C0. Introduction

C0.1

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

Mastercard (NYSE: MA), www.mastercard.com, Mastercard is a global technology company in the payments industry. Our mission is to connect and power an inclusive, digital economy that benefits everyone, everywhere by making transactions safe, simple, smart and accessible. Using secure data and networks, partnerships and passion, our innovations and solutions help individuals, financial institutions, governments and businesses realize their greatest potential. With connections across more than 210 countries and territories, we are building a sustainable world that unlocks priceless possibilities for all.

C0.2

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

Reporting year

Start date
January 1 2022

End date
December 31 2022

Indicate if you are providing emissions data for past reporting years
No

Select the number of past reporting years you will be providing Scope 1 emissions data for
<Not Applicable>

Select the number of past reporting years you will be providing Scope 2 emissions data for
<Not Applicable>

Select the number of past reporting years you will be providing Scope 3 emissions data for
<Not Applicable>

C0.3

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

Argentina
Australia
Austria
Bangladesh
Belgium
Brazil
Bulgaria
Canada
Chile
China
Colombia
Costa Rica
Czechia
Denmark
Egypt
France
Germany
Greece
Hong Kong SAR, China
Hungary
India
Indonesia
Ireland
Israel
Italy
Japan
Jordan
Kenya
Malaysia
Mexico
Morocco
New Zealand
Nigeria
Norway
Peru
Philippines
Poland
Qatar
Republic of Korea
Romania
Russian Federation
Saudi Arabia
Serbia
Singapore
South Africa
Spain
Sweden
Switzerland
Taiwan, China
Thailand
Turkey
Ukraine
United Arab Emirates
United Kingdom of Great Britain and Northern Ireland
United States of America
Venezuela (Bolivarian Republic of)
Viet Nam
Zimbabwe

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

C0.8

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

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, a Ticker symbol	MA

C1. Governance

C1.1

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

Yes

C1.1a

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

Position of individual or committee	Responsibilities for climate-related issues
Board Chair	Because sustainability is a core part of our corporate strategy, the Board oversees our ESG strategy and environmental sustainability goals including reducing emissions and resource use in our own operations and across our full value chain, and offering innovative solutions that help our customers, partners and consumers do the same. The full board reviewed our ESG strategy in December 2022, and provided guidance on key focus areas including our goal to achieve net zero GHG emissions by 2040.
Board-level committee	The Nominating and Corporate Governance (NCG) Committee's charter specifically notes that its purpose includes "assist[ing] the Board by overseeing significant ESG activities, policies and programs of the Company". Its responsibilities and duties as listed in its charter include "oversee[ing] the Company's policies and programs and monitor[ing] governance trends in the following areas: corporate responsibility, environmental stewardship, human rights, and other such matters of significance to the Company and its stockholders." Environmental stewardship includes but is not limited to climate-related issues. The NCG Committee periodically reviews progress against key ESG metrics and targets, including those related to our GHG emissions, financial inclusion and DEI goals.
Board-level committee	The Risk Committee's activities, in coordination with the Audit Committee, where appropriate, include reviewing Mastercard's risk management governance, framework and programs, including risk appetite and risk management culture; reviewing Mastercard's guidelines and policies with respect to risk assessment and risk management, major strategic risk exposures and management's oversight of such exposures; and overseeing the operation and annual review of the company's risk appetite statement and metrics and their alignment with the company's strategic, capital and financial plans, and, where applicable, regulatory requirements and recommend approval of the risk appetite statement to the Board The Board and its committees' oversight of risk and management's ownership of risk are foundational components of our Enterprise Risk Management (ERM) program. Please see the response to question C2.2 for more detail regarding our ERM program.

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 annual budgets Overseeing and guiding employee incentives Reviewing and guiding strategy Reviewing and guiding the risk management process Other, please specify (Reviewing and guiding major plans of action, Setting performance objectives, Monitoring and overseeing progress against goals and targets for addressing climate-related issues, Monitoring implementation and performance of objectives)	<Not Applicable>	Reviewing and guiding strategy, Reviewing and guiding major plans of action, Setting performance objectives. Summary of responsibilities: The Board is responsible for overseeing our ESG strategy including reviewing and guiding ambition, strategy, major plans of action, and timeline related to certain significant environmental and social sustainability matters such as climate action. The Board approves Mastercard's high-level annual budget, and while it does not review budget allocation to specific areas of the company, its guidance on ESG strategy and commitments signifies an expectation for resource allocation. Process / Frequency: Climate-related ambition, strategy, major plans of action, and associated timelines are presented to the Board at regular intervals as strategic topics, primarily by the President of Strategic Growth, and CSO . For example, in 2022, as part of an annual review of our ESG strategy, the Board reviewed progress and challenges related to our commitment to net zero GHG emissions by 2040, and opportunities for Mastercard products and services to help customers achieve their environmental- and climate-related goals. The next ESG strategy update to the Board is scheduled for 4Q23. Monitoring implementation and performance of objectives, Monitoring and overseeing progress against goals and targets for addressing climate-related issues. Summary of responsibilities: The Board exercises additional oversight of environmental stewardship, including climate-related issues through the Nominating and Corporate Governance Committee. Process / Frequency: The NCG Committee regularly reviews and guides legal, public policy and ESG matters, including overseeing the policies and programs and monitoring governance trends in the areas of corporate responsibility, environmental stewardship, human rights, and other such matters of significance to Mastercard and its stockholders. In September 2022, the committee reviewed progress against our key ESG metrics and targets including net zero GHG emissions by 2040 and our SBTi-approved 2025 interim targets for Scope 1 and 2 and Scope 3 emissions. Reviewing and guiding risk management policies Summary of responsibilities: The Board exercises oversight of our enterprise risk management program including our corporate risk dashboard, which includes various ESG topics, through the Risk Committee and in coordination with the Audit Committee as appropriate. Process / Frequency: The Risk Committee reports to the Board at least annually on strategic risk-related matters facing the company. The Enterprise Risk Taxonomy ("Taxonomy"), which includes ESG and Climate related risks, is the foundation for the discussion of risk at the Risk Committee. The Risk Committee reviews Mastercard's top risks within the Taxonomy which are identified through business risk assessments where the risk level is deemed material.

C1.1d

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

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	In 2022, per our 2022 Proxy Statement, 12 of our 13 Directors brought experience in sustainability, which includes in the aggregate environmental/climate change, talent and culture, and social responsibility initiatives. Notably, one of our Directors, Lance Uggla, is CEO of BeyondNetZero, a venture targeting growth equity investments related to climate change. Our Board members therefore have appropriate experience to advise specifically on sustainability strategy and execution. For more information on Mastercard's Board of Directors, see "Proposal 1: Election of Directors" in the 2022 Proxy Statement, starting on p. 26.	<Not Applicable>	<Not Applicable>

C1.2

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

Position or committee
Chief Financial Officer (CFO)

Climate-related responsibilities of this position
Managing annual budgets for climate mitigation activities
Integrating climate-related issues into the strategy

Coverage of responsibilities
<Not Applicable>

Reporting line
CEO reporting line

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

Please explain
The CFO oversees Mastercard's Real Estate, Meeting and Travel, and Sourcing and Supplier Management teams, who oversee the majority of Mastercard's emissions, energy efficiency projects and science-based emissions targets. Our global Real Estate and Procurement teams manage our efforts to reduce our internal footprint and that of our supply chain. They report their results to our CFO. The CFO also oversaw the Enterprise Risk Management (ERM) team in 2022, who are responsible for setting and managing the enterprise-wide risk framework which now includes climate-related risks. Please see below for information on the new Chief Risk Officer.

Position or committee
Chief Sustainability Officer (CSO)

Climate-related responsibilities of this position
Integrating climate-related issues into the strategy
Monitoring progress against climate-related corporate targets
Managing public policy engagement that may impact the climate

Coverage of responsibilities
<Not Applicable>

Reporting line
Corporate Sustainability/CSR reporting line

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

Please explain
The Chief Sustainability Officer manages our ESG Executive Steering Committee, which meets approximately quarterly to review performance against our ESG goals and provide strategic direction on key sustainability matters. The CSO is also tasked with developing organization-sustainability goals and working with business units to leverage them as enterprise-wide drivers of growth. The Sustainability function, including the CSO, work on public policy that may impact climate-related issues. The CSO reports regularly to the Board on sustainability matters.

Position or committee
Chief Risks Officer (CRO)

Climate-related responsibilities of this position
Managing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
CEO reporting line

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

Please explain
In February 2023, the company appointed its first Chief Risk Officer, leading a function called Mastercard Risk. The Chief Risk Officer serves as the primary management liaison to the Board's Risk Committee and supports the Board in its oversight of risk governance, management and culture. The Chief Risk Officer also serves as the chair of our internal Executive Risk Committee, composed of senior executives and other risk functions, charged with day-to-day oversight of the risk program, which includes Mastercard's ERM Program, which is designed to provide comprehensive, integrated oversight and management of risk, as well as to facilitate transparent identification and reporting of key business issues to senior management, appropriate Board committees and the Board as a whole.

Position or committee
Other C-Suite Officer, please specify (Vice-Chairman and President Strategic Growth)

Climate-related responsibilities of this position
Providing climate-related employee incentives
Monitoring progress against climate-related corporate targets

Coverage of responsibilities
<Not Applicable>

Reporting line
CEO reporting line

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

Please explain
Our Vice Chairman and President of Strategic Growth oversees the corporate sustainability function, which is tasked with developing sustainability milestones and working with business units to leverage them as enterprise-wide drivers of growth. The President of Strategic Growth reports directly to the CEO and provides regular updates to the Board and the relevant committees on sustainability matters and which include our climate-related employee compensation targets, though the overall employee compensation is led by our Chief Administration Officer.

Position or committee
Other committee, please specify (ESG Executive Steering Committee, co-chaired by President of Strategic Growth & Chief Administrative Officer; inclusive of most of our senior management, including the CFO, Chief Security Officer, Chief People Officer, regional presidents & others)

Climate-related responsibilities of this position
Integrating climate-related issues into the strategy

Coverage of responsibilities
<Not Applicable>

Reporting line
Other, please specify (Cross-functional communication across Product, Technology, Sourcing & Supply Chain, Risk, Legal, and Finance.)

Frequency of reporting to the board on climate-related issues via this reporting line
Not reported to the board

Please explain
Our ESG Executive Steering Committee is co-chaired by our President of Strategic Growth and Chief Administrative Officer, and includes leaders from every part of the company's organizational structure including our Chief Financial Officer, regional presidents, business units, marketing and communications. The committee is managed by our Chief Sustainability Officer and meets approximately quarterly to review performance against our ESG goals and provide strategic direction on key sustainability matters including climate risk management and net zero strategy. As this body has leadership representation from across the company, it is the primary mechanism for climate strategy integration into our business and for cross-functional communication across all parts of the organization including Product, Technology, Sourcing & Supply Chain, Risk, Legal, Markets and Finance.

Position or committee
Risk committee

Climate-related responsibilities of this position
Other, please specify (Risks and opportunities related to our investing activities, Risks and opportunities related to our own operations)

Coverage of responsibilities
<Not Applicable>

Reporting line
CEO reporting line

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

Please explain
Executive Risk Committee (previously Risk Management Committee) chaired by the CRO comprised of the CEO's direct reports, as well as Chief People Office, Corporate Treasurer, General Auditor and Head of ERM. The Executive Risk Committee is an internal management level committee, composed of senior executives and other risk functions, charged with day-to-day oversight of the company's risk program and risk management activities.

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	Described in response to question C1.3a.

C1.3a

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

Entitled to incentive
Corporate executive team

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Progress towards a climate-related target
Achievement of a climate-related target
Reduction in absolute emissions

Incentive plan(s) this incentive is linked to
Short-Term Incentive Plan

Further details of incentive(s)
To help further align our actions with our ESG goals, and to help ensure that all Mastercard employees share in the responsibility to uphold these goals, we link our annual incentive programs for all executives and employees to ESG performance measures, including quantitative objectives for financial inclusion, gender pay equity and greenhouse-gas emissions reductions. An ESG modifier is applied to our corporate score, which drives annual incentive pay for each executive and employee.

In 2022, the emissions reduction objectives included the percentage reduction in Scope 1 and 2 greenhouse gas emissions and the percentage of our top-tier suppliers who responded to the CDP survey.

To learn more about how we link executive and employee pay to our ESG targets, see the executive compensation section of our 2023 Annual Proxy Statement starting on page 63.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
The monetary incentives included the percentage reduction in Scope 1 and 2 greenhouse gas emissions and the percentage of our top-tier suppliers who responded to the CDP survey, which are tied to our overall target of Net Zero by 2040.

Entitled to incentive
All employees

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Progress towards a climate-related target
Achievement of a climate-related target
Reduction in absolute emissions

Incentive plan(s) this incentive is linked to
Short-Term Incentive Plan

Further details of incentive(s)
To help further align our actions with our ESG goals, and to help ensure that all Mastercard employees share in the responsibility to uphold these goals, we link our annual incentive programs for all executives and employees to ESG performance measures, including quantitative objectives for financial inclusion, gender pay equity and greenhouse-gas emissions reductions. An ESG modifier is applied to our corporate score, which drives annual incentive pay for each executive and employee.

In 2022, the emissions reduction objectives included the percentage reduction in Scope 1 and 2 greenhouse gas emissions and the percentage of our top-tier suppliers who responded to the CDP survey and set a near-term science-based carbon reduction goal or net zero target.

To learn more about how we link executive and employee pay to our ESG targets, see the executive compensation section of our 2023 Annual Proxy Statement starting on page 63.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
The monetary incentives included the percentage reduction in Scope 1 and 2 greenhouse gas emissions and the percentage of our top-tier suppliers who responded to the CDP survey, which are tied to our overall target of Net Zero by 2040.

Entitled to incentive
Buyers/purchasers

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Progress towards a climate-related target
Achievement of a climate-related target

Incentive plan(s) this incentive is linked to
Short-Term Incentive Plan

Further details of incentive(s)
The annual incentive program tied to ESG performance measures applies to all employees including buyers / purchasers on Mastercard's supply chain sourcing team.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
The monetary incentives included the percentage of our top-tier suppliers who responded to the CDP survey, which are tied to our overall target of Net Zero by 2040

C2. Risks and opportunities

C2.1

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

C2.1a

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

	From (years)	To (years)	Comment
Short-term	0	3	Mastercard's Enterprise Risk Management (ERM) program uses a rolling three-year time horizon for risk identification, assessment and response of its enterprise level risks, and reviews the process regularly. The risk identification process focuses on strategic, operational, legal/ regulatory and financial risks (as listed in on our Risk Taxonomy) that may have a significant impact on our ability to execute our strategy (which tends to cover a three-year time horizon), meet our objectives, and/or adversely impact our brand/ reputation. Treatment plans in response to these risks may be focused on the short-, medium-, or long-term depending on the risk. Risk assessments are conducted across our various regions and businesses to identify, manage, and respond to short-term risks which could impact the safety, security, and resilience of our on-going operations. Additionally, Mastercard conducts Business Continuity Planning activities, (including crisis scenarios, exercises, reviews, testing, attestations) multiple times per year which are designed to address extreme events, including potential climate-related physical risks that are likely to manifest over the short-term.
Medium-term	3	15	We understand that some climate-related risks tend to manifest over a longer period, therefore, our climate scenario analysis has considered climate-related risks likely to manifest in the medium-term (by 2035) for physical and transition risks. Additionally, Mastercard's Business Continuity Planning activities include an on-site facility resiliency evaluation once every 5 years which considers risks likely to manifest over both the short-term and the medium-term (0-5 years).
Long-term	15	40	We understand that some climate-related risks tend to manifest over a longer period, therefore, our climate scenario analysis has considered climate-related risks likely to manifest by 2040 for transition risks and by 2060 for physical risks.

C2.1b

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

Mastercard's Enterprise Risk Management (ERM) program is designed to provide comprehensive, integrated oversight and management of risk, and to facilitate transparent identification and reporting of key risks to senior management, appropriate Board committees, and the Board as a whole. Our ERM program helps assure adequate recognition and ownership of the most significant potential risks to the company. Our ERM program evaluates relevant enterprise-level risks, including climate risks, using impact criteria across financial, strategic, operational, legal & regulatory, and reputational domains. Impact is evaluated on a 5-point scale, with a rating of 4 or 5 considered substantive and viewed to have potentially significant financial, operational, legal/regulatory, reputational and/or strategic impact on our business. Mastercard has identified indicators for each of these impact categories and set thresholds for determining the impact rating of a given risk; for example, a risk would score a 4 or 5 if it caused significant market share deterioration, significant financial loss, major regulatory scrutiny, and/or likely failure to achieve key strategic initiatives including those related to ESG and sustainability.

