheels (TTW) test-cycle data to on-road WTW using the equations and factors described next. Equations: For internal combustion vehicles, $WTW\ gCO_2e/km = TTW\ gCO_2/km \times \text{Well-to-tank factor} \times \text{WLTP factor} \times \text{On-road factor}$. For electric vehicles (BEVs and PHEVs), $WTW\ g\ CO_2e/km$ emissions from electricity generation = test-cycle vehicle average kWh/km x WLTP factor x On-road Factor x Electric Grid CO2e-intensity. Second, multiply WTW gCO2e/km x # vehicles sold in 2020 x lifetime km/vehicle to get absolute CO2e emissions. The CO2e for each regional sub-fleet is summed to give the global total CO2e. The conversion factors and references are: well-to-tank factor for upstream fuel production emissions factor is ~1.25 (varies by region, fuel - ref. GREET2019 Argonne National Labs; JEC WTW Study v.4); WLTP factor converts from NEDC or CAFE test cycle to WLTP (1.13-1.15, ref. ICCT); On-road factor conversion from WLTP test is 1.1 (ref. SBTi Framework); Electric Grid CO2e-intensity (gCO2/kWh) varies by region; ref. IEA World Energy Outlook; Lifetime km/vehicle is assumed to be 240,000 km for LDVs and 298,000 km for HDVs.

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

0

Please explain

We consider Scope 3 emission categories to be relevant if they are comparable to Scope 1+Scope 2 emissions. Use of Sold Products is 80 times greater than S1+S2, and therefore deemed to be relevant. Our 2020 calculation methodology has been updated to reflect 3 items to more closely follow the GHG Protocol and SBTi guidance. First, we now calculate on-road well-to-wheels CO2e, rather than test-cycle tank-to-wheels CO2. Second, we added more vehicle types (heavy-duty vehicles in US and Canada) and regions (LDV in S. Korea and Saudi Arabia) to our calculation for more comprehensive reporting, covering about 95% of 2020 global vehicle wholesales (ref. 10-K annual report) in this CO2e calculation. Third, we increased the vehicle travel from 150,000 km to 240,000 km to better represent the lifetime use. For comparison, we recalculated 2019 emissions based on the updated on-road WTW methodology with additional vehicle types and regions and higher lifetime km. This gives 382,600,000 metric tons of lifetime CO2e by vehicles sold in 2019 (previous report: 134,800,000 t TTW). The 22% decrease in on-road WTW CO2e from 2019 to 2020 is due to 5% improvement in vehicle gCO2e/km and 17% COVID pandemic-related sales reduction. The calculated emissions represent the lifetime CO2e from the vehicles Ford sold in 2020.

End of life treatment of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1022000

Emissions calculation methodology

We calculate the emissions associated with the end-of-life of the vehicles sold in 2020 using a vehicle disposal factor of 0.136 kg CO2eq/kg vehicle mass from Argonne National Labs' GREET2020 model. Vehicle masses were available for the U.S. fleet. For all other regions we assumed an average vehicle mass: 1444 kg for cars, 1761 kg for SUVs, 2037 kg for trucks (ref. GREET2020). We applied the mass and disposal factors to 2020 sales data for cars, light trucks, and light commercial vehicles in the U.S., EU+UK, China, Canada, Mexico, Brazil, Australia, India, S. Korea, and Saudi Arabia and medium/heavy duty vehicles in the U.S. and Canada. These regions represent about 95% of all vehicles sold in 2020.

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

0

Please explain

We consider Scope 3 emissions to be relevant if they are comparable to Scope 1+Scope 2 emissions. End of Life is 29% of S1+S2, and therefore deemed to be relevant. Total end of life emissions decreased 25% from 2019 to 2020 due to two main factors: 1) the GREET2020 disposal emissions factor decreased 7% and 2) 2020 vehicle sales decreased 17% mostly due to the COVID pandemic. There was some offset of the reduction as we added more vehicles to this year's calculations (S. Korea, Saudi Arabia, medium/heavy duty in U.S. and Canada) for more comprehensive reporting. The emissions from the ELV (end of life, vehicle) stage are considered in all Ford LCA activities. From those and other auto industry studies (e.g. Life Cycle Assessment of Lightweight and End-of-Life Scenarios for Generic Compact Class Passenger Vehicles) we have learned that the environmental impact of the ELV stage accounts for 1-3% throughout the entire life cycle. In addition, they depend very much on the local conditions of the ELV treatment operators on which Ford has no influence. These learnings are influencing our decisions to set the right emphasis on the different areas of our sustainability strategy.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

A downstream leased asset is a Ford owned facility that we lease some or all to non-Ford tenants. The combined emissions for those facilities would be less than 5% of Scope 1+Scope 2 emissions, our threshold for relevance.

Franchises

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1957800

Emissions calculation methodology

Ford's U.S. dealerships were analysed comprehensively as part of the Go Green Dealership program, and based on their utility usage, an annual average GHG footprint of 600 metric tons CO2e per dealership was determined. This emission factor was applied across 3263 United States dealerships, to arrive at the reported cumulative emissions. However, this emission factor is not representative of worldwide Ford dealerships. Owing to substantial variability in global dealership footprint and corresponding utility use (based on region-specific weather), it is not reasonable to extrapolate emissions across the entirety of Ford's dealership base; There are approximately 10,717 Ford dealerships worldwide. The Go Green Dealership program ended in 2018.

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

100

Please explain

We consider Scope 3 emissions to be relevant if they are comparable to Scope 1+Scope 2 emissions. Franchises are 55% of S1+S2, and therefore deemed to be relevant. The data used is from the Go Green Dealership program that ended in 2018.

Investments

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Compared to vehicle use phase and other, larger scale categories this is small impact. Ford Motor Company is not an investment company. We include the scope 1+scope 2 emissions from our financing subsidiary, Ford Credit, in our total scope 1 + scope 2 emissions.

Other (upstream)

Evaluation status

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Other (downstream)

Evaluation status

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

C6.7

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

No

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	0.0000281
Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)	3572034
Metric denominator	unit total revenue
Metric denominator: Unit total	127144000000
Scope 2 figure used	Market-based
% change from previous year	1.76
Direction of change	Decreased
Reason for change	Both emissions and revenue decreased due to lost production from the COVID-19 shutdowns. However, emissions decreased at a higher rate than revenue. The 2019 intensity figure was 0.0000286 with gross total emissions of 4,458,349 (Market-Based) and gross revenue of 155,900,000,000. This leads to an intensity decrease of 1.76% using $((0.0000286 - 0.0000281) / 0.0000286) = 0.0176 = 1.76\%$. Energy improvement projects for lighting efficiencies and process optimization at manufacturing locations plus COVID-19 shutdowns lead to a greater decrease in emissions than in revenue, which was reduced only because of COVID shutdowns. There was a revenue decrease of 18.4%. This was determined by $(155900000000 - 127144000000) / 155900000000 = -0.184 = -18.4\%$.

Intensity figure	0.87
Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)	3572034
Metric denominator	vehicle produced
Metric denominator: Unit total	4095968
Scope 2 figure used	Market-based
% change from previous year	4.68
Direction of change	Increased
Reason for change	A 23% decrease in global production had a significant impact on this metric due to COVID 19 production limitations during the first quarter of 2020. Vehicle production decreased at a larger rate than the decrease in energy/emissions. The 2019 intensity figure was 0.83 with gross total emissions of 4,458,349 (Market-Based) and total production of 5,351,771. This resulted in a 4.68% increase in emissions per vehicle produced $((0.83 - 0.87) / 0.83)$. This decrease in emissions was due to both COVID shutdowns and energy improvement projects for lighting and process optimization at manufacturing locations.

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	1123249	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	627	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	922	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
North America	821154
Europe	202408
Asia, Australasia	58352
South America	26524
Africa and Middle East	16360

C7.3

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

By activity

C7.3c

(C7.3c) Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO2e)
Manufacturing Operations	921893
Non-Manufacturing Operations	202905

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

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

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions , metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	921893	<Not Applicable>	
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.5

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
North America	1887669	1887669	3707582	0
Europe	428227	165381	1361302	664425
Asia, Australasia	296008	296008	530373	0
South America	34767	29521	187759	13920
Africa and Middle East	68656	68656	72864	0

C7.6

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

By activity

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

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Manufacturing Operations	2152351	1923868
Non-manufacturing Operations	562977	523368

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

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

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	2152351	1923868	
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C-TO7.8

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

Activity

Light Duty Vehicles (LDV)

Emissions intensity figure

0.00017

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

263136913

Metric denominator

p.km

Metric denominator: Unit total

1549743739721

% change from previous year

-7.4

Vehicle unit sales in reporting year

3844998

Vehicle lifetime in years

10

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

24135

Load factor

1.67

Please explain the changes, and relevant standards/methodologies used

This answer includes only light-duty vehicles. Heavy duty vehicles were added in 2020 and are described separately, below. The LDV tCO₂e/p.km decreased from 2019 to 2020 primarily due to lower sales during the pandemic. However, the absolute tCO₂e in the numerator decreased more than the passenger km (p.km) in the denominator, -24% and -17%, respectively, leading to a 7.4% reduction in the ratio. The absolute CO₂e in the numerator decreased more because of improved LDV fleet efficiency in addition to the reduced sales. The load factor of 1.67 passengers per vehicle is based on passenger vehicle occupancy factors in the U.S. published in the 2017 U.S. National Household Transportation Survey (<https://nhts.ornl.gov/>). We use the same occupancy factors for all regions of the world. Little data is available. European data from 20 years ago (<https://www.eea.europa.eu/publications/ENVISSUENO12/page029.html>) is consistent with the 2017 U.S. factors. We calculate the numerator, total lifetime use of sold products, following the GHG Protocol as described in question C6.5 and summarized here. Note that our methodology has been updated in 2020 to include upstream emissions for an on-road well-to-wheels total CO₂ calculation. 2020 sales and tank-to-wheels gCO₂e/km emissions data for cars and light commercial vehicles were collected for US, EU, China, Canada, Mexico, Brazil, Australia, India, South Korea, and Saudi Arabia, and converted to on-road WTW CO₂e. These regions represent about 95% of all LDV vehicles sold in 2020. The global LDV fleet average sales-weighted WTW gCO₂e/km was calculated. Assuming 241,000 km lifetime, the total CO₂e emissions of the 2020 fleet were calculated. 2019 values have been recalculated using the same methodology to provide a fair year-over-year comparison: Intensity 0.000183 t/p.km; Numerator 344,288,334 t CO₂e; Denominator 1,877,271,338,815 p.km; Sales 4,657,612.

Activity

Heavy Duty Vehicles (HDV)

Emissions intensity figure

0.000317

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

33596564

Metric denominator

t.km

Metric denominator: Unit total

105837488990

% change from previous year

5.9

Vehicle unit sales in reporting year

137421

Vehicle lifetime in years

10

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

25198

Load factor

3.06

Please explain the changes, and relevant standards/methodologies used

2020 is the first year we have reported heavy duty vehicle tCO₂e/t.km and covers vehicles sold in the U.S. and Canada. The data are taken from regulatory gCO₂e/ton-mile values and converted to well-to-wheels on-road CO₂e. The annual distance and load factors are the sales-weighted average of the light heavy duty (LHD) and medium heavy duty (MHD) classifications. The useful life is defined as 241,350 km (LHD) and 297,665 km (MHD) (U.S. regulations) and divided over an assumed 10-year life. The load factors are defined as 2.59 metric tons (LHD) and 5.08 metric tons (MHD) (U.S. regulations). For prior year comparison, we also calculated 2019 medium/heavy duty vehicle emissions which are: Intensity 0.000300 t/t.km; Numerator 36,412,974 t CO₂e; Denominator 121,525,795,937 t.km; Sales 141,505; Annual distance: 25,810 km; Load factor 3.33 t. The HDV tCO₂e/t.km increased from 2019 to 2020 primarily due to a smaller denominator (-13%) reflecting both lower sales during the pandemic and lower average load factor. The absolute tCO₂e in the numerator decreased 7.7% due to lower sales and improved efficiency (-7.7%), but not as much of a decrease as the passenger km (t.km) in the denominator, leading to 5.9% increase in the ratio.