Likelihood ratings are also incorporated into our risk assessments leveraging a 5-point scale based on probability and frequency of occurrence over a specified time horizon. Combining impact and likelihood allows us to produce a residual risk rating to prioritize the key risks to the organization from Low to Very High. For example, a risk that is rated 4 or 5 in impact with a likelihood of 40% or higher over a three-year horizon would generally be rated High or Very High, and therefore considered to have substantive impact on the business.

C2.2

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

Value chain stage(s) covered
Direct operations
Upstream
Downstream

Risk management process
Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment
More than once a year

Time horizon(s) covered
Short-term
Medium-term
Long-term

Description of process
Our Enterprise Risk Management (ERM) program is designed to provide comprehensive, integrated, and balanced management of risk, while facilitating transparent identification and reporting of key business issues and risks. Mastercard has incorporated and considered ESG and climate-related risks into the broader framework for managing risks through normal business operations.
Our ERM risk identification and assessment process uses both a top-down and bottom-up approach across our business units and key functional areas through the performance of periodic risk assessments using a defined risk taxonomy (Taxonomy) and rating scales. Risks are reported to the ERM team and consolidated at the corporate level to determine the company's overall corporate risk profile.
ESG and climate-related risks are embedded into the ERM framework. Our risk identification and assessment process is benchmarked to the COSO/ISO 31000 standards and includes understanding the context, identification, measurement, and evaluation of risks and associated responses, monitoring, and reporting.
Our Taxonomy is used to help identify, categorize, and aggregate risks across the organization, and is updated periodically to reflect our evolving business model and changing risk profile. Our Taxonomy is formally approved by Mastercard's Executive Risk Committee. In 2022, leveraging industry best practices and working with key first and second line stakeholders, including our Sustainability Team, ERM enhanced our Taxonomy to better prioritize and categorize the key risks to the company, including risks related to ESG. We continue to assess the relevancy of our Taxonomy and incorporate specific ESG risks identified in the ESG Materiality Assessments which are conducted periodically (and are currently in the process of further evaluating them in 2023). Risk rating scales are applied across the business to help rate and measure all of our risks including climate-related risks.
Risk assessments are performed in the business regularly, sponsored by our Risk Champions (senior leaders in the first line of defence charged with ensuring risk identification and assessment processes are carried out across the business). Each key business area and function has a dedicated Risk Champion responsible for implementing our ERM program, including Mastercard Strategic Growth, which includes our Sustainability function. We use multiple methods to conduct our risk assessments (e.g., horizon scanning, scenario planning, workshops, interviews, and/or surveys) which culminate in determining a residual risk rating and target risk rating. The outputs of the risk identification and assessment process are captured in risk registers which are updated regularly. The results of these risk assessments feed into periodic updates to the Board and its Committees, including ESG and climate-related risks. In addition, the ESG Steering Committee actively reviews climate-related risks (and opportunities).
Mastercard completes facility risk evaluations and business continuity planning (BCP) exercises across the business multiple times per year. We consider climate-related acute extreme weather events (such as hurricanes, flooding and winter storms) in our facility risk evaluation. Once every 5 years, a deep-dive on-site evaluation of data center resiliency is conducted. We conduct regular testing of our emergency back-up systems as a control for physical risk impacts to ensure 99.9% up time to-date and consider potential acute and chronic physical risks when we chose the location of our data centers.
In 2022, building off the work from 2020 (an external consultant was engaged to conduct a dedicated climate scenario analysis), we developed an approach to identify and evaluate physical under different scenarios. Aligned with the TCFD framework, our approach seeks to leverage our ERM risk assessment process to understand: (i) key climate physical risks (acute and chronic) to our facilities and their potential impacts; (ii) existing resilience measures reducing the risks; and (iii) any future action plans to mitigate the risks. We are leveraging our standard ERM risk assessment methodology to assess physical climate risk to Mastercard and imbed them into existing processes; guided by external climate data and external expertise to assess site-specific climate risks.
Phase 1 (2022), we conducted an in-depth physical risk and resilience assessment of our six most business-critical facilities (including our main processing centers in Missouri). This assessment identified and qualitatively evaluated the key climate risks and potential impacts to these facilities and their operations, and current and potential resilience opportunities specific to these facilities.
Phase 2 (2022 - 2023), we are comprehensively assessing the exposure of locations across Mastercard's real estate portfolio to climate-related hazards. The exposure assessment identifies the likelihood and magnitude of projected changes in these hazards across the portfolio. In 2023, the exposure information from Phase 2 will be used to identify any locations projected to have medium or high exposure to a given hazard. Mastercard will then develop climate risk mitigation strategies that are geared to better understand the existing and potential resilience measures at locations identified to have medium or high exposure in the medium- and long-term.
In 2023, our focus will be to further leverage findings from Phases 1 and 2. Our approach, which includes multiple workshops, will help us better understand our resilience to these risks and more fully integrate them into Mastercard's ongoing risk management process. This will entail: Identify the likelihood of climate hazards to determine existing mitigation and drive future strategies to assess materiality and potential financial impacts to our global real estate portfolio, we are integrating physical climate risk into each of our real estate competencies to ensure a holistic, systematic approach to mitigate potential impacts.
-Conducting annual peril likelihood assessment of all owned and leased sites.
-Creating "Smart Resilience" checklists, by peril, to inform our transaction and project management strategies. Operationally, facility teams will evaluate actual or potential climate perils as part of their annual audits. Community-driven resilience investments and policies will be reviewed at the local level as part of this audit process.
-Including climate risk assessments in all business cases for lease renewals, new locations, and acquired offices.
We have also assessed the impact of climate change on our supply chain. Leveraging external climate data to assess potential exposure and impacts to our key suppliers, we review our critical suppliers annually and actively engage with them to evaluate their peril-specific risk and resilience efforts.
We also review how Mastercard might be affected downstream by changing customer behavior.

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	Mastercard's Law & Policy Group conducts regular regulatory risk assessments leveraging the ERM taxonomy and risk rating guidelines, which may include current and emerging climate-related regulation. The Law & Policy Group also continuously monitors climate-related regulation in jurisdictions where we operate. The Chief Legal Officer, General Counsel and Head of Global Policy reports to the Chief Administrative Officer, who co-chairs the ESG Steering Committee. Relevant teams also conduct monitoring of current and emerging regulation impacting their business areas. For example, we are actively monitoring and preparing for the proposed SEC climate change disclosure requirements and EU CSRD climate disclosure requirements, as well as carbon tax schemes in the UK.
Emerging regulation	Relevant, always included	Mastercard's Law & Policy Group conducts regular regulatory risk assessment leveraging the ERM taxonomy and risk rating guidelines, which may include current and emerging climate-related regulation. The Law & Policy Group also continuously monitors climate-related regulation in jurisdictions where we operate. The Chief Legal Officer, General Counsel and Head of Global Policy reports to the Chief Administrative Officer, who co-chairs the ESG Steering Committee. Relevant teams also conduct monitoring of current and emerging regulation impacting their business areas. Additionally, we are monitoring and preparing for the SEC's proposed climate change disclosure requirements and a gap analysis has been performed.
Technology	Relevant, always included	Mastercard's Products & Services and, Technology business units perform regular risk assessments leveraging the ERM taxonomy and risk rating guidelines, which may include climate-related technology risks and opportunities. The Technology Team also constantly monitors risks related to new energy efficiency technology that we could implement to achieve climate goals.
Legal	Relevant, always included	Mastercard's Legal Team performs regular risk assessments leveraging the ERM taxonomy and risk rating guidelines, which may include climate-related liability risks. The Legal Team is also constantly monitoring climate-related exposure to litigation in all the countries we operate in. The Chief Legal Officer, General Counsel and Head of Global Policy reports to the Chief Administrative Officer, who co-chairs the ESG Executive Steering Committee.
Market	Relevant, always included	Mastercard considered market risk as part of the above-mentioned climate risk assessment and is looking into opportunities to reduce our energy consumption and increase our use of renewable energy. See section 2.3a for details on how we are managing carbon pricing risk. Additionally, Mastercard's product teams are continuously engaged in considering how changing customer behavior may impact demand for our products and services. We actively innovate products and services that take into account changing customer demand, for example, those product offerings listed in section 2.4a of this disclosure: Carbon Calculator, the Sustainability Innovation Lab, and Mastercard Advisors Sustainability Practice Area. We are exploring the use of transition risk scenario modelling to further understand this risk.
Reputation	Relevant, always included	Brand & reputational impacts are considered in all key business unit and functions' risk assessments as part of the enterprise-wide risk taxonomy and rating system. This includes brand and reputation related to ESG. For example, stakeholder perception (both internal and external) as well as brand perception related to Environmental and Social risks are considered during the risk assessment process. Our Risk Taxonomy is a foundational element of our ERM Framework, and is used by the business to identify and aggregate the key risks to the organization. While reputation is not a specific risk element of the taxonomy, it is an integral criteria in our risk assessment process and considered when prioritizing our risks. In 2022, leveraging industry best practices and working with key first and second line stakeholders, including our Sustainability Team, ERM enhanced our Taxonomy to better prioritize and categorize the key risks to the company, including risks related to ESG. We continue to assess the relevancy of our Taxonomy and incorporate specific ESG risks identified in the ESG Materiality Assessments which are conducted periodically (currently in process in 2023) Additionally, we constantly monitor increases in stakeholder concerns. For example, we published our first annual Corporate Sustainability Report (CSR) in 2017 to meet public demand from investors, customers, and other stakeholders. Since then, we have published reports in six consecutive years, with the latest 2022 Report (now entitled Mastercard's ESG Report) issued in June 2023.
Acute physical	Relevant, always included	Mastercard continues to build off the climate-related risk assessment work that began in 2020, leveraging scenario analysis to identify climate-related risks (physical and transition) to our business. The results have been shared with the ESG Executive Steering Committee and relevant functions of the organization as we build physical risk modelling into our enterprise risk framework. In 2022, we developed an approach to identify acute and chronic physical risks under different scenarios. Aligned with the TCFD framework, our approach seeks to leverage our ERM risk assessment process to understand: (i) the key climate physical risks to our facilities and their potential impacts; (ii) existing resilience/mitigants against these risks; and (iii) any future action plans to mitigate the risks. We are leveraging our standard ERM risk assessment methodology to assess physical climate risk to Mastercard and imbed into BAU processes; guided by external climate data and external expertise to assess site-specific climate risks. Please see responses to questions in section 3.2 for more detail on the climate risk assessment and response to question C2.3a for details on top physical risks identified. We are currently building off this work to further assess these acute and chronic risks to our key locations and assess our current resiliency to address the risks and any future action plans. Additionally, as part of our climate change risk assessment, we are evaluating and documenting the current level of resilience of our data centers which support ongoing operations (e.g., redundancy, site location in flood plains and seismic zones, wind resistance, security etc.). We conduct regular testing of our emergency back-up systems to ensure 99.9% up time to date and we evaluated potential chronic physical risks when we chose the location of our data centers.
Chronic physical	Relevant, always included	Please see above. Please see responses in section 3.2 for more detail on climate risk assessment and response to question C2.3a for details on top physical risks identified. We are currently building off this work to further assess these acute and chronic risks to our key locations and assess our current resiliency to address the risks and any future action plans. Additionally, as part of our climate change risk assessment, we are evaluating and documenting the current level of resilience of our data centers that support ongoing operations (e.g., redundancy, site location in flood plains and seismic zones, wind resistance, security etc.). We conduct regular testing of our emergency back-up systems to ensure 99.9% up-time to date and we evaluated potential chronic physical risks when we chose the location of our data centers.

C2.3

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

Yes

C2.3a

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

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Carbon pricing mechanisms

Primary potential financial impact
Increased indirect (operating) costs

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

Company-specific description
Carbon prices are projected to increase across all regions if the world is to maintain a 2-degree global temperature trajectory. There are several emerging carbon pricing mechanisms and trading schemes in the U.S. across multiple states, however, Mastercard is exposed to a low risk, as it is not a regulated, high energy-intensive industry. Mastercard may face limited carbon price exposure in many jurisdictions (including the UK and the EU) from implemented policies. Currently, we have invested in the installation of solar arrays in three of our owned campuses in O'Fallon, MO, Kansas City, MO and Purchase, NY to decrease our exposure. Subsequent regulation could impact operational costs and require potential infrastructure changes. Future regulations might result in additional charges for renewable energy creation, please see question C2.2a.

Time horizon
Long-term

Likelihood
About as likely as not

Magnitude of impact
Low

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
5000000

Potential financial impact figure – maximum (currency)
10000000

Explanation of financial impact figure
Certain facility locations are susceptible to potential financial impacts arising from changes in carbon pricing and increased cooling costs, especially in locations projected to experience warming temperatures during summer months. Increasing temperatures are expected to drive greater energy demand for cooling, and carbon pricing is expected to driving increasing energy costs.

Costs were estimated on a facility basis ranging between $5M -$10M. This range considers costs compared to baseline energy prices. Energy consumption is assumed to stay constant.

"Cooling degree days" are a general metric for understanding energy requirements for cooling. Electricity costs attributed are assumed to be related to cooling degree days. The additional costs associated with carbon pricing can be estimated using existing/projected carbon pricing and potential pricing with pass-through costs based on carbon density of the energy source. In a high warming/low policy scenario, cooling degree days (CDD) are expected to increase substantially with reduced policy impact. In a low warming/high policy scenario, carbon pricing is expected to increase substantially with minimized CDD impact.

Changes in expected cooling degree days are determined under different scenarios using global climate models, with data outputs from portals such as the World Bank (Business as Usual scenario and Paris-Aligned scenario). Carbon pricing expectations were determined from national policies, and/or studies of necessary prices to minimize warming to 2 degrees (where no price is currently in place). Grid carbon density is determined from online sources in each region.

Carbon pricing contributes approximately 68% of the additional costs in the Paris-Aligned scenario and approximately 34% in the BAU scenario. As such, increasing cooling costs are the predominant driver of additional cost in a business-as-usual scenario in 2035. We estimate that utility cost will increase between 68% to 34% and have presented that range.

Cost of response to risk
20000000

Description of response and explanation of cost calculation
Mastercard is working to mitigate this risk by focusing on acquiring onsite, renewable energy sources as well as through initiatives that reduce our energy needs, increase energy efficiency, and influence energy policy.

Due to our internal energy efficiency requirements and onsite solar PV arrays, we are managing this potential risk as best we can by reducing our energy needs, and meeting what we can with direct onsite renewables. We are committed to RE100 and therefore cover 100% of our electricity with renewable energy. Additionally, we have active review of ongoing regulatory activity in areas where we operate (see response to question C2.2a – Current Regulation, Emerging Regulation). The team regularly monitors legislation in areas with the PV Arrays and ensures that any regulation changes that could affect the organization are communicated. Changes in regulation will result in additional factors to consider upon project start up. The cost of management is already included in the budgets of our sustainability management team.

As reported in Mastercard's 2023 Sustainability Bond Report, Mastercard has spent around $20M from 2018-2022 on onsite Renewable Energy at 4 of our owned campuses.

Comment

Identifier
Risk 2

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Acute physical	Other, please specify (Increased severity and frequency of extreme weather events such as cyclones and floods)

Primary potential financial impact

Decreased asset value or asset useful life leading to write-offs, asset impairment or early retirement of existing assets

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

Company-specific description
In 2020, Mastercard identified ten critical facilities (both owned and leased) to include in a physical risk scenario analysis. In 2022, building off our 2020 climate assessment efforts, we performed a deep dive assessment on a subset of priority locations to determine the key physical risks, existing level of resilience against these risks and opportunities to mitigate the risks. In 2023, we are applying the learnings from this assessment to a broader set of Mastercard's real estate portfolio, including owned and leased offices, strategic operating data centers and key hardware suppliers. This multi-phased and multi-functional effort leverages external scientific climate data, as well as expertise, with a goal to develop hazard-specific playbooks to be used across the organization to manage and mitigate climate physical risk.

Based on our assessments, we identified several risks to our facilities related to climate (e.g., extreme heat and temperatures, flooding, wind damage).
Our main processing center (located in Missouri) could be subject to climatic weather events, such as extreme heat or cold. Moreover, by 2040 eight priority Mastercard facilities may face challenges related to extreme temperatures– both extreme hot and extreme cold – which could affect the delivery of energy and water required by IT systems. Heat waves could also impact employee health and wellness as well as cooling capacity.

Time horizon
Long-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)
0

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

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

Explanation of financial impact figure
Based on our physical risk assessment of facilities and the value of our assets, acute climate risks may have the potential to cause destruction at some of our facilities. Our insurance single loss limit would cover the potential financial impact, resulting in $0 direct cost to Mastercard.

Mastercard continues to evolve our scenario modeling capabilities to further understand this risk and may evolve our estimates of financial damages in future reports.

Cost of response to risk
0

Description of response and explanation of cost calculation
Mastercard is currently working on an operational strategy to mitigate the physical risks to facilities in locations where the acute climate risks are high. For example, the existence of geographically disparate co-processing centers in Missouri puts us in a strong position to handle adverse weather impacts. Our building design standards have anticipated such risks, accounting for example, straight line wind speeds. In 2022, a record-breaking 1-in-1,000-year rainfall engulfed the St. Louis area resulting in severe flooding. Mastercard's nearby O'Fallon, MO office, a key operational data center designed to withstand potentially dangerous weather, was not impacted. This office is located in a 500-year flood plain, which is strategically located above the surrounding 100-year flood plain. A 10-acre retention lake, designed for a controlled release of storm water that feeds to a neighboring creek, ensures the data center's integrity during extreme weather events. The O'Fallon office is one example of MA's approach to climate resilient centers and its response to climate-related risks and opportunities in our own operations. Redundant UPSs have also been installed to mitigate the impacts of any potential utility disruptions. Real Estate operational expenses are aggregated and these investments occurred some time ago, hence it is difficult to estimate the portion going directly to addressing this risk. Each year we conduct at least one tabletop exercise to test our business continuity planning. These exercises incorporate climate-related events such as tornados/Cyclones to prepare for potential impacts. As part of our climate risk assessment, we are outlining specific resiliency requirements in response to various climate scenarios (e.g., additional cooling capacity in the event of increased temperatures, onsite redundant power sources in the event of extreme weather and/or flooding and ability to withstand cyclonic events and extreme wind). We believe that our facilities are suitable and adequate for the business that we currently conduct. Thus the current cost to respond is $0. However, we periodically review our requirements and may acquire or lease new space to meet the needs of our business and address climate-related impacts or consolidate and dispose of facilities that are no longer required. Please see response to questions C2.1a and C2.2a to learn how physical climate risks are integrated into our risk management and business continuity planning.

Comment

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
We switch substantially all cross-border transactions using Mastercard, Maestro, and Cirrus-branded cards, and generate a significant amount of revenue from cross-border volume fees and fees related to switched transactions. Revenue from switching cross-border and currency conversion transactions for our customers fluctuates with the levels and destinations of cross-border travel and our customers' need for transactions to be converted into their base currency. Customers/consumers may choose to do

less cross-border travel due to known climate impacts. Businesses may set targets that include decreased business travel, leading to less cross-border travel. Cross-border activity may be adversely affected by world geopolitical, economic, weather and other conditions. These include the threat of terrorism and outbreaks of flu, viruses and other diseases, as well as major environmental events and extreme weather events, including those related to climate change. As governments, investors and other stakeholders face pressure to address climate change and other sustainability matters, these stakeholders may express new expectations, focus investments and require additional disclosures in ways that cause significant shifts in commerce and consumption behaviors. The impact and uncertainty that could result from such events or factors could decrease cross-border activity. In each case, decreased cross-border activity could decrease the revenue we receive.

Time horizon
Long-term

Likelihood
Likely

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

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

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

Explanation of financial impact figure
Consumers and businesses lowering spending on cross border travel due to climate-related issues could impact our cross-border revenue stream. At this time we are unable to estimate the financial impact with a reasonable level of certainty.

Cost of response to risk
0

Description of response and explanation of cost calculation
Mastercard works operationally to minimize financial repercussions in the event of world geopolitical, economic, weather and other conditions, including through the use of cross-business unit collaborations. Operational expenses are currently aggregated, so it is difficult to estimate the portion going directly to addressing this risk.

We conduct regular risk and strategy discussions with senior management and the Board related to the potential impacts of macro uncertainty and strategic risks to align on action plans, including those related to cross-border activity.

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
Increased revenues resulting from increased demand for products and services

Company-specific description
Mastercard's efforts to help consumers understand how their purchases impact the environment include our Carbon Calculator, which was launched in collaboration with the Swedish fintech Doconomy. A consumer's footprint is tracked
month by month across a variety of spending categories, enabling them to consider purchasing decisions to reduce their
environmental footprint. It is the first such calculator in which the technology is integrated at the core network level, meaning all Mastercard transactions can be scored using the tool. That makes it easy for banks to implement and get into the hands of consumers, allowing for fast scaling. Our partners can embed carbon tracking in their digital products through easy-to-use APIs. Mastercard is the first payments network to integrate carbon emissions calculations into a calculator. In 2022, the Carbon Calculator went live with Mastercard issuers in the U.K., Hungary, Taiwan, and Italy.
The Carbon Calculator was awarded first place at the 2022 Singapore Fintech Festival's Global FinTech Awards.

Time horizon
Long-term

Likelihood
Likely

Magnitude of impact
Low

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

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

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

Explanation of financial impact figure
The financial impacts are part of the existing business model for countries and customers where this product or service is currently active.

Cost to realize opportunity
0

Strategy to realize opportunity and explanation of cost calculation
Active customer and opportunity pipelines are managed within Mastercard's regional businesses to deliver solutions to market and realize revenue for products and services locally.

Comment

Identifier
Opp2

Where in the value chain does the opportunity occur?
Upstream

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
In early 2022, Mastercard Advisors, a consultative and advisory service business within our Data & Services (D&S) organization, launched a new practice area to support partners and customers in the development of sustainability-oriented solutions. D&S helps define the value proposition for new programs/segments that will become a portfolio in the future, identify opportunities and best practices, and develop campaigns related to sustainability and the environment. Each of our customers are at different stages of their ESG journey. The engagements have primarily been in Europe, although the opportunity is global.

Time horizon
Long-term

Likelihood
Likely

Magnitude of impact
Low

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

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

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

Explanation of financial impact figure
The financial impacts are part of the existing business model for countries and customers where this product or service is currently active.

Cost to realize opportunity
0

Strategy to realize opportunity and explanation of cost calculation
Active customer and opportunity pipelines are managed within Mastercard's regional businesses to deliver solutions to market and realize revenue for products and services locally.

We leverage our existing Mastercard Advisors staff to deliver sustainability-oriented services to clients and partners worldwide. Costs are already included in the current business models of these product areas as part of our BAU, so the incremental expense to realize this business is part of our business as usual expenses and not segregated.

Comment

Identifier
Opp3

Where in the value chain does the opportunity occur?

Upstream

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
In September 2021, we announced the launch of our Sustainability Innovation Lab, our global research and development center for climate-conscious digital products and solutions. Based in Stockholm, Sweden, the lab is a platform for the co-creation, with Mastercard customers and partners, of products that have a positive impact on people and the planet.

Time horizon
Long-term

Likelihood
Likely

Magnitude of impact
Low

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

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

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

Explanation of financial impact figure
The financial impacts are part of the existing business model for countries and customers where this product or service is currently active.

Cost to realize opportunity
0

Strategy to realize opportunity and explanation of cost calculation
These estimations are part of the existing business model for countries and customers where this product or service is currently active. Customer and opportunity pipelines are managed within Mastercard's regional businesses to deliver solutions to market and realize revenue for products and services locally.

We leverage our existing staff to deliver sustainability-oriented services to clients and partners worldwide. Costs are already included in the current business models of these product areas as part of our BAU and not segregated.

Comment

C3. Business Strategy

C3.1

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

Row 1

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

Publicly available climate transition plan
No

Mechanism by which feedback is collected from shareholders on your climate transition plan
We have a different feedback mechanism in place

Description of feedback mechanism
Mastercard accelerated our commitment to meet net zero targets by nearly a decade in 2021. In 2022, we partnered with additional internal stakeholders to develop our strategy to meet this goal. For information please see our most recent ESG Report.

Frequency of feedback collection
Annually

Attach any relevant documents which detail your climate transition plan (optional)
mastercard-esg-report-2022.pdf

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

Explain why climate-related risks and opportunities have not influenced your strategy
<Not Applicable>

C3.2

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

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

C3.2a

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

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Physical climate scenarios: RCP 8.5	Company-wide	<Not Applicable>	Mastercard completed its first climate-related scenario analysis in 2020. Our physical climate risk analysis included a qualitative assessment of the hazards that may impact our business – such as extreme temperatures (hot and cold stress), sea level rise, flooding, and drought – as well as a qualitative assessment of the adaptive capacity of the sites and the ability of surrounding communities to adapt and cope and to maximize new opportunities presented by climate change. We looked first at historic risks from the period of 1990 to 2018, then at projected risks in two time periods – 2035 and 2060. Due to the nature of climate change, we looked at a variety of future time horizons beyond our standard long-term definition. The future projections were based on the International Panel on Climate Change (IPCC) Representative Concentration Pathway (RCP) 8.5 emissions scenario for the medium-term (2035) and long-term (2060) time horizons. We chose this scenario for the initial assessment because it represents our current trajectory and provides a boundary condition. If a site is not at risk under this scenario, then it is unlikely to be at risk under other scenarios (e.g., RCPs 6, 4.5, and 2.6). These two time horizons were selected based on available data and projections, with a conscious effort to look farther into the future than our current business planning time horizons. Our physical risk assessment evaluated ten sites we deemed as critical to our business as well as two of our supplier sites. We have identified a medium risk by 2035 and a high risk by 2060 for several chronic and acute physical risks including rising temperatures, extreme temperatures, flooding and drought.
Transition scenarios: IEA SDS	Company-wide	<Not Applicable>	Our transition risk and opportunity analysis completed in 2020 included a qualitative assessment of climate-related transition risks and potential business opportunities arising from the transition towards a lower carbon economy. In conducting the transition scenario analysis, we used three climate policy scenarios informed by the International Energy Agency's (IEA) World Energy Outlook that explore different possible futures and map out the consequences of different choices for energy use and energy security: (1) Current Policies, (2) Stated Policies, and (3) Sustainable Development. We looked at potential transition risks and opportunities for our business focusing on five key regions: United States, Europe, Africa, Middle East, and Asia Pacific. We conducted the scenario analysis across two time horizons –medium term (2025) and long term (2040). These time horizons roughly align with our GHG targets. We identified several transition risks under multiple scenarios, including: carbon pricing and energy impacts, climate impacts to global travel, and an opportunity for carbon-tracking cards. This qualitative study has influenced our business strategy; Mastercard will now continue to monitor developments in climate science, scenario analysis, refine methodologies, and enhance its understanding of the potential climate-related impacts on our business. In 2022 we revised our qualitative assessment reviewing alternative scenarios and risks/opportunities. The transition risk related to energy pricing is from the 2020 assessment. Mastercard is considering a more detailed, quantitative assessment in the future. The analyses have also influenced key business objectives. For example, in 2020 Mastercard made the business decision to sign on to RE 100 to mitigate transition risk. We have also committed to align with the Task Force on Climate-related Financial Disclosures' recommendations, and we will be working toward this commitment. This proactive, voluntary commitment provides increased transparency so our stakeholders can better understand how Mastercard measures and responds to climate change risks.
Transition scenarios: IEA CPS	Company-wide	<Not Applicable>	Our transition risk and opportunity analysis included a qualitative assessment of climate-related transition risks and potential business opportunities arising from the transition towards a lower carbon economy. In conducting the transition scenario analysis, we used three climate policy scenarios informed by the International Energy Agency's (IEA) World Energy Outlook that explore different possible futures and map out the consequences of different choices for energy use and energy security: (1) Current Policies, (2) Stated Policies, and (3) Sustainable Development. We looked at potential transition risks and opportunities for our business focusing on five key regions: United States, Europe, Africa, Middle East, and Asia Pacific. We conducted the scenario analysis across two time horizons –medium term (2025) and long term (2040). These time horizons roughly align with our GHG targets. We identified several transition risks under multiple scenarios, including: carbon pricing and energy impacts, climate impacts to global travel, and an opportunity for carbon-tracking cards. This qualitative study has influenced our business strategy; Mastercard will now continue to monitor developments in climate science, scenario analysis, refine methodologies, and enhance its understanding of the potential climate-related impacts on our business. We are also considering a more detailed, quantitative assessment in the future. The analyses have also influenced key business objectives. For example, in 2020 Mastercard made the business decision to sign on to RE 100 to mitigate transition risk. We have also committed to align with the Task Force on Climate-related Financial Disclosures' recommendations, and we will be working toward this commitment. This proactive, voluntary commitment provides increased transparency so our stakeholders can better understand how Mastercard measures and responds to climate change risks.
Transition scenarios: IEA STEPS (previously IEA NPS)	Company-wide	<Not Applicable>	Our transition risk and opportunity analysis included a qualitative assessment of climate-related transition risks and potential business opportunities arising from the transition towards a lower carbon economy. In conducting the transition scenario analysis, we used three climate policy scenarios informed by the International Energy Agency's (IEA) World Energy Outlook that explore different possible futures and map out the consequences of different choices for energy use and energy security: (1) Current Policies, (2) Stated Policies, and (3) Sustainable Development. We looked at potential transition risks and opportunities for our business focusing on five key regions: United States, Europe, Africa, Middle East, and Asia Pacific. We conducted the scenario analysis across two time horizons –medium term (2025) and long term (2040). These time horizons roughly align with our GHG targets. We identified several transition risks under multiple scenarios, including: carbon pricing and energy impacts, climate impacts to global travel, and an opportunity for carbon-tracking cards. This qualitative study has influenced our business strategy; Mastercard will now continue to monitor developments in climate science, scenario analysis, refine methodologies, and enhance its understanding of the potential climate-related impacts on our business. We are also considering a more detailed, quantitative assessment in the future. The analyses have also influenced key business objectives. For example, in 2020 Mastercard made the business decision to sign on to RE 100 to mitigate transition risk. We have also committed to align with the Task Force on Climate-related Financial Disclosures' recommendations, and we will be working toward this commitment. This proactive, voluntary commitment provides increased transparency so our stakeholders can better understand how Mastercard measures and responds to climate change risks.

C3.2b

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

Row 1

Focal questions

In 2020, Mastercard commenced a qualitative physical risk assessment using 12 key facilities to identify potential climate-related physical and transition risks and opportunities as our business, operations, and people transition to a low-carbon and adaptive economy.

This analysis was aligned to the Task Force on Climate-related Financial Disclosures (TCFD) recommendations and included multiple International Energy Agency (IEA) and Intergovernmental Panel on Climate Change's (IPCC's) Representative Concentration Pathways (RCP) scenarios and time horizons to evaluate future states, noting that it is not clear which is the most likely. To assess the transition risks and opportunities for its market and business, Mastercard used high-, medium- and low-emission scenarios focused on 5 key regions —United States, Europe, Africa, Middle East, and Asia Pacific — across 2 time horizons: medium and long term. These time horizons align with Mastercard's greenhouse gas (GHG) reduction targets. Mastercard assessed potential risks to these facilities under future climate projections based on the IPCC's RCP8.5 high emissions climate scenario. This scenario was selected because it represents a future climate scenario with continued high emissions that is projected to result in some of the worst potential physical impacts and therefore provides an upper-boundary condition to support our analysis and risk-management measures.

This is part of Mastercard's broader process to evaluate threats and risk mitigation opportunities across its business. Each facility was examined by looking at 7 potential risks resulting from the physical impacts of climate change. We evaluated the extent to which Mastercard's business is currently and may continue to be exposed to both chronic risks and acute physical risks. Chronic physical risks assessed: increasing average annual temperature, sea level rise and changing precipitation patterns. Acute physical risks assessed: extreme temperatures (hot and cold), flooding, hurricanes/cyclones, and drought. Facilities were scored evaluated qualitatively based on current climate impact observations and projections for the likelihood of that impact to increase in the future. Scores Evaluations were combined to generate a potential impact score of low, medium, or high.

In 2022, we conducted a deeper dive on six of these key locations to include both qualitative and quantitative analyses and incorporated our findings to further expand our climate risk assessment process to our broader real estate portfolio. Our efforts included review of both actual building resilience and local community adaptive capacity measures. Refer to C2.2.