C7.9

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

C7.9a

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

	Change in emissions (metric tons CO ₂ e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	112679	Decreased	2.5	In 2020, 268091 tCO ₂ e emissions were reduced through increased use of renewable energy in our European and South American operations. In 2019, 155412 tCO ₂ e emissions were reduced through increased use of renewable energy and our European and South American operations. The total decreased from increased renewable energy consumption was 155412 – 268091 = 112679. Total gross S1 and S2 market based emissions in 2020 were 3,572034. Therefore, we arrived at 2.5% through $(112679/3572034)*100 = 2.5\%$
Other emissions reduction activities	331557	Decreased	7.4	In 2020, 331557 tCO ₂ e emissions were reduced through our energy efficiency and emission reduction projects globally. Our total S1 and S2 market-based emissions in 2020 were 3572034 tCO ₂ e and 4458349 tCO ₂ e in 2019. Total emission reductions for 2020 for Scope 1 and Scope 2 (market-based) from 2019 were therefore, 4458349-3572034 = 886,315. Emission reduction activities were determined by: Emission reduction activities = Total 2019 to 2020 reductions – change in output – change in renewable energy output. Therefore: Reduction Activities = 886,315 – 442079 – 112679 = 331557. Therefore we arrived at 7.4% through $(331557/3572034)*100 = 7.4\%$.
Divestment		<Not Applicable >		
Acquisitions		<Not Applicable >		
Mergers		<Not Applicable >		
Change in output	442079	Decreased	9.9	In 2020, vehicle production decreased by 23.5% compared to 2019 due to COVID19 related impacts where significant portions of our manufacturing operations were temporarily suspended. Scope 1 and Scope 2 (market-based) emissions from manufacturing sites decreased from 3477302 tCO ₂ e in 2019, to 2845761 tCO ₂ e in 2020. In 2020 our total gross Scope 1 and Scope 2 (market-based) emissions were 3572034 tCO ₂ e. We estimate that in manufacturing sites approximately 70% of energy use is directly attributed to manufacturing. Thus, decreased emissions due to reduced manufacturing output is calculated as $(0.7)*(3477302 - 2845761) = 442079$ tCO ₂ e. Therefore, we arrived at 9.9% through $(442079/3572034)*100 = 9.9\%$.
Change in methodology		<Not Applicable >		
Change in boundary		<Not Applicable >		
Change in physical operating conditions		<Not Applicable >		
Unidentified		<Not Applicable >		
Other		<Not Applicable >		

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?
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	No
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	1284	6165243	6166527
Consumption of purchased or acquired electricity	<Not Applicable>	1369081	3977685	5346766
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	0	499620	499620
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	13494	<Not Applicable>	13494
Total energy consumption	<Not Applicable>	1383859	10642548	12026407

C8.2b

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

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

C8.2c

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

Fuels (excluding feedstocks)

Anthracite Coal

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

24357

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor

2867.77

Unit

kg CO2 per metric ton

Emissions factor source

United States EPA GHG Inventory Base

Comment

Fuels (excluding feedstocks)

Biodiesel

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

86

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.5

Unit

kg CO2 per liter

Emissions factor source

United States EPA GHG Inventory

Comment

Fuels (excluding feedstocks)

Bioethanol

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

1198

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

5.75

Unit

kg CO2 per liter

Emissions factor source

United States EPA GHG Inventory Database

Comment

Fuels (excluding feedstocks)

Coke Oven Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

58264

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

387.61

Unit

kg CO2 per MWh

Emissions factor source

United States EPA GHG Inventory Database

Comment

Fuels (excluding feedstocks)

Diesel

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

15803

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.7

Unit

kg CO2 per liter

Emissions factor source

United States EPA GHG Inventory Database

Comment

Fuels (excluding feedstocks)

Liquefied Petroleum Gas (LPG)

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

55578

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

1.5

Unit

kg CO2 per liter

Emissions factor source

United States EPA GHG Inventory Database

Comment

Fuels (excluding feedstocks)

Motor Gasoline

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

19619

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.32

Unit

kg CO2 per liter

Emissions factor source

United States EPA GHG Inventory Database

Comment

Fuels (excluding feedstocks)

Natural Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

5988457

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

273653

Emission factor

1.92

Unit

kg CO2 per m3

Emissions factor source

United States EPA GHG Inventory Database

Comment

Fuels (excluding feedstocks)

Propane Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

1820

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

62.87

Unit

kg CO2 per million Btu

Emissions factor source
United States EPA GHG Inventory Database

Comment

Fuels (excluding feedstocks)

Residual Fuel Oil

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

1310

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.98

Unit

kg CO2 per liter

Emissions factor source

United States EPA GHG Inventory Database

Comment

Fuels (excluding feedstocks)

Other, please specify (Methanol)

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

35

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

1.08

Unit

kg CO2 per liter

Emissions factor source

United States EPA GHG Inventory Database

Comment

C8.2d

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

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	120005	116987	16512	13494
Heat	0	0	0	0
Steam	91512	81487	0	0
Cooling	0	0	0	0

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

Sourcing method

Standard product offering by an energy supplier supported by energy attribute certificates

Low-carbon technology type

Hydropower

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

Germany

MWh consumed accounted for at a zero emission factor

208381

Comment

Ford receives energy sources with a zero carbon emission factor for our operating facilities in Cologne, Germany

Sourcing method

Standard product offering by an energy supplier supported by energy attribute certificates

Low-carbon technology type

Hydropower

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

Turkey

MWh consumed accounted for at a zero emission factor

204462

Comment

Ford receives energy sources with a zero carbon emission factor for our operating facilities in Kocaeli, Turkey

Sourcing method

Standard product offering by an energy supplier supported by energy attribute certificates

Low-carbon technology type

Hydropower

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

Romania

MWh consumed accounted for at a zero emission factor

86285

Comment

Ford receives energy sources with a zero carbon emission factor for our operating facilities in Craiova, Romania

Sourcing method

Unbundled energy attribute certificates, Guarantees of Origin

Low-carbon technology type

Hydropower

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

Argentina

MWh consumed accounted for at a zero emission factor

13920

Comment

Ford receives energy sources with a zero carbon emission factor for our assembly facility in Pacheco, Argentina.

Sourcing method

Unbundled energy attribute certificates, Guarantees of Origin

Low-carbon technology type

Wind

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

United Kingdom of Great Britain and Northern Ireland

MWh consumed accounted for at a zero emission factor

165296

Comment

Ford receives energy sources with a zero carbon emission factor for our operating facilities in the United Kingdom.

Sourcing method

Other, please specify (Self-generated Solar)

Low-carbon technology type

Solar

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

China

MWh consumed accounted for at a zero emission factor

16512

Comment

One of the Changan Ford facilities generate their own solar power to supplement their energy sources.

C-TO8.5

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

Activity

Light Duty Vehicles (LDV)

Metric figure

0.000284

Metric numerator

tCO₂e

Metric denominator

Use phase: Vehicle.km

Metric numerator: Unit total

263136913

Metric denominator: Unit total

927990263306

% change from previous year

-7.4

Please explain

The tCO₂e/vehicle km of the global Ford LDV fleet decreased from 2019 to 2020 primarily due to improved vehicle efficiency and lower CO₂-intensity of the fleet on average. Both the numerator (tCO₂e) and the denominator (vehicle km) decreased due to lower sales during the pandemic. However, the numerator decreased more (-23.6%) than the denominator (-17.4%) because of the additional CO₂e reduction from fleet efficiency improvements, leading to an overall improvement of -7.4%. We calculate the numerator, total lifetime use of sold products, following the GHG Protocol as described in question C6.5 and summarized here: 2020 sales and tank-to-wheels gCO₂e/km emissions data for cars and light commercial vehicles was collected for US, EU, China, Canada, Mexico, Brazil, Australia, India, South Korea and Saudi Arabia. These regions represent about 95% of all light-duty vehicles sold in 2020. The data were converted to on-road well-to-wheels CO₂e, and the global fleet average sales-weighted gCO₂e/km was calculated. Assuming 241,000 km lifetime, the total CO₂e emissions of the 2020 LDV fleet were calculated as gCO₂e/km x sales x lifetime km. The denominator is 2020 sales multiplied by 241,000 km lifetime travel. In 2020 we updated the CO₂e calculation methodology to be more comprehensive, reflecting on-road well-to-wheels CO₂e (rather than test-cycle tank-to-wheels), we increased the lifetime travel from 150,000 km to 241,000 km. For comparison with the prior year, we recalculated the 2019 data as follows: Metric intensity 0.000997 tCO₂e/km; Numerator 344,288,335 tCO₂e; Denominator 1,124,114,574,141 km.

Activity

Heavy Duty Vehicles (HDV)

Metric figure

0.00097

Metric numerator

tCO₂e

Metric denominator

Use phase: Vehicle.km

Metric numerator: Unit total

33596564

Metric denominator: Unit total

34627426177

% change from previous year

-2.7

Please explain

We are reporting HDV emissions for the first time in 2020, but for comparison with the prior year, we also calculated the 2019 HDV data as follows: Metric intensity 0.000997 tCO₂e/km; Numerator 36,412,975 tCO₂e; Denominator 36,522,117,863 km. The tCO₂e/vehicle km of the global Ford HDV fleet decreased 2.7% from 2019 to 2020 primarily due to improved vehicle efficiency and lower CO₂-intensity of the fleet on average. Both the numerator (tCO₂e) and the denominator (vehicle km) decreased due to lower sales during the pandemic. However, the numerator decreased more (-7.7%) than the denominator (-5.2%) because of the additional CO₂e reduction from fleet efficiency improvements, leading to an overall improvement of -2.7%. We calculate the numerator, total lifetime use of sold products, following the GHG Protocol as described in question C6.5 and summarized here: 2020 sales and tank-to-wheels gCO₂e/km emissions data for heavy duty vehicles in the U.S. and Canada. The data were converted to on-road well-to-wheels CO₂e, and the global fleet average sales-weighted gCO₂e/km was calculated. Multiplying gCO₂e/km x vehicle sales x assumed lifetime travel of 241,000 km for the "light heavy duty" and 297,665 km for "medium heavy duty" vehicle classifications, the total CO₂e emissions of the 2020 HDV fleet were calculated. The denominator is 2020 sales multiplied by the lifetime travel.

Activity

Light Duty Vehicles (LDV)

Metric figure

0.75

Metric numerator

tCO2e

Metric denominator

Production: Vehicle

Metric numerator: Unit total

3074244

Metric denominator: Unit total

4095968

% change from previous year

11.5

Please explain

The Ford global average manufacturing tCO2e/vehicle produced increased by 11.5% from 2019 (0.67 t/veh) to 2020. The numerator, absolute Scope 1+Scope 2 (location-based) emissions from manufacturing locations decreased by 14.7%. But the denominator, vehicle production, decreased by 23.5% due to Covid-19 shutdowns, causing the manufacturing intensity to increase by 11.5%. Plant shutdowns due to Covid-19 also impacted vehicle manufacturing energy efficiency.

C9. Additional metrics

C9.1

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

Description

Waste

Metric value

3.6

Metric numerator

kilograms

Metric denominator (intensity metric only)

vehicle produced

% change from previous year

16

Direction of change

Decreased

Please explain

This figure is waste sent to landfill from global manufacturing operations, divided by global vehicles produced. Ford recognizes that landfills generate greenhouse gas emissions, and reduction in waste sent to landfill will reduce greenhouse gas emissions. Ford currently has 54 manufacturing plants that are send zero waste to landfill. Strong progress was made in multiple regions toward permanent reductions in Waste to Landfill bringing the year over year Kg/Unit close to where it was before the closure of the Detroit waste-to energy plant. Ford continues to invest in its overall priority toward landfill avoidance, recognizing that landfills tend to be "temporary storage" of wastes as opposed to final disposal.

Description

Other, please specify (Water Usage)

Metric value

3.6

Metric numerator

cubic meters

Metric denominator (intensity metric only)

vehicle produced

% change from previous year

3

Direction of change

Decreased

Please explain

Since 2000, we have reduced our operational water use by 70 percent, saving over 11 billion gallons of water. Ford recognizes that climate change can exacerbate water scarcity.