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

Our analysis indicates that we could see increasing risk of chronic climate stressors (increasing temperatures, sea level rise) and acute climate events (flooding, drought, extreme temperatures) at a majority of the 12 sites by 2060. Such potential risks are not forecasts and are not necessarily indicative of future performance. They also do not take into account potential risk-mitigation or adaptation efforts and assume that such sites continue to operate through the dates specified.

As an example of physical climate risks, we identified three facilities with particularly high risk of annual average temperatures increases: our global operations headquarters in O'Fallon, MO; our global headquarters in Purchase, NY; and a critical data center in Harrogate, UK. As a result of this analysis Mastercard will consider evaluating innovative ways to continue its ongoing efforts to reduce energy and water demand, enhance redundancy for all critical functions to ensure consistent service to customers and continue to procure 100% renewable energy for all Mastercard facilities, helping to provide redundancy and resilience in energy sources (please see response to question C2.3a for more detail on top climate-related physical risks identified).

Mastercard is positioned to benefit from climate-related opportunities created by the transition to a lower carbon economy. Mastercard can benefit by continuing to engage with clients on new financial products and services that can enhance sustainability and climate resilience, and managing business operations to be responsive to changes in climate-related risks and opportunities over time. Current opportunities include sustainable and resilient programs and services, such as the Priceless Planet Coalition; Mastercard Carbon Calculator tool, which is powered by the Doconomy Åland Index; accelerated digitization of transactions; and resilience services, such as support for disaster needs.

Current exposure to transition impacts includes changing travel patterns. We are using the results of the initial analysis to inform our key functions, including risk, strategy and government engagement.

C3.3

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

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Climate-related risks and opportunities associated with changes in consumer behavior are informing Mastercard's strategy around where and how our services are provided. As we transition to a low carbon economy, we are witnessing opportunities to develop new products and help drive the shift to more sustainable commerce, which is directly influencing our short, medium, and long-term business strategy. In 2020, Mastercard and Doconomy started collaborating to help Mastercard issuers give their customers the ability to track and understand their carbon footprint based on their purchases. This is a product-related opportunity that is a direct result of climate change, and a change in consumer behavior. Mastercard is the first payments network to integrate carbon emissions calculations into a calculator. The Carbon Calculator was awarded first place at the 2022 Singapore Fintech Festival's Global FinTech Awards. In 2021, we announced the launch of our Sustainability Innovation Lab, the first of our innovation hubs to focus exclusively on sustainability-oriented products and solutions. Based in Stockholm, Sweden, the lab is a platform for the co-creation, with Mastercard customers and partners, of products that have a positive impact on people and the planet. This effort is also part of the commitment we made as a founding member of the European Climate Pact to support the European Green Deal. In early 2022, Mastercard Advisors, a consultative and advisory service business within our Data & Services (D&S) organization, launched a new practice area to support partners and customers in the development of sustainability-oriented solutions. D&S helps define the value proposition for new programs/segments that will become a portfolio in the future, identify opportunities and best practices, and develop campaigns related to sustainability and the environment. Each of our customers are at different stages of their ESG journey. The engagements have primarily been in Europe, although the opportunity is global. Please see response to question C2.4a for more detail on these climate-related opportunities.
Supply chain and/or value chain	Yes	Mastercard's ability to meet our net-zero targets depends heavily on cooperation from our suppliers, who are responsible for most of our Scope 3 GHG emissions: 250 suppliers represent more than 90 percent of our supply chain emissions, with just 50 suppliers constituting more than 60 percent. We have committed to active supplier engagement and development, to help with accountability, target-setting, and regular reporting. To assist in this process, we developed a four-stage "environmental sustainability supplier engagement model" that has led to constructive engagement and collaboration. To help our suppliers reach — or set baselines for — their own net-zero goals, we participated in several new programs this year. In 2021, we also hired dedicated staff to collaborate with suppliers on emission-reduction opportunities and continued to request our suppliers to respond to the CDP Supply Chain. Mastercard is a member of Exponential Roadmap Initiative and related 1.5°C Supply Chain Leaders' program. Our aim is to find ways to collaborate across each of our supply chain sectors, such as creating accounting methodologies for joint projects and mechanisms for tracking multiyear emissions reductions. We also are investigating opportunities, such as logistics optimization, production sustainability, and joint-renewable procurement, in our top three supply chain sectors. Additionally, we are deepening our understanding of supply chain activities through carbon accounting analyses within our built environment and those of other suppliers. By reducing our suppliers' emissions through these programs, we also decarbonize Mastercard.
Investment in R&D	Yes	Mastercard's product teams are engaged in understanding shifts in demand and continuously evolve our offerings to stay relevant to customers through Research & Development. The opportunity to invest in research and development lies in our partnerships. We are using our technology, data insights, and network to create opportunities in consumer's lives. Mastercard launched the Sustainable Materials Directory in July 2020, encouraging wider adoption of certified, eco-friendly materials researched and developed with card manufactures in order to equip consumers with more sustainably produced cards. We are working with financial institutions all over the world to develop cards made from eco-friendly materials, like recycled ocean plastic and bioplastics made from Thai sugar or Nebraska corn, in order to reduce use of first-use PVC plastics. Since the program's inception in 2018, more than 330 financial institutions in 80 countries have issued cards through our Sustainable Card program. We also now include a badge on the cards to help consumers identify those that are made with sustainable components. These materials are verified by an independent certification program that assesses vendor sustainability claims to offer greater transparency and clarity for issuers and cardholders. In 2022, 109 million Mastercard-branded cards were produced using approved materials, expanding the total to 169 million since 2018. Mastercard announced in 2023 that effective January 1, 2028, all newly produced cards must be CEC certified. Cards made from first-use PVC will no longer be accepted. A toolbox of recycling services is under development to divert waste from landfills by helping consumers retire their cards more sustainably. We are evaluating these projects for up to 3 years into the future. Additionally, Mastercard is exploring the use of climate risk modeling as part of our risk framework.
Operations	Yes	Our assessment of ESG reputational risk showed an increase in stakeholder concern related to sustainability, which led us to publish our first Sustainability Report (CSR) in 2017 to meet public demand from investors, customers, and other stakeholders. Since then, we have published reports in 6 consecutive years, with the latest ESG Report issued in June 2023. In 2019, Mastercard made the business decision to sign on to RE100 to mitigate transition risk. We have also committed to align with the TCFD's recommendations. This proactive, voluntary commitment provides increased transparency so stakeholders. In 2021, we accelerated our commitment to reach net-zero emissions by a decade, to 2040. Our short-term target calls for reducing Scope 1&2 by 38% and Scope 3 by 20% between 2016 and 2025. Our decarbonization plan continues to advance and as part of our operational footprint reductions, we: - Ensure that all facilities we operate are run in an environmental manner - Are part of RE100, bringing renewable energy onto the grid using a four-pronged approach: implementing direct renewable energy through on-site development, leveraging long-term REC deals, buying in-country REC at our global sites that are too small for long-term agreements, and, in countries without a REC market, purchasing RECs in neighboring countries that are connected to the same grid. - Engage with suppliers to collaborate on emission reduction opportunities (see above for details) Through scenario analysis, we identified that our main physical risk to critical facilities would be extreme weather events: excessive heat, flooding, and winter storms brought on by climate change. Mastercard chose to place their co-processing centers in MO in order to place us in strong position to limit the amount of weather impacts that are possible. Our building designs have also anticipated such risks, taking into account, for example, straight line wind speeds. Redundant Uninterruptable Power Systems have been installed to mitigate the impacts of any potential utility disruptions. We currently conduct regular testing of our emergency back-up systems to ensure 99.9% uptime to date. These are permanent and the projects will last more than 20 years into the future. Please see response to question C2.2a to learn how physical climate risks are integrated into our risk management and business continuity planning.

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 Direct costs Capital expenditures Capital allocation Access to capital	Revenues: Mastercard's Board of Directors, CEO and Executive Management have incorporated the principle of doing well by doing good into everything we do, including our commitment to the environment. Currently, over 2B people are completely cut off from the benefits and protection of formal financial services. Transacting in cash costs economies an estimated .5 to 1.5% of GDP in the form of leakage and lost government revenue, as well as corruption and violence against vulnerable populations. Cash economies have a negative environmental impact as well. Transporting cash and the equipment needed to process and monitor cash contribute to increased greenhouse gas emissions and fuel usage. By offering cashless solutions, Mastercard can contribute to the decreased use of cash and mitigate those GHG emissions. In addition, the distribution of energy-saving innovations such as solar chargers, lamps, water filtration systems and cookstoves are hindered by the lack of mobile or card-based payment methods and digitized supply chains. Direct Costs: Our operational costs have been impacted as we continue to integrate structural improvements into our office facilities and data centers. Our building design standards and preventative maintenance practices anticipate weather-related risks, taking into account, for example, straight line wind speeds. We ensure that there are operating budget lines for ongoing maintenance of our data centers. These design standards are permanent until further notice and the projects will last more than 20 years into the future. In addition, Mastercard continues to implement energy efficiency projects at its owned sites as well as leasehold improvements in our other locations around the globe. Mastercard's commitment to renewable energy also influences our direct costs. Capital Expenditures: In 2020, Mastercard and Doconomy collaborated to help Mastercard issuers give their customers the ability to track and understand their carbon footprint based on their purchases. In September 2021, we announced the launch of our Sustainability Innovation Lab, the first of our innovation hubs to focus exclusively on sustainability-oriented products and solutions. Based in Stockholm, Sweden, the lab is a platform for the co-creation, with Mastercard customers and partners, of products that have a positive impact on people and the planet. Additionally, in early 2022, Mastercard Advisors, a consultative and advisory service business within our Data & Services (D&S) organization, launched a new practice area to support partners and customers in the development of sustainability-oriented solutions. Capital Allocation: Our SBTs and commitment to net zero drive our overall environmental strategy. Having been initially approved by the SBTi in July of 2018 and updated to align with 1.5ºC in 2020, our environmental sustainability strategies are driven by these targets. We are committed to managing our carbon footprint and natural resources, and these targets help guide our behavior and decisions. For example, environmental sustainability is woven throughout all real estate service lines. We created and utilize a green score card when evaluating potential properties, and our design and construction standards are driven by internal energy efficiency requirements and a company commitment requiring all eligible construction projects to achieve region-specific green certification. Further, we require all certified facilities to recertify as part of our facilities management strategy. Access to Capital: Mastercard uses an internal shadow carbon price for evaluating real estate energy projects. This allows us to prioritize projects with a positive impact on our resource use. We started this shadow price in 2018 and plan to continue using it indefinitely. This shadow price enabled Mastercard to install solar panels on our owned sites with our supplier of choice and helps guide our commitment to 100% renewable energy. Mastercard continues to work climate into our financial planning. We have made efforts to integrate climate into FP&A, including in 2022 appointing someone in FP&A to focus on climate.

C3.5

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

	Identification of spending/revenue that is aligned with your organization's climate transition	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
Row 1	No, but we plan to in the next two years	<Not Applicable>

C4. Targets and performance

C4.1

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

Absolute target

C4.1a

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

Target reference number

Abs 1

Is this a science-based target?

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

Target ambition

1.5°C aligned

Year target was set

2018

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method
Location-based

Scope 3 category(ies)
<Not Applicable>

Base year
2016

Base year Scope 1 emissions covered by target (metric tons CO2e)
4486

Base year Scope 2 emissions covered by target (metric tons CO2e)
94728

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)
<Not Applicable>

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

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)
<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
99214

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
100

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
<Not Applicable>

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

<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)
<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes
100

Target year
2025

Targeted reduction from base year (%)
38

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]
61512.68

Scope 1 emissions in reporting year covered by target (metric tons CO2e)
4769

Scope 2 emissions in reporting year covered by target (metric tons CO2e)
51233

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

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

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
56002

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

% of target achieved relative to base year [auto-calculated]
114.616676551378

Target status in reporting year
Underway

Please explain target coverage and identify any exclusions
Even before the formal approval of our Science Based Targets, Mastercard implemented a cohesive strategy to achieve our 2025 emission reduction goals. In April 2020, we updated our Scope 1 & 2 Science Based Target to align with the 1.5°C scenario. Additionally, we committed to RE100. In Spring of 2021, we committed to be net zero by the year 2050 and later in 2021 updated our target to 2040. We are evaluating alternative fuel use, but do date emissions and removals from bioenergy are not relevant for our scope 1 emissions. . We procure RECs from biomass and include them as a zero emissions renewable electricity in our market-based accounting. Please note that the base year was updated in accordance with Mastercard's Inventory Management Plan.

Plan for achieving target, and progress made to the end of the reporting year
We are implementing a number of tactics to achieve this goal. For example, we are currently exploring monitoring-based commissioning and advanced energy analytics, low-carbon technology, and onsite renewable generation projects at our larger campuses.

List the emissions reduction initiatives which contributed most to achieving this target
<Not Applicable>

Target reference number
Abs 2

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

Target ambition
1.5°C aligned

Year target was set
2018

Target coverage
Company-wide

Scope(s)
Scope 3

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
Category 1: Purchased goods and services
Category 2: Capital goods
Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
Category 4: Upstream transportation and distribution
Category 5: Waste generated in operations
Category 6: Business travel

Category 7: Employee commuting
Category 8: Upstream leased assets

Base year
2016

Base year Scope 1 emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 2 emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)
598561

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)
154994

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)
20181

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)
0

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)
299

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)
54842

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)
20400

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)
0

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)
849277

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
849277

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
<Not Applicable>

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
<Not Applicable>

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)
100

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)
100

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
100

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)
100

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)
100

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)
100

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)
100

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)
100

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)
100

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes
100

Target year
2025

Targeted reduction from base year (%)
20

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]
679421.6

Scope 1 emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 2 emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)
449641

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)
0

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)
9454

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
0

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)
653

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)
26861

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)
19612

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)
360

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)
506581

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
506581

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

% of target achieved relative to base year [auto-calculated]
201.757494904489

Target status in reporting year
Underway

Please explain target coverage and identify any exclusions
In preparation for our commitment to Science Based Targets, Mastercard implemented a cohesive strategy to achieve our 2025 emission reduction goals. Starting by identifying our top emitters by spend, we are now working directly with these suppliers to calculate actual emissions resulting from our purchase of goods and services. Mastercard's supply chain emissions comprise well over 75% of our total GHG inventory making this 20% target our most ambitious. In pursuit of this target, we increased our CDP Supply Chain requests from 12 suppliers in 2016 to 90% of our spend (about 250 suppliers) in 2021. This target is an interim target to achieve our net zero by 2040 target. This target covers all scope 3 emissions and we do not have any exclusions. Please note that the base year was updated in accordance with Mastercard's Inventory Management Plan.

Please note that our methodology for grouping our emissions has changed over the years and we are currently not able to separate emissions from Categories 1, 2, and 4 as this data is not separated by those categories by our accounting system, we call these our supply chain emissions. Greenhouse gas emissions from categories 2 and 4 are included in the emissions disclosed under category 1.

Plan for achieving target, and progress made to the end of the reporting year
Our in-house supply chain team is working hand-in-hand with first time CDP reporters to help guide them through the process and disclose emission. The supply chain team is leveraging internal relationships with other departments at Mastercard to identify opportunities for emission reduction collaboration with external suppliers. The team is collaborating with large, medium, and small suppliers to reduce mutual emissions that are derived from doing business with one another. Some examples include: Renewable energy contracts, establishing baselines, setting science- based reduction targets and construction-based carbon accounting. Additionally, the supply chain team has also participated in industry leading initiatives such as the SME Climate Hub Pilot and the 1.5 Degree Supply Chain Leaders workshops.

List the emissions reduction initiatives which contributed most to achieving this target
<Not Applicable>

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?
Target(s) to increase low-carbon energy consumption or production
Net-zero target(s)
Other climate-related target(s)

C4.2a

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

Target reference number
Low 1

Year target was set
2022

Target coverage
Company-wide

Target type: energy carrier
Electricity

Target type: activity
Consumption

Target type: energy source
Renewable energy source(s) only

Base year
2022

Consumption or production of selected energy carrier in base year (MWh)
0

% share of low-carbon or renewable energy in base year
0

Target year
2023

% share of low-carbon or renewable energy in target year
100

% share of low-carbon or renewable energy in reporting year
100

% of target achieved relative to base year [auto-calculated]
100

Target status in reporting year
Achieved

Is this target part of an emissions target?
Onsite Renewable Energy generation will positively affect our Science Based Targets (Abs 1) by reducing our location - based GHG Scope 2 emissions.

Is this target part of an overarching initiative?
RE100

Please explain target coverage and identify any exclusions
Mastercard started buying renewable energy in 2016 with a goal of achieving 100% in the future, but the target was not aligned with RE100. In 2020, we set our RE100 commitment. Each year since, we have procured 100% of our global electricity from renewable sources. Self-generation through solar arrays plays a key role in our strategy for owned sites, but the majority of our real estate portfolio is in leased facilities, which limits opportunities for self-generation. Though we have made a strong effort to source Renewable Energy Certificates on a country-specific basis, we firmly believe the key to doing our part in transitioning to clean energy sources will be migrating from conventional unbundled REC programs to long term agreements where it makes the most impact and economic sense. This will bolster our ability to positively impact energy grids in those countries in which we work and live. We continue to reduce the amount of unbundled RECs purchased to achieve this goal. We have committed to RE100 to achieve 100% renewable electricity across our global operations. This is an ongoing annual target. We follow the RE100 definition on renewable sources which include: “biomass (including biogas), geothermal, solar, water, and/or wind – either sourced from the market or self-produced.

Plan for achieving target, and progress made to the end of the reporting year
<Not Applicable>

List the actions which contributed most to achieving this target
We are committed to reducing the number of unbundled RECs needed to meet our annual target. The majority of our buildings are leased, so we have limitations on where we can develop onsite generation. However, we have continued to increase our onsite generation where possible and have contracted with an offsite renewable energy in the form of long-term REC deal in the US and green tariffs In the U.K., Belgium, and Australia.

C4.2b

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

Target reference number
Oth 1

Year target was set
2022

Target coverage
Other, please specify (Supply Chain)

Target type: absolute or intensity
Absolute

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

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

Target denominator (intensity targets only)
<Not Applicable>

Base year
2016

Figure or percentage in base year
0

Target year
2022

Figure or percentage in target year
70

Figure or percentage in reporting year
78

% of target achieved relative to base year [auto-calculated]
111.428571428571

Target status in reporting year
Achieved

Is this target part of an emissions target?
Yes, this target aligns with our Science-Based Targets as ~80% of our GHG Emissions are within our Supply Chain.

Is this target part of an overarching initiative?
Science Based targets initiative - other

Please explain target coverage and identify any exclusions
Since Mastercard doesn't produce physical goods that create large environmental impacts or emissions, the bulk of our emissions — an estimated 80% — come from the goods and services we purchase from upstream suppliers. Addressing our scope 3 supply chain emissions comprises a significant part of our efforts to support the Paris Agreement climate goals. We identified our top GHG-emitting suppliers by spend and began partnering with them in order to elicit their support for our GHG reduction goals. In 2019, we identified and invited 85% of our suppliers who contribute to our GHG emissions to report to the CDP. In 2020, we sought to refine our approach, seeking to invite slightly fewer suppliers at 83% of global procurement spend, while simultaneously driving up our supplier response rate on the CDP Climate Change Questionnaire. In 2021, we invited the top 85%. In 2022, we decided to invite the top 90% of our suppliers based on our supply chain emissions. For the 2023 CDP cycle, we changed our methodology on how we determine the suppliers that should be invited to the CDP. Only suppliers with a material impact on Mastercard's emissions were invited. This meant suppliers that contributed greater than 0.05% of the total supply chain emissions. In addition to the top emitting suppliers, several strategic long-term suppliers are included to keep them engaged for future engagement.

Plan for achieving target, and progress made to the end of the reporting year
<Not Applicable>

List the actions which contributed most to achieving this target
Addressing our scope 3 supply chain emissions comprises a significant part of our efforts to support the Paris Agreement climate goals. We identified our top GHG-emitting suppliers by spend and began partnering with them in order to elicit their support for our GHG reduction goals. In 2021, we invited 83% of our global procurement spend, and achieved a 68% response rate for the CDP. For 2022, we invited 90% of our top emitting suppliers to the CDP questionnaire, where we got a 78% response rate (While the CDP portal says we got a 90% response rate, we removed about 12% of supplier responses as they did not cover all the KPIs that are relevant to Mastercard's net zero goals). In 2022, to increase our CDP response rate, we significantly improved our supplier communications strategies. We hosted a supplier training session and provided 1:1 consultations for suppliers that were disclosing for the first time. In addition, 2022 was the first year we engaged Mastercard business owners, the procurement team, and leadership to use their own communication channels to encourage suppliers to complete the CDP questionnaire. The Mastercard Sustainability team also created and shared a resource guide for suppliers to access webinars on setting SBTs, calculating GHG emissions, and other key metrics.

Target reference number
Oth 2

Year target was set
2020

Target coverage
Company-wide

Target type: absolute or intensity
Absolute

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

Waste management	metric tons of waste diverted from landfill

Target denominator (intensity targets only)
<Not Applicable>

Base year
2020

Figure or percentage in base year
73

Target year
2025

Figure or percentage in target year
85

Figure or percentage in reporting year
71

% of target achieved relative to base year [auto-calculated]
-16.6666666666667

Target status in reporting year
Underway

Is this target part of an emissions target?
Yes, this target aligns with our science based targets as waste falls under scope 3. Mastercard has an absolute 2025 goal to reduce scope 3 emissions by 20% from a 2016 base year.

Is this target part of an overarching initiative?
Science Based targets initiative - other

Please explain target coverage and identify any exclusions
Since Mastercard doesn't produce a physical product, our waste is generated from our offices. We strive to achieve TRUE certification for zero waste at all of our owned facilities and leased sites across the globe where we have the ability to select waste haulers. In 2022, nine Mastercard locations became TRUE precertified, achieving recognition for a demonstrated commitment to attaining TRUE certification by working on projects that implement fundamental actions and policies needed to effectively pursue zero waste.

Plan for achieving target, and progress made to the end of the reporting year
We continue efforts to eliminate waste in our operations. In 2022, we diverted 71% of the waste generated by Mastercard-owned sites through recycling, composting, donations and other forms of landfill diversion. This rate of waste diversion was down from 86% of waste diverted in 2021, which we attribute to an increase in office attendance as COVID restrictions eased and an increase in the use of single-use plastic in cafeterias. In 2022, we also continued to ensure that 100% of our global electronic waste was recycled by using responsible partners certified in environmental standards and data destruction to protect our customers' data privacy and the planet.

List the actions which contributed most to achieving this target
<Not Applicable>

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
Abs2

Target year for achieving net zero
2040

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

Please explain target coverage and identify any exclusions
This target covers our global operations for scope 1, 2, and 3 GHG emissions. We have submitted our target to SBTI and are waiting for approval. We plan to meet our GHG reduction targets aligned with a 1.5C scenario and continue to set interim targets out to 2040. We will decarbonize to meet the reduction aligned with science and then neutralize the remaining emissions. We will likely use compensation, offset projects, in the near term as we begin to invest in neutralization or removal-based projects. This results in neutralization of roughly 14% of our projected emissions in the target year of 2040. The remaining reductions are achieved through true reductions in our operations and supply chain.

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

Planned milestones and/or near-term investments for neutralization at target year
<Not Applicable>

Planned actions to mitigate emissions beyond your value chain (optional)
As part of our strategy to reduce our GHG emissions, Mastercard seeks buildings with green certifications for new leases and seeks to add green lease terms into contracts. At the end of 2022, 89% of our global workspace met regional or international green certification requirements including Leadership in Energy and Environmental Design (LEED), WELL Building, FitWell, BREEAM in Europe, and Greenstar in Asia Pacific. Our owned sites are all green-building certified and fitted with solar panels on-site.

In addition, our renewable energy strategy is comprised of a four-pronged approach:
- Develop and implement on-site renewable energy sources (solar panels) at our owned facilities.
- Establish long-term renewable energy agreements (five- to 12-year agreements with utility providers or third parties in the U.S., U.K., Australia and other locations).
- Purchase in-country renewable-energy credits (RECs) for our sites in locations that are too small for long-term agreements.
- For locations in countries without a renewable-energy credit market, purchase RECs in neighboring countries that are connected to the same grid.

Our goal is to reduce our number of unbundled RECs and increase longer-term sources of renewable energy. We continue to investigate ways to bring new renewable energy onto the grid wherever we do business.

Because our suppliers' emissions account for 80% of our emissions — including just 50 suppliers who account for more than half of those emissions — we are committed to active supplier engagement and development. Our efforts revolve around a four-stage environmental sustainability supplier engagement model that encourages suppliers to:
- Disclose their emissions footprint by completing the CDP Climate Change Questionnaire.
- Leverage educational resources, both Mastercard and external, to assist them in advancing environmental management practices and performance.
- Evaluate and align on key performance indicators, including setting science-based emission reduction goals.
- Collaborate with us to find ways to reduce emissions.

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	2272
Implementation commenced*	3	1694
Implemented*	2	1801
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

Low-carbon energy generation	Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)
13

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
25000

Investment required (unit currency – as specified in C0.4)
150000

Payback period
4-10 years

Estimated lifetime of the initiative
21-30 years

Comment
In 2022 Mastercard Installed a 0.07 MW solar array on the roof of the Harrogate UK facility

Initiative category & Initiative type

Low-carbon energy generation	Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)
1788

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
260000

Investment required (unit currency – as specified in C0.4)
11000000

Payback period
>25 years

Estimated lifetime of the initiative
21-30 years

Comment
In 2022 Mastercard installed 2.45 MW solar array addition to the O'Fallon Campus

C4.3c

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

Method	Comment
Dedicated budget for other emissions reduction activities	Mastercard is dedicated to achieving their Science- Based targets, and will continue to invest in emission reduction activities.
Employee engagement	Mastercard employs a host of strategies to engage employees and provide education regarding emissions reduction activities. We host a dedicated Environmental Sustainability intranet page, prepare employee-driven events, commission interactive training videos, and offer collaboration opportunities through web submissions and in-person activities.
Internal incentives/recognition programs	Mastercard links compensation for the most senior executives, EVPs and above, to Mastercard's Environmental, Social and Corporate Governance (ESG) initiatives, and to three global ESG priorities: carbon neutrality, financial inclusion, and gender pay parity.
Internal finance mechanisms	Mastercard issued a sustainability bond at a fixed rate of 1.90%. This milestone further supports the company's work to build an inclusive and sustainable digital economy through commercially sustainable social impact.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?
No

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?
No

C5.1a

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

Row 1

Has there been a structural change?
No

Name of organization(s) acquired, divested from, or merged with
<Not Applicable>

Details of structural change(s), including completion dates
<Not Applicable>

C5.1b

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

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

C5.2

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

Scope 1

Base year start
January 1 2016

Base year end
December 31 2016

Base year emissions (metric tons CO2e)
4487

Comment

Scope 2 (location-based)

Base year start
January 1 2016

Base year end
December 31 2016

Base year emissions (metric tons CO2e)
94729

Comment

Scope 2 (market-based)

Base year start
January 1 2016

Base year end
December 31 2016

Base year emissions (metric tons CO2e)
33411

Comment

Scope 3 category 1: Purchased goods and services

Base year start
January 1 2016

Base year end
December 31 2016

Base year emissions (metric tons CO2e)
598561

Comment

Scope 3 category 2: Capital goods

Base year start
January 1 2016

Base year end
December 31 2016

Base year emissions (metric tons CO2e)
154994

Comment

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

Base year start
January 1 2016

Base year end
December 31 2016

Base year emissions (metric tons CO2e)
20181

Comment

Scope 3 category 4: Upstream transportation and distribution

Base year start
January 1 2016

Base year end
December 31 2016

Base year emissions (metric tons CO2e)
0

Comment
Included in category 1 emissions

Scope 3 category 5: Waste generated in operations

Base year start
January 1 2016

Base year end
December 31 2016

Base year emissions (metric tons CO2e)
299

Comment

Scope 3 category 6: Business travel

Base year start
January 1 2016

Base year end
December 31 2016

Base year emissions (metric tons CO2e)
54842

Comment

Scope 3 category 7: Employee commuting

Base year start
January 1 2016

Base year end
December 31 2016

Base year emissions (metric tons CO2e)
20400

Comment

Scope 3 category 8: Upstream leased assets

Base year start
January 1 2016

Base year end
December 31 2016

Base year emissions (metric tons CO2e)
0

Comment
Below materiality threshold in base year

Scope 3 category 9: Downstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 10: Processing of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 11: Use of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

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

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 13: Downstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 15: Investments

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.3

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

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
US EPA Center for Corporate Climate Leadership: Indirect Emissions From Purchased Electricity
US EPA Center for Corporate Climate Leadership: Direct Emissions from Stationary Combustion Sources

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)
4769

Start date
<Not Applicable>

End date
<Not Applicable>

Comment

C6.2

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

Row 1

Scope 2, location-based
We are reporting a Scope 2, location-based figure

Scope 2, market-based
We are reporting a Scope 2, market-based figure

Comment

C6.3

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

Reporting year

Scope 2, location-based
51233

Scope 2, market-based (if applicable)
367

Start date
<Not Applicable>

End date
<Not Applicable>

Comment

C6.4

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

No

C6.5

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

Purchased goods and services

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
449641

Emissions calculation methodology
Supplier-specific method
Spend-based method

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

Please explain
Quantity and monetary purchasing volume of goods and services purchased in the reporting year were obtained from Mastercard's internal business data management systems. TruCost used Mastercard's spend register to map its suppliers for the 2022 period. TruCost removed spend for taxes, payment refunds and similar items that do not relate directly to producing Mastercard's own market offerings. The remaining spend and suppliers were evaluated using both public disclosures and modelled impact to estimate the GHG emissions for each supplier and spend sector. TruCost applied its Environmental-Economic Input-Output (EEIO) life cycle-based model for quantifying environmental impacts. Note: in this analysis, upstream transportation and distribution is included – and therefore, category 4 is already accounted for. Mastercard then analyzed 95% of its expenditure to identify the percentage allocated to purchased goods and services. By assessing the invoices (primary data) for each supplier, Mastercard was able to understand how much should be allocated to categories 1 and 2. However, due to the nature of our internal sourcing and invoice management process, we are unable to delineate Purchased Goods and Services and Capital Goods, and thus all of Category 2 is accounted for within Category 1.

Capital goods

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
0

Emissions calculation methodology
Supplier-specific method
Spend-based method

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

Please explain
By assessing the invoices (primary data) for each supplier, Mastercard was able to understand how much should be allocated to categories 1 and 2. However, due to the nature of our internal sourcing and invoice management process, we are unable to delineate Purchased Goods and Services and Capital Goods, and thus all of Category 2 is accounted for within Category 1. Trucost used Mastercard's spend register to map its suppliers for the 2022 period. Trucost removed spend for taxes, payment refunds and similar items that do not relate directly to producing Mastercard's own market offerings. The remaining spend and suppliers were evaluated using both public disclosures and modelled impact to estimate the GHG emissions for each supplier and spend sector. Trucost applied its Environmental-Economic Input-Output (EEIO) life cycle-based model for quantifying environmental impacts. Note: in this analysis, upstream transportation and distribution is included – and therefore, category 4 is already accounted for. Mastercard then analyzed 95% of its expenditure to identify the percentage allocated to purchased goods and services.

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

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
9454

Emissions calculation methodology
Other, please specify (Energy data-based method)

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

Please explain
To calculate Mastercard's emissions from fuel-and-energy-related activities, we worked with a third-party consultant, WSP. FERA calculations were dependent on the amount of consumed energy and the accompanying emissions factor for fuel and energy activities. Based on the Scope 3 GHG protocol, WSP developed these factors in adherence to the Scope 3 GHG protocol. The source for upstream emissions of purchased US electricity was from the Argonne Labs 2022 model (Version 1_2022, October 2022), based on Year 2021 eGRID (February 2023) grid generation mix. The source for upstream emissions of purchased fuels for the US is Argonne Labs GREET1_2021 model (Version 1_2021, October 2021) and for outside the US is Ecoinvent v3.5 life-cycle database. We assumed aviation is equal to gasoline. The source for US T&D electricity losses is EPA eGRID 2020, while the international source was IEA 2021.

Upstream transportation and distribution

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
0

Emissions calculation methodology
Supplier-specific method
Spend-based method

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

Please explain
Due to the nature of our internal sourcing and invoice management process, we are unable to delineate Upstream Transportation and Distribution from Purchased Goods and Services, and thus all of Category 4 is accounted for within Category 1 and calculated using the methods described for category 1.