Description

Waste

Metric value

17.5

Metric numerator

Million Kilograms

Metric denominator (intensity metric only)

None

% change from previous year

35

Direction of change

Decreased

Please explain

This figure is waste sent to landfill from global manufacturing operations. Ford recognizes that landfills generate greenhouse gas emissions, and reduction in waste sent to landfill will reduce greenhouse gas emissions. Ford currently has 54 manufacturing plants that send zero waste to landfill. Ford continues to invest in its overall priority toward landfill avoidance, recognizing that landfills tend to be "temporary storage" of wastes as opposed to final disposal.

Description

Other, please specify (water usage)

Metric value

19.4

Metric numerator

Million cubic meters

Metric denominator (intensity metric only)

None

% change from previous year

13

Direction of change

Decreased

Please explain

Since 2000, we have reduced our operational water use by 70%, saving over 11 billion gallons of water. Ford recognizes that climate change can exacerbate water scarcity.

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

Vehicle using bio-fuel

Metric figure

159653

Metric unit

Units

Explanation

In the U.S. in 2020, Ford produced 159,653 flexible-fuel vehicles (FFV) in the light-duty category, representing 4% of global wholesales. FFVs can use blended gasoline and up to 85% ethanol by volume (E85). Three FFV models are available in the U.S.: Explorer, F-150, and Transit.

Activity

Heavy Duty Vehicles (HDV)

Metric

Production

Technology

Vehicle using bio-fuel

Metric figure

192669

Metric unit

Units

Explanation

In the U.S. in 2020, Ford produced 192,669 flexible-fuel vehicles (FFV) in the heavy-duty category, representing 5% of global wholesales. FFVs can use blended gasoline and up to 85% ethanol by volume (E85). Heavy duty FFV models available in the U.S. are F-250, F-350, and Transit.

Activity

Light Duty Vehicles (LDV)

Metric

Sales

Technology
Battery electric vehicle (BEV)

Metric figure
255

Metric unit
Units

Explanation
BEV: In late December of 2020, we began selling the Mustang Mach-E battery electric vehicle. 255 Mach-E's were sold by Ford, representing <0.1% of global wholesales.

Activity
Light Duty Vehicles (LDV)

Metric
Sales

Technology
Plug-in hybrid vehicle (PHEV)

Metric figure
8064

Metric unit
Units

Explanation
In 2020, 8064 PHEVs were sold, representing 0.2% of global wholesales. PHEV models available include Escape/Kuga PHEV, Aviator PHEV, and Fusion Energi.

Activity
Light Duty Vehicles (LDV)

Metric
Sales

Technology
Conventional hybrid

Metric figure
74496

Metric unit
Units

Explanation
In 2020, 74496 HEVs were sold, representing about 2% of global wholesales. HEV models available include Fusion Hybrid, Escape/Kuga Hybrid, Mondeo Hybrid, and F-150 Hybrid.

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	Ford has significant R&D efforts in many low-carbon technologies, products, and services. Key areas of research include vehicle electrification, batteries, hydrogen fuel cells, lightweight materials, sustainable materials, and mobility. Ford announced in 2018 that we are investing over \$11.5 billion for the development of electrified vehicle solutions by 2022, or about \$2 billion per year. In 2018, we also announced plans to invest to invest \$4 billion through 2023 in autonomous vehicles, about \$0.8 billion per year.

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

(C-T09.6a/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

Electrification

Stage of development in the reporting year

Large scale commercial deployment

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

≤20%

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

Comment

Electrification is a key part of our sustainability strategy with significant ongoing investment in R&D, engineering, and manufacturing. Over the last three years we have made significant R&D investment in electrification leading up to the electrification of our most iconic vehicles. Our new electrified models include the all-electric Mustang Mach-E and F-150 PowerBoost Hybrid on sale in 2020. We announced the all-electric E-Transit coming in late 2021 and the all-electric F-150 arriving by mid-2022. In addition to BEVs, we produce vehicles with other levels of electrification, including HEVs and PHEVs. The Climate Bonds Taxonomy (CBT) is used to show the Escape/Kuga PHEV can be classified as low-carbon transport. From Table 4 of the CBT document "Land Transport Criteria: Version 2", to be classified as low-carbon, passenger vehicle direct emissions must reach 50 gCO₂e/p-km in 2020 . The 2020 Escape PHEV (U.S.) EPA rating is 48 g CO₂/km (77 g CO₂/mile, www.fueleconomy.gov) and the Kuga PHEV (Europe) rating is 32 g CO₂/km (WLTP test), meeting the Climate Bond criterion for a low carbon passenger vehicle. We have also announced research and investment in the manufacturing locations that will build our electrified vehicles. We have invested \$700 million in the new Rouge Electric Vehicle Center (Dearborn, Michigan), to support battery assembly and the production of the all-new fully electric F-150s. A \$100 million investment will support the manufacture of the all-new E-Transit at our Kansas City Assembly Plant (Missouri). We are investing \$1.35 billion to build the next generation of battery electric vehicles (BEVs) at the Oakville Assembly Complex in Ontario, Canada. Ford's Engineering, Research and Development expenses were \$7.1 billion in 2020. We have announced investments of over \$11.5 billion in electrified vehicle (EV) solutions by 2022.

Activity

Light Duty Vehicles (LDV)

Technology area

Materials

Stage of development in the reporting year

Small scale commercial deployment

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

≤20%

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

Comment

Our sustainable materials strategy encompasses renewable or recycled materials, sourcing, processing energy reduction, life cycle emissions and end-of-life disposal. Through our research, we have discovered new, robust natural-fiber-reinforced materials that improve fuel economy because they are lighter in weight. These plant-based materials also sequester carbon, reducing global warming impacts, and require less energy to process. Many of them are waste products from other industries, helping us to achieve circular economy goals. We were the first automotive company to launch soy-based foam in 2007 and since then, we have introduced new composites using castor oil, kenaf, wheat straw, rice hulls, coconut and tree fibers into our vehicles, adding up to around 300 parts. Through a new research partnership with McDonald's USA, we will be using coffee chaff—the dried skin of the coffee bean—as an industry first in vehicles. Components made from coffee chaff will be about 20 percent lighter and require up to 25 percent less energy to mold than the traditional material. Working alongside different companies, including McDonald's, we will continue exchanging and utilizing materials that otherwise would be waste or by products. By using recycled materials, we are keeping waste out of landfill, as well as using fewer natural resources and less energy. In 2019 we launched two new sustainable materials applications. We created the first injection-molded carbon canister, an under-hood emission control component, made from 100% post-consumer recycled carpet backing. Replacing fossil feedstock, the recycled resin reduces cost by 25 percent, with no impact on processing or performance, and is better for our planet. It is currently being used on more than 20 Ford programs globally. We also launched a new material on an extension dash panel (a semi-structural plastic panel just under the windshield wipers), which is also made from recycled carpet backing and recycled tire rubber. This application has given a new lease of life to around 11.9 million square feet of carpet and 26,250 pounds of tire rubber – two materials that have significant environmental challenges at end of life. Our investment includes basic research through small-scale commercial development. Ford's RD&E expenses were \$7.1 billion in 2020.

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

Underway but not complete for reporting year – previous statement of process attached

Type of verification or assurance

Limited assurance

Attach the statement

Ford EY19 CDP Letter (Rev. 6_29_21).pdf

Page/ section reference

Page 1. Complete for 2019EY, in process for 2020EY. Ford has updated their Global GHG Inventory System to include global Scope 1 and 2 emissions under their operational control. This is the fourth year for Ford to complete a 100% global verification of Scope 1 and 2 emissions within their operational control. The final verification report from the third party auditor is expected in November 2021. Attached is the global verification report for the 2019EY.

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.1b

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

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Underway but not complete for reporting year – previous statement of process attached

Type of verification or assurance

Limited assurance

Attach the statement

Ford EY19 CDP Letter (Rev. 6_29_21).pdf

Page/ section reference

Page 1. Complete for 2019EY, in process for 2020EY. Ford has updated their Global GHG Inventory System to include global Scope 1 and 2 emissions under their operational control. This is the fourth year for Ford to complete a 100% global verification of Scope 1 and 2 emissions within their operational control. The final verification report from the third party auditor is expected in November 2021. Attached is the global verification report for the 2019EY.

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 2 approach

Scope 2 market-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Underway but not complete for reporting year – previous statement of process attached

Type of verification or assurance

Limited assurance

Attach the statement

Ford EY19 CDP Letter (Rev. 6_29_21).pdf

Page/ section reference

Page 1. Complete for 2019EY, in process for 2020EY. Ford has updated their Global GHG Inventory System to include global Scope 1 and 2 emissions under their operational control. This is the fourth year for Ford to complete a 100% global verification of Scope 1 and 2 emissions within their operational control. The final verification report from the third party auditor is expected in November 2021. Attached is the global verification report for the 2019EY.

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: Use of sold products

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Underway but not complete for reporting year – previous statement of process attached

Type of verification or assurance

Limited assurance

Attach the statement

Ford EY19 CDP Letter (Rev. 6_29_21).pdf

Page/section reference

Page 1. The Scope 3-Use of Sold Products emissions were verified for the first time for EY2019. The verification statement is attached. The EY2020 verification is underway.

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.2

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

Yes

C10.2a

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

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C4. Targets and performance	Progress against emissions reduction target	ISO14064-3	Our carbon reduction strategy target disclosed in C4.1 has 2 components. Our near-term target is to reduce Manufacturing Scope1+2 emissions by 18% between 2017 and 2023 and reduce total Scope 1+2 emissions by 76% by 2035. It is important that we track and disclose our progress against the targets. We already annually verify 100% of our Scope 1 and Scope 2 emissions (C10.1a-b) so we are also verifying our progress toward our targets. ABSOLUTE TARGET 2 (Abs 2) is a 18% reduction in the manufacturing Scope 1+Scope 2(market-based) between 2017 and 2023. The 2017 base year emissions are 3,985,890 t CO2e. 18% of 3,985,890 is 717,460 tCO2e reduction required by 2023. In 2020 our manufacturing S1+S2(market-based) emissions were 3,074,244 t CO2e, which is 3,985,890-3,074,244=911,646 t CO2e lower than 2017. We have reduced 194,186 tCO2e more than the 717,460 tCO2e needed to meet the reduction target. 911,646/717,460=127% of the reduction target has been achieved. ABSOLUTE TARGET 1 (Abs 1) is a 76% reduction in Total Scope 1+Scope 2(market-based) between 2017 and 2035. The 2017 base year emissions are 4,653,734 t CO2e. 76% of 4,653,734 is 3,536,838 tCO2e reduction required by 2035. In 2020 our total S1+S2(market-based) emissions were 3,572,034 t CO2e, which is - 4,653,734-3,572,034=1,081,700 t CO2e lower than 2017. We have reduced 1,081,700 tCO2e out of the 3,536,838 tCO2e needed to meet the reduction target. 1,081,700/3,536,838=30.5% of the reduction target has been achieved.
C6. Emissions data	Year on year change in emissions (Scope 1)	ISO14064-3	Our carbon reduction strategy target disclosed in C4.1 includes both scope 1 and scope 2 emissions. By verifying the change in scope 1 emissions reported in C6.1 here, we provide increased transparency of how much progress we are making on each scope. We already annually verify 100% of our Scope 1 and Scope 2 emissions so it is an additional benefit to provide verification of our annual change in Scope 1 emissions. In 2019 we emitted 1,418,056 t CO2e. In 2020 we emitted 1,124,798 t CO2e. The change in our Scope 1 emissions from 2019 to 2020 is an decrease of 20.7%: [(1124798/1418056)-1=-0.207] 2020 data has been submitted and verification is in progress but will not be ready in time for CDP submission.
C6. Emissions data	Year on year change in emissions (Scope 2)	ISO14064-3	Our carbon reduction strategy target disclosed in C4.1 includes both scope 1 and scope 2 emissions. By verifying the change in scope 2 emissions reported in C6.3 here, we provide increased transparency of how much progress we are making on each scope. We already annually verify 100% of our Scope 1 and Scope 2 emissions so it is an additional benefit to provide verification of our annual change in Scope 2 emissions. S2 location-based: In 2019 we emitted 3,195,704 t CO2e. In 2020 we emitted 2,715,327 t CO2e. The change in our Scope 2 location-based emissions from 2019 to 2020 is a decrease of 15.0%: [(2,175,327/3,195,704)-1=-0.150] S2 market-based: In 2019 we emitted 3,040,292 t CO2e. In 2020 we emitted 2,447,236 t CO2e. The change in our Scope 2 market-based emissions from 2019 to 2020 is a decrease of 19.5%: [(2,447,236/3,040,292)-1=-0.195] 2020 data has been submitted and verification is in progress but will not be ready in time for CDP submission.
C6. Emissions data	Year on year change in emissions (Scope 1 and 2)	ISO14064-03	Our carbon reduction strategy target disclosed in C4.1 includes both scope 1 and scope 2 emissions. By verifying the change in scope 1 and scope 2 emissions reported in C6.1 and C6.3 here, we provide increased transparency of how much progress we are making on each scope individually and collectively. We already annually verify 100% of our Scope 1 and Scope 2 emissions so it is an additional benefit to provide verification of our annual change in Scope 1+2 emissions. Our combined Scope 1 (C6.1)+Scope 2 (C6.3) emissions decreased 19.9% from 2019 to 2020 for market-based scope 2 emissions and decreased 16.8% for location-based scope 2 emissions LOCATION BASED: 2019 S1+S2(location)= 1418056+3195704=4613760; 2020 S1+S2(location)= 1124798+2715327=3840125. The change in S1+S2(location)= [(3840125/4613760)-1]=-0.168=-16.8% MARKET BASED: 2019 S1+S2(market)=1418056+3040292=4458348; 2020 S1+S2(market)= 1124798+2447236=3572034. The change in S1+S2(market)= [(3572034/4458348)-1]=-0.199=-19.9% 2020 data has been submitted and verification is in progress but will not be ready in time for CDP submission.