Waste generated in operations

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
653

Emissions calculation methodology
Waste-type-specific method

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

Please explain
Disposal and treatment of non-hazardous and hazardous waste generated in Mastercard's owned and leased facilities. Hazardous waste streams at Mastercard includes any electronic waste. Waste stream data was available for 11 sites (4 owned campuses and 7 leased sites), so an estimation based on waste emissions per square-foot (on a regional basis) was made using available data and extrapolated across global portfolio. Mastercard reviewed its 2022 waste generation weights and waste management methods at all owned-sites. Using the US EPA's waste reduction model (Warm Version 15), the model accounted for waste treated in various classifications (landfill, burned for energy, ongoing consumables- diverted, construction waste – landfill, construction waste – diverted, compost, oil recycling, IT recycled, IT donated, furniture donated, metal recycling, paper shred, battery/e-waste/light bulb recycling, and coffee recycling), multiplied by the respective emission factor, and returned an overall emissions value of MT CO2e.

Business travel

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
26861

Emissions calculation methodology
Fuel-based method
Distance-based method

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

Please explain
Commercial air and rail travel by employees. Data was obtained from business travel partner. The travel agency that Mastercard uses calculated the GHG emissions associated with all air and rail travel by all Mastercard employees and contingent employees. The calculation considers the type of aircraft, passenger and cargo load, cabin class, and miles travelled for each ticketed purchase. The calculation also includes a radiative forcing (DEFRA).

Employee commuting

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
19612

Emissions calculation methodology
Distance-based method

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

Please explain
Transportation of all worldwide employees between their homes and their worksites. A global Employee Commuter Survey was conducted at the beginning of 2023, which asked about travel patterns for 2022, and results were analyzed. Using the data from the survey (including total distance travelled by employees over the reporting period and mode of transport used for commuting), the distance-based method detailed in the GHG Protocol Scope 3 Technical Guidelines Document was applied. To account for the varying modes of transportation taken each day, the emission factors for greenhouse gas inventories were utilized (CO2, CH4, N2O). Gases were then converted to CO2e through multiplication of their respective global warming potential. To better represent our employee population in the offices, an additional question was asked on how long the employee was working for Mastercard in 2022. This took place of using utilization data to estimate office attendance.

Upstream leased assets

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
360

Emissions calculation methodology
Average data method

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

Please explain
During the pandemic our strategy changed and we shifter to managed suites in numbers and sizes. In 2022 it was included in our inventory as a separate category. The 2022 leased and owned (Scope 2) portfolio's average kWh per square foot was multiplied by “managed suites” (aka category 8) square-footage to calculate emissions for 2022. The square-footage for managed suites was calculated using the estimated square-footage per workspace and the number of workspaces at each location because square footage is typically not provided by the lessor. For sites without square-footage data per workspace, 50 square-feet per workspace was used for the estimation. The total kWh per site was then used to calculate GHG emissions by using EPA and IEA emissions factors.

Downstream transportation and distribution

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Mastercard does not manufacture products; thus, Mastercard does not have any downstream transportation and distribution.

Processing of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Mastercard does not manufacture products; thus, Mastercard has no processing of sold products.

Use of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Mastercard does not manufacture products; thus, Mastercard has no processing of sold products.

End of life treatment of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Mastercard does not manufacture products; thus, Mastercard has no end of life treatment of sold products.

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Mastercard does not have downstream leased assets.

Franchises

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Mastercard does not have franchises.

Investments

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Mastercard does not have relevant investments.

Other (upstream)

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
There are no other upstream GHG Emission Sources.

Other (downstream)

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
There are no other downstream GHG Emission Sources.

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
0.0000025

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
56002

Metric denominator
unit total revenue

Metric denominator: Unit total
22200000000

Scope 2 figure used
Location-based

% change from previous year
13

Direction of change
Decreased

Reason(s) for change
Change in renewable energy consumption
Other emissions reduction activities
Change in revenue

Please explain
The largest driver for our decrease in emissions intensity is revenue. In 2022, Mastercard experienced 18% growth
in net revenue and 12% growth in switched transactions, compared to the prior year. Total company emissions for Scope 1, 2 and 3 totaled 562,583 metric tons of carbon dioxide
(MtCO2e), which is a 3% increase over 2021. For several years now, we have seen signs of decoupling our corporate growth from our levels of GHG emissions and we remain focused
on this task.

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	4747	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	2	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	20	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

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

Country/area/region	Scope 1 emissions (metric tons CO2e)
Belgium	188
Canada	54
United Kingdom of Great Britain and Northern Ireland	314
United States of America	3760
Ireland	452

C7.3

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

By facility

C7.3b

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

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Waterloo	188	50.711153	4.407957
Toronto	54	43.670556	79.383968
Dunstable	128	51.894805	-0.507045
Kansas City	245	39.302404	94.68471
O'Fallon	274	38.746429	90.746394
Purchase	3234	41.02348	73.714287
Harrogate	100	53.976529	1.567622
Rickmansworth	86	51.640823	-0.471023
Dublin	452	53.271996	-6.202061
Murray	6	40.65666	-111.90343

C7.5

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

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Argentina	15	0
Australia	628	0
Austria	6	0
Bangladesh	43	0
Belgium	437	0
Brazil	31	0
Canada	83	0
Chile	32	0
Taiwan, China	245	54
Colombia	22	0
Costa Rica	0.14	0.14
Czechia	23	0
Egypt	15	0
France	7	0
Germany	46	0
Greece	14	0
Hong Kong SAR, China	27	0
Hungary	15	0
India	3422	0
Ireland	494	0
Italy	36	0
Japan	56	0
Jordan	11	0
Kenya	6	6
Democratic People's Republic of Korea	18	18
Malaysia	58	7
Mexico	123	0
Morocco	29	0
New Zealand	7	0
Nigeria	51	6
Peru	10	0
Philippines	107	0
Poland	175	0
Qatar	12	12
Romania	19	0
Russian Federation	33	33
Saudi Arabia	41	1
Serbia	39	0
Singapore	366	116
South Africa	169	0
Spain	14	0
Sweden	1	0
Switzerland	2	0
Turkey	65	0
Ukraine	23	23
United Arab Emirates	396	0
United Kingdom of Great Britain and Northern Ireland	2599	0
United States of America	40872	61
Viet Nam	18	0
Venezuela (Bolivarian Republic of)	18	18
Zimbabwe	12	12
Bulgaria	18	0
Israel	25	0
Indonesia	1	0
China	167	0
Thailand	19	0.09
Norway	1	0
Denmark	11	0

C7.6

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

By activity

C7.6c

(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)
Data Center Activity	31109	0
Office Activity	20125	367

C7.7

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

Not relevant as we do not have any subsidiaries

C7.9

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

Decreased

C7.9a

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

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	2019	Decreased	3.9848	We set targets using both a location- and market-based methodology; our short-term science-based target uses location-based while our 2040 Net Zero target (pending approval) uses market-based. From a market-based perspective, our renewable energy consumption increased year-over-year, leading to an overall decrease in scope 1 & 2 emissions. The following calculation was used: ((2022 scope 1 + 2022 location-based scope 2 - market-based scope 2 + 2022 MTCO2e equivalent for MWh of onsite solar generation) - (2021 scope 1 + 2021 location-based scope 2 - 2021 market-based scope 2 + 2021 MTCO2e equivalent of onsite solar generation)) / 2021 scope 1 + 2021 location-based scope 2 - 2021 market-based scope 2 + 2021 MTCO2e equivalent onsite solar power generation.
Other emissions reduction activities	1700	Increased	3.3	We created an internal process to highlight IT equipment that is not being utilized properly that should be decommissioned or consolidated with other lower utilized equipment. This has reduced our energy consumption in the United States. This is calculated with the following formula (change in scope 1+2 emissions attributed to other emissions reduction activities/ previous year scope 1+2 emissions) *100.
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output		<Not Applicable>		
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
Change in physical operating conditions	320	Increased	0.006	This increase in emissions is primarily influenced by several key factors. In 2022, employees began returning to the office post-pandemic, the number of employees increased, 4,900 FTE, and Mastercard's office footprint grew 305,000 to accommodate this growth. Employees also began returning to the office in 2022 and average occupancy doubled from ~11% in 2021 to ~23% in 2022. Changes in the grid emissions factors also affected US based locations and increased emissions ~6% at those sites.
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	Yes
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	22326	22326
Consumption of purchased or acquired electricity	<Not Applicable>	103024	415	103439
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	0	458	458
Consumption of purchased or acquired cooling	<Not Applicable>	0	2181	2181
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	3436	<Not Applicable>	3436
Total energy consumption	<Not Applicable>	106460	25380	131840

C8.2b

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

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

C8.2c

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

Sustainable biomass

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

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

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

Comment

Other biomass

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

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

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

Comment

Other renewable fuels (e.g. renewable hydrogen)

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

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

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

Comment

Coal

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

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

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

Comment

Oil

Heating value
HHV

Total fuel MWh consumed by the organization
10606

MWh fuel consumed for self-generation of electricity
1809

MWh fuel consumed for self-generation of heat
8797

MWh fuel consumed for self-generation of steam
0

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

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

Comment
Diesel used in data center secondary power system for resiliency measures and Jet fuel used for executive transportation.

Gas

Heating value
HHV

Total fuel MWh consumed by the organization
11720

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
11720

MWh fuel consumed for self-generation of steam
0

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

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

Comment
Natural Gas used for heating offices

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

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

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

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

Comment

Total fuel

Heating value
HHV

Total fuel MWh consumed by the organization
22326

MWh fuel consumed for self-generation of electricity
1809

MWh fuel consumed for self-generation of heat
20517

MWh fuel consumed for self-generation of steam
0

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

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

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	5246	5246	3436	3436
Heat	0	0	0	0
Steam	458	458	0	0
Cooling	2181	2181	0	0

C8.2g

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

Country/area
Argentina

Consumption of purchased electricity (MWh)
53.3

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
53.3

Country/area
Australia

Consumption of purchased electricity (MWh)
923.42

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
923.42

Country/area
Austria

Consumption of purchased electricity (MWh)
53.14

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
53.14

Country/area
Bangladesh

Consumption of purchased electricity (MWh)
79.34

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
79.34

Country/area
Belgium

Consumption of purchased electricity (MWh)
2650.37

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
2650.37

Country/area
Brazil

Consumption of purchased electricity (MWh)

336.27

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
336.27

Country/area
Bulgaria

Consumption of purchased electricity (MWh)
47.92

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
47.92

Country/area
Canada

Consumption of purchased electricity (MWh)
689.53

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
689.53

Country/area
Chile

Consumption of purchased electricity (MWh)
75.55

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
75.55

Country/area
China

Consumption of purchased electricity (MWh)
270.81

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
270.81

Country/area
Colombia

Consumption of purchased electricity (MWh)
97.18

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
97.18

Country/area
Costa Rica

Consumption of purchased electricity (MWh)
76.74

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
Yes

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
76.74

Country/area
Czechia

Consumption of purchased electricity (MWh)
56.73

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
56.73

Country/area
Denmark

Consumption of purchased electricity (MWh)
113.39

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
113.39

Country/area
Egypt

Consumption of purchased electricity (MWh)
39.47

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
39.47

Country/area
France

Consumption of purchased electricity (MWh)
141.13

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
141.13

Country/area
Germany

Consumption of purchased electricity (MWh)
147.88

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
147.88

Country/area
Greece

Consumption of purchased electricity (MWh)
38.79

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
38.79

Country/area
Hong Kong SAR, China

Consumption of purchased electricity (MWh)
41.39

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
41.39

Country/area
Hungary

Consumption of purchased electricity (MWh)
70.02

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
70.02

Country/area
India

Consumption of purchased electricity (MWh)
4943.28

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
4943.28

Country/area
Indonesia

Consumption of purchased electricity (MWh)
1.87

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
1.87

Country/area
Ireland

Consumption of purchased electricity (MWh)

1851.71

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
1851.71

Country/area
Israel

Consumption of purchased electricity (MWh)
53.95

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
53.95

Country/area
Italy

Consumption of purchased electricity (MWh)
134.89

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
134.89

Country/area
Japan

Consumption of purchased electricity (MWh)
117.14

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
117.14

Country/area
Jordan

Consumption of purchased electricity (MWh)
27.31

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
27.31

Country/area
Kenya

Consumption of purchased electricity (MWh)
91.26

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
Yes

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
91.26

Country/area
Republic of Korea

Consumption of purchased electricity (MWh)
37.54

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
Yes

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
37.54

Country/area
Malaysia

Consumption of purchased electricity (MWh)
77.22

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
11.48

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
88.7

Country/area
Mexico

Consumption of purchased electricity (MWh)
308.26

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
308.26

Country/area
Morocco

Consumption of purchased electricity (MWh)
39.9

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
39.9

Country/area
New Zealand

Consumption of purchased electricity (MWh)
52.07

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
52.07

Country/area
Nigeria

Consumption of purchased electricity (MWh)
123.09

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
123.09

Country/area
Norway

Consumption of purchased electricity (MWh)
219.86

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
219.86

Country/area
Peru

Consumption of purchased electricity (MWh)
55.75

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
55.75

Country/area
Philippines

Consumption of purchased electricity (MWh)
151.11

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
151.11

Country/area
Poland

Consumption of purchased electricity (MWh)
280.16

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
280.16

Country/area
Qatar

Consumption of purchased electricity (MWh)
23.73

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
Yes

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
23.73

Country/area
Romania

Consumption of purchased electricity (MWh)

69.34

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
69.34

Country/area
Russian Federation

Consumption of purchased electricity (MWh)
91.31

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
Yes

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
91.31

Country/area
Saudi Arabia

Consumption of purchased electricity (MWh)
67

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
Yes

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
67

Country/area
Serbia

Consumption of purchased electricity (MWh)
50.35

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
50.35

Country/area
Singapore

Consumption of purchased electricity (MWh)
649.73

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
301.26

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
950.99

Country/area
South Africa

Consumption of purchased electricity (MWh)
182.44

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
182.44

Country/area
Spain

Consumption of purchased electricity (MWh)
92.98

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
92.98

Country/area
Sweden

Consumption of purchased electricity (MWh)
52.79

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
52.79

Country/area
Switzerland

Consumption of purchased electricity (MWh)
93.33

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
93.33

Country/area
Taiwan, China

Consumption of purchased electricity (MWh)
347.78

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
99.37

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
447.15

Country/area
Thailand

Consumption of purchased electricity (MWh)
39.22

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0.19

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
39.41

Country/area
Turkey

Consumption of purchased electricity (MWh)
156.07

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
156.07

Country/area
Ukraine

Consumption of purchased electricity (MWh)
69.72

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
Yes

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
69.72

Country/area
United Arab Emirates

Consumption of purchased electricity (MWh)
750.12

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
750.12

Country/area
United Kingdom of Great Britain and Northern Ireland

Consumption of purchased electricity (MWh)
13318.68

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
13318.68

Country/area
United States of America

Consumption of purchased electricity (MWh)
68726.07

Consumption of self-generated electricity (MWh)
3436.41

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
2266.68

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
74429.16

Country/area
Venezuela (Bolivarian Republic of)

Consumption of purchased electricity (MWh)
189.1

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
189.1

Country/area
Viet Nam

Consumption of purchased electricity (MWh)

28.71

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
28.71

Country/area
Zimbabwe

Consumption of purchased electricity (MWh)
20.23

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
Yes

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
20.23

C8.2h

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

Country/area of consumption of purchased renewable electricity
Argentina

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
10

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2019

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Argentina

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

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

46

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2019

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2021

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Australia

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

Renewable electricity technology type
Renewable electricity mix, please specify (wind and solar)

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
923

Tracking instrument used
Contract

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

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2021

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Austria

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
54

Tracking instrument used
GO

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2019

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity

No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Bangladesh

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
5

Tracking instrument used
I-REC

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

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Bangladesh

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
75

Tracking instrument used
TIGR

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

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Belgium

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

Renewable electricity technology type
Renewable electricity mix, please specify (wind and solar)

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
2558

Tracking instrument used
Contract

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

Belgium

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Belgium

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
93

Tracking instrument used
GO

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2019

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Brazil

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
15

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2016

Vintage of the renewable energy/attribute (i.e. year of generation)
2021

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity

Brazil

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
322

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2021

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Bulgaria

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
5

Tracking instrument used
GO

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2021

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Bulgaria

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
43

Tracking instrument used
GO

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

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

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

2019

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Canada

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
617

Tracking instrument used
I-REC

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

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Canada

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
74

Tracking instrument used
I-REC

Country/area of origin (generation) of purchased renewable electricity
United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Chile

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type

Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
76

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2020

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
China

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
27

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2013

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
China

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
232

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2015

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year

2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
China

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
12

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2018

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Colombia

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Hydropower (capacity unknown)

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
77

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
1977

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Colombia

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Hydropower (capacity unknown)

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
21

Tracking instrument used

I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2016

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Costa Rica

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
77

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2016

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Czechia

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
57

Tracking instrument used
GO

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2019

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Denmark

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
114

Tracking instrument used
GO

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2019

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Egypt

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
40

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2019

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
France

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
142

Tracking instrument used
GO

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2019

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Germany

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
148

Tracking instrument used
GO

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2019

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Greece

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
39

Tracking instrument used
GO

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2019

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Hong Kong SAR, China

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Hydropower (capacity unknown)

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
42

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2013

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Hungary

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
37

Tracking instrument used
GO

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2021

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Hungary

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
34

Tracking instrument used
GO

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2021

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
India

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Hydropower (capacity unknown)

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
489

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2013

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
India

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
240

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2016

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
India

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
1908

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2020

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
India

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
1175

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2011

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
India

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
1132

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2017

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Indonesia

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Hydropower (capacity unknown)

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
1

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2018

Vintage of the renewable energy/attribute (i.e. year of generation)
2021

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Indonesia

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Hydropower (capacity unknown)

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
1

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2005

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Ireland

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
782

Tracking instrument used
GO

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2019

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Ireland

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
1070

Tracking instrument used
GO

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2019

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Israel

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
54

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2018

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Italy

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
135

Tracking instrument used
GO

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2019

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Japan

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
117

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2015

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Japan

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
1

Tracking instrument used
J-Credit (Renewable)

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

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Jordan

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
27

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2018

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Jordan

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
1

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2018

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Kenya

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Hydropower (capacity unknown)

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
5

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2009

Vintage of the renewable energy/attribute (i.e. year of generation)
2021

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Kenya

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
87

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2021

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Republic of Korea

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
38

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2018

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Malaysia

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Hydropower (capacity unknown)

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
78

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2014

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Mexico

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
7

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2018

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Mexico

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
302

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2016

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Morocco

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
40

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2017

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
New Zealand

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Hydropower (capacity unknown)

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
45

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
1941

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
New Zealand

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
8

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2009

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Nigeria

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Hydropower (capacity unknown)

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
124

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
1990

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Norway

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
188

Tracking instrument used
GO

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2021

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Norway

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
32

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2021

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Peru

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
56

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2016

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Philippines

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Geothermal

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
152

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
1979

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Poland

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
21

Tracking instrument used
GO

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2014

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Poland

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
260

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2014

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Qatar

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
24

Tracking instrument used
I-REC

Country/area of origin (generation) of purchased renewable electricity
United Arab Emirates

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2018

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Romania

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
20

Tracking instrument used
GO

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2021

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Romania

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
50

Tracking instrument used
GO

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2019

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Russian Federation

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
11

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2020

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Russian Federation

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
81

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2014

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Saudi Arabia

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
67

Tracking instrument used
I-REC

Country/area of origin (generation) of purchased renewable electricity
United Arab Emirates

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2018

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Serbia

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
51

Tracking instrument used
GO

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2019

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Singapore

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
36

Tracking instrument used
I-REC

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

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Singapore

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
380

Tracking instrument used
TIGR

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

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Vintage of the renewable energy/attribute (i.e. year of generation)
2021

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Singapore

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
234

Tracking instrument used
TIGR

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

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
South Africa

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
179

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2014

Vintage of the renewable energy/attribute (i.e. year of generation)
2021

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
South Africa

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
4

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2014

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Spain

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
93

Tracking instrument used
GO

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2019

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Sweden

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
53

Tracking instrument used
GO

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2019

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Switzerland

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
94

Tracking instrument used
GO

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2019

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Taiwan, China

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Hydropower (capacity unknown)

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
278

Tracking instrument used
I-REC

Country/area of origin (generation) of purchased renewable electricity
Taiwan, China

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2007

Vintage of the renewable energy/attribute (i.e. year of generation)
2021

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Taiwan, China

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Hydropower (capacity unknown)

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
70

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2010

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Thailand

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
5

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2011

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Thailand

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
36

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2016

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Turkey

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Hydropower (capacity unknown)

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
39

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2015

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Turkey

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Hydropower (capacity unknown)

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
111

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2019

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Turkey

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
8

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2019

Vintage of the renewable energy/attribute (i.e. year of generation)
2021

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Ukraine

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
1

Tracking instrument used
GO

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2021

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Ukraine

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
69

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2014

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
United Arab Emirates

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
751

Tracking instrument used
I-REC

Country/area of origin (generation) of purchased renewable electricity
United Arab Emirates

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2018

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

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

Renewable electricity technology type
Renewable electricity mix, please specify (wind and solar)

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
11154

Tracking instrument used
Contract

Country/area of origin (generation) of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Vintage of the renewable energy/attribute (i.e. year of generation)
2021

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
71

Tracking instrument used
REGO

Country/area of origin (generation) of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2012

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
4

Tracking instrument used
REGO

Country/area of origin (generation) of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2013

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
505

Tracking instrument used
REGO

Country/area of origin (generation) of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2017

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
777

Tracking instrument used
REGO

Country/area of origin (generation) of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2018

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
78

Tracking instrument used
REGO

Country/area of origin (generation) of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2009

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
126

Tracking instrument used
REGO

Country/area of origin (generation) of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2013

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
67

Tracking instrument used
REGO

Country/area of origin (generation) of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2014

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
226

Tracking instrument used
REGO

Country/area of origin (generation) of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2016

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
140

Tracking instrument used
REGO

Country/area of origin (generation) of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2017

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
131

Tracking instrument used
REGO

Country/area of origin (generation) of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2019

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
40

Tracking instrument used
REGO

Country/area of origin (generation) of purchased renewable electricity
United Kingdom of Great Britain and Northern Ireland

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
United States of America

Sourcing method
Project-specific contract with an electricity supplier

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
18277

Tracking instrument used
I-REC

Country/area of origin (generation) of purchased renewable electricity
United States of America

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2021

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2021

Additional, voluntary label associated with purchased renewable electricity
Green-e

Comment

Country/area of consumption of purchased renewable electricity
United States of America

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Sustainable Biomass

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
126

Tracking instrument used
I-REC

Country/area of origin (generation) of purchased renewable electricity
United States of America

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2015

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
United States of America

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
19

Tracking instrument used
I-REC

Country/area of origin (generation) of purchased renewable electricity
United States of America

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2020

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
United States of America

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
21087

Tracking instrument used
I-REC

Country/area of origin (generation) of purchased renewable electricity
United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
United States of America

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
29218

Tracking instrument used
I-REC

Country/area of origin (generation) of purchased renewable electricity
United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Venezuela (Bolivarian Republic of)

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Hydropower (capacity unknown)

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
190

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2016

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Viet Nam

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
29

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2018

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Zimbabwe

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Wind

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
1

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2014

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

Country/area of consumption of purchased renewable electricity
Zimbabwe

Sourcing method
Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
20

Tracking instrument used
I-REC

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

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

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2013

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment

C8.2i

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

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

Country/area of consumption of low-carbon heat, steam or cooling
<Not Applicable>

Energy carrier
<Not Applicable>

Low-carbon technology type
<Not Applicable>

Low-carbon heat, steam, or cooling consumed (MWh)
<Not Applicable>

Comment

C8.2j

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

Country/area of generation
United States of America

Renewable electricity technology type
Solar

Facility capacity (MW)
0.41

Total renewable electricity generated by this facility in the reporting year (MWh)
924

Renewable electricity consumed by your organization from this facility in the reporting year (MWh)
924

Energy attribute certificates issued for this generation
No

Type of energy attribute certificate
<Not Applicable>

Comment
Purchase

Country/area of generation
United States of America

Renewable electricity technology type
Solar

Facility capacity (MW)
1.69

Total renewable electricity generated by this facility in the reporting year (MWh)
1350

Renewable electricity consumed by your organization from this facility in the reporting year (MWh)
1350

Energy attribute certificates issued for this generation
No

Type of energy attribute certificate
<Not Applicable>

Comment
O'Fallon

Country/area of generation
United States of America

Renewable electricity technology type
Solar

Facility capacity (MW)
0.92

Total renewable electricity generated by this facility in the reporting year (MWh)
1162

Renewable electricity consumed by your organization from this facility in the reporting year (MWh)
1162

Energy attribute certificates issued for this generation
No

Type of energy attribute certificate
<Not Applicable>

Comment
Kansas City DC

C8.2k

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

For our owned facilities, our priority is to maximize our onsite renewables. For the electricity we are not able to offset with onsite renewables, we exhaust our options for long-term renewable options (such as PPAs or Green Tariffs) that are integrated into the same grid we are consuming power from. For leased locations, we advocate to purchase unbundled RECs that are from the same grid that we consume power from. Additionally, we search for unbundled RECs with priority of commissioning dates that are less than 15 years old. If no RECs are available from that grid or that country, we buy RECs from the nearest grid or country that is available. Our intention is to match our renewables, not only by MWh, but also by carbon emissions. With information currently available on the market, this has become our internal best practices.

C8.2l

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

	Challenges to sourcing renewable electricity	Challenges faced by your organization which were not country/area-specific
Row 1	Yes, in specific countries/areas in which we operate	<Not Applicable>

C8.2m

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

Country/area	Reason(s) why it was challenging to source renewable electricity within selected country/area	Provide additional details of the barriers faced within this country/area
Venezuela (Bolivarian Republic of)	Other, please specify	Geopolitical restrictions
Kenya	Limited supply of renewable electricity in the market	None available
Russian Federation	Other, please specify	Geopolitical restrictions
Costa Rica	Limited supply of renewable electricity in the market	None available
Ukraine	Other, please specify	Ongoing war
Republic of Korea	Limited supply of renewable electricity in the market	None available
Qatar	Limited supply of renewable electricity in the market	None available
Zimbabwe	Limited supply of renewable electricity in the market	None available
Saudi Arabia	Limited supply of renewable electricity in the market	Limited available

C9. Additional metrics

C9.1

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

C10. Verification

C10.1

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

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

C10.1a

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

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Third party verification/assurance underway

Attach the statement
mastercard-esg-report-2022.pdf

Page/ section reference
GHG Emissions Statement - page 99 of ESG report

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.1b

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

Scope 2 approach
Scope 2 location-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Third party verification/assurance underway

Attach the statement
mastercard-esg-report-2022.pdf

Page/ section reference
GHG Emissions Statement - page 99 of ESG report

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 2 approach
Scope 2 market-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Third party verification/assurance underway

Attach the statement
mastercard-esg-report-2022.pdf

Page/ section reference
GHG Emissions Statement - page 99 of ESG report

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.1c

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

Scope 3 category
Scope 3: Purchased goods and services
Scope 3: Capital goods
Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)
Scope 3: Upstream transportation and distribution
Scope 3: Waste generated in operations
Scope 3: Business travel
Scope 3: Employee commuting
Scope 3: Upstream leased assets

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Third party verification/ assurance underway

Attach the statement
mastercard-esg-report-2022.pdf

Page/section reference
GHG Emissions Statement - page 99 of ESG report

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?
No, but we are actively considering verifying within the next two years

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?
No, and we do not anticipate being regulated in the next three years

C11.2

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

C11.2a

(C11.2a) Provide details of the project-based carbon credits canceled by your organization in the reporting year.

Project type
Landfill gas

Type of mitigation activity
Emissions reduction

Project description
Clinton Landfill Gass Collection and Combustion

Credits canceled by your organization from this project in the reporting year (metric tons CO2e)
4769

Purpose of cancellation
Voluntary offsetting

Are you able to report the vintage of the credits at cancellation?
Yes

Vintage of credits at cancellation

2020

Were these credits issued to or purchased by your organization?
Purchased

Credits issued by which carbon-crediting program
VCS (Verified Carbon Standard)

Method(s) the program uses to assess additionality for this project
Other, please specify (Benchmark Analysis)

Approach(es) by which the selected program requires this project to address reversal risk
No risk of reversal

Potential sources of leakage the selected program requires this project to have assessed
Other, please specify (No leakage)

Provide details of other issues the selected program requires projects to address
No issues

Comment
N/A

Project type
Landfill gas

Type of mitigation activity
Emissions reduction

Project description
Landfill Gas Extraction and electricity generation, Istanbul Turkey

Credits canceled by your organization from this project in the reporting year (metric tons CO2e)
6336

Purpose of cancellation
Voluntary offsetting

Are you able to report the vintage of the credits at cancellation?
Yes

Vintage of credits at cancellation
2015

Were these credits issued to or purchased by your organization?
Purchased

Credits issued by which carbon-crediting program
Gold Standard

Method(s) the program uses to assess additionality for this project
Consideration of legal requirements
Barrier analysis
Market penetration assessment

Approach(es) by which the selected program requires this project to address reversal risk
No risk of reversal

Potential sources of leakage the selected program requires this project to have assessed
Other, please specify (No leakage effects required under the methodology)

Provide details of other issues the selected program requires projects to address
No issues

Comment
N/A

Project type
Clean cookstove distribution

Type of mitigation activity
Emissions reduction

Project description
Vida Mejor con Ecofogones de Alto Rendimiento Improved Cookstoves

Credits canceled by your organization from this project in the reporting year (metric tons CO2e)
6336

Purpose of cancellation
Voluntary offsetting

Are you able to report the vintage of the credits at cancellation?
Yes

Vintage of credits at cancellation
2019

Were these credits issued to or purchased by your organization?
Purchased

Credits issued by which carbon-crediting program
Gold Standard

Method(s) the program uses to assess additionality for this project
Other, please specify (Application of AMS-II.G additionality tool: Demonstration of additionality of small scale project activities)

Approach(es) by which the selected program requires this project to address reversal risk
No risk of reversal

Potential sources of leakage the selected program requires this project to have assessed
Other, please specify (Default methodology leakage correction factor applied)

Provide details of other issues the selected program requires projects to address
No issues

Comment
N/A

Project type
Clean cookstove distribution

Type of mitigation activity
Emissions reduction

Project description
Offset - CPAs 7997-0003, 7997-0008 and 7997-0009: BioLite Improved Cookstoves Programme, Kenya

Credits canceled by your organization from this project in the reporting year (metric tons CO2e)
6336

Purpose of cancellation
Voluntary offsetting

Are you able to report the vintage of the credits at cancellation?
Yes

Vintage of credits at cancellation
2021

Were these credits issued to or purchased by your organization?
Purchased

Credits issued by which carbon-crediting program
Gold Standard

Method(s) the program uses to assess additionality for this project
Other, please specify (Application of additionality tool: Demonstration of additionality of small scale project activities)

Approach(es) by which the selected program requires this project to address reversal risk
No risk of reversal

Potential sources of leakage the selected program requires this project to have assessed
Other, please specify (Default methodology leakage correction factor applied)

Provide details of other issues the selected program requires projects to address
No issues

Comment
N/A

Project type
Other, please specify (Avoided deforestation)

Type of mitigation activity
Emissions reduction

Project description
PACAJAI REDD+ PROJECT

Credits canceled by your organization from this project in the reporting year (metric tons CO2e)
8600

Purpose of cancellation
Voluntary offsetting

Are you able to report the vintage of the credits at cancellation?
Yes

Vintage of credits at cancellation
2017

Were these credits issued to or purchased by your organization?
Purchased

Credits issued by which carbon-crediting program
REDD+

Method(s) the program uses to assess additionality for this project
Consideration of legal requirements
Investment analysis

Market penetration assessment
Other, please specify (Identification of alternative land-use scenarios to the AFOLU project activity)

Approach(es) by which the selected program requires this project to address reversal risk
Other, please specify (buffer pool)

Potential sources of leakage the selected program requires this project to have assessed
Activity-shifting

Provide details of other issues the selected program requires projects to address
No issues

Comment
N/A

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.

Type of internal carbon price
Shadow price

How the price is determined
Cost of required measures to achieve emissions reduction targets

Objective(s) for implementing this internal carbon price
Drive energy efficiency
Drive low-carbon investment
Identify and seize low-carbon opportunities
Other, please specify (Supplier Engagement)

Scope(s) covered
Scope 1
Scope 2
Scope 3 (upstream)
Scope 3 (downstream)

Pricing approach used – spatial variance
Uniform

Pricing approach used – temporal variance
Evolutionary

Indicate how you expect the price to change over time
We update our price of carbon every 3-5 years. We plan to continue this review process to ensure our price of carbon reflects the current market environment.