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.
EU ETS
Other ETS, please specify (Canada Output-Based Pricing System)

C11.1b

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

EU ETS

% of Scope 1 emissions covered by the ETS
9.5

% of Scope 2 emissions covered by the ETS
0

Period start date
January 1 2020

Period end date
December 31 2020

Allowances allocated
101421

Allowances purchased
0

Verified Scope 1 emissions in metric tons CO2e
106373

Verified Scope 2 emissions in metric tons CO2e
0

Details of ownership
Facilities we own and operate

Comment

Other ETS, please specify

% of Scope 1 emissions covered by the ETS
5.8

% of Scope 2 emissions covered by the ETS
0

Period start date
January 1 2020

Period end date
December 31 2020

Allowances allocated
31320

Allowances purchased
0

Verified Scope 1 emissions in metric tons CO2e
65189

Verified Scope 2 emissions in metric tons CO2e
0

Details of ownership
Facilities we own and operate

Comment

C11.1d

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

Ford's strategy to comply with the emissions trading systems is first to reduce emissions and where that is not possible we purchase emissions allowances where necessary.

Ford has a dedicated regulatory compliance team which ensures that all compliance obligations from emissions trading schemes are met by the company. The team monitors regulatory developments, establishes procedures, carries out data review and internal audits. Monthly CO2 emissions are tracked in the Global Emissions Monitoring Database, which the compliance team uses to assesses emissions liability and to determine the need to purchase emissions allowances. At the same time, Ford has established a Carbon Emissions reduction strategy, which aims to reduce the stationary emissions made by the company through energy efficiency actions and renewable energy projects. A cross functional team of environmental and energy efficiency experts implement the strategy.

Case study: Decentralised heating in Bridgend. The heating system in the factory was changed from a centralised boiler house to decentralised direct fired heating units. The centralised boiler house generated High Pressure Hot Water (HPHW) which was pumped around the 155,000m2 site where 131 roof mounted Air Handling Units pumped air into the building via the HPHW Coils in each unit. There were 393 extract fans permanently on.

These systems were replaced with 460 radiant heaters and variable speed air extraction and intake fan units. The smaller units deliver heat more efficiently and can be operated more flexibly, for example they can be shut off when areas are not used. Heat stratification in the building is reduced. The installation of the units reduced the CO2 emissions from gas consumption in the facility in 2019 by 27% compared to the previous year. The number of allowances we needed to surrender for the site was hence reduced significantly.

C11.2

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

No

C11.3

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

Yes

C11.3a

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

Objective for implementing an internal carbon price

Navigate GHG regulations
Change internal behavior

GHG Scope

Scope 1

Application

Various Ford sites in Europe are part of the EU Emissions Trading scheme, a cap and trade system where emissions need to be compensated with emissions allowances. Ford has established an internal trading system around this. Allowances are managed centrally and are traded internally between facilities. The internal price mirrors the fair market value of the emissions allowances (EUA). In additions, when evaluating energy efficiency actions, potential savings in the cost of carbon are part of the project evaluation.

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

30

Variance of price(s) used

Current fair market value of EUAs. Dependent on market fluctuations. Price is in Euro/metric ton

Type of internal carbon price

Shadow price

Impact & implication

The following is an example of where the company utilized the internal price of carbon during the project investment evaluation. At the Valencia, Spain location, for the Steam Elimination and O&M project a market rate of carbon of €30T was used in 2020. The project scope included the shutdown of 2 40-MW steam boilers used for seasonal space heating and to reinforce our summer heating high pressure hot water boilers with an additional 20-MW of installed capacity. Also included was the replacement of a low pressure air compressor and full controls package for the autonomous operation of heat, compressed air and chilled water. Project investment was approved based on total savings and cost avoidances in order to upgrade the existing steam boilers to meet the reduced NOx limits in 2023. The impact of including the cost of carbon resulted in increasing the level of savings by nearly 12% and overall improving the TARR of the project.

Objective for implementing an internal carbon price

Navigate GHG regulations
Change internal behavior

GHG Scope

Scope 1

Application

Various Ford sites in Europe are part of the EU Emissions Trading scheme, a cap and trade system where emissions need to be compensated with emissions allowances. Ford has established an internal trading system around this. Allowances are managed centrally and are traded internally between facilities. The internal price mirrors the fair market value of the emissions allowances (EUA). In additions, when evaluating energy efficiency actions, potential savings in the cost of carbon are part of the project evaluation.

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

3.9

Variance of price(s) used

Current fair market value of EUAs. Dependent on market fluctuations. Price is in pounds/metric ton

Type of internal carbon price

Shadow price

Impact & implication

The following is an example of where the company utilized the internal price of carbon during the project investment evaluation. Dagenham Compressor House, used to market rate of £3.90 in 2017. The project scope was for an all-new compressor house for Engine Plant that includes heat recovery from the compressors to offset steam usage in the Panther low pressure hot water heating system. Steam at the Plant is generated by gas in the newly resized Boiler House and therefore any heat recovery from the compressor house would result in a lower steam demand and ultimately gas consumption. The main project economics was improved generation efficiency and environmental benefits of eliminating the requirements of the cooling towers for existing compressor heat rejection. Heat recovery element will deliver 4-GWh of gas savings and there was carbon saving contribution on this project that is expected to deliver financial benefit to Ford.

C12. Engagement

C12.1

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

Yes, our suppliers
Yes, other partners in the value chain

C12.1a

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

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

2

% total procurement spend (direct and indirect)

66

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

18

Rationale for the coverage of your engagement

We have more than 1200 production suppliers and 10,000 indirect suppliers with an annual spend of more than \$110 billion (USD). While we engage with only 2% of the total number of suppliers, they represent 66% of our spend and 63% of our spend in the purchased goods and services category of our Scope 3 emissions. Therefore, this group of suppliers represent the greatest opportunity to reduce our collective footprint.

Impact of engagement, including measures of success

Ford's measure of success for this engagement activity is a target of 80% response rate to the CDP supply chain questionnaire and in 2020, 83% of suppliers responded, exceeding our internal goal, and was an increase from our 83% response rate in 2019. The impact of the engagement is measured by comparing year-over-year performance on key indicators (please note that the number of responding suppliers increased from 209 in 2019 to 233 in 2020). For example, the % of responding suppliers who have reported active emissions reduction targets in 2020 was 72% (167 suppliers), compared to 73% (152 suppliers) in 2019; and 52% (121 suppliers) reported having intensity targets compared to 54% (114 suppliers) in 2019. Out of responding suppliers, 75% (175 suppliers) had active emissions reduction initiatives within the reporting year, compared to 80% (166 suppliers) in 2019.

Comment

Ford intends to establish new supplier requirements surrounding reporting Scope 1, 2 & 3 GHG emissions to Ford if requested as well as setting science-based GHG reduction targets starting in early 2021.

C12.1d

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

The Ford Go Green Dealership Program was developed and offered to dealerships throughout the United States. Over 1600 dealerships participated representing approximately 50% of the total dealership body. Detailed assessments were prepared for each participating dealership identifying specific utility upgrades that, if implemented, would result in energy savings for the dealership. An average dealership can save \$35,000 in energy cost by implementing the recommendations of the assessment. This also results in a carbon footprint reduction of 210 metric tons of carbon dioxide per year for the average dealership. In 2018 at least 20% of dealership have implemented significant portions of the recommendations. The total annual carbon footprint reduction calculates to be 40,000 metric tons for the energy improvements made by dealership through this date. As more dealership implement similar improvements, the annual carbon footprint reduction could ultimately grow to 100,000 metric tons per year if 50% of these dealerships make upgrades. Dealerships have a small footprint relative to other categories but there are 3,263 dealership within the United States, which increases the significance. We have completed the assessments performed as part of the "Go Green" Dealer Sustainability Program we launched in 2010. The program addressed efficiency improvements and cost savings at dealerships in the areas of lighting, HVAC, building envelope, water use and renewable energy applications. Each participating dealership received a Go Green Assessment identifying opportunities to increase their utility efficiencies, lower their energy costs and reduce their carbon footprints.

C12.3

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

Direct engagement with policy makers

Trade associations

Funding research organizations

C12.3a

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

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Carbon tax	Support with minor exceptions	Ford will continue to engage constructively with the Ontario government (MOECP, MEDEI, MOF, etc.) on climate change through the Canadian Vehicle Manufacturers Association (CVMA). Ford is also a member of the Climate Leadership Council which promotes a carbon dividends framework as well as the CEO Climate Dialogue promoting a carbon tax. Both advocate for long-term U.S. federal policy to protect against climate change.	Ontario legislation is final. Ongoing efforts relate to minimizing the impact of cap and trade program on all operations – vehicle assembly and components as well as the supply chain by recognizing that automotive manufacturing and its associated supply chain is trade sensitive and has access to cap and trade revenue for GHG improvements.
Energy efficiency	Support	Ford is a member of a governor's focus group developing and supporting energy efficiency programs in Michigan.	Regulated utility requirement to meet energy efficiency targets.
Other, please specify (Greenhouse Gas)	Support with minor exceptions	Ford engages on a variety of issues related to CO2 and climate change globally. One example is our work with NHTSA and EPA in the development and promulgation of aggressive U.S. light and heavy duty fuel economy and GHG standards. The existing light duty standards put automobile manufacturers on path to reduce vehicle GHG emissions by approximately 50 percent over the life of the program. The current program is under evaluation, but Ford remains committed to achieving CO2 reductions according to our CO2 glidepath. The heavy duty standards save approximately 530 million barrels of oil over the life of the program.	Ford continues to work with global policy makers on CO2 regulations. We have reiterated our commitment to continuing to make greenhouse gas reductions despite flux in the system. For example, Ford has signed onto a Voluntary Framework Agreement with California to meet GHG standards beyond the minimum requirement proposed by the federal government's SAFE (Safer Affordable Fuel Efficient) Rule.

C12.3b

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

Yes

C12.3c

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

Trade association

Ford works with a broad range of industry and trade organizations to encourage debate and provide insight and background on a variety of issues related to CO2 and climate change, including alternative fuels, alternative fuel vehicles, transportation policy, emissions regulations, research and development initiatives and tax policy. One organization that we interface with corporate wide is the Alliance for Automotive Innovation. We also work globally with organizations like Engine Manufacturers.

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

In the U.S., we engage with the Alliance for Automotive Innovation, an advocacy group for the auto industry, representing the manufacturers producing nearly 99 percent of cars and light trucks sold in the U.S. The Alliance develops and implements solutions to public policy challenges that promote sustainable mobility and benefit society in the areas of environment, energy and motor vehicle safety. ACEA is the European Automobile Manufacturers Association representing manufacturers of passenger cars, vans, trucks and buses with production sites in the EU. ACEA members include BMW, DAF, Daimler, FCA, Ford, Hyundai, IVECO, Jaguar & Land Rover, GM, PSA, Renault, Toyota, Volkswagen, Volvo Cars and Volvo. ACEA also plays an active role in China to engage in the communication with Chinese authorities and other stakeholders to protect the common interests and positions of industry by using their expert knowledge and resources from members. The Alliance for Automotive Innovation and ACEA are just two examples. There are many other associations we work with on a global basis to develop industry solutions to public policy challenges. Of course, we don't always agree with every position taken by these organizations; in such cases, we always reserve the right to speak with our own voice and make our own stance clear, even if our views don't align with the positions of the associations to which we belong.

How have you influenced, or are you attempting to influence their position?

We continue to actively engage and encourage debate on a wide range of issues within these groups.

C12.3d

(C12.3d) Do you publicly disclose a list of all research organizations that you fund?

No

C12.3f

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

Ford seeks to be an active participant in the political process in a manner that is transparent and supports our business interests. Across a range of issues, we strive to be part of the solution, supporting international, national, regional and local policies that are economically, environmentally and socially sustainable for our company, our customers and their communities. On issues of the highest priority, including issues related to climate change, we maintain regular dialogue with legislators and regulatory officials in our major markets, sharing our expertise and adding our perspective to the policy-making process. Our Government Affairs offices around the world oversee these lobbying activities. We belong to a broad range of partnerships, coalitions, industry groups and trade associations that advocate for legislation and regulation on behalf of their members. Ford's participation in the industry associations is cross-functional, including Government Affairs, Legal staff, Public Affairs and the Sustainability, Environment and Safety Engineering team. This assures a consistent internal and external policy and messaging that is aligned with our overall climate change strategy. Working with others through such organizations enables us to better leverage our resources on important issues, and to develop and promote policies that could have far-reaching benefits for our company, but also our industry and society as a whole. Of course, we don't always agree with every position taken by these organizations; in such cases, we always reserve the right to speak with our own voice and make our own stance clear, even if our views don't align with the positions of the associations to which we belong. Deciding when to speak out does not follow a process. Instead, it is done on a case-by-case basis based on the issue at hand. For example, when commenting on proposed regulations, Ford may submit comments separate from our industry association if Ford identifies that an aspect of our stance that is different than other automakers in the industry association. Ford will also occasionally make public statements when we feel strongly about certain issues. An example of Ford speaking out is Ford's "What Sustainability Means to Us" video, which reiterated our commitment to do our part to go further for the planet, despite threats of the U.S. pulling out of the Paris Climate Change Agreement and rolling back fuel economy standards:

Per Bill Ford in this video: "Our Sustainability Report owns up to what we are doing well and what we are not doing well. We had the largest brownfield manufacturing site in the world, and now at the Rouge, we've set very tough water usage targets for ourselves. We do not use drinking water for any of our production processes."

Bill Ford's great grandfather felt nothing should be wasted. This is still a priority today, we have 102 facilities around the world that are true zero waste to landfill. We recycle 20 million pounds of aluminum per month. We were the first automaker to develop soy-foam seats, which reduces 20 million pounds of CO2 emissions per year.

More details around Ford's political engagement may be found in our 2020 U.S. Political Engagement Report: <https://corporate.ford.com/content/dam/corporate/us/en-us/documents/reports/2020-ford-political-disclosure-report.pdf>

(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

Status

Complete

Attach the document

Ford-4Q2020-Earnings-10K.pdf

Page/Section reference

Includes Strategy, Governance, Risks and Opportunities, pages 7-36 https://s23.q4cdn.com/799033206/files/doc_financials/2020/q4/Ford-4Q2020-Earnings-10K.pdf

Content elements

Governance

Strategy

Risks & opportunities

Comment

Publication

In mainstream reports

Status

Complete

Attach the document

Ford-2020-Annual-Report-2020.pdf

Page/Section reference

Includes Strategy, Governance, Risks and Opportunities, Targets and Reporting, Mobility, pages 6-23, 45

https://s23.q4cdn.com/799033206/files/doc_downloads/2020/Ford-2020-Annual-Report-April-2020.pdf

Content elements

Governance

Strategy

Risks & opportunities

Comment

Publication

In voluntary sustainability report

Status

Complete

Attach the document

Ford-2020-Integrated-Sustainability-and-Financial-Report.pdf

Page/Section reference

Includes Strategy, Governance, Risks and Opportunities, Targets, Performance and Reporting <https://corporate.ford.com/microsites/integrated-sustainability-and-financial-report-2021/files/ir21.pdf>

Content elements

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Other metrics

Other, please specify (The sustainability report contains links to SASB Index, TCFD, Global Reporting Initiatives (GRI), and performance data.)

Comment

Publication

In mainstream reports

Status

Complete

Attach the document

Ford-2021-Proxy-Statement-April-2021.pdf

Page/Section reference

2021 Proxy Statements includes Governance, Strategy, Risks and Opportunities https://s23.q4cdn.com/799033206/files/doc_financials/2020/ar/Ford-2021-Proxy-Statement-April-2021.pdf

Content elements

Governance

Strategy

Risks & opportunities

Other metrics

Comment

Publication

In mainstream reports

Status

Complete

Attach the document

Ford-ir21-climate-change-scenario-2020.pdf

Page/Section reference

Includes Climate Change Strategy, Products, Services and Experiences, Operations, Public Policy, Climate Change Scenario Planning, Business Strategy for a Changing World <https://corporate.ford.com/microsites/integrated-sustainability-and-financial-report-2021/files/ir21-climate-change-scenario-2020.pdf>

Content elements

Strategy

Risks & opportunities

Other, please specify (Climate Change Strategy, Operations, Policy, Climate Change Scenario Planning, Business Strategy)

Comment

In conjunction with our annual sustainability report, this Climate Change Scenario Report is intended to provide stakeholders with our perspective on the risks and opportunities around climate change and our transition to a low-carbon economy. It addresses details of Ford's vision of the low-carbon future, as well as strategies that will be important in managing climate risk. This is Ford's second climate change scenario report. In this report we use the scenarios previously developed, while further discussing how we use scenario analysis and its relation to our carbon reduction goals. One of the four scenarios described in our report, 'Too Little, Too Late', describes a scenario involving systemic risk as well as our response to it. Based on stakeholder feedback, we have also included physical risk analysis,

Publication

In mainstream reports

Status

Complete

Attach the document

Ford-TCFD-Index-2020.pdf

Page/Section reference

Includes Climate Change Strategy, Products, Operations, Climate Change Scenario Planning, Business Strategy for a Changing World <https://corporate.ford.com/microsites/integrated-sustainability-and-financial-report-2021/files/ir21-tcf.pdf>

Content elements

Governance

Strategy

Risks & opportunities

Other, please specify (Climate Change Strategy, Operations, Policy, Climate Change Scenario Planning, Business Strategy)

Comment

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C15.1

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

	Job title	Corresponding job category
Row 1	The CEO, also Ford's President, is focused on accelerating Ford's transformation through operational excellence that benefits customers and delivers sustainable profit growth.	Chief Executive Officer (CEO)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

Ford Motor Company is a global automotive company based in Dearborn, Michigan with 54 plants and about 186,000 employees worldwide. Our core business includes designing, manufacturing, marketing, financing and servicing a full line of Ford trucks, utility vehicles, and cars – increasingly including electrified versions – and Lincoln luxury vehicles. The company provides financial services through Ford Motor Credit Company, LLC ("Ford Credit") which is wholly owned and fully consolidated. At the same time, Ford is pursuing leadership positions in electrification, mobility solutions, including self-driving services; and connected vehicle services. Our mobility segment primarily includes development costs related to our autonomous vehicles and our investment through Ford Smart Mobility, LLC.

Contributing to a better world is a core value at Ford, and our commitment to sustainability is a key part of who we are as a company. Guided by our purpose to help build a better world where every person is free to move and pursue their dreams, our vision is to create a more dynamic and vibrant company that improves people's lives around the world while creating value for all stakeholders. Ford is committed to being fully carbon neutral worldwide across our vehicles, facilities and suppliers by 2050, and recently announced we have implemented new science-based targets towards this ambition, in line with terms of the Paris Climate Agreement. The risks and opportunities associated with the changing climate are shaping the way we do business, from offering electrified versions of our popular models by investing more than \$11.5 billion by 2022, to a global carbon reduction strategy focused on powering our facilities with 100% local, renewable and zero carbon energy. Ford is continuously rethinking the way we use energy at our manufacturing facilities and other sites to help address climate change. We're creating high-performing, high-quality vehicles in environmentally and socially responsible ways, and reducing the effects of our operations and supply chains through world-class facilities. By using renewable and recycled materials in our vehicles, we're reducing waste, using fewer natural resources and improving vehicle quality and performance. Beyond minimizing our impact on the environment, Ford is committed to creating a net positive contribution to society the environment. Through our work in advancing our planet we are contributing to the following UN SDGs – Good Health and Well-Being, Clean Water and Sanitation, Affordable and Clean Energy, Sustainable Cities and Communities, Responsible Consumption and Production, and Climate Action.

Our environmental Aspirational Goals include achieving carbon neutrality globally by 2050, attaining zero air emissions from our vehicles and facilities, using 100% local, renewable/zero carbon electricity in all manufacturing plants globally by 2035, reaching true zero waste to landfill across our operations, eliminating single-use plastics from our operations by 2030, aspiring to use only recycled and renewable content in vehicle plastics, making zero water withdrawals for manufacturing processes, and aspiring to use freshwater for human consumption only. 2035 targets for our vehicles and manufacturing facilities have been approved by the Science Base Target Initiative.

For us, mobility is about human progress and making people's lives better in mature economies and major cities as well as helping solve problems in areas of the world that tend to be under-served by technology advances. We are reimagining what mobility will look like and foresee clean, smart vehicles communicating with each other, as well as the road infrastructure and public transit systems, orchestrated by open cloud-based platforms like our Transportation Mobility Cloud. We also promote safer behavior through a range of driver assist and semi-autonomous technologies. To help build a better world, we are doing our part to help meet the collective challenges the world faces across a range of sustainability issues and developing strategies to address them. We aim to earn trust, drive progress and make positive impacts. Ford has years of experience promoting supplier environmental disclosure through the CDP Supply Chain program Climate & Water questionnaires. We have also shared Ford facilities' best practices in reducing our environmental footprint with key suppliers through our Partnership for A Cleaner Environment (PACE) program. In 2021, Ford will communicate updated supplier environmental requirements via our new Supply Chain Code of Conduct, including the requirement to establish science-based GHG reduction targets and report Scope 1, 2, and 3 emissions upon request. Ford suppliers will be required to minimize their impact on climate change by establishing science-based GHG reduction targets.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	127100000000

SC0.2

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

Yes

SC0.2a

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

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	US	3453708600

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member

Advance Auto Parts Inc

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

1

Uncertainty (±%)

5

Major sources of emissions

Scope 1 emissions from direct combustion of fuels for heat and operations at manufacturing plants and other facilities

Verified

No

Allocation method

Allocation based on the number of units purchased

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

Ford has a robust environmental management system (EMS) for tracking annual Scope 1 and 2 emissions from our operations and energy use where we have operational control. Scope 2 emissions are market-based. Scope 1 and Scope 2 emissions are verified externally. We calculate vehicle production intensity metrics (t CO2e/vehicle produced) by dividing the annual global Scope 1 (reported in C6.1) and Scope 2 emissions (reported in C6.3) by the annual global vehicle production (reported in C6.10): $S1=0.27 \text{ tCO}_2\text{e/vehicle}$, $S2=0.60 \text{ tCO}_2\text{e/vehicle}$. We also report combined tonnes $(S1+S2)/\text{production} = 0.87 \text{ tCO}_2\text{e/vehicle}$ in CDP C6.10. We multiply the scope t/vehicle factor by the number of vehicles sold to each customer in the reporting year to get t CO2e associated with each scope. This provides the customer with their scope 3 emissions associated with manufacturing the vehicles they purchased from Ford. The CO2 emissions calculated by this method represent an average emission rate across all our facilities. We have not calculated scope 1 and scope 2 emissions by vehicle model or manufacturing location nor differentiated by vehicle models purchased by the customer. The +/- 5% total uncertainty reflects the difference in the average t CO2/vehicle factor compared to a factor specific to the vehicles and geographies. The total scope 1 and scope 2 emissions underlying the average t CO2/vehicle factor are accurate to within 1%.

Requesting member

Advance Auto Parts Inc

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

3

Uncertainty (±%)

5

Major sources of emissions

Scope 2 emissions from purchased electricity used at manufacturing plants and other facilities

Verified

No

Allocation method

Allocation based on the number of units purchased

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

Ford has a robust environmental management system (EMS) for tracking annual Scope 1 and 2 emissions from our operations and energy use where we have operational control. Scope 2 emissions are market-based. Scope 1 and Scope 2 emissions are verified externally. We calculate vehicle production intensity metrics (t CO2e/vehicle produced) by dividing the annual global Scope 1 (reported in C6.1) and Scope 2 emissions (reported in C6.3) by the annual global vehicle production (reported in C6.10): $S1=0.27 \text{ tCO}_2\text{e/vehicle}$, $S2=0.60 \text{ tCO}_2\text{e/vehicle}$. We also report combined tonnes $(S1+S2)/\text{production} = 0.87 \text{ tCO}_2\text{e/vehicle}$ in CDP C6.10. We multiply the scope t/vehicle factor by the number of vehicles sold to each customer in the reporting year to get t CO2e associated with each scope. This provides the customer with their scope 3 emissions associated with manufacturing the vehicles they purchased from Ford. The CO2 emissions calculated by this method represent an average emission rate across all our facilities. We have not calculated scope 1 and scope 2 emissions by vehicle model or manufacturing location nor differentiated by vehicle models purchased by the customer. The +/- 5% total uncertainty reflects the difference in the average t CO2/vehicle factor compared to a factor specific to the vehicles and geographies. The total scope 1 and scope 2 emissions underlying the average t CO2/vehicle factor are accurate to within 1%.

Requesting member

BT Group

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

0

Uncertainty (±%)

5

Major sources of emissions

Scope 1 emissions from direct combustion of fuels for heat and operations at manufacturing plants and other facilities

Verified

No

Allocation method

Allocation based on the number of units purchased

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

Our records do not show any vehicle sales to BT Group in 2020. Ford has a robust environmental management system (EMS) for tracking annual Scope 1 and 2 emissions from our operations and energy use where we have operational control. Scope 2 emissions are market-based. Scope 1 and Scope 2 emissions are verified externally. We calculate vehicle production intensity metrics (t CO₂e/vehicle produced) by dividing the annual global Scope 1 (reported in C6.1) and Scope 2 (reported in C6.3) emissions by the annual global vehicle production (reported in C6.10): S1=0.27 tCO₂e/vehicle, S2=0.60 tCO₂e/vehicle. We report combined tonnes (S1+S2)/production in CDP C6.10. We multiply the scope t/vehicle factor by the number of vehicles sold to each customer in the reporting year to get t CO₂e associated with each scope. This provides the customer with their scope 3 emissions associated with manufacturing the vehicles they purchased from Ford. The CO₂ emissions calculated by this method represent an average emission rate across all our facilities. We have not calculated scope 1 and scope 2 emissions by vehicle model or manufacturing location nor differentiated by vehicle models purchased by the customer. The +/- 5% total uncertainty reflects the difference in the average t CO₂/vehicle factor compared to a factor specific to the vehicles and geographies. The total scope 1 and scope 2 emissions underlying the average t CO₂/vehicle factor are accurate to within 1%.

Requesting member

BT Group

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

0

Uncertainty (±%)

5

Major sources of emissions

Scope 2 emissions from purchased electricity used at manufacturing plants and other facilities

Verified

No

Allocation method

Allocation based on the number of units purchased

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

Our records do not show any vehicle sales to BT Group in 2020. Ford has a robust environmental management system (EMS) for tracking annual Scope 1 and 2 emissions from our operations and energy use where we have operational control. Scope 2 emissions are market-based. Scope 1 and Scope 2 emissions are verified externally. We calculate vehicle production intensity metrics (t CO₂e/vehicle produced) by dividing the annual global Scope 1 (reported in C6.1) and Scope 2 (reported in C6.3) emissions by the annual global vehicle production (reported in C6.10): S1=0.27 tCO₂e/vehicle, S2=0.60 tCO₂e/vehicle. We report combined tonnes (S1+S2)/production in CDP C6.10. We multiply the scope t/vehicle factor by the number of vehicles sold to each customer in the reporting year to get t CO₂e associated with each scope. This provides the customer with their scope 3 emissions associated with manufacturing the vehicles they purchased from Ford. The CO₂ emissions calculated by this method represent an average emission rate across all our facilities. We have not calculated scope 1 and scope 2 emissions by vehicle model or manufacturing location nor differentiated by vehicle models purchased by the customer. The +/- 5% total uncertainty reflects the difference in the average t CO₂/vehicle factor compared to a factor specific to the vehicles and geographies. The total scope 1 and scope 2 emissions underlying the average t CO₂/vehicle factor are accurate to within 1%.

Requesting member

Deutsche Telekom AG

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

48

Uncertainty (±%)

5

Major sources of emissions

Scope 1 emissions from direct combustion of fuels for heat and operations at manufacturing plants and other facilities

Verified

No

Allocation method

Allocation based on the number of units purchased

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

Ford has a robust environmental management system (EMS) for tracking annual Scope 1 and 2 emissions from our operations and energy use where we have operational control. Scope 2 emissions are market-based. Scope 1 and Scope 2 emissions are verified externally. We calculate vehicle production intensity metrics (t CO₂e/vehicle produced) by dividing the annual global Scope 1 (reported in C6.1) and Scope 2 emissions (reported in C6.3) by the annual global vehicle production (reported in C6.10): S1=0.27 tCO₂e/vehicle, S2=0.60 tCO₂e/vehicle. We also report combined tonnes (S1+S2)/production = 0.87 tCO₂e/vehicle in CDP C6.10. We multiply the scope t/vehicle factor by the number of vehicles sold to each customer in the reporting year to get t CO₂e associated with each scope. This provides the customer with their scope 3 emissions associated with manufacturing the vehicles they purchased from Ford. The CO₂ emissions calculated by this method represent an average emission rate across all our facilities. We have not calculated scope 1 and scope 2 emissions by vehicle model or manufacturing location nor differentiated by vehicle models purchased by the

customer. The +/- 5% total uncertainty reflects the difference in the average t CO₂/vehicle factor compared to a factor specific to the vehicles and geographies. The total scope 1 and scope 2 emissions underlying the average t CO₂/vehicle factor are accurate to within 1%.

Requesting member

Deutsche Telekom AG

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

105

Uncertainty (±%)

5

Major sources of emissions

Scope 2 emissions from purchased electricity used at manufacturing plants and other facilities

Verified

No

Allocation method

Allocation based on the number of units purchased

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

Ford has a robust environmental management system (EMS) for tracking annual Scope 1 and 2 emissions from our operations and energy use where we have operational control. Scope 2 emissions are market-based. Scope 1 and Scope 2 emissions are verified externally. We calculate vehicle production intensity metrics (t CO₂e/vehicle produced) by dividing the annual global Scope 1 (reported in C6.1) and Scope 2 emissions (reported in C6.3) by the annual global vehicle production (reported in C6.10): S1=0.27 tCO₂e/vehicle, S2=0.60 tCO₂e/vehicle. We also report combined tonnes (S1+S2)/production = 0.87 tCO₂e/vehicle in CDP C6.10. We multiply the scope t/vehicle factor by the number of vehicles sold to each customer in the reporting year to get t CO₂e associated with each scope. This provides the customer with their scope 3 emissions associated with manufacturing the vehicles they purchased from Ford. The CO₂ emissions calculated by this method represent an average emission rate across all our facilities. We have not calculated scope 1 and scope 2 emissions by vehicle model or manufacturing location nor differentiated by vehicle models purchased by the customer. The +/- 5% total uncertainty reflects the difference in the average t CO₂/vehicle factor compared to a factor specific to the vehicles and geographies. The total scope 1 and scope 2 emissions underlying the average t CO₂/vehicle factor are accurate to within 1%.

Requesting member

Eaton Corporation

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

30

Uncertainty (±%)

5

Major sources of emissions

Scope 1 emissions from direct combustion of fuels for heat and operations at manufacturing plants and other facilities

Verified

No

Allocation method

Allocation based on the number of units purchased

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

Ford has a robust environmental management system (EMS) for tracking annual Scope 1 and 2 emissions from our operations and energy use where we have operational control. Scope 2 emissions are market-based. Scope 1 and Scope 2 emissions are verified externally. We calculate vehicle production intensity metrics (t CO₂e/vehicle produced) by dividing the annual global Scope 1 (reported in C6.1) and Scope 2 emissions (reported in C6.3) by the annual global vehicle production (reported in C6.10): S1=0.27 tCO₂e/vehicle, S2=0.60 tCO₂e/vehicle. We also report combined tonnes (S1+S2)/production = 0.87 tCO₂e/vehicle in CDP C6.10. We multiply the scope t/vehicle factor by the number of vehicles sold to each customer in the reporting year to get t CO₂e associated with each scope. This provides the customer with their scope 3 emissions associated with manufacturing the vehicles they purchased from Ford. The CO₂ emissions calculated by this method represent an average emission rate across all our facilities. We have not calculated scope 1 and scope 2 emissions by vehicle model or manufacturing location nor differentiated by vehicle models purchased by the customer. The +/- 5% total uncertainty reflects the difference in the average t CO₂/vehicle factor compared to a factor specific to the vehicles and geographies. The total scope 1 and scope 2 emissions underlying the average t CO₂/vehicle factor are accurate to within 1%.

Requesting member

Eaton Corporation

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

66

Uncertainty (±%)

5

Major sources of emissions

Scope 2 emissions from purchased electricity used at manufacturing plants and other facilities

Verified

No

Allocation method

Allocation based on the number of units purchased

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

Ford has a robust environmental management system (EMS) for tracking annual Scope 1 and 2 emissions from our operations and energy use where we have operational control. Scope 2 emissions are market-based. Scope 1 and Scope 2 emissions are verified externally. We calculate vehicle production intensity metrics (t CO2e/vehicle produced) by dividing the annual global Scope 1 (reported in C6.1) and Scope 2 emissions (reported in C6.3) by the annual global vehicle production (reported in C6.10): $S1=0.27 \text{ tCO}_2\text{e/vehicle}$, $S2=0.60 \text{ tCO}_2\text{e/vehicle}$. We also report combined tonnes $(S1+S2)/\text{production} = 0.87 \text{ tCO}_2\text{e/vehicle}$ in CDP C6.10. We multiply the scope t/vehicle factor by the number of vehicles sold to each customer in the reporting year to get t CO2e associated with each scope. This provides the customer with their scope 3 emissions associated with manufacturing the vehicles they purchased from Ford. The CO2 emissions calculated by this method represent an average emission rate across all our facilities. We have not calculated scope 1 and scope 2 emissions by vehicle model or manufacturing location nor differentiated by vehicle models purchased by the customer. The +/- 5% total uncertainty reflects the difference in the average t CO2/vehicle factor compared to a factor specific to the vehicles and geographies. The total scope 1 and scope 2 emissions underlying the average t CO2/vehicle factor are accurate to within 1%.

Requesting member

Magna International Inc.

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

7

Uncertainty (±%)

5

Major sources of emissions

Scope 1 emissions from direct combustion of fuels for heat and operations at manufacturing plants and other facilities

Verified

No

Allocation method

Allocation based on the number of units purchased

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

Ford has a robust environmental management system (EMS) for tracking annual Scope 1 and 2 emissions from our operations and energy use where we have operational control. Scope 2 emissions are market-based. Scope 1 and Scope 2 emissions are verified externally. We calculate vehicle production intensity metrics (t CO2e/vehicle produced) by dividing the annual global Scope 1 (reported in C6.1) and Scope 2 emissions (reported in C6.3) by the annual global vehicle production (reported in C6.10): $S1=0.27 \text{ tCO}_2\text{e/vehicle}$, $S2=0.60 \text{ tCO}_2\text{e/vehicle}$. We also report combined tonnes $(S1+S2)/\text{production} = 0.87 \text{ tCO}_2\text{e/vehicle}$ in CDP C6.10. We multiply the scope t/vehicle factor by the number of vehicles sold to each customer in the reporting year to get t CO2e associated with each scope. This provides the customer with their scope 3 emissions associated with manufacturing the vehicles they purchased from Ford. The CO2 emissions calculated by this method represent an average emission rate across all our facilities. We have not calculated scope 1 and scope 2 emissions by vehicle model or manufacturing location nor differentiated by vehicle models purchased by the customer. The +/- 5% total uncertainty reflects the difference in the average t CO2/vehicle factor compared to a factor specific to the vehicles and geographies. The total scope 1 and scope 2 emissions underlying the average t CO2/vehicle factor are accurate to within 1%.

Requesting member

Magna International Inc.

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

16

Uncertainty (±%)

5

Major sources of emissions

Scope 2 emissions from purchased electricity used at manufacturing plants and other facilities

Verified

Please select

Allocation method

Please select

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

Ford has a robust environmental management system (EMS) for tracking annual Scope 1 and 2 emissions from our operations and energy use where we have operational control. Scope 2 emissions are market-based. Scope 1 and Scope 2 emissions are verified externally. We calculate vehicle production intensity metrics (t CO₂e/vehicle produced) by dividing the annual global Scope 1 (reported in C6.1) and Scope 2 emissions (reported in C6.3) by the annual global vehicle production (reported in C6.10): $S1=0.27 \text{ tCO}_2\text{e/vehicle}$, $S2=0.60 \text{ tCO}_2\text{e/vehicle}$. We also report combined tonnes $(S1+S2)/\text{production} = 0.87 \text{ tCO}_2\text{e/vehicle}$ in CDP C6.10. We multiply the scope t/vehicle factor by the number of vehicles sold to each customer in the reporting year to get t CO₂e associated with each scope. This provides the customer with their scope 3 emissions associated with manufacturing the vehicles they purchased from Ford. The CO₂ emissions calculated by this method represent an average emission rate across all our facilities. We have not calculated scope 1 and scope 2 emissions by vehicle model or manufacturing location nor differentiated by vehicle models purchased by the customer. The +/- 5% total uncertainty reflects the difference in the average t CO₂/vehicle factor compared to a factor specific to the vehicles and geographies. The total scope 1 and scope 2 emissions underlying the average t CO₂/vehicle factor are accurate to within 1%.

Requesting member

National Grid PLC

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

7

Uncertainty (±%)

5

Major sources of emissions

Scope 1 emissions from direct combustion of fuels for heat and operations at manufacturing plants and other facilities

Verified

No

Allocation method

Allocation based on the number of units purchased

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

Ford has a robust environmental management system (EMS) for tracking annual Scope 1 and 2 emissions from our operations and energy use where we have operational control. Scope 2 emissions are market-based. Scope 1 and Scope 2 emissions are verified externally. We calculate vehicle production intensity metrics (t CO₂e/vehicle produced) by dividing the annual global Scope 1 (reported in C6.1) and Scope 2 emissions (reported in C6.3) by the annual global vehicle production (reported in C6.10): $S1=0.27 \text{ tCO}_2\text{e/vehicle}$, $S2=0.60 \text{ tCO}_2\text{e/vehicle}$. We also report combined tonnes $(S1+S2)/\text{production} = 0.87 \text{ tCO}_2\text{e/vehicle}$ in CDP C6.10. We multiply the scope t/vehicle factor by the number of vehicles sold to each customer in the reporting year to get t CO₂e associated with each scope. This provides the customer with their scope 3 emissions associated with manufacturing the vehicles they purchased from Ford. The CO₂ emissions calculated by this method represent an average emission rate across all our facilities. We have not calculated scope 1 and scope 2 emissions by vehicle model or manufacturing location nor differentiated by vehicle models purchased by the customer. The +/- 5% total uncertainty reflects the difference in the average t CO₂/vehicle factor compared to a factor specific to the vehicles and geographies. The total scope 1 and scope 2 emissions underlying the average t CO₂/vehicle factor are accurate to within 1%.

Requesting member

National Grid PLC

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

16

Uncertainty (±%)

5

Major sources of emissions

Scope 2 emissions from purchased electricity used at manufacturing plants and other facilities

Verified

Please select

Allocation method

Please select

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

Ford has a robust environmental management system (EMS) for tracking annual Scope 1 and 2 emissions from our operations and energy use where we have operational control. Scope 2 emissions are market-based. Scope 1 and Scope 2 emissions are verified externally. We calculate vehicle production intensity metrics (t CO₂e/vehicle produced) by dividing the annual global Scope 1 (reported in C6.1) and Scope 2 emissions (reported in C6.3) by the annual global vehicle production (reported in C6.10): $S1=0.27 \text{ tCO}_2\text{e/vehicle}$, $S2=0.60 \text{ tCO}_2\text{e/vehicle}$. We also report combined tonnes $(S1+S2)/\text{production} = 0.87 \text{ tCO}_2\text{e/vehicle}$ in CDP C6.10. We multiply the scope t/vehicle factor by the number of vehicles sold to each customer in the reporting year to get t CO₂e associated with each scope. This provides the customer with their scope 3

emissions associated with manufacturing the vehicles they purchased from Ford. The CO2 emissions calculated by this method represent an average emission rate across all our facilities. We have not calculated scope 1 and scope 2 emissions by vehicle model or manufacturing location nor differentiated by vehicle models purchased by the customer. The +/- 5% total uncertainty reflects the difference in the average t CO2/vehicle factor compared to a factor specific to the vehicles and geographies. The total scope 1 and scope 2 emissions underlying the average t CO2/vehicle factor are accurate to within 1%.

Requesting member

Nokia Group

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

39

Uncertainty (±%)

5

Major sources of emissions

Scope 1 emissions from direct combustion of fuels for heat and operations at manufacturing plants and other facilities

Verified

No

Allocation method

Allocation based on the number of units purchased

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

Ford has a robust environmental management system (EMS) for tracking annual Scope 1 and 2 emissions from our operations and energy use where we have operational control. Scope 2 emissions are market-based. Scope 1 and Scope 2 emissions are verified externally. We calculate vehicle production intensity metrics (t CO2e/vehicle produced) by dividing the annual global Scope 1 (reported in C6.1) and Scope 2 emissions (reported in C6.3) by the annual global vehicle production (reported in C6.10): $S1=0.27 \text{ tCO}_2\text{e/vehicle}$, $S2=0.60 \text{ tCO}_2\text{e/vehicle}$. We also report combined tonnes $(S1+S2)/\text{production} = 0.87 \text{ tCO}_2\text{e/vehicle}$ in CDP C6.10. We multiply the scope t/vehicle factor by the number of vehicles sold to each customer in the reporting year to get t CO2e associated with each scope. This provides the customer with their scope 3 emissions associated with manufacturing the vehicles they purchased from Ford. The CO2 emissions calculated by this method represent an average emission rate across all our facilities. We have not calculated scope 1 and scope 2 emissions by vehicle model or manufacturing location nor differentiated by vehicle models purchased by the customer. The +/- 5% total uncertainty reflects the difference in the average t CO2/vehicle factor compared to a factor specific to the vehicles and geographies. The total scope 1 and scope 2 emissions underlying the average t CO2/vehicle factor are accurate to within 1%.

Requesting member

Nokia Group

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

85

Uncertainty (±%)

5

Major sources of emissions

Scope 2 emissions from purchased electricity used at manufacturing plants and other facilities

Verified

Please select

Allocation method

Please select

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

Ford has a robust environmental management system (EMS) for tracking annual Scope 1 and 2 emissions from our operations and energy use where we have operational control. Scope 2 emissions are market-based. Scope 1 and Scope 2 emissions are verified externally. We calculate vehicle production intensity metrics (t CO2e/vehicle produced) by dividing the annual global Scope 1 (reported in C6.1) and Scope 2 emissions (reported in C6.3) by the annual global vehicle production (reported in C6.10): $S1=0.27 \text{ tCO}_2\text{e/vehicle}$, $S2=0.60 \text{ tCO}_2\text{e/vehicle}$. We also report combined tonnes $(S1+S2)/\text{production} = 0.87 \text{ tCO}_2\text{e/vehicle}$ in CDP C6.10. We multiply the scope t/vehicle factor by the number of vehicles sold to each customer in the reporting year to get t CO2e associated with each scope. This provides the customer with their scope 3 emissions associated with manufacturing the vehicles they purchased from Ford. The CO2 emissions calculated by this method represent an average emission rate across all our facilities. We have not calculated scope 1 and scope 2 emissions by vehicle model or manufacturing location nor differentiated by vehicle models purchased by the customer. The +/- 5% total uncertainty reflects the difference in the average t CO2/vehicle factor compared to a factor specific to the vehicles and geographies. The total scope 1 and scope 2 emissions underlying the average t CO2/vehicle factor are accurate to within 1%.

Requesting member

Philip Morris International

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

118

Uncertainty (±%)

5

Major sources of emissions

Scope 1 emissions from direct combustion of fuels for heat and operations at manufacturing plants and other facilities

Verified

No

Allocation method

Allocation based on the number of units purchased

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

Ford has a robust environmental management system (EMS) for tracking annual Scope 1 and 2 emissions from our operations and energy use where we have operational control. Scope 2 emissions are market-based. Scope 1 and Scope 2 emissions are verified externally. We calculate vehicle production intensity metrics (t CO2e/vehicle produced) by dividing the annual global Scope 1 (reported in C6.1) and Scope 2 emissions (reported in C6.3) by the annual global vehicle production (reported in C6.10): $S1=0.27 \text{ tCO}_2\text{e/vehicle}$, $S2=0.60 \text{ tCO}_2\text{e/vehicle}$. We also report combined tonnes $(S1+S2)/\text{production} = 0.87 \text{ tCO}_2\text{e/vehicle}$ in CDP C6.10. We multiply the scope t/vehicle factor by the number of vehicles sold to each customer in the reporting year to get t CO2e associated with each scope. This provides the customer with their scope 3 emissions associated with manufacturing the vehicles they purchased from Ford. The CO2 emissions calculated by this method represent an average emission rate across all our facilities. We have not calculated scope 1 and scope 2 emissions by vehicle model or manufacturing location nor differentiated by vehicle models purchased by the customer. The +/- 5% total uncertainty reflects the difference in the average t CO2/vehicle factor compared to a factor specific to the vehicles and geographies. The total scope 1 and scope 2 emissions underlying the average t CO2/vehicle factor are accurate to within 1%.

Requesting member

Philip Morris International

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

258

Uncertainty (±%)

5

Major sources of emissions

Scope 2 emissions from purchased electricity used at manufacturing plants and other facilities

Verified

No

Allocation method

Allocation based on the number of units purchased

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

Ford has a robust environmental management system (EMS) for tracking annual Scope 1 and 2 emissions from our operations and energy use where we have operational control. Scope 2 emissions are market-based. Scope 1 and Scope 2 emissions are verified externally. We calculate vehicle production intensity metrics (t CO2e/vehicle produced) by dividing the annual global Scope 1 (reported in C6.1) and Scope 2 emissions (reported in C6.3) by the annual global vehicle production (reported in C6.10): $S1=0.27 \text{ tCO}_2\text{e/vehicle}$, $S2=0.60 \text{ tCO}_2\text{e/vehicle}$. We also report combined tonnes $(S1+S2)/\text{production} = 0.87 \text{ tCO}_2\text{e/vehicle}$ in CDP C6.10. We multiply the scope t/vehicle factor by the number of vehicles sold to each customer in the reporting year to get t CO2e associated with each scope. This provides the customer with their scope 3 emissions associated with manufacturing the vehicles they purchased from Ford. The CO2 emissions calculated by this method represent an average emission rate across all our facilities. We have not calculated scope 1 and scope 2 emissions by vehicle model or manufacturing location nor differentiated by vehicle models purchased by the customer. The +/- 5% total uncertainty reflects the difference in the average t CO2/vehicle factor compared to a factor specific to the vehicles and geographies. The total scope 1 and scope 2 emissions underlying the average t CO2/vehicle factor are accurate to within 1%.

Requesting member

Santa Catarina

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

0

Uncertainty (±%)

5

Major sources of emissions

Scope 1 emissions from direct combustion of fuels for heat and operations at manufacturing plants and other facilities

Verified

No

Allocation method

Allocation based on the number of units purchased

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

Our records do not show any vehicle sales to Santa Catarina in 2020. Ford has a robust environmental management system (EMS) for tracking annual Scope 1 and 2 emissions from our operations and energy use where we have operational control. Scope 2 emissions are market-based. Scope 1 and Scope 2 emissions are verified externally. We calculate vehicle production intensity metrics (t CO₂e/vehicle produced) by dividing the annual global Scope 1 (reported in C6.1) and Scope 2 emissions (reported in C6.3) by the annual global vehicle production (reported in C6.10): $S1=0.27 \text{ tCO}_2\text{e/vehicle}$, $S2=0.60 \text{ tCO}_2\text{e/vehicle}$. We also report combined tonnes $(S1+S2)/\text{production} = 0.87 \text{ tCO}_2\text{e/vehicle}$ in CDP C6.10. We multiply the scope t/vehicle factor by the number of vehicles sold to each customer in the reporting year to get t CO₂e associated with each scope. This provides the customer with their scope 3 emissions associated with manufacturing the vehicles they purchased from Ford. The CO₂ emissions calculated by this method represent an average emission rate across all our facilities. We have not calculated scope 1 and scope 2 emissions by vehicle model or manufacturing location nor differentiated by vehicle models purchased by the customer. The +/- 5% total uncertainty reflects the difference in the average t CO₂/vehicle factor compared to a factor specific to the vehicles and geographies. The total scope 1 and scope 2 emissions underlying the average t CO₂/vehicle factor are accurate to within 1%.

Requesting member

Santa Catarina

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

0

Uncertainty (±%)

5

Major sources of emissions

Scope 2 emissions from purchased electricity used at manufacturing plants and other facilities

Verified

No

Allocation method

Allocation based on the number of units purchased

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

Our records do not show any vehicle sales to Santa Catarina in 2020. Ford has a robust environmental management system (EMS) for tracking annual Scope 1 and 2 emissions from our operations and energy use where we have operational control. Scope 2 emissions are market-based. Scope 1 and Scope 2 emissions are verified externally. We calculate vehicle production intensity metrics (t CO₂e/vehicle produced) by dividing the annual global Scope 1 (reported in C6.1) and Scope 2 emissions (reported in C6.3) by the annual global vehicle production (reported in C6.10): $S1=0.27 \text{ tCO}_2\text{e/vehicle}$, $S2=0.60 \text{ tCO}_2\text{e/vehicle}$. We also report combined tonnes $(S1+S2)/\text{production} = 0.87 \text{ tCO}_2\text{e/vehicle}$ in CDP C6.10. We multiply the scope t/vehicle factor by the number of vehicles sold to each customer in the reporting year to get t CO₂e associated with each scope. This provides the customer with their scope 3 emissions associated with manufacturing the vehicles they purchased from Ford. The CO₂ emissions calculated by this method represent an average emission rate across all our facilities. We have not calculated scope 1 and scope 2 emissions by vehicle model or manufacturing location nor differentiated by vehicle models purchased by the customer. The +/- 5% total uncertainty reflects the difference in the average t CO₂/vehicle factor compared to a factor specific to the vehicles and geographies. The total scope 1 and scope 2 emissions underlying the average t CO₂/vehicle factor are accurate to within 1%.

Requesting member

U.S. General Services Administration - OMB ICR #3090-0319

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

4857

Uncertainty (±%)

5

Major sources of emissions

Scope 1 emissions from direct combustion of fuels for heat and operations at manufacturing plants and other facilities

Verified

No

Allocation method

Allocation based on the number of units purchased

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

Ford has a robust environmental management system (EMS) for tracking annual Scope 1 and 2 emissions from our operations and energy use where we have operational control. Scope 2 emissions are market-based. Scope 1 and Scope 2 emissions are verified externally. We calculate vehicle production intensity metrics (t CO₂e/vehicle produced) by dividing the annual global Scope 1 (reported in C6.1) and Scope 2 emissions (reported in C6.3) by the annual global vehicle production (reported in C6.10): $S1=0.27 \text{ tCO}_2\text{e/vehicle}$, $S2=0.60 \text{ tCO}_2\text{e/vehicle}$. We also report combined tonnes $(S1+S2)/\text{production} = 0.87 \text{ tCO}_2\text{e/vehicle}$ in CDP C6.10. We multiply the scope t/vehicle factor by the number of vehicles sold to each customer in the reporting year to get t CO₂e associated with each scope. This provides the customer with their scope 3 emissions associated with manufacturing the vehicles they purchased from Ford. The CO₂ emissions calculated by this method represent an average emission rate across all our facilities. We have not calculated scope 1 and scope 2 emissions by vehicle model or manufacturing location nor differentiated by vehicle models purchased by the customer. The +/- 5% total uncertainty reflects the difference in the average t CO₂/vehicle factor compared to a factor specific to the vehicles and geographies. The total scope 1 and scope 2 emissions underlying the average t CO₂/vehicle factor are accurate to within 1%.

Requesting member

U.S. General Services Administration - OMB ICR #3090-0319

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

10568

Uncertainty (±%)

5

Major sources of emissions

Scope 2 emissions from purchased electricity used at manufacturing plants and other facilities

Verified

No

Allocation method

Allocation based on the number of units purchased

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

Ford has a robust environmental management system (EMS) for tracking annual Scope 1 and 2 emissions from our operations and energy use where we have operational control. Scope 2 emissions are market-based. Scope 1 and Scope 2 emissions are verified externally. We calculate vehicle production intensity metrics (t CO₂e/vehicle produced) by dividing the annual global Scope 1 (reported in C6.1) and Scope 2 emissions (reported in C6.3) by the annual global vehicle production (reported in C6.10): $S1=0.27 \text{ tCO}_2\text{e/vehicle}$, $S2=0.60 \text{ tCO}_2\text{e/vehicle}$. We also report combined tonnes $(S1+S2)/\text{production} = 0.87 \text{ tCO}_2\text{e/vehicle}$ in CDP C6.10. We multiply the scope t/vehicle factor by the number of vehicles sold to each customer in the reporting year to get t CO₂e associated with each scope. This provides the customer with their scope 3 emissions associated with manufacturing the vehicles they purchased from Ford. The CO₂ emissions calculated by this method represent an average emission rate across all our facilities. We have not calculated scope 1 and scope 2 emissions by vehicle model or manufacturing location nor differentiated by vehicle models purchased by the customer. The +/- 5% total uncertainty reflects the difference in the average t CO₂/vehicle factor compared to a factor specific to the vehicles and geographies. The total scope 1 and scope 2 emissions underlying the average t CO₂/vehicle factor are accurate to within 1%.

Requesting member

Walmart, Inc.

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

72

Uncertainty (±%)

5

Major sources of emissions

Scope 1 emissions from direct combustion of fuels for heat and operations at manufacturing plants and other facilities

Verified

No

Allocation method

Allocation based on the number of units purchased

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

Ford has a robust environmental management system (EMS) for tracking annual Scope 1 and 2 emissions from our operations and energy use where we have operational control. Scope 2 emissions are market-based. Scope 1 and Scope 2 emissions are verified externally. We calculate vehicle production intensity metrics (t CO₂e/vehicle produced) by dividing the annual global Scope 1 (reported in C6.1) and Scope 2 emissions (reported in C6.3) by the annual global vehicle production (reported in C6.10): $S1=0.27 \text{ tCO}_2\text{e/vehicle}$, $S2=0.60 \text{ tCO}_2\text{e/vehicle}$. We also report combined tonnes $(S1+S2)/\text{production} = 0.87 \text{ tCO}_2\text{e/vehicle}$ in CDP C6.10. We multiply the scope t/vehicle factor by the number of vehicles sold to each customer in the reporting year to get t CO₂e associated with each scope. This provides the customer with their scope 3 emissions associated with manufacturing the vehicles they purchased from Ford. The CO₂ emissions calculated by this method represent an average emission rate across all our facilities. We have not calculated scope 1 and scope 2 emissions by vehicle model or manufacturing location nor differentiated by vehicle models purchased by the customer. The +/- 5% total uncertainty reflects the difference in the average t CO₂/vehicle factor compared to a factor specific to the vehicles and geographies. The total scope 1 and scope 2 emissions underlying the average t CO₂/vehicle factor are accurate to within 1%.

Requesting member

Walmart, Inc.

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

156

Uncertainty (±%)

5

Major sources of emissions

Scope 2 emissions from purchased electricity used at manufacturing plants and other facilities

Verified

No

Allocation method

Allocation based on the number of units purchased

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

Ford has a robust environmental management system (EMS) for tracking annual Scope 1 and 2 emissions from our operations and energy use where we have operational control. Scope 2 emissions are market-based. Scope 1 and Scope 2 emissions are verified externally. We calculate vehicle production intensity metrics (t CO₂e/vehicle produced) by dividing the annual global Scope 1 (reported in C6.1) and Scope 2 emissions (reported in C6.3) by the annual global vehicle production (reported in C6.10): $S1=0.27$ tCO₂e/vehicle, $S2=0.60$ tCO₂e/vehicle. We also report combined tonnes $(S1+S2)/production = 0.87$ tCO₂e/vehicle in CDP C6.10. We multiply the scope t/vehicle factor by the number of vehicles sold to each customer in the reporting year to get t CO₂e associated with each scope. This provides the customer with their scope 3 emissions associated with manufacturing the vehicles they purchased from Ford. The CO₂ emissions calculated by this method represent an average emission rate across all our facilities. We have not calculated scope 1 and scope 2 emissions by vehicle model or manufacturing location nor differentiated by vehicle models purchased by the customer. The +/- 5% total uncertainty reflects the difference in the average t CO₂/vehicle factor compared to a factor specific to the vehicles and geographies. The total scope 1 and scope 2 emissions underlying the average t CO₂/vehicle factor are accurate to within 1%.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

Ford Sustainability Report: <https://corporate.ford.com/microsites/integrated-sustainability-and-financial-report-2021/esg-reporting-hub/index.html>

Ford Sustainability Report Emissions per Vehicle Produced: <https://corporate.ford.com/microsites/integrated-sustainability-and-financial-report-2021/files/ir21-performance-data.pdf>

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Diversity of product lines makes accurately accounting for each product/product line cost ineffective	The range and geographic diversity of the products purchased by these customers makes this infeasible to overcome.

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

No

SC1.4b

(SC1.4b) Explain why you do not plan to develop capabilities to allocate emissions to your customers.

Ford has a robust environmental management system (EMS) for tracking the Scope 1 and 2 emissions from our operations and energy use. Assigning a level of Scope 1 and Scope 2 to this group of customers (individually) results in a statistically insignificant number /allocation per customer. However, Ford did assign allocations to the customers as noted in SC1.1. Ford understands that the largest part of our CO₂ footprint results from the in-use phase of our products by our customers.

SC2.1

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

SC2.2

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

SC4.1

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

Submit your response

In which language are you submitting your response?
English

Please confirm how your response should be handled by CDP

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

Please confirm below
I have read and accept the applicable Terms