Actual price(s) used – minimum (currency as specified in C0.4 per metric ton CO2e)
15

Actual price(s) used – maximum (currency as specified in C0.4 per metric ton CO2e)
15

Business decision-making processes this internal carbon price is applied to
Capital expenditure
Operations

Mandatory enforcement of this internal carbon price within these business decision-making processes
Yes, for some decision-making processes, please specify (We want to use the internal price of carbon to drive energy efficiency, identify, seize and drive low-carbon investment, and supplier engagement in real estate.)

Explain how this internal carbon price has contributed to the implementation of your organization's climate commitments and/or climate transition plan
We want to use the internal price of carbon to drive energy efficiency, identify, seize and drive low-carbon investment, and supplier engagement in real estate.
Factoring in the price of carbon into ROI calculations on energy efficiency led us to updating HVAC controls.
Factoring in the price of carbon into our identification and ultimately ROI calculations on low-carbon investment lead us to the installing solar panels on our owned sites.
Factoring in the price of carbon allows us to choose suppliers to engage with and purchase lower embodied carbon materials for projects like carpet selection.

C12. Engagement

C12.1

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

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

C12.1a

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

Type of engagement
Engagement & incentivization (changing supplier behavior)

Details of engagement
Run an engagement campaign to educate suppliers about climate change

% of suppliers by number
26

% total procurement spend (direct and indirect)
79

% of supplier-related Scope 3 emissions as reported in C6.5
84

Rationale for the coverage of your engagement
Addressing our Scope 3 supply chain emissions comprises a significant part of our efforts to support the Paris Agreement goals as our supply chain accounts for ~80% of our total emissions. We have been working for quite some time to reduce our Scope 1 and 2 emissions and began our focus on Scope 3 in 2016. In collaboration with CDP Supply Chain Services and Trucost, our Sourcing and Supplier Management team identified the suppliers that contribute most of our Scope 3 emissions. We have been working one on one with suppliers to gain a deeper understanding of their emissions and collaborate on strategies to measure, disclose and reduce them. We are proud of our comprehensive approach to collecting and reporting on emissions. Like many in our industry, we examine impacts from travel and employee commuting, but we go further to include our purchased goods and services, the capital goods and services we use in our operations, and the fuel- and energy-related emissions not included in Scopes 1 and 2. Through this more holistic picture we believe we will make a bigger impact — supporting our climate goals and helping our company contribute real-world progress toward the Paris Agreement. The analysis conducted used Trucost's Environmentally Extended Input-Output (EEI-O) Model, CDP Supply Chain and publicly disclosed data to identify the largest contributing spend categories & specific suppliers and quantify GHG emissions & GHG intensity (per $M of spend). We identified our top emitting suppliers by spend and partnered with them to elicit their support for our GHG reduction goals. For the 2022 CDP cycle, we decided to exceed our previous year's target and invited the top 90% of our suppliers based on our supply chain emissions. In 2023, we changed our methodology on how to determine the suppliers that should be invited to the CDP. Only suppliers with a material impact on Mastercard's emissions were invited. This means only suppliers that contributed greater than 0.05% of the total supply chain emissions were considered. In addition to the top emitting suppliers, several strategic long-term suppliers are included to keep them engaged for future engagement.

Impact of engagement, including measures of success
2022 was the first year that Mastercard's executive leadership tied bonus compensation to ESG metrics for all employees. As a part of this incentive, a supplier engagement-related measure of success was set to require a 70% response rate for the CDP questionnaire sent to suppliers. We were successfully able to exceed this threshold and got a 78% response rate (while the CDP portal says we got a 90% response rate, we removed about 12% of supplier responses as they did not cover all the KPIs that are relevant to Mastercard's net zero goals). Another measure of success is a year-over-year increase in our supplier response rate. I Of those who provided a full response in 2022, 39% had committed or validated science-based targets, 38% had net zero goals, 81% had scope 1 and/or 2 emissions disclosed, 65% had scope 3 emissions disclosed, and 38% allocated emissions back to Mastercard, which helps us build a better understanding of our scope 3 supply chain impacts.

Mastercard's success in improving our CDP response rate and decreasing our year-over-year supply chain emissions by 1% can be attributed to our robust supply chain engagement strategy. We are leveraging the support of our business/relationship owners to strengthen our relationship with top emitting technology and marketing suppliers. For example, due to Mastercard's continuous efforts to explain to suppliers the business case for sustainability, several of our suppliers have set science-based and/or net-zero targets. For suppliers that are early in their sustainability journey, we are currently developing a set of resource guides to support them. We have also promoted industry/free tools, such as the SME Climate Hub, and have received feedback that this has allowed our small and medium suppliers to get their first estimated baseline for scope 1, 2 and 3 emissions. Overall, our tailored approach to high emitting suppliers is showing results, and our goal is to keep building on these strategies.

Comment

C12.1b

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

Type of engagement & Details of engagement

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

% of customers by number

100

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

0

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

Through our Priceless Planet Coalition, we offer 100% of our customers and their consumers the opportunity to support forest restoration projects that mitigate global GHG emissions, promote planet biodiversity and benefit the communities that live in or near reforested landscapes. In 2022, we helped our coalition partners launch more than 150 cause-related campaigns to raise funds for restoring trees and forests. The Priceless Planet Coalition employs a forest restoration model dedicated to regrowing forests in locations that represent the greatest global need. The global environmental organizations Conservation International and World Resources Institute lead the Priceless Planet Coalition's mobilization and coordination of restoration efforts, collaborating with local communities and stakeholders for long-term forest stewardship and employing science-based best practices for the selection, implementation and long-term monitoring of restoration efforts. In 2022, we continued work in the program's three initial restoration project areas and added 15 new restoration projects, bringing the total to 18 projects across 19 countries.

Impact of engagement, including measures of success

The impact of engagement and measure of success is how many trees are restored, with an overall target of 100 million trees. Through 2022, we have secured funding to restore an estimated 13 million trees and have already restored 4 million trees. (The incremental 9 million trees (13 million minus 4 million restored) is based on an estimated average cost of $2 per tree throughout the Priceless Planet Coalition project.) In 2022, we continued work in the program's three initial restoration project areas and added 15 new restoration projects, bringing the total to 18 projects across 19 countries. Anyone can donate to plant a tree through our website.

C12.1d

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

SUSTAINABILITY BOND

We issued our first-ever Sustainability Bond in 2021, which ties corporate debt financing to environmental and social impact initiatives. Net proceeds from the 10-year, $600M senior notes are allocated to eligible sustainability investments, expenditures and contributions, including green buildings, technologies and social impact initiatives such as those through the Mastercard Impact Fund.

EQUIPPING CONSUMERS

Mastercard's Sustainable Card Badge and Certification Program empowers our partners to reduce first-use polyvinyl chloride (PVC) plastic in payment card production by issuing cards made from 23 approved products constructed from recycled or biosourced materials such as recycled ocean plastic and bioplastics made from Thai sugar or Nebraska corn. The environmental claims of these materials are verified via the Card Eco-Certification scheme (CEC), and their use is confirmed by an independent auditor who assesses vendor sustainability claims. An optional badge can be featured on the cards to help consumers identify those that are made with these more sustainable materials. Since the program's inception in 2018, more than 330 financial institutions in 80 countries have issued cards through our Sustainable Card program. In 2022, 109 million Mastercard-branded cards were produced using approved materials, expanding the total to 169 million since 2018. Mastercard announced that effective January 1, 2028, all newly produced cards must be CEC certified. Cards made from first-use PVC will no longer be accepted.

Mastercard's Wildlife Impact Card program offers people with a passion for nature and the environment a way to help protect critically endangered species and planet biodiversity. In partnership with the global environmental organization Conservation International, the program helps protect and restore wildlife habitats around the world. Mastercard customers have committed to the program's cause through donations and marketing activities that raise cause awareness. In 2022, we expanded the program's global customer and consumer base through our partnership with DSK Bank, the largest bank in Bulgaria. With this new customer relationship, we launched the first wildlife themed debit card made from materials verified through Mastercard's Sustainable Cards program. Additionally, for every Mastercard Wildlife Impact Card issued, DSK Bank donated $1 to Conservation International without any additional charge to the consumer.

DISASTER RELIEF

As part of our approach to climate resilience, Mastercard also looks for opportunities to support and affect change with our customers and communities, including preparation for, and responding to, climate-related risks and opportunities. As an example, extreme weather events such as tornados, flooding and winter storms directly affect Mastercard's customers. Humanitarian agencies and international development organizations are increasingly looking to deliver aid digitally. Mastercard's suite of powerful, flexible solutions are faster, more efficient and more secure than cash and paper vouchers and can be used to support the important work aid agencies undertake during climate-related events by benefiting communities, stimulating local markets and providing beneficiaries dignity through choice.

INFORMING CONSUMERS

Mastercard's Carbon Calculator, developed in collaboration with Swedish fintech Doconomy, allows consumers to view the estimated carbon footprint of their purchases. A consumer's footprint is tracked month by month across a variety of spending categories, enabling them to consider purchasing decisions to reduce their environmental footprint. In 2022, the Carbon Calculator went live with Mastercard issuers in the U.K., Hungary, Taiwan, and Italy. The Carbon Calculator also integrates Mastercard Donation technology, allowing consumers to donate to meaningful environmental causes that potentially help counterbalance the GHG emissions of their purchases. To learn more about the Mastercard Donation platform, see the Community giving and volunteerism section in the annual Sustainability report.

C12.2

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

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

C12.2a

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

Climate-related requirement

Setting a science-based emissions reduction target

Description of this climate related requirement

In 2023, our Responsible Sourcing team introduced sustainability contract addendums in supplier Master Service Agreements (MSAs). These addendums are being rolled out throughout 2023 and will begin by targeting highest emitting suppliers at Mastercard. Suppliers that demonstrate commitment to sustainability by signing the updated MSA contracts will be prioritized for future business opportunities at Mastercard.

The three main principles of the addendum are: (1) Supplier shall comply with all applicable environmental and climate laws and regulations; (2) supplier agrees to cooperate in good faith with Mastercard, setting, tracking, and measuring science based targets; and (3) as requested, supplier shall disclose accurate scope 1, 2 and 3 GHG emissions data and/or components required to calculate GHG emissions data (via CDP or alternative).

The percentages provided below are compiled as of June 30th, 2023.

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

78

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

29

Mechanisms for monitoring compliance with this climate-related requirement

Supplier self-assessment
Other, please specify (CDP Supply Chain Response)

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

Other, please specify (We plan on engaging with suppliers not in compliance and will prioritize suppliers in compliance for future business opportunities at Mastercard.)

Climate-related requirement

Climate-related disclosure through a non-public platform

Description of this climate related requirement

All suppliers are expected to comply with the Mastercard Code of Conduct. The Mastercard Code of Conduct says, "Upon reasonable request by Mastercard, Supplier will track, document, and disclose greenhouse gas emissions as well as join Mastercard to implement systems designed to minimize environmental impacts, aligned with Mastercard's Scope 3 emissions target and other goals. Suppliers are required to comply with all laws, regulations, ordinances, rules, permits, licenses, and approvals regarding the environment in their countries of operation."

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

100

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

100

Mechanisms for monitoring compliance with this climate-related requirement

Other, please specify (CDP Supply Chain)

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

Retain and engage

C12.3

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

Row 1

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

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

Attach commitment or position statement(s)
mastercard-sustainability-statement-2022.pdf

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan
Mastercard's sustainability commitment has continued to evolve, leading to the appointment of a dedicated Executive Vice President of Corporate Sustainability, as well as the key addition of a Chief Sustainability Officer to further develop both our internal and external global narrative, public policy commitments, and to ensure consistent messaging and support across our global senior management team. These appointments also ensure a common approach to climate engagement activities across business divisions and geographies. The Vice President of Environmental Sustainability was hired to track and drive climate change strategies and policies, inculcate world-class design and construction processes to drive natural resource management and energy efficiency standards, and rally internal stakeholder support. In 2022, Mastercard was a signatory of UN Global Compact and member of 1.5°C Supply Chain Leaders Initiative, Business Ambition for 1.5°C Future, Business for Social Responsibility, CECP, Corporate Eco-Forum, Sustainable Brands, Sustainability Council Conference Board, GreenBiz Executive Network and USGBC.

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

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

C12.3b

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

Trade association
Other, please specify (1t.org/)

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

Has your organization attempted to influence their position in the reporting year?
No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position
Conserving, restoring and growing 1 trillion trees by 2030. We drive change by mobilizing the private sector, facilitating multi-stakeholder partnerships in key regions, and supporting innovation and ecopreneurship on the ground. 1t.org is part of the World Economic Forum's efforts to accelerate nature-based solutions and was set up to support the UN Decade on Ecosystem Restoration 2021-2030.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)
0

Describe the aim of your organization's funding
<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication
In mainstream reports

Status
Complete

Attach the document
MA.12.31.2022-10-K-as-filed.pdf

Page/Section reference
Pages 19-40

Content elements
Risks & opportunities

Comment
Mastercard 10-K - FY 2022

Publication
In mainstream reports

Status
Complete

Attach the document
Mastercard-proxy-courtesy-PDF.pdf

Page/Section reference
Pages 56-59

Content elements
Governance
Strategy
Emission targets

Comment
Proxy Statement

Publication
In voluntary sustainability report

Status
Complete

Attach the document
mastercard-esg-report-2022.pdf

Page/Section reference
Pages 15-28

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

Comment

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	Business Ambition for 1.5C European Climate Pact Exponential Roadmap Initiative RE100 Race to Zero Campaign SME Climate Hub UN Global Compact We Mean Business World Business Council for Sustainable Development (WBCSD)	Business Ambition for 1.5C, Race to Zero Campaign – Mastercard is aligned through our SBTi commitments and goals. Exponential Roadmap Initiative, SME Climate Hub - Mastercard is an active member of 1.5°C Supply Chain Leaders, which falls under the Exponential Roadmap Initiative and host the SME Climate Hub. European Climate Pact - Mastercard is a founding member and it is tied to our Sustainability Lab RE100 – We joined RE100 as a member in 2020 and achieve our commitment in 2020. UN Global Compact – Mastercard has been an active participant in the UN Global Compact since 2018 We Mean Business - Mastercard is an active participant in the We Mean Business coalition including commitments to SBTi and RE100, sponsoring the Business Pavilion at COP27 in 2022, providing a CSO testimonial video and signing a joint business letter at COP27 lead by WMB. World Business Council for Sustainable Development (WBCSD) – Mastercard has been a corporate member of WBCSD since 2022 and participates in several working groups and workstreams including policy advocacy membership meetings.

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	Yes, executive management-level responsibility	Executive oversight of the Priceless Planet Coalition is a critical factor to ensure that we maintain focus on the program goal to restore 100MM trees by 2025. The executive-level ESG Steering Committee regularly reviews progress against the goal. Additionally, executive management oversees appropriate resourcing and prioritization of PPC related activities to fund budgets related to PPC program administration and overhead expenses, build coalition participation, and fundraise for restoration activities.	<Not Applicable>

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	Yes, we have made public commitments only	Commitment to Net Positive Gain Commitment to No Net Loss Adoption of the mitigation hierarchy approach Commitment to not explore or develop in legally designated protected areas Commitment to respect legally designated protected areas Commitment to avoidance of negative impacts on threatened and protected species	<Not Applicable>

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment
No and we don't plan to within the next two years

Value chain stage(s) covered
<Not Applicable>

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)
<Not Applicable>

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment
No and we don't plan to within the next two years

Value chain stage(s) covered
<Not Applicable>

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)
<Not Applicable>

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?
Not assessed

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	No, and we do not plan to undertake any biodiversity-related actions	<Not Applicable>

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No	Please select

C15.7

(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Other, please specify (Description of Priceless Planet Coalition progress)	Through our Priceless Planet Coalition, we engage 130+ corporate partners globally to support forest restoration projects that mitigate global GHG emissions, promote planet biodiversity and benefit the communities living near reforested landscapes.

C16. Signoff

C-FI

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

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Chief Sustainability Officer (CSO)	Chief Sustainability Officer (CSO)

SC. Supply chain module

SC0.0

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

At this time, Mastercard does not allocate emissions on a per client basis, but welcomes the opportunity to discuss sustainability initiatives as requested. Please reach out to our team at e.sustainability@mastercard.com .

SC0.1

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

	Annual Revenue
Row 1	

SC1.1

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

SC1.2

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

SC1.3

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

Allocation challenges	Please explain what would help you overcome these challenges

SC1.4

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

Yes

SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

At this time, Mastercard does not allocate emissions on a per client basis, but welcomes the opportunity to discuss sustainability initiatives as requested. We are interested in working directly with clients. Please reach out to our team at e.sustainability@mastercard.com .

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?

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms