

Welcome to your CDP Climate Change Questionnaire 2022

C0. Introduction

C_{0.1}

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

At Microsoft, our mission is to empower every person and every organization on the planet to achieve more. We enable digital transformation for the era of an intelligent cloud and an intelligent edge. We strive to create local opportunity, growth, and impact in communities around the globe, and we're working to ensure that our technology is creating an inclusive, trusted, and more sustainable world.

The consequences of climate change are increasingly apparent, from wildfires to devastating flooding. The scientific reality of climate change is more accepted than ever before—to avert the worst effects of the rapidly changing climate, the world needs to transition to a net zero carbon emissions economy by 2050. But we still lack key strategies to avoid catastrophic climate change. The world needs agreement on the meaning of global net zero emissions, measurement to track our progress toward net zero, and mature markets for carbon reduction and removal that are necessary to get us there. Through our operations, technology, and advocacy, Microsoft is addressing these three areas to help drive the change that society needs.

Microsoft has a longstanding commitment to sustainability and works to drive change on a global scale through our operations, our technology, our policy advocacy, our employees, and our customers and partners using this technology around the world. We have made a commitment to be carbon negative by 2030 by first reducing the carbon footprint of our own operations, supply chain, and products and services, procuring enough renewable energy to cover 100 percent of our electricity usage (meaning that we will have power purchase agreements for green energy contracted for 100 percent of carbon-emitting electricity consumed by all our datacenters, buildings, and campuses) by 2025, and then removing the equivalent of our current remaining footprint after reductions. By 2050, we will also remove from the atmosphere an equivalent amount of all the carbon dioxide the



company has emitted either directly or by electrical consumption since it was founded in 1975. We strive to minimize our environmental impact, reduce waste, and conserve water and other raw materials. In pursuing these goals, we have policies in place to help our company be compliant with or exceed applicable environmental regulations and the specific environmental requirements of each country and region where we do business. We're also helping empower our customers and partners with new technology to help them meet their sustainability goals by driving efficiencies, transforming their businesses, and developing their own solutions. Microsoft is committed to harnessing the power of technology to help everyone everywhere build a more sustainable future.

All reported information represents best available data as of and for the reporting year unless otherwise noted. We undertake no obligation to update information contained in this report, whether because of new information, future events, or otherwise.

Forward-looking statements: This report includes estimates, projections, and other "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, section 27A of the Securities Act of 1933, and section 21E of the Securities Exchange Act of 1934. These forward-looking statements generally are identified by the words "believe," "project," "expect," "anticipate," "estimate," "intend," "strategy," "future," "opportunity," "plan," "may," "should," "will," "would," "will be," "will continue," "will likely result," and similar expressions. Forward-looking statements are based on current expectations and assumptions that are subject to risks and uncertainties that may cause actual results to differ materially. We describe risks and uncertainties that could cause actual results and events to differ materially in our reports filed with the Securities and Exchange Commission. We undertake no obligation to update or revise publicly any forward-looking statements, whether because of new information, future events, or otherwise.

C_{0.2}

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Reporting year	July 1, 2020	June 30, 2021	No

C0.3

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



C_{0.4}

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

USD

C0.5

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

Operational control

C_{0.8}

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

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	US5949181045

C1. Governance

C1.1

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

C1.1a

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



Position of individual(s)	Please explain
Board-level committee	Microsoft has made sustainability part of its business, including embedding it deeply into its governance structure. Our Board of Directors provides insight, feedback, and oversight across a broad range of environmental and social matters. In particular, the charter for the Board's Environmental, Social, and Public Policy Committee (formerly called the Regulatory and Public Policy Committee) identifies the following (among other topics) in its responsibilities: "review and provide guidance to the Board and management about key environmental and social matters such as climate change, and environmental sustainability." In the reporting year, our President & Vice Chair and our Vice President & Chief Environmental Officer presented to this committee on these topics, including Microsoft's climate-related commitments, strategies, programmatic investments, and emerging issues. This includes an update on decisions related to our environmental sustainability strategy (including our commitment to operate as a carbon negative company by 2030, expanding our internal carbon fee to include our Scope 3 emissions, and programmatic investments to reduce and remove emissions). Five independent directors, including the Lead Independent Director, currently sit on this committee.

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	Please explain
meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action	The Environmental, Social, and Public Policy Committee (formerly called the Regulatory and Public Policy Committee) meets at least three times a year with a varied agenda including updates on the company's commitments to environmental sustainability. During at least one meeting each year and on an as-needed basis, our President & Vice Chair and our Vice President & Chief Environmental Officer present to this committee on our overall sustainability agenda and climate commitments. In FY21 (the reporting period), the committee received a briefing from our Chief Environmental Officer about Microsoft's progress in environmental sustainability, including carbon reduction goals and strategies.



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	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	No, and we do not plan to address this within the next two years	Other, please specify Microsoft expects that each Board member will be able to understand and contribute meaningfully to oversight of the range of material business, risk, and regulatory issues that the company faces.	As the Microsoft Board of Directors strives to maintain a diverse set of skills and attributes, it expects that each member will be able to understand and contribute meaningfully to oversight of the range of material business, risk, and regulatory issues that the company faces. Microsoft's Board includes senior business and government leaders who in the course of their work and Board service engage with technical and policy experts across a range of topics including environmental sustainability.

C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate- related issues
President	Both assessing and managing climate-related risks and opportunities	Annually
Other C-Suite Officer, please specify Vice President and Chief Environmental Officer	Both assessing and managing climate-related risks and opportunities	Annually
Environment/ Sustainability manager	Both assessing and managing climate-related risks and opportunities	Not reported to the board



Sustainability committee	Both assessing and managing climate-related risks and	Not reported to the board
	opportunities	

C1.2a

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

At Microsoft, we work to conduct our business in ways that are principled, transparent, and accountable, which generates long-term value. We focus our efforts where we can have the most positive impact on our business and society, including issues related to environmental sustainability. As a reflection of the importance of these matters, we assign accountability for oversight of policies and programs and related risks that concern environmental sustainability, the social and public policy impacts of technology, and legal, regulatory, and compliance matters to the Environmental, Social, and Public Policy Committee (formerly called the Regulatory and Public Policy Committee) of the Microsoft Board of Directors.

The President & Vice Chair is responsible for our Corporate, External, and Legal Affairs (CELA) group. The CELA group is the main legal, public policy, and social responsibility arm of the company, focused on building and maintaining trust with customers, investors, and stakeholders that Microsoft operates responsibly including in, but not limited to, the areas of environmental sustainability and climate change. The President & Vice Chair presents to the Environmental, Social, and Public Policy Committee on the company's policies and programs related to corporate social responsibility, including environmental sustainability and climate change as appropriate. In FY21 (July 1, 2020–June 30, 2021; the reporting period), the President & Vice Chair monitored climate-related issues and our progress toward climate objectives through regular business reviews and more frequent individual meetings as appropriate.

In FY21, our Chief Environmental Officer led our corporate Environmental Sustainability (ES) team and overall environmental sustainability vision, strategy, and program execution. The Chief Environmental Officer provides regular updates to the President & Vice Chair on our environmental sustainability strategy and progress, as well as quarterly updates to our Chief Financial Officer on our progress with carbon abatement (such as through purchases of renewable energy and carbon removal offsets) plus strategic investments. In early FY22, our Chief Environmental Officer moved to report directly to our President & Vice Chair and continued leading the ES team.

Our Carbon Program Director, part of the ES team, leads Microsoft's carbon mitigation efforts, which include energy efficiency, renewable energy, carbon removal, and identification of additional energy and carbon reduction opportunities. Our Environmental Compliance and Climate Risk +



Resilience (CR+R) Lead, also part of the ES team, assesses and manages climate risks and leads our CR+R Working Group to oversee our CR+R Management Plan; the CR+R Working Group holds representation from across the business. In addition, the Microsoft Climate Council, comprising executives from across the company, is charged with monitoring climate-related risks and opportunities and coordinating and providing oversight for sustainability initiatives across the organization.

The charter of the corporate ES team includes assessing and managing issues related to climate change. By focusing on operations, products and services, customers and partners, and policy, the team strives to reduce our company's environmental impact while empowering societal change through technology. The ES team assesses progress on our environmental sustainability programs and supports our overall environmental sustainability goals, including our commitment to operate carbon neutral from FY13 (which started July 1, 2012), to be carbon negative by 2030, and by 2050 to remove from the atmosphere an equivalent amount of all the carbon dioxide our company has emitted either directly or by electrical consumption since we were founded in 1975. It also brings leaders from across Microsoft together to discuss relevant topics, such as energy efficiency, renewable energy procurement, water stewardship, and circular economy. For guidance on globally changing dynamics, this team engages with experts around the world, including internal finance, regulatory/policy, technology, and environmental professionals, as well as external subject matter experts. The ES team participates in the Microsoft Enterprise Risk Management program, which identifies, assesses, and prioritizes risks and, through regular reporting and discussion, assists senior management and the Board with governance of risk.

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		
Row 1	Yes		

C1.3a

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

Entitled to incentive	Type of	Activity incentivized	Comment
	incentive		



Chief Executive Officer (CEO)	Monetary reward	Emissions reduction target	Progress on sustainability goals—In 2021, we announced that progress on sustainability goals will be a factor in determining executive compensation. With senior management's focus on achieving Microsoft's ambitious carbon reduction commitments, CEO and senior leadership team progress on sustainability is assessed as part of the customers and stakeholders category of the operational assessment component of the cash incentive under the Executive Incentive Plan.
Chief Financial Officer (CFO)	Monetary reward	Emissions reduction target	Progress on sustainability goals—In 2021, we announced that progress on sustainability goals will be a factor in determining executive compensation. With senior management's focus on achieving Microsoft's ambitious carbon reduction commitments, CEO and senior leadership team (including the CFO) progress on sustainability is assessed as part of the customers and stakeholders category of the operational assessment component of the cash incentive under the Executive Incentive Plan.
Other C-Suite Officer	Monetary reward	Emissions reduction target	Annual commitments—The Vice President and Chief Environmental Officer role had accountability for our commitment to be carbon negative by 2030 and carbon neutral for FY21, the reporting period for this response. This role's annual bonus and performance ratings are connected with performance against these commitments as part of the annual review process.
Business unit manager	Monetary reward	Other (please specify) Renewable energy target	Annual commitments—The Cloud Operations + Innovation (CO+I) organization, which in FY21 was responsible for the datacenters that support our cloud computing services, has set renewable energy targets. The General Manager of Energy and Sustainability and the Senior Director of Renewable Energy for CO+I have specific commitments that are tied to meeting renewable energy targets for the datacenter portfolio. Annual compensation is directly connected with performance against these commitments as part of the annual review process.
Business unit manager	Monetary reward	Supply chain engagement	Annual commitments—The Cloud Supply Chain Sustainability (CSCS) team (part of the Azure Hardware Systems and Infrastructure [AHSI] group) proactively engages with our cloud infrastructure supply chain throughout the complete lifecycle. The objective of



All employees	Monetary reward	Other (please specify)	Sustainability Grants program—In FY21, individuals in our business groups and local operating units who identified opportunities for emissions or energy reduction projects
Environment/Sustainability manager	Monetary reward	Emissions reduction target	Annual commitments—The LinkedIn Global Sustainability Program Director, Program Manager, and Project Manager roles have commitments related to reporting energy use and carbon emissions, driving energy efficiency, procuring more renewable energy, and achieving carbon negativity by 2030. Their performance against these commitments and other sustainability initiatives is evaluated annually, with compensation decisions made accordingly.
Procurement manager	Monetary reward	Supply chain engagement	Annual commitments—Within Microsoft Procurement, members of the Procurement Sustainability team have annual objectives to ensure that the team focuses on a targeted subset of suppliers to report and reduce their Scope 3 emissions. Annual compensation is connected to performance against these commitments as part of the annual review process.
Other, please specify Business unit manager/functional manager	Monetary reward	Supply chain engagement	Annual commitments—The Devices and Gaming Sustainability teams (part of the Windows and Devices and Gaming teams) proactively engage with our manufacturing, packaging, distribution, and device end-of-life suppliers. The objective of these teams is to embed sustainability throughout our supply chain. The Devices team is responsible for the creation of a framework for standardized sustainability metrics from the Microsoft supply chain with third-party validated data inputs and outputs. Annual compensation decisions for members of this team relate to performance against key results against these sustainability objectives as part of the annual review process.
			CSCS is to reduce the environmental footprint of the electronic equipment (and its related packaging) used to support our cloud, which includes all scopes of GHG emissions of our supply chain (Microsoft Scope 3 emissions). The CSCS team is responsible for the creation of a framework for standardized sustainability metrics from the Microsoft supply chain with third-party validated data inputs and outputs. Annual compensation decisions relate to performance against key results against these objectives as part of the annual review process.



		Efficiency and emissions reduction projects	could apply for funding for those projects through our Sustainability Grants program. In FY21, the Sustainability Grants program awarded \$15 million to projects or programs with a focus on better managing climate-related business activity. Examples of projects funded include projects to reduce the energy intensity and embodied carbon associated with Microsoft physical operational infrastructure, projects to enable rapid scaling of renewable energy procurement, and pilot supplier engagement initiatives. While not tied directly to employee compensation, this monetary incentive highlights our commitment to supporting proactive sustainability action across the company.
All employees	Non- monetary reward	Other (please specify) Technology for environmental challenges	Hackathon—Each year, employees have the opportunity to participate in the Microsoft Hackathon, a global, companywide, multiday event that brings employees and interns from all over the organization together to create, innovate, and hack on ideas that inspire them. The Hackathon includes a sponsored executive challenge to "demonstrate new ways for technology to help solve the world's greatest societal and environmental problems" (Microsoft Hack for Sustainability). The first-place project receives recognition from the sponsoring executive. In FY21, the winning Hack for Sustainability project "Beyond Coal" focused on approaches to decarbonizing coal power plants globally, one of the biggest climate change technology opportunities available to humanity. This project created technology to accelerate the replacement of coal power plants with modular nuclear reactors to support grid decarbonization. Following on from this hackathon project, Microsoft has since established a Repowering Coal project in collaboration with TerraPraxis (a non-profit organization founded to design and implement strategies that use science, technology, and energy innovation) and has developed software and cloud services to help TerraPraxis accelerate their mission of repowering and decarbonizing the global coal power plant fleet with alternative heat sources.
Other, please specify All LinkedIn employees	Non- monetary reward	Other (please specify) Employee engagement	LinkedIn provides incentives in the form of employee recognition and sustainable prizes, including tree planting, for employees that participate in climate-related events, such as competitions, field trips, and virtual events.



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	The Microsoft Enterprise Risk Management (ERM) program primarily focuses on risks looking out up to approximately three years (which we call "short term"), though its analysis timeframes vary from risk to risk, scenario by scenario; with longer range assessment data, such as is available in the sustainability risk category, the time horizon may be extended.	
Medium- term	3	10	Microsoft conducts periodic physical and transition climate risk assessments looking out to 2030, which are covered by this medium-term horizon.	
Long- term	10	30	Our periodic physical and transition climate risk assessments also extend to 2050, which are covered by this long-term horizon.	

C2.1b

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

Microsoft defines substantive financial or strategic impact from climate-related risks as follows: an impact that significantly affects our business strategy or our ability to deliver continuous customer services.

Subject matter leadership on climate change risk resides with our Environmental Sustainability team, led by our Vice President and Chief Environmental Officer. This team assesses Microsoft's climate-related physical and transition risks and opportunities across the business portfolio



using quantitative and qualitative scenario analyses (including a qualitative assessment of climate-related physical risks conducted in FY17 and a quantitative assessment of climate-related physical and transition risks and opportunities conducted in FY20), along with other risk assessments (including the use of internal company methods). The results from these analyses are assessed and validated through consultation with subject matter experts across the company and then used to inform Microsoft's enterprise risk assessment process led by the Enterprise Risk Management (ERM) program. The ERM risk assessment process is used to identify and report potential impacts and relative significance of any risk that Microsoft may face, today and into the future, including those related to climate change. The process involves categorizing risks according to their inherent impact on a scale of 1 (minimal) to 5 (critical) in four categories: trust or reputational; operational scope; legal, compliance or environmental; and enterprise value. Risks are then rated according to their inherent likelihood on a scale of 1 (remote) to 5 (expected). These two ratings are used to produce an inherent risk score and are then aggregated with a management action/control effectiveness rating for a residual risk calculation. For climate risk assessment purposes, the amount of change that indicates a substantive impact depends on the most relevant inherent impact category with a probability over 35 percent that would likely occur and either create a significant loss of trust with customers, partners, members, or shareholders; have a significant impact on business operations within one or more business units or geographies; prohibit the company from conducting business in certain product lines or markets; or cause a significant reduction in market capitalization.

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

IDENTIFYING/ASSESSING

In FY21, the Microsoft Climate Council brought executives from across the company together on a quarterly basis to identify and monitor climate-related risks and opportunities. This is complemented by formal identification and assessment processes:

- 1) In FY20, we conducted a quantitative physical and transition climate risk and opportunity assessment of Microsoft physical assets (direct operations), looking out to both 2030 (medium term) and 2050 (long term). We intend to revise this assessment every two to three years. We continually assess our alignment with the Task Force on Climate-related Financial Disclosures (TCFD) to ensure that we properly manage these risks and opportunities within our business and adequately plan for the future. In FY22, we also published our first TCFD report.
- 2) In FY21, our Environmental Sustainability (ES) team led a working group that included subject matter experts from across the company (including datacenter, facility, device, and supplier teams) to identify climate-related risks and opportunities with the potential for substantive financial or strategic impact.
- 3) Microsoft Global Treasury & Financial Services assesses property risks annually to value the global property insurance program using industry-standard risk models to estimate the probable impact from hazards like hurricanes, floods, and fires, which may increase in frequency and severity from climate change. This assessment includes upstream supplier mapping (to assess exposure to supply chain disruptions) and subjective assessment of political risks, which may be amplified by stresses on populations from climate change.
- 4) Our Enterprise Resilience program's Continuity & Resilience and Service Resilience Standards identify the baseline requirements for implementing business continuity, disaster recovery, and overall resilience at Microsoft to help ensure our capability to prepare, recover, perform, and respond in the event of a major or catastrophic business disruption that affects our ability to meet customer expectations (downstream risks).

The results of these assessments inform an executive review process led by our multi-disciplinary companywide Enterprise Risk Management (ERM) program, which identifies, assesses, and prioritizes the criticality of any potential risks to Microsoft core business functions and operations (climate-related risks included) and, through regular reporting and discussion (more than twice a year), assists senior management and the Board with governance of risk. This process determines whether any identified risks have the potential for substantive financial, strategic, operational, or legal impact on the company. The ERM program primarily focuses on risks looking out up to approximately three years



(short term), though its analysis timeframes vary from risk to risk, scenario by scenario; with longer range assessment data, such as is available in the sustainability risk category, the time horizon may be extended.

At an asset level, business groups have their own processes. For example, in our Intelligent Cloud segment, Cloud Operations + Innovation has a defined process for identifying and assessing risk in the design and siting of new datacenters and during ongoing operations, including availability of water and energy. Azure Hardware Systems & Infrastructure identifies and manages risk related to the emissions impact of the design, sourcing, manufacturing, transportation, use, and end-of-life choices for cloud infrastructure materials and chemicals by monitoring supplier metrics against compliance standards and reduction targets through its Cloud Supply Chain Sustainability team. As part of the Supply Chain Resilience to Climate Change Program, the team is studying impacts of climate change on our cloud supply chain and creating a resilience framework for assessing risks; it is also conducting a TCFD-aligned climate scenario assessment with prioritized suppliers to assess risks, opportunities, and financial impacts of climate-related disruptions. In our More Personal Computing segment, the Experiences + Devices Group has an Environmental Compliance & Sustainability team that evaluates risks and opportunities pursuant to the ISO 14001 framework in the context of energy efficiency and other environmental requirements at the global, national, regional, and local level for existing and planned Microsoft-branded hardware and related devices and packaging, including supply chain operation impacts. Subsidiaries manage their processes based on regional and geographical factors (such as local regulations).

RESPONDING

The ES team brings leaders from across the company together to align on management decisions to mitigate, transfer, accept, or control identified climate-related risks and to capitalize on climate-related opportunities. To make decisions on risk, we use our ERM risk prioritization criteria in the context of business continuity and resilience, which include the scope of impact (financial, strategic, operational, and legal), potential return on investment, and time and resources required to implement changes.

C2.2a

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

Relevance &	Please explain
inclusion	



Current	Relevant,	Current regulations are deemed relevant and included in our risk assessments because any regulation that imposes
regulation	always included	restrictions on our operations or how we manufacture our devices has the potential to affect our business. In FY21, our Climate Council brought executives from across the company together on a quarterly basis to identify and monitor climate-related risks and opportunities. In addition, our Environmental Sustainability (ES) team led a working group that included subject matter experts (SMEs) from across the company (including datacenter, facility, device, and supplier teams) to identify climate-related risks and opportunities. The Microsoft Enterprise Risk Management (ERM) group uses the results of risk assessments performed by the corporate ES team to inform its own program; the ERM group identifies, assesses, and prioritizes risks and, through regular reporting and discussion, assists senior management and the Board with governance of risk. The ES team solicits input from SMEs across the company to support this reporting. The impact of current regulations is considered through both mechanisms. One issue considered in the company's risk assessments is the risk of increased device energy efficiency regulations in the European Union (EU), the United States, and other markets. The Devices Environmental Compliance & Sustainability Team tracks these developments closely to minimize risk. Our Corporate, External, and Legal Affairs (CELA) group also has global, federal, and regional policy experts that monitor upcoming regulations and engage directly with policymakers to understand the likelihood and impacts of new energy efficiency policies. We have been proactive in addressing this risk through our participation in voluntary best-in-class energy efficiency programs including ENERGY STAR and the EU Games Console Self-Regulatory Initiative. We also participate in voluntary eco-labeling programs such as EPEAT for most of our Surface devices, demonstrating commitment to energy efficiency and other environmental aspects—such as repairability—that may help reduce product carbon footprints.
Emerging regulation	Relevant, always included	Emerging regulations are uncertain and vary across the geographies in which we operate and do business. They are relevant and included in our risk assessments because any regulation that increases business costs or imposes restrictions on how we design, operate, construct, or manufacture our datacenters, devices, or technology could affect our business. In FY21, our Climate Council brought executives from across the company together to identify and monitor climate-related risks/opportunities. In addition, our ES team led a working group that included SMEs from across the company to identify climate-related risks/opportunities. Our ERM group uses the results of risk assessments performed by the corporate ES team to inform its own program; the ERM group identifies, assesses, and prioritizes risks and, through regular reporting and discussion, assists senior management and the Board with governance of risk. The ES team solicits input from SMEs across the company to support this reporting. The potential future impact of emerging regulations is considered through both mechanisms. Our Senior Director for Global Sustainability Policy monitors emerging policy and regulation and works with government affairs teams to develop geographically relevant strategies to engage with policymakers. We have been



		proactive in addressing emerging regulatory risk related to climate change by operating carbon neutral since 2012 (Scopes 1, 2, and 3 business air travel). We invest in the infrastructure efficiency of our datacenters, applying our learnings in deployed and new datacenter designs. Using Al and machine learning will result in further improvements over time. Since 2012 we have operated a carbon-neutral cloud—our datacenter emissions are matched with the direct purchase of renewable energy (RE) or in-region energy attribute certificates. In FY20, we committed to procuring enough RE to cover 100% of our electricity use by 2025, meaning we will have power purchase agreements for green energy contracted for 100% of carbon-emitting electricity consumed by our datacenters, buildings, and campuses. In July 2021, we set a new 100/100/0 goal: by 2030, 100% of Microsoft's energy supply, 100% of the time, will come from zero-carbon resources on grids where we operate. We also support efforts by the US Securities & Exchange Commission to advance consistent climate-related disclosure.
Technology	Relevant, always included	As Microsoft is a technology company, technology risk is directly relevant to our work, and we are continually assessing technology risks and opportunities. In FY21, our Climate Council brought executives from across the company together to identify and monitor climate-related risks/opportunities. In addition, our ES team led a working group that included SMEs from across the company to identify climate-related risks/opportunities. Our ERM group uses the results of risk assessments performed by the corporate ES team to inform its own program; the ERM group identifies, assesses, and prioritizes risks and, through regular reporting and discussion, assists senior management and the Board with governance of risk. The ES team solicits input from SMEs across the company to support this reporting. Technology risks are considered through both mechanisms. One example considered during our risk assessments is the environmental performance of Microsoft technologies and services (for example, energy efficiency of devices and cloud infrastructure). The Microsoft Windows + Devices business maintains ISO 14001 certification. Our Cloud Supply Chain Sustainability (CSCS) team, within the Azure Hardware Systems and Infrastructure (AHSI) group, has introduced policies encompassing effective environmental governance and data security for all our cloud computing assets in our cloud infrastructure across each lifecycle stage.
Legal	Relevant, always included	Potential legal risks related to new and developing regulations are deemed relevant and included in our risk assessments because, as governments and regulators around the world increase their expectations of corporate climate performance, all companies risk penalties for noncompliance, as well as potential reputational impacts if they do not align with the applicable climate-related laws and regulations. In FY21, our Climate Council brought executives from across the company together to identify and monitor climate-related risks/opportunities. In addition, our ES team led a working group that included SMEs from across the company to identify climate-related risks/opportunities. Our ERM group uses the results of risk



		assessments performed by the corporate ES team to inform its own program; the ERM group identifies, assesses, and prioritizes risks and, through regular reporting and discussion, assists senior management and the Board with governance of risk. The ES team solicits input from SMEs across the company to support this reporting. Potential exposure related to developing regulations and requirements is considered through both mechanisms. One specific example considered during our risk assessments is whether the company is exposing itself to risk related to incomplete or unqualified claims about the environmental benefits of our products or services. To reduce this risk, our product groups, marketing teams, legal teams, and corporate ES team work together to identify the appropriate green claim regulatory and other guidance, review our methodologies and substantiation, and help ensure that our product information and communications are accurate, transparent, and consistent with green claims legal guidance.
Market	Relevant, always included	Market demands are directly relevant to Microsoft's business strategy and always included in our risk assessments because businesses are increasingly looking to reduce their carbon footprint, including IT and operational emissions. If we do not transparently disclose the carbon footprint of our products/services and offer new solutions that can quantifiably help customers record, report, and reduce emissions, we could miss the opportunity to match customers' demand for those products/services. The risk (and opportunity) is to ensure our strategic direction can meet shifting customer preferences in the transition to a low-carbon future. In FY21, our Climate Council brought executives from across the company together to identify and monitor climate-related risks/opportunities. In addition, our ES team led a working group of SMEs from across the company to identify climate-related risks/opportunities. Our ERM group uses the results of risk assessments performed by the corporate ES team to inform its own program; the ERM group identifies, assesses, and prioritizes risks and, through regular reporting and discussion, assists senior management and the Board with governance of risk. The ES team solicits input from SMEs across the company to support this reporting. Market demands are considered through both mechanisms. One example is risk associated with increasing demand for products with innovative sustainable features and a low-carbon footprint. We carefully evaluate the environmental performance of our products, striving to improve generation over generation. For example, the new Surface Laptop Studio has a 30% smaller carbon footprint than its predecessor, the Surface Book 3 13". In addition, our extensive investments in our cloud services, including IT efficiency, from silicon to datacenter infrastructure, and renewable energy can create up to 93% more energy efficiency and 98% more carbon efficiency than equivalent on-premises datacenters (as reported in our 2018 "The carbon benefits of cloud computing" paper).



		affinity group) online meetings to understand and respond to employee sentiment on climate action; in FY20 we considered
		strong employee support for bold climate action when developing our goal to be carbon negative by 2030.
Reputation	Relevant, always included	Reputation amplifies all enterprise risks and is therefore directly relevant and included in our risk assessments—including reputational risks related to both our environmental impact/stewardship and the climate resilience of our services. A specific example of risk from our environmental impact/stewardship is the increasing weight given to a company's environmental performance by consumers, businesses, and institutional investors when making investment decisions. We are one of the largest technology companies in the world, and the perceived environmental impact of our products and services is heightened as a result. If our approach is not seen to be as strong or stronger than other companies, we could potentially lose business. To ensure effective transparency, we publish our annual Microsoft Environmental Sustainability Report, to publicly track our progress on our environmental commitments. In FY22, we also published our first TCFD report. A specific example of risk related to climate resilience is the potential for damage to our reputation from any impact on the reliability of our cloud services. Microsoft has a reputation for reliable cloud services, increasingly powered by clean energy. A physical impact from climate change that compromised our reliability would be unacceptable to Microsoft and adversely affect our service reputation. Therefore, we prioritize ongoing global business continuity and resilience, monitoring risks and implementing business continuity measures to help ensure continued reliability. Central to Microsoft cloud services design is geographic redundancy, which reduces our vulnerability to climate change. To assess this risk, our Enterprise Resilience program requires annual testing of Microsoft's critical services and business processes; scenarios vary but can involve loss of facilities, systems, workforce, or critical third-party suppliers of goods/services, cybersecurity events, or any combination thereof. Our ERM group uses the results of risk assessments (including reputational r
Acute physical	Relevant, always included	Acute physical risks are deemed relevant and always included in our risk assessments because, as the acute physical impacts of climate change become more extreme, facilities in affected areas have the potential to experience operational impacts. This could lead to increased costs (e.g. to repair or relocate the facilities). For example, if one of our datacenters were damaged sufficiently to prevent operations, this could potentially affect our ability to deliver continuous cloud services. This could lead to loss of revenue, both in the short term (failure to meet contractual commitments to customers) and long term (loss of customer confidence in our ability to deliver world-class cloud services). Climate change and extreme weather events have influenced our business decision making, particularly with engineering or other additional mitigations required,



		to minimize impact on service continuity at critical sites. We prioritize ongoing global business continuity and resilience, monitoring and assessing risks and implementing measures to help ensure continued reliability. To assess this risk, our Enterprise Resilience program requires annual testing of Microsoft critical services and business processes; scenarios vary but can involve loss of facilities, systems, workforce, or critical third-party suppliers of goods/services, community resources such as water, electricity, and emergency services, cybersecurity events, or any combination thereof. Acute physical risks (including flooding, extreme weather, drought, and sea level rise/storm surges) were included in our qualitative and quantitative climate risk analyses. Acute physical risks will affect not only Microsoft but also our suppliers. A disruption to our supply chain could incur significant costs for our business. Microsoft Global Treasury & Financial Services assesses property risks annually to value the global property insurance program. This assessment includes supplier mapping (to assess our exposure to supply chain disruptions); the risk models identify natural hazard risks for any locations of identified vendors that support Microsoft (to the extent possible given the fluid nature with which suppliers assign workloads to any of multiple available production locations) and then model their probabilities. Our procurement processes consider supplier risks and take appropriate measures to mitigate issues related to the supply of key services and products.
Chronic physical	Relevant, always included	Chronic physical risks are deemed relevant and always included in our risk assessments because they have the potential to directly affect the facilities that we use to provide cloud services and develop technology. Any service disruption could lead to a loss of revenue, both in the short term (failure to meet contractual commitments to customers) and long term (loss of customer confidence in our ability to deliver world-class cloud services), and as such are taken seriously. For example, our most energy and cost-efficient cooling solutions use water for either direct or indirect evaporative cooling. Although water accessibility risks are addressed during site selection and development, unforeseen changes in water availability or climate could result in the inability to cool the datacenter if not mitigated. This would lead to increased costs to either source alternative water supplies or change the cooling solution. Where climate change and water stress models indicate long-term risks, we will opt for waterless cooling solutions from day one for our new-build, owned datacenters at the expense of initial capital cost and energy efficiency. We prioritize ongoing global business continuity and resilience, assessing and monitoring risks and implementing measures to help ensure continued reliability. Climate change and extreme weather events have influenced our business decision making, particularly with engineering or other additional mitigations required, to minimize impact on service continuity at critical sites. Our Enterprise Resilience program requires annual testing of our critical services and business processes; scenarios vary but can involve loss of facilities, systems, workforce, or critical third-party suppliers of goods/services, cybersecurity events, or any combination thereof. In support of Microsoft's goal to be water positive by 2030, in FY21 we completed a study of current water use and costed infrastructure for implementable water-



positive solutions for five sites located in high water stress regions in Asia. Chronic physical risks (water shortages, average temperature changes, increased demand for energy, and saltwater intrusion from sea level rise) were included in our qualitative and quantitative climate risk analyses.

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?

No

C2.3b

(C2.3b) Why do you not consider your organization to be exposed to climate-related risks with the potential to have a substantive financial or strategic impact on your business?

	Primary reason	Please explain
Row	Risks exist, but none with potential	We conduct a range of risk assessments—including physical, property (including supplier mapping), and
1	to have a substantive financial or	business continuity—and consult on our risk exposure with internal experts. We have completed a quantitative
	strategic impact on business	physical and transition risk assessment for 400 Microsoft sites and completed a qualitative assessment of the
		adaptive capacity of the top 20 most at-risk sites. This TCFD-aligned climate scenario analysis revealed that we
		may experience significant impacts, but these do not exceed our internally defined threshold for substantive
		financial or strategic impact (i.e. would alter our business strategy or affect our ability to deliver continuous
		customer services). Of identified transition risks—including increasing regulatory costs of GHG emissions,
		changing customer behavior, and shifts in consumer preferences—our most significant is reputational (the
		general perception that the IT sector increases demand for energy and water); however, we do not believe this
		poses undue risk to Microsoft at this time, given our existing business practices to remove our residual emissions
		and our commitment to become carbon negative by 2030, purchase renewable electricity, and steward water
		resources. Furthermore, part of our value proposition with our cloud services business is enabling agility and
		resilience. We view this dynamic as more of an opportunity (reputational benefits of sourcing clean energy and
		delivering low-emission products/services) than a risk. The identified physical risks—including increasing severity



of extreme weather events such as cyclones and floods, changes in precipitation patterns, extreme variability in weather patterns, and rising mean temperatures—are not substantive to our business. Central to our cloud services design is geographic redundancy, which not only reduces our own vulnerability but also offers our customers a climate-resilient alternative to on-premises datacenters. The results of our assessments inform an executive review process led by our Enterprise Risk Management (ERM) program, which identifies, assesses, and prioritizes risks and, through regular reporting and discussion, assists senior management and the Board with governance of risk. The ERM process involves categorizing risks according to their inherent impact and likelihood to produce an inherent risk score that is aggregated with a management action/control effectiveness rating for a residual risk calculation.

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?

Direct operations

Opportunity type

Energy source



Primary climate-related opportunity driver

Use of lower-emission sources of energy

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

We believe that buying more clean energy, especially generated near our operations, helps us operate more sustainably and makes good business sense. We have ambitious goals to increase our use of clean energy over the next decade. By 2025, we expect to power our datacenters and facilities with 100% additional, new renewable energy generation that matches our carbon-emitting electricity consumption on an annual basis. By 2030, 100% of our energy supply, 100% of the time, will come from carbon-free resources. We have committed to being diesel-free in our owned datacenters by 2030. Innovations include installing a flywheel UPS for backup power and piloting hydrogen fuel cells as viable green energy for backup power at our datacenters. At our Puget Sound campus, we are harnessing thermal energy to halve energy consumption. Our Silicon Valley campus supports over 475 kW photovoltaic canopies—expected to offset energy consumption up to 15%. We are also committed to driving change beyond our operations by creating new models and investing in new energy technologies that can bring the benefit of renewable energy to companies and communities of all sizes. For example, we have partnered with Volt Energy, the only national African American owned solar development company, for a 250-MW portfolio of solar projects with the intent to create new opportunities for under-resourced communities and to help support a more diverse renewable energy industry. While the business and societal value for our renewable energy investments is our primary driver, we also gain reputational benefits. The IT industry is drawing increased attention for its impact on the environment and climate change. Consumers, businesses, and institutional investors are increasingly making investment decisions based on how environmentally responsible companies are. This includes choices in energy procurement. Microsoft is one of the largest technology companies in the world, and so the impacts of our operations, products, and services on the environment garner heightened attention. Our environmental leadership (including in our energy choices and investments) helps improve our reputation and makes it more likely for companies and consumers that prioritize environmental criteria to invest in our products and services. Location of effect: Microsoft is a global corporation and so this opportunity is not restricted to a specific geography or region.

Time horizon

Short-term

Likelihood

Very likely



Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

16,800,000

Potential financial impact figure – maximum (currency)

5,000,000,000

Explanation of financial impact figure

It is difficult to quantify the potential financial implications. For CDP purposes, theoretically if we were to win—for example—0.1 percent to 3 percent additional business because we were perceived to be leading environmental stewards and to actively contribute to climate change mitigation by committing to using lower-emission sources of energy, this could lead to a commensurate increase in revenue. The impact based on our company's FY21 (the reporting period) revenue of \$168.088 billion would be a hypothetical increase of \$16.8 million to \$5 billion. The range of financial impacts expressed here is hypothetical only, and the actual range of possible outcomes may show the opportunity as being more or less than 0.1 percent to 3 percent. Note that the likelihood rating of "very likely" applies to the opportunity itself and not the financial impact.

Cost to realize opportunity

109,000,000

Strategy to realize opportunity and explanation of cost calculation

Situation: Need to maintain environmental leadership to help improve our reputation and make our products and services more appealing to environmentally focused companies and consumers. Task: Expand our investment in renewable energy projects to attain our ambitious public commitments for our use of renewable energy. Action: Increase the carbon fee that we charge each business division based on its carbon emissions to generate more funds to pay for sustainability improvements, including renewable energy procurement. We have been committed to



renewable energy since July 2012 (the start of Microsoft FY13) when we introduced an internal carbon fee. We charge business groups a fee for emissions associated with energy consumption from their use of Microsoft datacenters, labs, and offices; this fee is used in part to cover the costs to mitigate those emissions through renewable energy investments. In FY21, we expanded our internal carbon fee to include all Scope 3 emissions. Our renewable energy strategy includes the use of direct sourcing, power purchase agreements (PPAs), and energy attribute certificates (EACs). Result: In FY21, we increased our renewable energy procurement to 12,969,393 MWh (100 percent of electricity consumption). In FY21, we also signed new PPAs for approximately 5.8 gigawatts (GW) of renewable energy across 10 countries around the globe. We have installed on-site renewables at select campuses as well. At our Silicon Valley campus, a solar panel system will offset energy consumption up to 15%. Our Beijing, Hyderabad, and Shanghai Zizhu campuses have made similar efforts. In 2021, we unveiled our plans for a new, hyper-efficient thermal energy center for our Puget Sound campus, which utilizes geothermal wells to heat and cool our buildings—resulting in a 50% reduction in energy usage compared with the typical utility plant. Cost calculation: The annual cost listed is our FY21 emissions multiplied by our internal carbon fees, as follows: Scope 1, 2, and 3 (business travel) emissions of 3.4 million mtCO2e x \$15 and remaining Scope 3 emissions of 11.6 million mtCO2e x \$5. These funds are used to pay for sustainability improvements (this cost is shared across Opp1-4). This does not include other investments made by business groups in energy/carbon reduction efforts that result in avoided fee payments.

Comment

Identifier

Opp2

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

As businesses become more conscious of the environmental impact of their computing and as regulations and taxes related to climate change lead to rising energy costs, our customers are becoming increasingly interested in improving the efficiency of their IT infrastructures and reducing their IT carbon footprint. For Microsoft, this opportunity is twofold: (1) Deliver low-emission cloud services, which enable enterprises to directly reduce their own carbon emissions and take advantage of the higher efficiencies that large cloud service providers like Microsoft can achieve. (In 2018, a report showed significant energy and carbon emissions reduction potential from the Microsoft cloud when compared with equivalent on-premises datacenters. These gains, as much as 93 percent more energy efficient and as high as 98 percent more carbon efficient, are due to Microsoft's extensive investments in IT efficiency from chips to datacenter infrastructure, as well as renewable energy.) Our Azure Hardware Systems and Infrastructure (AHSI) group is working to increase the circularity of our cloud infrastructure materials and reduce the related GHG emissions, which will contribute to further cloud service emission reductions. (2) Offer lower-carbon devices and hardware to help customers reduce the emissions associated with their computing. Our Windows + Devices group also seeks to increase device repairability, extending device longevity and ultimately leading to reduced carbon intensity. Location of effect: Microsoft customers are global. We believe this opportunity is greatest with customers in regions where environmental criteria are more strongly weighted in purchasing decisions (such as Europe), where government regulations impose a financial incentive to reduce emissions (such as through carbon taxes or emission trading schemes, such as in California or the European Union), and in regions with reliable, high-speed access to the Internet (such as the United States and Europe).

Time horizon

Long-term

Likelihood

Very likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range



Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

16,800,000

Potential financial impact figure – maximum (currency)

5,000,000,000

Explanation of financial impact figure

We believe that a service provider's commitment to minimizing its impact on the environment will be among the criteria that customers use when they select new products and services. For CDP purposes, theoretically if we were to win—for example—0.1 percent to 3 percent additional business because we have demonstrated our commitment to environmental responsibility in the construction and running of our cloud datacenters and the design and development of our hardware, this could lead to a commensurate increase in our revenue. The impact based on our company's FY21 (the reporting period) revenue of \$168.088 billion would be a hypothetical increase of \$16.8 million to \$5 billion. The range of financial impacts expressed here is hypothetical only, and the actual range of possible outcomes may show the opportunity as being more or less than 0.1 percent to 3 percent. Note that the likelihood rating of "very likely" applies to the opportunity itself and not the financial impact.

Cost to realize opportunity

109,000,000

Strategy to realize opportunity and explanation of cost calculation

Situation: Need to help customers reduce technology-related emissions. Task: Deliver lower-emission products/services. Actions: (1) Reduce our cloud datacenter carbon footprint (e.g. eliminating diesel fuel dependency at owned datacenters by 2030 and having all future new-build, owned datacenters LEED Gold certified) and (2) reduce Scope 3 emissions (our target to reduce Microsoft Scope 3 emissions by more than half by 2030 and required supplier reporting will drive development of hardware with lower carbon intensity). Results: (1) Innovations include using lower carbon renewable fuel or batteries for backup power and piloting hydrogen fuel cells as viable green energy for backup power at our datacenters. We use outside air and adiabatic cooling where possible. Our AHSI group focuses on reducing cloud infrastructure emissions by collaborating with suppliers (e.g. in eco design); creating closed-loop product models; measuring, managing, and reducing upstream supply chain emissions; and optimizing transportation, packaging, and distribution footprints. The Emissions Impact Dashboard provides customers with transparency into their carbon emissions resulting from their cloud usage, making Microsoft the only cloud provider to provide full



transparency to customers across all three scopes of emissions. (2) Microsoft Devices has a roadmap that covers the product lifecycle: carbon-conscious design, reducing supply chain emissions, innovating energy-efficient hardware and software in use, and enabling product repairability, reusability, and recyclability. Initiatives include experimenting with lower-carbon material alternatives, introducing more sustainable shipping options, and boosting the energy efficiency of our devices. As a result, for example, the new Xbox Energy Saver mode uses 20x less power than standby mode. Cost calculation: We've made significant investments in building innovative global cloud infrastructure and lowering our hardware emission and embodied carbon footprints; we don't disclose these specific costs. The annual cost listed is our FY21 emissions multiplied by our internal carbon fees, as follows: Scope 1, 2, and 3 (business travel) emissions of 3.4 million mtCO2e x \$15 and remaining Scope 3 emissions of 11.6 million mtCO2e x \$5. These funds are used to pay for sustainability improvements (this cost is shared across Opp1-4). This does not include other investments by business groups, including for infrastructure/product development.

Comment

Identifier

Opp3

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues through access to new and emerging markets

Company-specific description



As described in opportunity 2, our customers are increasingly looking to reduce their carbon footprint. While part of their focus is in reducing the emissions associated with their IT (as covered in opportunity 2), they are also looking to reduce the emissions associated with their business operations (for example, reducing travel). For Microsoft, this presents an opportunity to develop technology solutions that help customers do just this, such as by reducing operational energy consumption or by displacing traditional business activities (such as onsite meetings) with lower-emission technology alternatives (such as online meetings). Location of effect: Microsoft customers are global. We believe this opportunity is greatest with customers in regions where environmental criteria are more strongly weighted in purchasing decisions (such as Europe) and where government regulations impose a financial incentive to reduce emissions (such as through carbon taxes or emission trading schemes, such as in California or the European Union).

Time horizon

Long-term

Likelihood

Very likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

16,800,000

Potential financial impact figure – maximum (currency)

5,000,000,000

Explanation of financial impact figure



It is difficult to quantify the potential financial implications. For CDP purposes, theoretically if we were to win—for example—0.1 percent to 3 percent additional business because we offered low-emission products and services to help customers reduce their carbon footprint, this could lead to a commensurate increase in our revenue. The impact based on our company's FY21 (the reporting period) revenue of \$168.088 billion would be a hypothetical increase of \$16.8 million to \$5 billion. The range of financial impacts expressed here is hypothetical only, and the actual range of possible outcomes may show the opportunity as being more or less than 0.1 percent to 3 percent. Note that the likelihood rating of "very likely" applies to the opportunity itself and not the financial impact.

Cost to realize opportunity

109,000,000

Strategy to realize opportunity and explanation of cost calculation

Situation: Need to help customers reduce the emissions associated with business operations. Task: Enter new markets by innovating and developing lower-emission products/services. Actions: (1) Develop technology solutions to help others record, report, and reduce the carbon impact of their business and (2) deliver new and existing low-carbon offerings. Results: (1) In July 2021, we launched the Microsoft Cloud for Sustainability, which provides comprehensive, integrated, and automated sustainability management for organizations at any stage of the sustainability journey—enabling companies to record, report, and reduce emissions. We also deliver insights to customers via our Emissions Impact Dashboard, which provides customers with transparency into their carbon emissions resulting from their Microsoft cloud usage. (2) We are accelerating sustainability through Smart Places, with Internet of Things (IoT) and AI to optimize the way buildings, campuses, and cities consume and deliver resources and create efficiencies; based on Microsoft Azure IoT, Smart Places include data-driven technologies for monitoring and managing carbon, water, and waste in buildings. We're announcing a new around-the-clock pilot in the Netherlands with energy provider Eneco and FlexiDAO, a technology supplier, which will match one of our Amsterdam datacenter's hourly energy consumption with the Dutch offshore windfarm Borssele. We partnered with other industry leaders to create a new open-source, Azure-hosted tool, the Embodied Carbon in Construction Calculator (EC3), to track the embodied carbon of raw building materials. LinkedIn offers a learning platform with online courses and skills training available to all 760 million members, helping them reduce travel-related emissions by undertaking online learning alternatives. As of April 2022, LinkedIn Learning's 11 sustainability courses had been viewed nearly 247,015 times. Microsoft Teams can play an important role for a remote connected workforce while lowering emissions by helping reduce the need for travel with online meetings. Cost calculation: The annual cost listed is our FY21 emissions multiplied by our internal carbon fees, as follows: Scope 1, 2, and 3 (business travel) emissions of 3.4 million mtCO2e x \$15 and remaining Scope 3 emissions of 11.6 million mtCO2e x \$5. These funds are used to pay for sustainability improvements (this cost is shared across Opp1-4). This does not include other investments by business groups.

Comment



Identifier

Opp4

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Resilience

Primary climate-related opportunity driver

Resource substitutes/diversification

Primary potential financial impact

Increased revenues through access to new and emerging markets

Company-specific description

As the physical impacts of climate change become more extreme (e.g. flooding caused by sea level rise or increased precipitation and more severe weather events), our customers increasingly want to make their businesses climate resilient. Any disruption from the physical impacts of climate change will be costly, particularly where technology infrastructure is damaged and operations cannot continue from an alternative site. We have business continuity and resilience standards in place to maintain and optimize our operations while providing continuity of services for our customers. Our opportunity is threefold: (1) When an organization gets its technical infrastructure and software as a service through a cloud provider with georedundant datacenters, the likelihood of a climate-related disaster shutting down the services is low. Affected organizations can resume operations as soon as they can restore internet access (or even continue operations without disruption from an alternative site with internet access). (2) The world needs a strong, efficient, scalable way to monitor, understand, measure, and ultimately manage the impact of our actions or inactions on our planet—both globally and locally. The Microsoft Planetary Computer provides access to the world's critical environmental datasets, Al, and digital technology. It enables global-scale environmental monitoring by combining petabytes of data and spatial analysis tools to power sustainability applications. It is a platform that lets users build on the power of the cloud to accelerate environmental sustainability and Earth science. We will use the Planetary Computer to develop and deploy the digital technology that helps our partners and



customers with environmental decision making in their organizational activities. (3) Microsoft tools such as Microsoft Teams and Microsoft 365 enable employees to work from alternative locations in the event of climate-related physical damage to an office or health-related events that require employees to limit time outdoors or work from home, such as the COVID-19 pandemic. Location of effect: Microsoft technology and cloud services are global. The resilience of our cloud services may be of greater benefit to those most at risk for business disruption from a climate-related weather event, such as coastal areas at increased risk from flooding and severe storms.

Time horizon

Long-term

Likelihood

Likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

16,800,000

Potential financial impact figure – maximum (currency)

5,000,000,000

Explanation of financial impact figure

It is difficult to quantify the potential financial implications. For CDP purposes, theoretically if we were to win—for example—0.1 percent to 3 percent additional business because we offered technology to help organizations and governments manage the impacts of climate change (through resilient cloud services and AI computing resources), this could lead to a commensurate increase in our revenue. The impact based on our company's FY21 (the reporting period) revenue of \$168.088 billion would be a hypothetical increase of \$16.8 million to \$5 billion. The range



of financial impacts expressed here is hypothetical only, and the actual range of possible outcomes may show the opportunity as being more or less than 0.1 percent to 3 percent. Note that the likelihood rating of "likely" applies to the opportunity itself and not the financial impact.

Cost to realize opportunity

109,000,000

Strategy to realize opportunity and explanation of cost calculation

Situation: Need to help customers maintain reliable business operations as physical climate risk increases. Task: Provide climate-resilient technology solutions. Actions: (1) Deliver cloud solutions across our product lines; (2) empower people/organizations to solve global environmental challenges with AI; (3) provide solutions for remote work/communication during extreme events. Results: (1) Two of our most significant business services are Microsoft 365 and Azure. Our global cloud service operations are supported by one of the largest physical networks in the world with several industry certifications including ISO/IEC 27001:2005 and SAS70 Type II. We use geo-replicated customer workloads (keeping multiple copies of workloads in multiple locations) to improve reliability. We have more than 3,000 employees and 4,500 vendors working on cloud infrastructure and more than 10,000 software engineers involved in cloud-based activities. In addition, the Emissions Impact Dashboard provides customers with transparency into their carbon emissions resulting from their cloud usage, making Microsoft the only cloud provider to provide full transparency to customers across all three scopes of emissions. (2) The Planetary Computer private preview released as planned in April 2021, with more than 500 users signed up and 24 petabytes of data available. We partnered with the Group on Earth Observations (GEO) Secretariat to better reach geospatial researchers and practitioners working at the forefront of environmental use cases. We launched the \$1 million GEO-Microsoft Planetary Computer grant program to apply Earth observations to address environmental and societal challenges. (3) Microsoft Teams supports interactive meetings for up to 300 participants and webinars for up to 1,000 people. Users can integrate Teams with other Microsoft applications for an integrated virtual collaboration platform. Cost calculations: We've made significant investments in building innovative global cloud computing infrastructure; we don't disclose these specific costs. The annual cost listed is our FY21 emissions multiplied by our internal carbon fees, as follows: Scope 1, 2, and 3 business travel emissions of 3.4 million mtCO2e x \$15 and remaining Scope 3 emissions of 11.6 million x \$5. These funds are used to pay for sustainability improvements (this cost is shared across Opp1-4). This does not include other investments by business groups, including for infrastructure/product development.

Comment



Identifier

Opp5

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Other, please specify

More efficient operations

Primary potential financial impact

Reduced indirect (operating) costs

Company-specific description

In January 2020, Microsoft committed to drive our Scope 1 and Scope 2 emissions to near zero by the middle of this decade. Resource efficiency will help us achieve our goal in two ways: (1) Microsoft has a significant physical presence globally, with Microsoft-owned and leased facilities (including datacenters, offices, and labs) covering 67 million square feet in FY21 (the reporting period). The accompanying energy demands associated with operating these facilities, in particular for datacenters and development labs, are high. Any measures taken to improve the energy efficiency of our facilities will directly reduce our operating costs. For example, as part of the Puget Sound campus modernization project, we are constructing 17 new buildings, replacing 14 of the original structures. These will be energy-smart buildings that will use Azure for building system monitoring and optimization of energy usage. In addition, the buildings will be all-electric, including cooking, where induction cooktops will reduce consumption by more than 500,000 kWh annually. (2) Microsoft also has a global vehicle fleet, including both our employee benefit fleet and our campus vehicle fleet; our main benefit fleet is in Europe, whereas our campus vehicles are primarily near our large campuses in Puget Sound, India, and China. Providing mobility solutions and using electric vehicles are expected to reduce our operating costs and emissions over time. Location of effect: Microsoft has operations and facilities throughout the world and thus this opportunity is global.

Time horizon



Medium-term

Likelihood

Virtually certain

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)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

It is difficult to estimate the potential financial impact given the wide variety of activities that we will perform to achieve our building and vehicle fleet energy targets.

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

Situation: Need to reduce Scope 1 and 2 emissions to near zero by middle of this decade. Task: Achieve more efficient operations through (1) operational efficiency and (2) our global vehicle fleet. (1) Action: We are investing to design more efficient datacenters, using technologies such as liquid immersion cooling. All future new-build, owned datacenters will be LEED Gold certified with emphasis on water and energy conservation. We have committed to certifying our major offices to LEED Gold or Platinum. We are pursuing Zero Carbon certification for our Silicon Valley campus and Redmond campus modernization project with International Living Futures Institute. Results: All datacenter lighting is



high-efficiency LED with motion detection to minimize use of space light. Cooling systems are integrated with the servers, providing cooling only when the servers require it. Since 2012, we've deployed an Energy Smart Buildings (ESB) solution that has reduced energy consumption and costs by 6–10% at many of our large global campuses. ESB, in addition to energy optimization programs and modern workplace solutions, has enabled us to reduce our campus energy consumption globally by 28% since 2012, while growing our building portfolio. We are using Bonsai, a low-code AI platform that is part of the Autonomous Systems suite from Microsoft, to improve the efficiency of our Redmond campus chiller plants. We have seen a 12% increase in median efficiency based on energy estimates and plan to implement Bonsai in the 12 remaining chiller plants this fiscal year. Additional energy conservation measures are estimated to have saved 750,000 kWh on campus. (2) Action: We will electrify our global campus operations vehicle fleet, more than 1,800 vehicles, by 2030. This work encompasses every vehicle that supports our office locations around the world. Results: Since announcing this target, we have spent the last year developing regionally specific implementation strategies, analyzing the vehicles, and determining the infrastructure needed to support operations. In the coming year, we will launch a series of pilots appropriate to each region to keep us on track to the goal. We are also working to provide mobility solutions such as subsidized transit and car sharing instead of company cars where possible. Cost calculation: It is difficult to estimate the cost to realize this opportunity given the wide variety of activities we are performing.

Comment

C3. Business Strategy

C3.1

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

Row 1

Transition plan

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

Publicly available transition plan

Yes



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

We have a different feedback mechanism in place

Description of feedback mechanism

We discuss a wide range of environmental and social issues at our annual meeting and frequently have answered questions specific to our strategies related to climate change. However, we have not held a specific resolution seeking shareholder approval for our climate-related commitments and strategies.

Frequency of feedback collection

Annually

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

C3.2

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

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

C3.2a

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

Climate- related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Physical climate	Company-wide		Parameters: In FY17, the corporate Environmental Sustainability (ES) team conducted a qualitative scenario analysis of the physical impacts of climate change based on the IPCC RCP 8.5 scenario. We used a selection of global models from the Coupled Model Intercomparison Project Phase 5 (from the



scenarios RCP 8.5	Company-wide	US, the UK, Norway, and Germany) as well as regional climate models as appropriate. Our prir source of downscaled data was the NASA Earth Exchange Global Daily Downscaled Projection allowing for forecasts that cover an area as small as ~25 km2. We ran scenarios for 2030 and 2 Facility types included offices, retail, labs, datacenters, and critical manufacturers in our supply and covered all Microsoft business geographies. Assumptions: We selected RCP 8.5 because represents a high-emissions scenario and, in our view, is a worst case for physical impacts through 2030. We selected the 2030 horizon because it was long enough for variation in the models attraction climate change to appear but short enough to be actionable within our current risk managements business planning process horizons. Analytical choices: We looked at seven possible stressors increased energy demand, extreme temperature changes, extreme heat days, drought length, of frequency, flood intensity, and sea level rise. For each stressor, we assessed the magnitude of in 2030 versus the baseline climate conditions found in 1975–2005. We looked at our most critical facilities based on maximum feasible loss calculations, insurance values, and business judgmed Parameters: In FY20, we conducted a physical and transition risk assessment on 400 of Microsomers.	ns, 2060. chain it ough ributable ent and :: drought change cal nt.
climate scenarios RCP 8.5	Company-wide	most important facilities. The analysis used has global coverage, spans decadal time periods fr to 2100, and aligns with the TCFD recommendations. The selection included datacenters, retai and offices. Assumptions: The 400 Microsoft facilities included in the analysis were selected as were the highest value and high-energy consuming sites, covering all geographies. Two scenar considered in this analysis: (1) a high-emissions scenario (RCP 8.5) where the world warms ov above pre-industrial temperatures and (2) a 2°C-aligned scenario (RCP 4.5). Analytical choices analysis quantified, in financial terms, the top climate-related risks and opportunities. The quantilimate risk analysis focused on seven physical climate hazards (chronic temperature increase on energy demand, extreme temperatures, heat storms or waves, sea level rise, flood intensity frequency, and drought length) and several transition risks and opportunities (energy efficiency resilience, materials efficiency, renewable price stability, water efficiency, and employee impact climate change).	om 2010 I stores, they rios were er 4°C s: The titative effects , drought , energy
Physical climate	Business division	In FY19, our Experiences + Devices Group (E+D) (which at the time included all Microsoft Devices Concluded a cross-company analysis of its contribution to Microsoft Scope 3 emissions, the large contributor to overall Microsoft emissions. The outcome was a greater understanding of the pro-	gest



scenarios		lifecycle/supply chain "hotspots" and the establishment of a science-based emissions reduction target.
RCP 2.6		An action plan has been developed outlining specific projects that provide a path to meet carbon and
		waste reduction goals.

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

The scenario analyses we have conducted have sought to answer a number of questions pertaining to the climate-related risks facing Microsoft, the climate-related opportunities, and how we can develop resilience. Specifically, our scenario analyses have tried to answer:

- What are the greatest drivers of climate-related risk for Microsoft and its facilities?
- · Are we exposed to any material climate-related risks?
- Which assets face the greatest risk?
- What actions can be taken in the short, medium, and long term to reduce our risk exposure and to enhance organizational resilience at our key sites?
- What ongoing monitoring is required to manage climate-related risks?
- What climate-related opportunities are available to Microsoft?
- What are gaps in the analysis that we must be aware of while interpreting the results?

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

Our 2017 qualitative climate scenario analysis identified risks such as water shortage from extended drought at our Beijing, Chennai, and Pune facilities and coastal flooding due to sea level rise at our Mumbai facility. We determined none of these risks to be material or substantive at this time, as Microsoft is well capitalized and geographically diverse in customer markets and location of product/service delivery. We identified mitigation measures that are a normal part of our business, including adjusting the schedule of backup fuel deliveries to accommodate potential shifts in timing, location, and intensity of hurricanes; developing alternative sourcing strategies in water-stressed locations; diversifying electric supply options in locations prone to severe storms and outages; and collaborating with external partners (including customers) to install



redundant substations or enhance water supply. We will continue to monitor these and similar risks in future years to confirm that these conclusions remain valid. Our 2020 quantitative analysis also revealed that we may experience significant impacts (though these do not exceed our internally defined threshold for substantive impact). These facilities are most vulnerable to temperature extremes, water stress, storm damage, and coastal flooding. In FY21, we completed an initiative to assess the adaptive capacity of our 20 most exposed facilities. We assessed the local adaptive capacity of the facilities and the communities they rely on, through consultation with local site leads. We intend to use the results to revise our quantitative scenario analysis and quantify our adaptive capacity as part of future scenario analysis exercises. The scenario analysis has also informed our internal Climate Risk and Resilience Plan.

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	We're investing in new and existing products/services to help customers reduce their carbon footprint and plan for climate resiliency/business continuity. For example, our shift to a cloud-based business strategy includes offering lower-carbon cloud services. Microsoft cloud services can be up to 93% more energy efficient and up to 98% more carbon efficient than equivalent on-premises datacenters (as outlined in our 2018 "The carbon benefits of cloud computing" study). We've committed to having power purchase agreements for green energy contracted for 100% of carbon-emitting electricity consumed by all our datacenters, buildings, and campuses by 2025. We'll eliminate our dependency on petroleum-based diesel fuel at owned datacenters by 2030. We use geo-replicated customer workloads (keeping multiple copies of workloads in multiple locations) to improve reliability and provide resiliency assurance (complemented by an ongoing global continuity and resilience program to monitor risks and using continuity and resilience measures to help ensure continued reliability). In July 2021, we announced the Microsoft Cloud for Sustainability to provide comprehensive, integrated, and automated sustainability management for organizations. The Emissions Impact Dashboard provides customers with transparency into their carbon emissions resulting from their cloud usage. We also focus on reducing emissions linked to our cloud infrastructure throughout the product lifecycle, by collaborating with suppliers; creating new



		closed-loop product models built on circular principles; measuring, managing and reducing supply chain GHG emissions; and optimizing transportation, packaging, and distribution footprints. In energy efficiency for devices, total energy consumption for the Surface Pro 8 is 17% smaller than Surface Pro 7, and energy-saving mode can reduce Xbox power usage in standby mode by >80%. In product design, the new Surface Laptop Studio has a 30% smaller carbon footprint than its predecessor, the Surface Book 3 13". In logistics, we've converted a major distribution center in Europe to run on 100% renewable energy. For customers, the Microsoft Surface Emissions Estimator is a new, dynamic way for commercial customers to gain insight into the carbon footprint of their entire Surface device fleets through their Microsoft reps.
Supply chain and/or value chain	Yes	The impact of climate-related opportunities on our supply chain is primarily in the prioritization of suppliers that provide more energy-efficient, lower-emission components, products, and services. Our supply chain and/or value chain strategy extends to at least 2030, as we have committed to cut our Scope 3 emissions by more than 50% by 2030. We will partner throughout our supply chain to achieve this commitment. In July 2020, we added additional sustainability requirements to our Supplier Code of Conduct, requiring suppliers to disclose their own carbon footprints and develop plans to reduce them. We have spent the past year rolling out these requirements to a subset of our suppliers and building a program to support them. In July 2021, 87% of requested suppliers reported their emissions to CDP, up 12% from 2020. In 2021, we released a set of in-depth capacity-building tools and resources to help our suppliers report their GHG emissions, develop clean energy strategies, and reduce their energy-related emissions. Our Devices team has built and continues to upgrade an Audit Management System using Power BI to embed compliance and environmental, social, and corporate governance into our Devices business, track performance, and enable continuous supply chain improvements. We are executing an ambitious plan to empower all strategic device suppliers to commit to science-based carbon reduction activities specifically targeted to reduce emissions associated with hardware manufacturing. Over the past year, we have engaged with new datacenter suppliers who are able to remanufacture assets and components, effectively enabling new lifecycles for our assets. We have successfully demonstrated takeback/buyback models with our original asset suppliers, closing the loop on assets and enabling suppliers to repurpose or reuse assets and components. Our Circular Center program will enable 90% reuse of datacenter computing assets. In FY21, our overall reuse of datacenter assets was 78%. With



		business travel, we have made two investments in sustainable aviation fuel (SAF) with airline partners KLM and Alaska, and in 2021 we became a founding member of the Sustainable Aviation Buyers Alliance (SABA).
Investment in R&D	Yes	We invest in R&D for new solutions and datacenter designs that help us contribute to climate resilience through technology innovation while helping increase our operating efficiency, meet growing demand for lower-emission products/services, and establish a stronger competitive position. Our R&D investment strategy extends to at least 2030. An example is our commitment to build and our investment in the Planetary Computer. We are aggregating environmental data from around the world and putting it to work through computing and machine learning in a new Planetary Computer. We will use the Planetary Computer to develop and deploy the digital technology that helps our partners and customers with environmental decision making in their organizational activities. The Planetary Computer private preview released as planned in April 2021, with more than 500 users signed up and 24 petabytes of data available. This past year, we also added new partners that bring significant new capabilities to the program. We partnered with the Group on Earth Observations (GEO) Secretariat to better reach geospatial researchers and practitioners working at the forefront of environmental use cases. We launched the \$1 million GEO-Microsoft Planetary Computer grant program to support early adopters of the Planetary Computer to apply Earth observations to address environmental and societal challenges. For our devices, we have made significant investments to expand our lifecycle assessment (LCA) and telemetry approach to better measure, inform, and prioritize top carbon reduction opportunities. Other innovation investments in product development include engineering potential low-carbon design alternatives for possible use in future products. Our datacenter region in Sweden will be one of Microsoft's first sites to use lower-carbon renewable fuel for backup power. We announced a worldwide first in 2020—hydrogen fuel cells powering datacenter servers for 48 consecutive hours. We are innovating and investing in low-carbon building materials across



a	1.,	
Operations	Yes	Our operations are the area affected the most significantly by our climate-related opportunities. We can
		demonstrate sustainability leadership by investing in resource efficiency within our operations, which will
		bring cost savings and reputational benefits while helping meet growing demand for lower-emission
		cloud services. Our strategy looks out to at least 2050, as we have committed by 2030 to be carbon
		negative and by 2050 to remove from the atmosphere an equivalent amount of all the carbon dioxide the
		company has emitted either directly or by electrical consumption since it was founded in 1975. We will
		cut our carbon emissions by more than half by 2030 (for both our direct emissions and our entire value
		chain). By 2025, we will procure enough renewable energy to cover 100% of our electricity usage,
		meaning that we will have power purchase agreements (PPAs) and other long-term contracting
		instruments for green energy in place for 100% of carbon-emitting electricity consumed by all our
		datacenters, buildings, and campuses. We set a new 100/100/0 goal in July 2021: by 2030, 100% of
		Microsoft's energy supply, 100% of the time, will come from zero carbon resources on grids where we
		operate. In 2020–2021, Microsoft signed new PPAs for approximately 5.8 GW of renewable energy,
		bringing our operating and contracted renewable energy projects to 7.8 GW globally. We have installed
		on-site renewables at select campuses as well; for example, at our Silicon Valley campus, a solar panel
		system will offset energy consumption up to 15%. We are committed to electrifying our global campus
		vehicle fleet of 1,800 vehicles by 2030. We are pursuing Zero Carbon certification for our Silicon Valley
		campus and Redmond campus modernization projects with International Living Futures Institute. We
		have committed to certifying our owned, new-build datacenters to LEED Gold and our major offices to
		LEED Gold or Platinum. Nine of our datacenters are currently LEED Gold certified and 90+ projects
		have been registered for future certification. In FY21, we made the world's largest purchase of carbon
		removal at 1.4 million metric tons. We have also created a \$1 billion Climate Innovation Fund to
		accelerate the global development of carbon reduction and removal technologies, as well as related
		climate solutions; as of December 31, 2021, we had allocated \$471 million.
		1

C3.4

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



	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Indirect costs Capital expenditures Access to capital Liabilities	Our business is affected by a range of physical and transition climate risks and opportunities including, but not limited to, those related to the increasing cost of regulatory restrictions on GHG emissions, increasing customer requirements for environmentally responsible suppliers, and stigmatization of the IT sector for the scale of its energy and water consumption and GHG footprint. (Note that we have determined none of the identified risks to have the potential to exceed our internally defined threshold for substantive financial or strategic impact.) These risks and opportunities provide the business case for Microsoft to drive more energy-efficient operations, commit to renewable energy, and reduce our carbon footprint while contributing to the global response to climate change. Accordingly, in July 2012 (the start of Microsoft FY13), we committed to operate carbon neutral and introduced an internal carbon fee, charging business groups for emissions associated with their energy consumption and business air travel. In FY19, we announced that we would raise our carbon fee to \$15 per ton to more fully reflect our cost of carbon abatement. Starting in July 2020, in support of our new commitment to be carbon negative by 2030, we began charging the fee for not only our own operational emissions (at \$15 per ton) but also all our Scope 3 emissions (at the time, \$15 per ton for business travel and \$5 per ton for all other Scope 3 emissions). We continue to restructure and increase our internal carbon fee to help incentivize more aggressive measures to reduce Scope 3 emissions and better match the underlying cost of carbon abatement. In March 2022, we announced that we would increase our fee across all scopes: \$15 per ton for all electricity-related emissions, \$100 per ton for business travel emissions, and \$8 per ton for remaining emissions. To meet our FY30 goals in an increasingly competitive market, we will continue to increase the annual fee at an accelerated rate, which will also help promote energy efficiency



million metric tons). Capital expenditures: For capital expenditures, we have previously used the carbon fee to fund some energy efficiency investments within our facilities; these have included investments in, for example, light-emitting diode (LED) lighting projects. (These carbon fee projects are supplemented by dedicated datacenter and real estate capital budgets for sustainable infrastructure and design—considering energy, carbon, and water efficiency, among other sustainability factors.) Liabilities: In addition to the primary influence of our carbon fee on indirect cost and capital expenditure financial planning, the carbon fee also influences our financial planning around potential legal expenses; carbon fee investments to reduce energy consumption, water consumption, and carbon emissions help mitigate exposure for our possible future legal expenses in resource-constrained or climate-affected jurisdictions. ADDITIONAL INFLUENCES: Two other financial planning elements—revenues and access to capital—have been influenced by our climate-related risks and opportunities. Revenues: Our company's investments in the cloud, AI, and Azure IoT are key to helping us gain a better competitive position as interest in environmentally responsible suppliers and lower-emissions services increases; the associated revenue projections for these areas are central to Microsoft financial planning. Access to capital: We view our sustainability performance, carbon commitments, and strategy to realize climate-related opportunities as an advantage when engaging with our investment community; we integrate information on our sustainability performance in meetings with our large institutional investors. We inform our disclosure strategies with careful consideration of commonly used global standards such as sector-based materiality maps provided by the Sustainable Accounting Standards Board (SASB), the United Nations Guiding Principles on Business and Human Rights Reporting Framework, and the UN Sustainable Development Goals. We present GHG emissions in accordance with the GHG Protocol and select environmental metrics that reference the Global Reporting Initiative (GRI) Standards. On climate-related issues, we are committed to fully aligning with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

C3.5

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

No, and we do not plan to in the next two years



C4. Targets and performance

C4.1

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

Absolute target Intensity target

C4.1a

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

Target reference number

Abs 1

Year target was set

2017

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)



Base year

2013

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

100,561

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

819,582

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

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

920,143

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

100

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

100

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

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

100

Target year

2030

Targeted reduction from base year (%)



75

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

230,035.75

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

123,704

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

163,935

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

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

287,639

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

91.6530003126

Target status in reporting year

Underway

Is this a science-based target?

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

Target ambition

Please explain target coverage and identify any exclusions

In 2017, Microsoft committed to reducing absolute Scope 1 + Scope 2 (market-based) emissions by 75 percent by 2030, against a 2013 baseline. Abs1 supports our work to drive our Scope 1 + Scope 2 emissions to near zero and our carbon negative commitment (NZ1). It will help



avoid more than 10 million metric tons of carbon emissions by 2030 and put Microsoft on a path, as a company, to meet the goals set in the Paris climate agreement.

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

We will reduce our Scope 1 and 2 emissions to near zero through the following steps: a) By 2025, we will procure enough renewable energy to cover 100 percent of our electricity usage, meaning that we will have power purchase agreements for green energy contracted for 100 percent of carbon-emitting electricity consumed by all our datacenters, buildings, and campuses. b) We will electrify our global campus operations vehicle fleet by 2030. c) We will pursue International Living Future Institute Zero Carbon certification and LEED Platinum certification for our Silicon Valley Campus and Puget Sound campus modernization projects. d) We will eliminate our dependency on petroleum-based diesel fuel at our owned datacenters by 2030.

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

Target reference number

Abs 2

Year target was set

2017

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)



Base year

2013

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

100,561

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

819,582

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

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

920,143

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

100

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

100

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

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

100

Target year

2045

Targeted reduction from base year (%)



75

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

230,035.75

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

123,704

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

163,935

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

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

287,639

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

91.6530003126

Target status in reporting year

Underway

Is this a science-based target?

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

Target ambition

Please explain target coverage and identify any exclusions

Abs2 is not a standalone target but rather the outcome of our carbon neutral (Abs4), carbon negative (NZ1), and renewable electricity commitments; it is an extension of Abs1.



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

Since Abs2 is not a standalone target but rather the outcome of our carbon neutral (Abs4), carbon negative (NZ1), and renewable electricity commitments and is an extension of Abs1, the plan for achieving this target will align with what is stated in Abs1.

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

Target reference number

Abs 3

Year target was set

2020

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 3

Scope 2 accounting method

Market-based

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 9: Downstream transportation and distribution

Category 11: Use of sold products

Category 12: End-of-life treatment of sold products

Category 13: Downstream leased assets

Base year

2020

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

118,100

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

228,194

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

11,239,000

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

11,585,294

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

100

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

100

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

100

100

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



Target year

2030

Targeted reduction from base year (%)

50

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

5,792,647

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

123,704

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

163,935

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

13,785,000

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

14,072,639

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

-42.9396957902

Target status in reporting year

Underway

Is this a science-based target?

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

Target ambition



Please explain target coverage and identify any exclusions

Microsoft announced in January 2020 that we will cut our Scope 1 + Scope 2 + Scope 3 emissions by more than half by 2030. We will achieve this goal, in part, by expanding our internal carbon fee to cover all Scope 3 categories, which will provide an incentive for our business groups to work with their supply chains to reduce the carbon intensity of the goods and services that they supply. This target supports our commitment by 2030 to be carbon negative (reported as target NZ1 in this response) and by 2050 to remove from the atmosphere an equivalent amount of all the carbon dioxide our company has emitted either directly or by our electricity consumption since we were founded in 1975.

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

We will achieve this goal, in part, by expanding our internal carbon fee to cover all Scope 3 categories, which will provide an incentive for our business groups to work with their supply chains to reduce the carbon intensity of the goods and services that they supply. We will also achieve this through reduction strategies in campuses and datacenters, rethinking design of our devices, and engaging with our supply chain.

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

Target reference number

Abs 4

Year target was set

2013

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 3

Scope 2 accounting method



Market-based

Scope 3 category(ies)

Category 6: Business travel

Base year

2020

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

0

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

0

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

0

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

0.01

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

100

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

100

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

100

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

100

Target year



2021

Targeted reduction from base year (%)

100

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

0

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

0

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

0

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

0

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

n

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

100

Target status in reporting year

Achieved

Is this a science-based target?

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

Target ambition

Please explain target coverage and identify any exclusions



This target covers all our Scope 1 + Scope 2 (market-based) + Scope 3 upstream business air travel emissions. Starting in July 2012, Microsoft has had (and has achieved) a target to be carbon neutral every year from fiscal year (FY) 2013 onward. Note that the start, base, and target years reported are based on the Microsoft fiscal year. Our start year for this commitment is FY13—the first year in which we achieved carbon neutrality—and we committed to achieving carbon neutrality in all subsequent years. Because our commitment is ongoing and achieved annually, the base year (FY20) is the year prior to the target year (FY21, the reporting year). The FY20 base year emissions reported here are zero because we achieved our carbon neutral target in FY20. Additionally, in January 2020, Microsoft announced that, by 2030, we will become carbon negative, annually removing more emissions from the atmosphere than our total Scope 1, 2, and 3 emissions combined, and by 2050, we will remove an equivalent amount of all the carbon dioxide the company has emitted either directly or by electrical consumption since it was founded in 1975. Our carbon negative commitment is covered by the net zero target (NZ1) reported in this response; as we make progress towards our net zero target, we will maintain our commitment to carbon neutrality.

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

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

We achieved carbon neutrality in FY21 (the reporting period) through a combination of onsite renewable electricity generation, internal energy efficiency projects, and purchases of renewable electricity and carbon removal offsets. We understand that CDP guidance requests that companies not consider carbon offsets when reporting targets in C4.1. However, we have elected to report offsets to communicate these GHG emissions management activities; we have also reported additional targets that do not use offsets (see Abs1, Abs2, and Abs3). In FY21, Microsoft committed to shift our carbon-offsetting activity to from carbon avoidance to carbon removals.

C4.1b

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

Target reference number

Int 1

Year target was set



2019

Target coverage

Company-wide

Scope(s)

Scope 3

Scope 2 accounting method

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 9: Downstream transportation and distribution

Category 11: Use of sold products

Category 12: End-of-life treatment of sold products

Category 13: Downstream leased assets

Intensity metric

Metric tons CO2e per unit revenue

Base year

2017

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



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

Intensity figure in base year for Scope 3 (metric tons CO2e per unit of activity) 0.0001104

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity) 0.0001104

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

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

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

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

Target year

2030

Targeted reduction from base year (%)

30

Intensity figure in target year for all selected Scopes (metric tons CO2e per unit of activity) [auto-calculated] 0.00007728

% change anticipated in absolute Scope 1+2 emissions

O



% change anticipated in absolute Scope 3 emissions

-50

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

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

Intensity figure in reporting year for Scope 3 (metric tons CO2e per unit of activity)
0.000082

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity) 0.000082

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

85.7487922705

Target status in reporting year

Underway

Is this a science-based target?

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

Target ambition

1.5°C aligned

Please explain target coverage and identify any exclusions

In September 2019, the Science Based Targets initiative certified Microsoft's target to reduce Scope 3 GHG emissions intensity per unit of revenue 30 percent by 2030 from a 2017 base year, to avoid growth in absolute Scope 3 emissions, and to continue to annually source 100 percent renewable electricity through 2030. In January 2020, we announced that we will cut our Scope 1 + Scope 2 + Scope 3 emissions by more than half by 2030 (see Abs3), and target Int1 will help us reach this goal. This target supports our commitment by 2030 to be carbon negative (reported as target NZ1).



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

We are committed to reducing our Scope 3 emissions by more than half by 2030. We will achieve this through reduction strategies in campuses and datacenters, rethinking design of our devices, and engaging with our supply chain. Example initiatives include updating our Supplier Code of Conduct to add new sustainability requirements (including requiring suppliers to disclose their carbon footprints and develop plans to reduce them) and running a supplier engagement pilot with our cloud suppliers. We are working to reduce embodied carbon in our buildings (such as through the use of mass timber, low-GHG concrete innovations, and other low-carbon building materials), rethinking how we travel (with investments in sustainable aviation fuel), experimenting with lower carbon hardware design (such as using recycled materials and designing for a smaller carbon footprint), seeking to reduce the emissions of product distribution, boosting the energy efficiency of our devices, and providing new tools and training for supplier reporting. During FY21, we grew business revenue by 20 percent. However, as our business has grown and we've seen increased use of our devices and cloud services, our total Scope 3 emissions (comprising the company's entire value chain) increased by about 23 percent year-over-year, due in substantial part to significant global datacenter expansions and the growth in Xbox sales and usage as a result of the pandemic. We work to limit these emissions when we design and manufacture our products, and we work with our suppliers to report and reduce their emissions—but still saw an increase. We will continue refining emission reduction plans with suppliers and providing resources to enable these reductions with a goal of having the aggregate reductions meet Microsoft's Scope 3 commitment. We will continue to embed sustainability into procurement processes and reset goals, metrics, and incentives to support carbon reduction targets. We anticipate that progress won't always be linear as we work towards this commi

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

C4.2

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

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

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

2014

Target coverage

Company-wide

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Base year

2014

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

2,514,616

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

70

Target year

2030

% 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?

Abs1

Abs2

Abs4

Is this target part of an overarching initiative?

RE100

Science Based Targets initiative

Please explain target coverage and identify any exclusions

In FY21 (reporting year), our percentage of renewable electricity was 100 percent when reflecting power purchase agreements (PPAs) and the purchase of unbundled renewable energy certificates (RECs). This indicates that we are 100 percent complete on this target from a 2014 baseline of 70 percent. The scope of this target is electricity consumption, which represents 99.9 percent of our global Scope 2 (location-based) emissions and 95 percent of our global Scope 1 and Scope 2 (location-based) emissions. As part of our carbon neutral target, Microsoft plans to achieve 100 percent renewable energy each year through a combination of direct renewable energy and the purchase of unbundled energy attribute certificates (EACs); therefore, the target needs to be continually "achieved" each year. This target has been certified as science based by the Science Based Targets initiative; it has been certified in combination with our intensity target (Int1).

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



List the actions which contributed most to achieving this target

Microsoft achieved 100 percent renewable energy in the reporting year through a combination of direct renewable energy and the purchase of unbundled EACs.

Target reference number

Low 2

Year target was set

2020

Target coverage

Company-wide

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Base year

2020

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

3,448,578

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

53



Target year

2025

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

100

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

63

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

21.2765957447

Target status in reporting year

Underway

Is this target part of an emissions target?

Abs1

Abs2

Abs4

Is this target part of an overarching initiative?

RE100

Please explain target coverage and identify any exclusions

In January 2020, we set a target to procure enough renewable energy to cover 100 percent of our electricity usage by 2025, meaning that we will have power purchase agreements for green energy contracted for 100 percent of carbon-emitting electricity consumed by all our datacenters, buildings, and campuses. We are on target to reach 100 percent in 2025. In July 2021 (after the close of the reporting period for this response), we set a new 100/100/0 goal: by 2030, 100 percent of Microsoft's energy supply, 100 percent of the time, will come from zero-carbon resources on grids where we operate.

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



We will match our annual total operational electricity use each fiscal year with an equal amount of renewable energy purchased. Microsoft is contracting for direct renewable energy in the form of PPAs, virtual PPAs (vPPAs), attribute purchase agreements (APAs), green tariffs, and other direct purchasing mechanisms.

List the actions which contributed most to achieving this target

C4.2c

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

Target reference number

NZ1

Target coverage

Company-wide

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

Abs1

Abs2

Abs3

Int1

Target year for achieving net zero

2030

Is this a science-based target?

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

Please explain target coverage and identify any exclusions



By 2030 Microsoft will be carbon negative, and by 2050 Microsoft will remove from the atmosphere an equivalent amount of all the carbon dioxide the company has emitted either directly or by electrical consumption since it was founded in 1975. This will be achieved through both reductions in our Scope 1, 2, and 3 emissions (Abs1-3) and a portfolio of negative emission technologies (NETs), including forestry, soil carbon sequestration, bioenergy with carbon capture and storage (BECCS), and direct air capture (DAC). As part of this, Microsoft committed to shift our carbon-offsetting activity from carbon avoidance to carbon removals. We launched our removal program in FY21 and set a goal of buying 1 million metric tons of carbon removal in the first year. We published our lessons learned and all proposal information at https://www.microsoft.com/en-us/corporate-responsibility/sustainability/carbon-removal-program. As we make progress towards our net zero target, we will maintain our commitment to carbon neutrality (Abs4), which applies to our Scope 1, Scope 2 (market-based), and Scope 3 (upstream business air travel only) emissions.

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

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

In FY21, we made the world's largest purchase of carbon removal at 1.4 million metric tons, including early purchases from Climeworks and Charm Industrial to build the markets for direct air capture and biomass carbon removal and storage, respectively. We are deploying \$1 billion of our own capital in a Climate Innovation Fund to accelerate the development of carbon reduction and removal technologies that will help us become carbon negative.

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

Microsoft has published criteria for high-quality carbon dioxide removal (https://aka.ms/carbonremovalprojectcriteria), to help project developers initiate high-quality projects as well as help buyers in the assessment of high-quality projects. Among the principles we outline in our paper (and pursue in our own carbon removal purchases) is minimizing harm while pursuing co-benefits: advancing sustainable livelihoods and environmental justice, building climate resilience, supporting water conservation, and protecting ecosystems and biodiversity. Although this principle is not explicitly related to mitigating emissions beyond our value chain, we view this as essential to supporting the transition to a net-zero world.

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	34	
To be implemented*	2	420
Implementation commenced*	72	7,528,370
Implemented*	29	1,096,241
Not to be implemented	37	

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 consumption
Other, please specify
Wind and solar

Estimated annual CO2e savings (metric tonnes CO2e)

707,010

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

Scope 2 (market-based)



Voluntary/Mandatory

Voluntary

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

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

Payback period

Estimated lifetime of the initiative

<1 year

Comment

Power purchase agreements (PPAs) (20 projects) and unbundled energy attribute certificates (EACs) (1 project). These low-carbon energy purchases were voluntary and not in relation to external regulation. The purchases resulted in the reduction of Scope 2 market-based emissions included within our carbon neutral target and carbon negative target, set in FY20. The expected lifetime of the power purchased in FY21 is one year and occurs in the year the green power was generated and accounted for by Microsoft (FY21, the reporting period for this response), though all PPAs are long-term (10- to 20-year) agreements. We have only reported incremental renewable energy certificates (RECs) from PPAs and unbundled EAC purchases here per CDP guidance; however, this figure does not represent the full scale of the commitment that we have made to using green power derived from long-term commitments such as PPAs, which for the reporting period avoided market-based Scope 2 emissions by 2,085,229 mtCO2e from our location-based emissions.

Initiative category & Initiative type

Other, please specify

Other, please specify

Supplier renewable energy and process equipment replacement



Estimated annual CO2e savings (metric tonnes CO2e)

384,200

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

Scope 3 category 1: Purchased goods & services

Scope 3 category 2: Capital goods

Voluntary/Mandatory

Voluntary

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

0

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

2,000,000

Payback period

No payback

Estimated lifetime of the initiative

6-10 years

Comment

Supplier engagement pilot (1 project). The Microsoft Cloud Supply Chain Sustainability Supplier Engagement pilot was established in FY21 to support Microsoft climate goals—specifically, to enable our suppliers to reduce emissions by more than 50 percent by 2030. Suppliers make commitments to Microsoft based on our engagement to reduce the emissions associated with the products that we purchase from them (for example, through investments in renewable energy, fluorinated gas abatement, and efficiency improvements). The data provided here reflects the program results based on five top suppliers, which represent 30 percent of Microsoft cloud Scope 3 emissions. Based on the results of this pilot, the Supplier Engagement program will be expanded in FY22 to cover 80 percent of our cloud Scope 3 category 1 and 2 emissions. This initiative reduces the Scope 3 emissions included in our carbon negative target, set in FY20.



Initiative category & Initiative type

Waste reduction and material circularity Waste reduction

Estimated annual CO2e savings (metric tonnes CO2e)

2,250

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

Scope 3 category 4: Upstream transportation & distribution Scope 3 category 5: Waste generated in operations

Voluntary/Mandatory

Voluntary

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

0

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

0

Payback period

No payback

Estimated lifetime of the initiative

Ongoing

Comment

Xbox gift cards (1 project). We transitioned our retail point of sale activation (POSA) cards from a polystyrene material to paperboard. This transition was part of our strategy for our 2025 commitment to eliminate single-use plastics. Due to global supply chain issues and consequent impacts on paperboard supply and costs, any cost savings have been offset by paperboard cost increases.



Initiative category & Initiative type

Transportation
Other, please specify
Fuel switch

Estimated annual CO2e savings (metric tonnes CO2e)

1,380

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

Scope 3 category 6: Business travel

Voluntary/Mandatory

Voluntary

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

0

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

Payback period

Estimated lifetime of the initiative

Ongoing

Comment

Sustainable aviation fuel (SAF) purchase (1 project). During FY21, Microsoft purchased a SAF volume of 443 metric tons and reduced our carbon emissions by 1,377 mtCO2. This purchase was made as part of a wider collaboration with Alaska Airlines (https://news.microsoft.com/2020/10/22/alaska-airlines-and-microsoft-sign-partnership-to-reduce-carbon-emissions-with-flights-powered-by-sustainable-aviation-fuel-in-key-routes).



Initiative category & Initiative type

Transportation
Company fleet vehicle efficiency

Estimated annual CO2e savings (metric tonnes CO2e)

970

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

Scope 1

Voluntary/Mandatory

Voluntary

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

350,000

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

0

Payback period

<1 year

Estimated lifetime of the initiative

Ongoing

Comment

Company car fleet emissions policies (1 project). Since FY13, the Microsoft Fleet team has been working to reduce the levels of greenhouse gas emissions (mainly carbon dioxide [CO2]) produced by Microsoft company cars by implementing upper CO2 limits in global and local car policies. These limits are lowered each year. In FY13 Q1, our company car fleet had an average of 142.26 g/km. At the end of FY20, the average was 110.34 g/km, and over the FY21 reporting year this was reduced to 106.23 g/km. The emissions savings reported here are specific



to the reductions made during FY21. The cost savings are approximate fuel savings based on the emissions reductions. In parallel, we are supporting the transition into electric mobility in markets where this is feasible. This initiative reduces Scope 1 emissions included in our carbon neutral target and carbon negative target, set in FY20.

Initiative category & Initiative type

Other, please specify
Other, please specify
Embodied carbon/backup power

Estimated annual CO2e savings (metric tonnes CO2e)

420

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

Scope 3 category 2: Capital goods
Scope 3 category 5: Waste generated in operations

Voluntary/Mandatory

Voluntary

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

100,000

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

500,000

Payback period

4-10 years

Estimated lifetime of the initiative

11-15 years



Comment

Flywheel uninterruptible power supply (UPS) installation (1 project). Our Hyderabad, India campus site installed a UPS using flywheel technology to provide backup power without the need for lead acid batteries. Compared with a conventional UPS, the manufacturing and operation of the flywheel UPS will avoid approximately 420 metric tons of carbon emissions annually over the 15-year lifetime of this equipment. This initiative reduces the Scope 3 emissions included in our science-based emission reduction target (to reduce value chain emissions by 30 percent per unit of revenue by 2030 from a 2017 baseline) and our carbon negative target.

Initiative category & Initiative type

Fugitive emissions reductions
Other, please specify
Low-GWP refrigerant

Estimated annual CO2e savings (metric tonnes CO2e)

10

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

Scope 1

Voluntary/Mandatory

Voluntary

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

0

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

340,000

Payback period

No payback



Estimated lifetime of the initiative

16-20 years

Comment

Low-global warming potential (GWP) chiller (1 project). A building on our Puget Sound campus converted two chiller plants to use a lower GWP refrigerant, as part of a scheduled chiller overhaul. Refrigerant R-123 (with a GWP of 79) was replaced with R-514a (with a GWP of 2) (per IPCC AR5). This initiative reduces Scope 1 emissions included in our carbon neutral target and carbon negative target, set in FY20.

Initiative category & Initiative type

Waste reduction and material circularity
Other, please specify
E-waste recycling and reuse

Estimated annual CO2e savings (metric tonnes CO2e)

1

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

Scope 3 category 5: Waste generated in operations

Voluntary/Mandatory

Voluntary

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

0

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

0

Payback period

<1 year



Estimated lifetime of the initiative

Ongoing

Comment

E-waste recycling program expansion (1 project). The Microsoft Responsible Recycle program was set up to support the recycling and reuse of our internal operational e-waste, helping reduce energy consumption, greenhouse gases, and hazardous waste. In FY21, we expanded this program to include collections in an additional three countries (Montenegro, Latvia, Slovakia). The data provided here reflects the program expansion only and not the existing savings or costs of the program; however, this figure does not represent the full scale of the commitment that we have made to reducing emissions related to internal operational e-waste through this program, which for the reporting period reduced our Scope 3 emissions by 16 mtCO2e. This initiative reduces the Scope 3 emissions included in our carbon negative target, set in FY20.

Initiative category & Initiative type

Company policy or behavioral change Supplier engagement

Estimated annual CO2e savings (metric tonnes CO2e)

0

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

Scope 3 category 1: Purchased goods & services

Scope 3 category 2: Capital goods

Voluntary/Mandatory

Voluntary

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

O

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

309,000



Payback period

No payback

Estimated lifetime of the initiative

Ongoing

Comment

Supplier Code of Conduct update (1 project). In July 2020, Microsoft added additional sustainability requirements to our Supplier Code of Conduct to require suppliers to disclose their own carbon footprints and develop plans to reduce them. We have spent the past year rolling out these requirements to a subset of our suppliers and building a program to support them. The top feedback from suppliers has been the need for simple yet comprehensive resources to walk them through the carbon accounting process. In response, we released a set of in-depth capacity-building tools and resources, developed in partnership with ENGIE Impact and CDP, to help companies, and particularly our suppliers, report their GHG emissions. The emissions reductions attributable to this initiative will not be 0; however, it is challenging to calculate the specific emissions savings given its broad scope. This initiative will serve as a foundation for future initiatives to support our target to reduce our Scope 3 emissions by more than half by 2030. This initiative will also reduce the Scope 3 emissions included in our carbon negative target, set in FY20.

C4.3c

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

Method	Comment
Dedicated budget for	Our datacenter engineering team has dedicated headcount and budget for designing more efficient datacenters, optimizing
energy efficiency	existing datacenters, and tracking energy use and efficiency. Our Global Workplace Services (GWS) group also has dedicated
	budget for headcount and sustainability standards addressing energy efficiency in global office spaces, research labs, and other
	specialty spaces.
Dedicated budget for other	A component of our carbon fee is a dedicated fund focused on investments that improve sustainability, including reducing our
emissions reduction	energy use and carbon emissions. In addition, across Microsoft, various business units have dedicated budget for emissions
activities	reduction activities. The Global Workplace Services group uses an Energy Smart Buildings solution at many of our large global
	campuses to gain better insight into and management of energy use; this has reduced energy consumption and costs by 6–10%



at these sites. Our travel organization works with the Procurement reporting team to analyze travel patterns and practices to identify trends and recommend reduction initiatives. Our Procurement Sustainability program within Microsoft Procurement has dedicated headcount and budget to engage suppliers to reduce their carbon emissions. A component of our Responsible Recycle (e-waste) program budget is focused on activities to evangelize hardware recycling internally, increasing employee awareness of how to recycle their personal and work-related electronic equipment securely and compliantly to help reduce energy consumption, greenhouse gases, and hazardous waste; in FY21 this program was part of our Ecochallenge employee event. Significant investments have been made to increase our data-driven lifecycle assessment and telemetry approach, allowing us to better measure, inform, and prioritize top reduction opportunities across our supply chain to reduce our device carbon intensity, tracked against an annual target reduction on our devices business scorecard. Some actions that have resulted from these approaches include powering supplier operations with renewable energy, increasing process and energy efficiencies, and reducing material use and waste onsite. The Cloud Supply Chain Sustainability (CSCS) team within our Azure Hardware Systems and Infrastructure group has dedicated resources and a grant from the Microsoft sustainability fund to develop initiatives related to reducing carbon emissions linked to the cloud infrastructure value chain throughout the lifecycle. This also includes the development and initial rollout of other CSCS programs focusing on the design of a zero waste, carbon-efficient Microsoft, which includes Circular Centers to process decommissioned servers onsite at our datacenters for reuse, circular design of our cloud hardware, and supplier engagement.

Employee engagement

In October 2021, we launched the Sustainability in Action badge, our first all-employee learning course focused on sustainability. As of April 2022, more than 10,000 employees had completed the course and can serve as sustainability champions in their daily work and personal lives. In November 2020, we ran an employee challenge online through the Ecochallenge platform to encourage participants to take environmental action in their daily lives by reducing their waste footprint; more than 8,400 participants completed more than 45,000 actions. In April 2021, we launched a second Ecochallenge covering carbon, waste, water, and ecosystems, with more than 6,000 participants completing more than 100,000 actions. The Sustainability Community is a global group of more than 6,000 Microsoft employees committed to protecting Earth's natural resources, creating positive environmental change, and ensuring Microsoft is operating with the most sustainable practices possible. It is a grassroots employee group focused on making sustainability part of everybody's job. Collectively, the group's actions reduce the company's overall environmental impact and are a source of innovation for next-generation sustainability solutions. In April 2021, to celebrate the 51st anniversary of Earth Day, the Sustainability Community organized three days of learning sessions to educate, inspire, and activate employees on the importance of sustainability, with more than 3,600 people from 56 countries participating. In our Hack for Sustainability during Global Hackathon 2021, more than 780 employees worked on more than 140



	projects. The Microsoft Garage provides a platform for hackathons and ideathons all year long, including our month-long Sustainability Ideathon for Earth Day 2021 and the year-round Sustainability program using our HackBox platform for employees to collect ideas, share concepts, create projects, form teams, and inspire colleagues globally to participate in Microsoft's sustainability journey. Microsoft Travel has an employee engagement campaign to engage and inform employees on the carbon impact of business travel; examples include showing CO2 emissions in the online booking tool and adding new learning resources in the employee travel portal and travel itinerary app (e.g. encouraging rail over air).
Financial optimization calculations	Our Global Workplace Services (GWS) organization leads the design of new buildings, including cost/benefit analysis of more efficient designs and equipment. Our Cloud Operations + Innovation (CO+I) organization analyzes the cost/benefit of datacenter designs and is investing for greater efficiencies, reduced energy and water use, and more renewable energy to power its operations. With the corporate Environmental Sustainability team, our travel organization analyzes flight miles and class to help stakeholders from across the company identify potential areas of additional efficiency that can result in budget reductions, thus reducing carbon footprint. The travel organization also works with the business to reduce unneeded or less valuable travel in order to reduce our overall travel footprint.
Internal finance mechanisms	In FY21, a component of our carbon fee was a dedicated fund focused on investments that improve sustainability, including reducing Microsoft energy use and carbon emissions. We selected the initiatives funded through the carbon fee using a formal grant application process. Our travel organization sets employee policies around air travel, including class of travel, and is involved in annual budget setting. Furthermore, the team has deployed business intelligence (BI) tools that provide managers with much greater visibility into their teams' traveling patterns. Business unit managers have the authority to balance the level of travel/entertainment budget within their overall operational budget and, using the BI tools, they can now easily identify opportunities to reduce travel for internal meetings as well as the use of business class, the main drivers for travel-related emissions. Product groups in the Puget Sound region are charged directly for their actual energy usage in research and development labs.
Internal price on carbon	In July 2012 (the start of Microsoft FY13), we committed to operate carbon neutral and introduced an internal carbon fee, charging business groups for emissions associated with their energy consumption and business air travel. In FY19, we announced that we would raise our carbon fee to \$15 per ton to more fully reflect our cost of carbon abatement. Starting in July 2020, in support of our new commitment to be carbon negative by 2030, we began charging the fee for not only our own operational emissions (at \$15 per ton) but also all of our Scope 3 emissions (at the time, \$15 per ton for business travel and \$5 per ton for all other Scope 3 emissions). We continue to restructure and increase our internal carbon fee to help incentivize more



aggressive measures to reduce Scope 3 emissions and better match the underlying cost of carbon abatement. In March 2022, we announced that we would increase our fee across all scopes: \$15 per ton for all electricity-related emissions, \$100 per ton for business travel emissions, and \$8 per ton for remaining emissions. To meet our FY30 goals in an increasingly competitive market, we will continue to increase the annual fee at an accelerated rate, which will also help promote energy efficiency and design changes that utilize low-carbon materials.

C4.5

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

Yes

C4.5a

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

Level of aggregation

Group of products or services

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

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

Type of product(s) or service(s)

Other
Other, please specify
Cloud services

Description of product(s) or service(s)

Microsoft Azure Compute provides the infrastructure to run apps in the cloud, whether building new applications or deploying existing ones. It enables users to tap in to compute capacity in the cloud and scale on demand. It also includes a full-fledged identity solution. All Microsoft



services hosted in Microsoft datacenters—including Azure Compute—are low-carbon options because of the efficiency of our datacenters versus equivalent on-premises computing and our use of renewable energy. Emissions from our datacenters are far below industry averages and most customers' on-premises situations. In addition, by outsourcing IT services to Microsoft cloud services instead of running those same services in their own datacenters, our customers can reduce their Scope 2 emissions, assuming that they currently have either (a) no in-house equipment and decide to use Microsoft cloud services instead of purchasing new equipment or (b) in-house equipment and decide to downsize equipment and outsource the services to Microsoft. With the massive scale and multitenancy of our datacenters, we can run these services at greater efficiencies than a typical enterprise, so the energy use and emissions are not merely transferred to another source but reduced as well.

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

Yes

Methodology used to calculate avoided emissions

Other, please specify

Methodology developed and reviewed by industry experts, based on principles of lifecycle assessment and GHG emissions accounting

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

Cradle-to-grave

Functional unit used

Core-hour

Reference product/service or baseline scenario used

Compute equivalents deployed in traditional enterprise datacenters

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

Cradle-to-grave

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

Explain your calculation of avoided emissions, including any assumptions



We conducted a study with industry experts to determine the energy use and carbon emissions associated with Azure Compute compared with compute equivalents deployed in traditional enterprise datacenters. The analysis uses a quantitative model to calculate and compare the energy consumption and carbon footprint of compute resources in the Microsoft Cloud with equivalent on-premises deployments. The model draws on greenhouse gas accounting principles from the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD) Corporate Standard and Product Life Cycle Standard. Our methodology considered the impact of the IT equipment and operations, datacenter infrastructure, and information flows over the internet required to provide a cloud service and its traditional on-premises equivalent. The study considered two on-premises deployment scenarios in comparison with Azure Compute: physical servers and virtualized servers. The quality and performance criteria are based on the net computational output using the functional unit of a core-hour. Primary data from Microsoft datacenters and equipment was used wherever possible, and secondary data such as industry averages was used as necessary. The results show that Azure Compute is 52–79 percent more energy efficient than compute equivalents deployed in traditional enterprise datacenters, depending on the type of enterprise deployment. In addition to providing greater energy efficiency through the Microsoft Cloud, we purchase renewable electricity for more than 95 percent of our consumption, which includes the datacenters that power Azure Compute. When renewable energy is taken into account, carbon emissions from Azure Compute are 92–98 percent lower than traditional enterprise datacenter deployments of compute equivalents. Thus, in the modeled scenarios, customers can avoid emissions by deploying IT infrastructure in the Microsoft Cloud instead of on-premises. We are not reporting the avoided emissions per reference product as this is business confidential. Full details of the study are available through the report "The carbon benefits of cloud computing" by Microsoft, in partnership with WSP. NOTE: Microsoft revenue is reported at the operating segment level and so the specific revenue attributable to Azure Cloud Services is not available.

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

Level of aggregation

Group of products or services

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

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

Type of product(s) or service(s)

Other



Other, please specify Cloud services

Description of product(s) or service(s)

The Azure Storage platform is the Microsoft cloud storage solution for modern data storage scenarios. Azure Storage offers highly available, massively scalable, durable, and secure storage for a variety of data objects in the cloud. All Microsoft services hosted in Microsoft datacenters—including Azure Storage—are low-carbon options because of the efficiency of our datacenters versus equivalent on-premises computing and our use of renewable energy. Emissions from our datacenters are far below industry averages and most customers' on-premises situations. In addition, by outsourcing IT services to Microsoft cloud services instead of running those same services in their own datacenters, our customers can reduce their Scope 2 emissions, assuming that they currently have either (a) no in-house equipment and decide to use Microsoft cloud services instead of purchasing new equipment or (b) in-house equipment and decide to downsize equipment and outsource the services to Microsoft. With the massive scale and multitenancy of our datacenters, we can run these services at greater efficiencies than a typical enterprise, so the energy use and emissions are not merely transferred to another source but reduced as well.

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

Yes

Methodology used to calculate avoided emissions

Other, please specify

Methodology developed and reviewed by industry experts, based on principles of lifecycle assessment and GHG emissions accounting

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

Cradle-to-grave

Functional unit used

Terabyte-year

Reference product/service or baseline scenario used

Storage equivalents deployed in traditional enterprise datacenters

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

Cradle-to-grave



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

Explain your calculation of avoided emissions, including any assumptions

We conducted a study with industry experts to determine the energy use and carbon emissions associated with Azure Storage compared with storage equivalents deployed in traditional enterprise datacenters. The analysis uses a quantitative model to calculate and compare the energy consumption and carbon footprint of storage resources in the Microsoft Cloud with equivalent on-premises deployments. The model draws on greenhouse gas accounting principles from the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD) Corporate Standard and Product Life Cycle Standard. Our methodology considered the impact of the IT equipment and operations, datacenter infrastructure, and information flows over the internet required to provide a cloud service and its traditional on-premises equivalent. The study considered two on-premises deployment scenarios in comparison with Azure Storage: direct attached storage and dedicated storage. The quality and performance criteria are based on the number of data replications using the functional unit of a terabyte-year. Primary data from Microsoft datacenters and equipment was used wherever possible, and secondary data such as industry averages was used as necessary. The results show that Azure Storage is 71–79 percent more energy efficient than storage equivalents deployed in traditional enterprise datacenters, depending on the type of enterprise deployment. In addition to providing greater energy efficiency through the Microsoft Cloud, we purchase renewable electricity for more than 95 percent of our consumption, which includes the datacenters that power Azure Storage. When renewable energy is taken into account, carbon emissions from Azure Storage are 79–83 percent lower than traditional enterprise datacenter deployments of storage equivalents. Thus, in the modeled scenarios, customers can avoid emissions by deploying IT infrastructure in the Microsoft Cloud instead of on-premises. We are not reporting the avoided emissions per reference product as this is business confidential. Full details of the study are available through the report "The carbon benefits of cloud computing" by Microsoft, in partnership with WSP. NOTE: Microsoft revenue is reported at the operating segment level and so the specific revenue attributable to Azure Cloud Services is not available.

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

Level of aggregation

Group of products or services



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

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

Type of product(s) or service(s)

Other, please specify
Cloud services

Description of product(s) or service(s)

Microsoft Exchange Online is a hosted messaging solution that delivers email, calendar, contacts, and tasks from PCs, the web, and mobile devices. All Microsoft services hosted in Microsoft datacenters—including Exchange Online—are low-carbon options because of the efficiency of our datacenters versus equivalent on-premises computing and our use of renewable energy. Emissions from our datacenters are far below industry averages and most customers' on-premises situations. In addition, by outsourcing IT services to Microsoft cloud services instead of running those same services in their own datacenters, our customers can reduce their Scope 2 emissions, assuming that they currently have either (a) no in-house equipment and decide to use Microsoft cloud services instead of purchasing new equipment or (b) in-house equipment and decide to downsize equipment and outsource the services to Microsoft. With the massive scale and multitenancy of our datacenters, we can run these services at greater efficiencies than a typical enterprise, so the energy use and emissions are not merely transferred to another source but reduced as well.

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

Yes

Methodology used to calculate avoided emissions

Other, please specify

Methodology developed and reviewed by industry experts, based on principles of lifecycle assessment and GHG emissions accounting

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

Cradle-to-grave

Functional unit used

Mailbox-year



Reference product/service or baseline scenario used

Microsoft Exchange deployed in traditional enterprise datacenters

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

Cradle-to-grave

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

Explain your calculation of avoided emissions, including any assumptions

We conducted a study with industry experts to determine the energy use and carbon emissions associated with Exchange Online compared with Microsoft Exchange deployed in traditional enterprise datacenters. The analysis uses a quantitative model to calculate and compare the energy consumption and carbon footprint of IT applications in the Microsoft Cloud with equivalent on-premises deployments. The model draws on greenhouse gas accounting principles from the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD) Corporate Standard and Product Life Cycle Standard. Our methodology considered the impact of the IT equipment and operations, datacenter infrastructure, and information flows over the internet required to provide a cloud service and its traditional on-premises equivalent. The study considered three on-premises deployment scenarios in comparison with Exchange Online: small deployments (1,000 users), medium deployments (10,000 users), and large deployments (100,000 users). The quality and performance criteria are based on the mailbox size and replications using the functional unit of a mailbox-year. Primary data from Microsoft datacenters and equipment was used wherever possible, and secondary data such as industry averages was used as necessary. The results show that Exchange Online is 77–85 percent more energy efficient than Exchange deployed in traditional enterprise datacenters, depending on the size of the enterprise deployment. In addition to providing greater energy efficiency through the Microsoft Cloud, we purchase renewable electricity for more than 95 percent of our consumption, which includes the datacenters that power Exchange Online. When renewable energy is taken into account, carbon emissions from Exchange Online are 97–98 percent lower than traditional enterprise datacenter deployments of Exchange. Thus, in the modeled scenarios, customers can avoid emissions by deploying IT infrastructure in the Microsoft Cloud instead of on-premises. We are not reporting the avoided emissions per reference product as this is business confidential. Full details of the study are available through the report "The carbon benefits of cloud computing" by Microsoft, in partnership with WSP. NOTE: Microsoft revenue is reported at the operating segment level and so the specific revenue attributable to Exchange Online is not available.

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



Level of aggregation

Group of products or services

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

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

Type of product(s) or service(s)

Other, please specify
Cloud services

Description of product(s) or service(s)

Microsoft SharePoint Online is a cloud-based service that helps organizations share and manage content, knowledge, and applications to empower teamwork, quickly find information, and seamlessly collaborate across the organization. All Microsoft services hosted in Microsoft datacenters—including SharePoint Online—are low-carbon options because of the efficiency of our datacenters versus equivalent on-premises computing and our use of renewable energy. Emissions from our datacenters are far below industry averages and most customers' on-premises situations. In addition, by outsourcing IT services to Microsoft cloud services instead of running those same services in their own datacenters, our customers can reduce their Scope 2 emissions, assuming that they currently have either (a) no in-house equipment and decide to use Microsoft cloud services instead of purchasing new equipment or (b) in-house equipment and decide to downsize equipment and outsource the services to Microsoft. With the massive scale and multitenancy of our datacenters, we can run these services at greater efficiencies than a typical enterprise, so the energy use and emissions are not merely transferred to another source but reduced as well.

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

Yes

Methodology used to calculate avoided emissions

Other, please specify

Methodology developed and reviewed by industry experts, based on principles of lifecycle assessment and GHG emissions accounting



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

Cradle-to-grave

Functional unit used

User-year

Reference product/service or baseline scenario used

Microsoft SharePoint deployed in traditional enterprise datacenters

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

Cradle-to-grave

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

Explain your calculation of avoided emissions, including any assumptions

We conducted a study with industry experts to determine the energy use and carbon emissions associated with SharePoint Online compared with SharePoint deployed in traditional enterprise datacenters. The analysis uses a quantitative model to calculate and compare the energy consumption and carbon footprint of IT applications in the Microsoft Cloud with equivalent on-premises deployments. The model draws on greenhouse gas accounting principles from the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD) Corporate Standard and Product Life Cycle Standard. Our methodology considers the impact of the IT equipment and operations, datacenter infrastructure, and information flows over the internet required to provide a cloud service and its traditional on-premises equivalent. The study considered three on-premises deployment scenarios in comparison with SharePoint Online: small deployments (1,000 users), medium deployments (10,000 users), and large deployments (100,000 users). The quality and performance criteria are based on the provisioned storage and replications using the functional unit of a user-year. Primary data from Microsoft datacenters and equipment was used wherever possible, and secondary data such as industry averages was used as necessary. The results show that SharePoint Online is 22–93 percent more energy efficient than SharePoint deployed in traditional enterprise datacenters, depending on the size of the deployment in the enterprise datacenter (small, medium, or large). In addition to providing greater energy efficiency through the Microsoft Cloud, we purchase renewable electricity for more than 95 percent of our consumption, which includes the datacenters that power SharePoint Online. When renewable energy is taken into account, carbon emissions from SharePoint Online are 72–97 percent lower than traditional enterprise



datacenter deployments of SharePoint. Thus, in the modeled scenarios, customers can avoid emissions by deploying IT infrastructure in the Microsoft Cloud instead of on-premises. We are not reporting the avoided emissions per reference product as this is business confidential. Full details of the study are available through the report "The carbon benefits of cloud computing" by Microsoft, in partnership with WSP. NOTE: Microsoft revenue is reported at the operating segment level and so the specific revenue attributable to SharePoint Online is not available.

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

C5. Emissions methodology

C5.1

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

C5.1a

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

Row 1

Has there been a structural change?

Yes, an acquisition

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

ZeniMax Media Inc.

Details of structural change(s), including completion dates

On March 9, 2021, Microsoft completed the acquisition of ZeniMax Media Inc. ("ZeniMax"), the parent company of Bethesda Softworks LLC. Given that it was a mid-year acquisition, emissions from this acquisition will be included in next year's response.



C5.1b

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

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in methodology Yes, a change in boundary	Change in methodology: As the product lifecycle assessments for Microsoft devices continue to be improved, the emissions calculations for these categories have been updated for improved accuracy. Energy use assumptions have been updated to reflect our latest understanding of device use via telemetry. Market-based fuel- and energy-related emissions have undergone a change in calculation methodology to improve accounting of electricity transmission and distribution. Change in boundary: As of FY21, waste emissions calculations include emissions for all waste streams except construction and deconstruction, which is currently not reported and will be part of data improvements going forward.

C5.1c

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

	Base year recalculation	Base year emissions recalculation policy, including significance threshold
Row	Yes	The base year for our Scope 3 target is FY20. We have recalculated our FY20 Scope 3 emissions with the following items: Scope
1		3 categories 1 and 2 emissions reflect updated supplier data received from our suppliers via the CDP Supply Chain program.
		Scope 3 category 3 market-based fuel- and energy-related emissions have undergone a change in calculation methodology to
		improve accounting of electricity transmission and distribution. Scope 3 category 5 waste emissions calculations now include
		emissions for all waste streams except construction and deconstruction. Scope 3 category 11 reflects the updated energy use
		assumptions in our lifecycle assessments (LCAs) based on our latest understanding of device use via telemetry; in addition, we



made minor error corrections (and updated previous years' data). These methodology and boundary updates triggered our significance threshold for restatement of base year data. We will continue to update our base year values as we incorporate methodology changes into our accounting that exceed our established significance threshold.

C5.2

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

Scope 1

Base year start

July 1, 2012

Base year end

June 30, 2013

Base year emissions (metric tons CO2e)

100,561

Comment

Scope 2 (location-based)

Base year start

July 1, 2012

Base year end

June 30, 2013

Base year emissions (metric tons CO2e)

1,430,648



Comment

Scope 2 (market-based)

Base year start

July 1, 2012

Base year end

June 30, 2013

Base year emissions (metric tons CO2e)

819,582

Comment

Scope 3 category 1: Purchased goods and services

Base year start

July 1, 2019

Base year end

June 30, 2020

Base year emissions (metric tons CO2e)

4,156,000

Comment

Scope 3 category 2: Capital goods



Base year start

July 1, 2019

Base year end

June 30, 2020

Base year emissions (metric tons CO2e)

2,962,000

Comment

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

Base year start

July 1, 2019

Base year end

June 30, 2020

Base year emissions (metric tons CO2e)

310,000

Comment

Scope 3 category 4: Upstream transportation and distribution

Base year start

July 1, 2019

Base year end

June 30, 2020



Base year emissions (metric tons CO2e)

102,000

Comment

Scope 3 category 5: Waste generated in operations

Base year start

July 1, 2019

Base year end

June 30, 2020

Base year emissions (metric tons CO2e)

9,500

Comment

Scope 3 category 6: Business travel

Base year start

July 1, 2019

Base year end

June 30, 2020

Base year emissions (metric tons CO2e)

329,356

Comment



Scope 3 category 7: Employee commuting

Base year start

July 1, 2019

Base year end

June 30, 2020

Base year emissions (metric tons CO2e)

317,000

Comment

Scope 3 category 8: Upstream leased assets

Base year start

July 1, 2019

Base year end

June 30, 2020

Base year emissions (metric tons CO2e)

Comment

Not relevant. Microsoft includes leased assets in our Scope 1 and Scope 2 emissions reporting boundary.

Scope 3 category 9: Downstream transportation and distribution

Base year start

July 1, 2019



Base year end

June 30, 2020

Base year emissions (metric tons CO2e)

47,000

Comment

Scope 3 category 10: Processing of sold products

Base year start

July 1, 2019

Base year end

June 30, 2020

Base year emissions (metric tons CO2e)

Comment

Not relevant. Microsoft did not have any physical intermediate products in the years reported.

Scope 3 category 11: Use of sold products

Base year start

July 1, 2019

Base year end

June 30, 2020

Base year emissions (metric tons CO2e)

2,983,000



Comment

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

Base year start

July 1, 2019

Base year end

June 30, 2020

Base year emissions (metric tons CO2e)

17,000

Comment

Scope 3 category 13: Downstream leased assets

Base year start

July 1, 2019

Base year end

June 30, 2020

Base year emissions (metric tons CO2e)

6,100

Comment

Scope 3 category 14: Franchises



Base year start

July 1, 2019

Base year end

June 30, 2020

Base year emissions (metric tons CO2e)

Comment

Not relevant. Microsoft did not operate franchises in the years reported.

Scope 3 category 15: Investments

Base year start

July 1, 2019

Base year end

June 30, 2020

Base year emissions (metric tons CO2e)

Comment

Not relevant for reported years. Joint ventures, actively managed investments, and direct equity investments totaled less than 2 percent of Microsoft's market capitalization at the end of the reporting period. Microsoft has not engaged in the long-term financing of projects and the proceeds for each debt issuance have been for general corporate purposes.

Scope 3: Other (upstream)

Base year start



	Base year end
	Base year emissions (metric tons CO2e)
	Comment
Sc	ope 3: Other (downstream)
	Base year start
	Base year end
	Base year emissions (metric tons CO2e)
	Comment
5 3	

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)

The Greenhouse Gas Protocol: Scope 2 Guidance



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)

123,704

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

4,745,197

Scope 2, market-based (if applicable)

163,935

Comment

Microsoft is committed to global renewable electricity procurement. We have procured renewable energy through power purchase agreements (PPAs) and other contracting instruments and as a result have low-carbon operations, reflected in our Scope 2 market-based emissions.

C6.4

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

Yes

C6.4a

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

Source

Emissions from ZeniMax Media Inc. operations



Relevance of Scope 1 emissions from this source

Emissions excluded due to a recent acquisition or merger

Relevance of location-based Scope 2 emissions from this source

Emissions excluded due to a recent acquisition or merger

Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions excluded due to a recent acquisition or merger

Explain why this source is excluded

On March 9, 2021, Microsoft completed the acquisition of ZeniMax Media Inc., the parent company of Bethesda Softworks LLC. Given that it was a mid-year acquisition, emissions from this acquisition will be included in next year's response.

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

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

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)

4,930,000

Emissions calculation methodology

Supplier-specific method



Spend-based method

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

70

Please explain

The reported emissions for this category represent an estimate based on broad-based assumptions and have therefore been rounded. This category includes emissions from upstream purchasing of goods and services, including direct and indirect goods. Microsoft uses its suppliers' CDP Supply Chain responses to determine Scope 1, Scope 2, and upstream Scope 3 emission factors (mtCO2e/\$ revenue). The latest available responses are used, so this report's inventory considers 2021 submissions (i.e. 2020 data). Microsoft estimates emissions from CDP Supply Chain respondents by multiplying the CDP-derived factor by the annual spend with the supplier. All other spend is mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "UK Defra, Table 13 – Indirect emissions from the supply chain. March 2014"—updated per the latest inflation and currency conversion rates. Corporate-wide expense data for all company divisions is obtained from the finance department. Industry sectors already included in Scope 1 and Scope 2 (such as electricity purchases) and other Scope 3 categories (such as capital goods) were removed to prevent double counting. Global warming potentials (GWP) values are derived from the underlying CDP Supply Chain-based responses and Defra data sources.

Capital goods

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

4,179,000

Emissions calculation methodology

Supplier-specific method Spend-based method

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

45



Please explain

The reported emissions for this category represent an estimate based on broad-based assumptions and have therefore been rounded. This category includes emissions from upstream purchasing of capital goods, including server equipment and other long-term assets. Microsoft uses its suppliers' CDP Supply Chain responses to determine Scope 1, Scope 2, and upstream Scope 3 emission factors (tCO2e/\$ revenue). The latest available responses are used, so this report's inventory considers 2021 submissions (i.e. 2020 data). Microsoft estimates emissions from CDP Supply Chain respondents by multiplying the CDP-derived factor by the annual spend with the supplier. All other spend is mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "UK Defra, Table 13 – Indirect emissions from the supply chain. March 2014"—updated per the latest inflation and currency conversion rates. Corporate-wide expense data for all company divisions is obtained from the finance department. Industry sectors already included in Scope 1 and Scope 2 (such as electricity purchases) and other Scope 3 categories were removed to prevent double counting. GWP values are derived from the underlying CDP Supply Chain-based responses and Defra data sources.

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

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

310,000

Emissions calculation methodology

Average data method

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

97

Please explain

The reported emissions for this category represent an estimate based on broad-based assumptions and have therefore been rounded. Starting in 2019, Microsoft has been reporting this category as calculated using the "market-based" approach, which includes Microsoft's investment in renewable electricity. Fuel- and energy-related activities (not included in Scope 1 or 2) include three emission sources. First, upstream emissions of purchased electricity were calculated by multiplying electricity use by emission factors from lifecycle analysis tools for the US and



UK Defra 2015 Guidelines for non-US countries. Factors for upstream emissions resulting from global renewable electricity generation are from lifecycle assessment tools. Second, fuel consumption was multiplied by emission factors from the GREET and Ecoinvent lifecycle analysis tools. And third, transmission and distribution (T&D) losses (by energy use type) were multiplied by emission factors from the EPA's eGRID2019 database for the United States and from IEA (2021) emission factors for other countries. GWPs are from the IPCC Fourth Assessment Report (AR4), 100-year average.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

225,000

Emissions calculation methodology

Supplier-specific method Spend-based method

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

81

Please explain

The reported emissions for this category represent an estimate based on broad-based assumptions and have therefore been rounded. This category includes emissions from upstream transportation of goods, including all transportation of goods that Microsoft finances. Microsoft uses its suppliers' CDP Supply Chain responses to determine Scope 1, Scope 2, upstream Scope 3 emission factors (tCO2e/\$ revenue). The latest available responses are used, so this report's inventory considers 2021 submissions (i.e. 2020 data). Microsoft estimates emissions from CDP Supply Chain respondents by multiplying the CDP-derived factor by the annual spend with the supplier. All other spend is mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "UK Defra, Table 13 – Indirect emissions from the supply chain. March 2014"—updated per the latest inflation and currency conversion rates. Corporate-wide expense data for all company divisions is obtained from the finance department. Industry sectors already included in Scope 1 and Scope 2 (such as electricity



purchases) and other Scope 3 categories were removed to prevent double counting. GWP values are derived from the underlying CDP Supply Chain-based responses and Defra data sources.

Waste generated in operations

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

5,700

Emissions calculation methodology

Average data method

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

37

Please explain

The reported emissions for this category represent an estimate based on broad-based assumptions and have therefore been rounded. The waste figure represents emissions from waste disposed via landfilling, incineration, recycling, and compost. Emissions from waste are calculated using methodologies and emission factors from the EPA's Waste Reduction Model (WARM), version 15. This model bases its emissions calculations on a lifecycle analysis, including emissions from the long-term decomposition of waste in a landfill or from upstream sources/sinks. GWPs are from the IPCC Fourth Assessment Report (AR4), 100-year average.

Business travel

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

21,901

Emissions calculation methodology



Spend-based method
Fuel-based method
Distance-based method

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

64

Please explain

Historically, this category has included emissions from commercial air travel only. FY20 (reporting year) was the first year that additional business travel emissions sources were included, including hotel night stays, rail travel, reimbursed mileage, rental cars, and taxi/rideshares. For commercial air and rail travel, Microsoft Corporate Travel provides fight/ ride-level airport codes and cabin class data. The airport/rail station codes are used to calculate distances to determine whether the fights/ rides were short, medium, or long haul. Using the distance-based method, fight distances and cabin class are used to calculate CO2e emissions, using the appropriate emission factors from: 2020 Guidelines to Defra/DECC's GHG Conversion Factors for Company Reporting). For hotel night stays, Microsoft's preferred hotel vendors provided emissions per hotel night stay coefficients. For other hotel chains, emissions were estimated based on nights stayed and the emission factors from the EPA's Greenhouse Gas Inventory Guidance: Indirect Emissions from Events and Conferences (Dec 2018). For rental cars, mileage, fuel, and emission data was provided from each rental car company. For taxi/rideshare and reimbursed mileage, emissions were estimated based on spend using emission factors from EPA Emission Factor Hub. March 2018. GWPs are from the IPCC Fourth Assessment Report (AR4), 100-year average.

Employee commuting

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

80,000

Emissions calculation methodology

Average data method

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



10

Please explain

The reported emissions for this category represent an estimate based on broad-based assumptions and have therefore been rounded. This category captures emissions from commuting by all employees and contractors that work in Microsoft buildings. Microsoft conducted a survey in May 2019 to capture detailed commuting habits from employees and vendors at our Puget Sound campus, representing ~36% of global Microsoft headcount. The survey is typically conducted annually but was not performed in 2021. The results were scaled to estimate global commuting emissions for Microsoft. CO2 emission rates for passenger vehicles (single occupancy vehicle [SOV] and carpool) are based on fuel consumption and miles travelled. A weighted average fuel economy using the 2012 EPA Fuel Economy Trends Report 1975–2012 was derived, which provides combined fuel economy for cars and trucks by year, and a set of car and truck age fractions provided by the Puget Sound Regional Council. This data was used to develop a weighted average fuel economy for the Puget Sound area. Emission factors are derived from the Inventory of US Greenhouse Gas Emissions and Sinks: 1990–2010, Annex 2 (Methodology for estimating CO2 emissions from fossil fuel combustion). CO2 rates per passenger mile are based on Federal Transit Administration, 2010 (Public Transportation's Role in Responding to Climate Change, US DOT, Federal Transit Administration, January 2010). GWPs are from the IPCC Fourth Assessment Report (AR4), 100year average. As nearly all Microsoft employees worked from home during the COVID-19 pandemic, FY20 was the first year to include emission impacts from telework. Telework energy consumption is assumed to include workstation/plug-load energy usage, additional lighting and household cooling/heating consumption. One laptop, two monitors, and three lightbulbs are assumed for each employee; other assumptions include 8 work hours/day and 250 days/year using the devices. Office/workspace floor area and cooling/heating intensity are assumed based on EIA's 2015 Residential Energy Consumption Survey (RECS) data. From these assumptions, a carbon emission intensity per employee is calculated, and total emissions are calculated by multiplying the intensity by number of employees during the period of remote work.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

Microsoft includes leased assets in our Scope 1 and Scope 2 emissions reporting boundary.

Downstream transportation and distribution



Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

45,000

Emissions calculation methodology

Average data method Distance-based method

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

0

Please explain

The reported emissions for this category represent an estimate based on broad-based assumptions and have therefore been rounded. Included in this category are the emissions from transporting and warehousing of devices Microsoft sold (including, but not limited to, Xbox devices, Microsoft Surface devices, keyboards, mice, and other peripherals) from Microsoft manufacturing sites to retailers and customers. Calculations are based on standard assumptions of distance between retailers and their distribution centers and warehouse floor space from an MWPVL International analysis of Walmart's distribution center network. Assumptions about the energy intensity of warehouses come from the US Energy Information Administration (EIA)'s Commercial Buildings Energy Consumption Survey (2012). Emission factors for shipping come from the GaBi database. GWPs are from the IPCC Fourth Assessment Report (AR4), 100-year average.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Please explain

Microsoft did not have any physical intermediate products in the reporting year.

Use of sold products



Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

3,950,000

Emissions calculation methodology

Methodology for direct use phase emissions, please specify

Products that directly consume energy (fuels or electricity) during use

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

0

Please explain

The reported emissions for this category represent an estimate based on broad-based assumptions and have therefore been rounded. Included in this category is the lifetime electricity use of devices Microsoft sold including, but not limited to, Xbox devices, Surface devices, keyboards, mice, and other peripherals. Lifetime electricity use per device is calculated based on standard product-use assumptions as included in our ISO 14040– and ISO 14044–compliant lifecycle analyses. This year updates to energy use assumptions that reflect latest understanding of device use via telemetry data are also included. Assumptions on total lifetime expected use (years) are used. Sales geography for the products sold is used to determine the electricity emission factor used to calculate emissions. GWPs are from the IPCC Fourth Assessment Report (AR4), 100-year average.

End of life treatment of sold products

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

19,000

Emissions calculation methodology

Waste-type-specific method



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

0

Please explain

The reported emissions for this category represent an estimate based on broad-based assumptions and have therefore been rounded. Included in this category is the end-of-life treatment of devices Microsoft sold during the reporting year including, but not limited to, Xbox devices, Surface devices, keyboards, mice, and other peripherals. End-of-life emissions for each product are based on modeling within our ISO 14040– and ISO 14044–compliant lifecycle analyses. To generate an estimate for this category, the model assumes that all devices are sent to landfills at the end of their useful life. GWPs are from the IPCC Fourth Assessment Report (AR4), 100-year average.

Downstream leased assets

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

18,900

Emissions calculation methodology

Average data method Asset-specific method

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

0

Please explain

The reported emissions for this category represent an estimate based on broad-based assumptions and have therefore been rounded. Emissions associated with sublets are calculated using the intensities derived from data collected for the primary leased space (for example, kilowatt-hours/square foot [kWh/SF]) and prorated for the square footage of the sublet space. In this way, it is assumed that the emissions intensities of the leased spaces are the same as the overall buildings in which they reside. Estimated refrigerants are calculated using the same methodology and intensity as used to calculate refrigerant intensities for assets occupied by Microsoft. Electricity emission factors used are



those appropriate to each location, as utilized in our Scope 1 and Scope 2 location-based inventory. GWPs are from the IPCC Fourth Assessment Report (AR4), 100-year average.

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

Microsoft did not operate franchises in the reporting year.

Investments

Evaluation status

Not relevant, explanation provided

Please explain

Joint ventures, actively managed investments, and direct equity investments totaled less than 2 percent of Microsoft market capitalization at the end of the reporting period. Microsoft has not engaged in the long-term financing of projects, and the proceeds for each debt issuance have been for general corporate purposes.

Other (upstream)

Evaluation status

Please explain

Other (downstream)

Evaluation status



Please explain

C6.7

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

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

0.000001711

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

287,639

Metric denominator

unit total revenue

Metric denominator: Unit total

168,088,000,000

Scope 2 figure used

Market-based

% change from previous year

29



Direction of change

Decreased

Reason for change

Scope 1 + Scope 2 market-based emissions decreased by 16.9% from FY20 to FY21, while revenue increased by 18%. The emission reductions can be attributed to our emission reduction initiatives as reported in C4.3b—especially our substantial incremental investment in power purchase agreements (PPAs) and unbundled energy attribute certificates (EACs), which resulted in the increased avoidance of 707,010 mtCO2e in Scope 2 emissions over the previous year.

Intensity figure

1.589169399

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

287,639

Metric denominator

full time equivalent (FTE) employee

Metric denominator: Unit total

181,000

Scope 2 figure used

Market-based

% change from previous year

25

Direction of change

Decreased

Reason for change



Scope 1 + Scope 2 market-based emissions decreased by 16.9% from FY20 to FY21, while FTEs increased by 13%. The emission reductions can be attributed to our emission reduction initiatives as reported in C4.3b—especially our substantial incremental investment in power purchase agreements (PPAs) and unbundled energy attribute certificates (EACs), which resulted in the increased avoidance of 707,010 mtCO2e in Scope 2 emissions over the previous year.

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	94,292	IPCC Fourth Assessment Report (AR4 - 100 year)	
CH4	63	IPCC Fourth Assessment Report (AR4 - 100 year)	
N2O	150	IPCC Fourth Assessment Report (AR4 - 100 year)	
HFCs	29,177	IPCC Fourth Assessment Report (AR4 - 100 year)	
SF6	22	IPCC Fourth Assessment Report (AR4 - 100 year)	

C7.2

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

Country/Region

Scope 1 emissions (metric tons CO2e)



Asia Pacific (or JAPA)	9,664
Europe, Middle East and Africa (EMEA)	69,251
Latin America (LATAM)	4,403
North America	40,386

C7.3

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

By activity

C7.3c

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

Activity	Scope 1 emissions (metric tons CO2e)
Datacenter	74,545
Ground transportation	41,565
Office	6,711
Travel	883

C7.5

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Asia Pacific (or JAPA)	942,892	157,841
Europe, Middle East and Africa (EMEA)	866,689	5,353
Latin America (LATAM)	16,204	433



North America	2,919,412	308

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)	
Datacenter	4,446,583	156,375	
Office	296,984	7,560	
Ground transportation	1,630	0	

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.

	-	<u> </u>		
	Change in	Direction of	Emissions	Please explain calculation
	emissions	change	value	
			(percentage)	



	(metric tons CO2e)			
Change in renewable energy consumption	707,010	Decreased	204	In FY21 (the reporting period), because of datacenter growth and our 100 percent renewable electricity commitment, we made an incremental investment in power purchase agreements (PPAs) as well as unbundled energy attribute certificates (EACs), resulting in the increased avoidance of 707,010 mtCO2e in Scope 2 emissions over the previous year. This incremental emission avoidance is larger than last year's Scope 1 + Scope 2 market-based emissions, leading to a high reduction percentage. FY20 Scope 1 + Scope 2 market-based emissions were 346,294 mtCO2e. We arrived at a 204 percent reduction by dividing the reductions due to renewable energy purchases by the FY20 market-based emissions [(707,010/346,294)*100%=204%].
Other emissions reduction activities	980	Decreased	0.3	We have decreased our Scope 1 and Scope 2 emissions related to our operations—including offices, datacenters, and development labs—through emissions reduction activities. For our office campuses, these activities include reducing fugitive emissions (for example, converting to chiller plants that use lower global warming potential [GWP] refrigerants) and emissions associated with our company car fleet. In addition, we invest in the infrastructure efficiency of our datacenters, applying our learning in deployed and new datacenter designs. Using Al and machine learning will result in further improvements over time. All future new-build, owned datacenters will be LEED Gold certified with an emphasis on water and energy conservation. In FY21 (the reporting period), we reduced our Scope 1 and 2 emissions by 980 mtCO2e through these internal energy efficiency projects. FY20 Scope 1 + Scope 2 market-based emissions were 346,294 mtCO2e. We arrived at a 0.3 percent reduction by dividing the reductions due to other emissions reduction activities by the FY20 market-based emissions [(980/346,294)*100%=0.3%].Note: The figure provided here represents quantified reductions from specific initiatives, but Microsoft routinely implements highefficiency and low-carbon operational measures that are not explicitly tracked and quantified and therefore not included in this figure.



Divestment				
Acquisitions				
Mergers				
Change in output	649,336	Increased	188	In FY21, Microsoft as an organization grew. However, given our commitment to renewable energy and our increase in renewable energy procurement by 204 percent, we were able to decrease our overall Scope 1 and 2 market-based emissions by 16.9 percent. Had we not taken these steps, we would have seen these emissions increase. We arrived at 188 percent by dividing the emissions increase by the FY20 market-based emissions [(649,336/346,294)*100%=188%].
Change in methodology				
Change in boundary				
Change in physical operating conditions				
Unidentified				
Other				

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	446,417	446,417



Consumption of purchased or acquired electricity	12,629,359	339,887	12,969,246
Consumption of purchased or acquired steam	0	11,100	11,100
Consumption of purchased or acquired cooling	0	54,953	54,953
Consumption of self-generated non-fuel renewable energy	147		147
Total energy consumption	12,629,506	852,357	13,481,863

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	No
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



HHVTotal fuel MWh consumed by the organization MWh fuel consumed for self-generation of electricity MWh fuel consumed for self-generation of heat Comment Other biomass **Heating value** HHV Total fuel MWh consumed by the organization 0 MWh fuel consumed for self-generation of electricity MWh fuel consumed for self-generation of heat

Other renewable fuels (e.g. renewable hydrogen)

Comment



Heating value

HHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

Comment

Coal

Heating value

HHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

Λ

MWh fuel consumed for self-generation of heat

0

Comment

Oil



Heating value

HHV

Total fuel MWh consumed by the organization

196,974

MWh fuel consumed for self-generation of electricity

81,742

MWh fuel consumed for self-generation of heat

115,232

Comment

Gas

Heating value

HHV

Total fuel MWh consumed by the organization

249,443

MWh fuel consumed for self-generation of electricity

173,832

MWh fuel consumed for self-generation of heat

75,611

Comment

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



Heating value

HHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

Comment

Total fuel

Heating value

HHV

Total fuel MWh consumed by the organization

446,417

MWh fuel consumed for self-generation of electricity

255,574

MWh fuel consumed for self-generation of heat

190,843

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	89,598	89,598	147	147
Heat	60,489	60,489	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C8.2g

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

Country/area

Other, please specify
Asia Pacific (or JAPA)

Consumption of electricity (MWh)

1,473,254

Consumption of heat, steam, and cooling (MWh)

6,059

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



1,479,313

Is this consumption excluded from your RE100 commitment?

No

Country/area

Other, please specify
Europe, Middle East and Africa (EMEA)

Consumption of electricity (MWh)

2,801,332

Consumption of heat, steam, and cooling (MWh)

12,689

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

2,814,021

Is this consumption excluded from your RE100 commitment?

No

Country/area

Other, please specify
Latin America (LATAM)

Consumption of electricity (MWh)

174,762



Consumption of heat, steam, and cooling (MWh)

0

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

174,762

Is this consumption excluded from your RE100 commitment?

No

Country/area

Other, please specify North America

Consumption of electricity (MWh)

8,520,045

Consumption of heat, steam, and cooling (MWh)

47,305

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

8,567,350

Is this consumption excluded from your RE100 commitment?

No

C8.2h

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



Country/area of renewable electricity consumption

United States of America

Sourcing method

Direct procurement from an offsite grid-connected generator e.g. Power Purchase Agreement (PPA)

Renewable electricity technology type

Renewable electricity mix, please specify Wind, solar, large hydropower (>25 MW)

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

4,502,210

Tracking instrument used

US-REC

Total attribute instruments retained for consumption by your organization (MWh)

4,502,210

Country/area of origin (generation) of the renewable electricity/attribute consumed

United States of America

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

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

2021

Brand, label, or certification of the renewable electricity purchase

No brand, label, or certification



Comment

Wind: Starting in FY15, Microsoft entered into a virtual PPA with Enbridge LLC to procure 100 percent wind energy in the state of Texas. In FY16, an additional PPA, signed with EDF Renewable Energy, came online to deliver 100 percent wind energy in the state of Illinois. In FY17, an additional PPA, signed with Black Hills Energy, came online to deliver 100 percent wind energy in the state of Wyoming. In FY18 we started receiving renewable energy certificates (RECs) from the Bloom Wind project in Kansas. In FY20, Microsoft began sourcing 100 percent wind energy from the Big Level and Timber Road wind projects in Pennsylvania and Ohio, respectively. Solar: In FY18 Microsoft began receiving RECs from the Remington solar project in Virginia. In FY20 Microsoft began receiving 100 percent solar energy from the Pleinmont and Wilkinson projects in Virginia and North Carolina, respectively. Large hydropower: Beginning in FY19, our agreement with Chelan PUD went into effect to secure incremental hydro green power for our Puget Sound campus. Securing PPAs in this way is part of the comprehensive Microsoft strategy to procure 100 percent green power, and Microsoft is currently developing additional, similar PPAs.

Country/area of renewable electricity consumption

Netherlands

Sourcing method

Direct procurement from an offsite grid-connected generator e.g. Power Purchase Agreement (PPA)

Renewable electricity technology type

Renewable electricity mix, please specify Wind, solar

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

1,383,299

Tracking instrument used

Other, please specify GO, I-REC

Total attribute instruments retained for consumption by your organization (MWh)

1,383,299



Country/area of origin (generation) of the renewable electricity/attribute consumed

Netherlands

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

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

2021

Brand, label, or certification of the renewable electricity purchase

No brand, label, or certification

Comment

Wind: In FY19, Microsoft began receiving 100 percent wind energy from the Tullahennel wind farm in County Kerry, Ireland, as part of a PPA signed with GE. In FY20, Microsoft began receiving 100 percent wind energy from the Wieringermeer wind farm in the Netherlands. Solar: In FY20, Microsoft began receiving 100 percent renewable solar electricity from the 60 MW Sunseap solar portfolio, which spans hundreds of rooftops across the nation of Singapore, the single-largest solar energy portfolio in Singapore to date. Securing PPAs in this way is part of the comprehensive Microsoft strategy to procure 100 percent green power, and Microsoft is currently developing additional, similar PPAs We have listed the Netherlands in the country dropdown list, but these EACs were generated and consumed in the Netherlands, Ireland, and Singapore.

Country/area of renewable electricity consumption

United States of America

Sourcing method

Unbundled Energy Attribute Certificate (EAC) purchase

Renewable electricity technology type

Renewable electricity mix, please specify Wind, solar



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

3,990,448

Tracking instrument used

US-REC

Total attribute instruments retained for consumption by your organization (MWh)

3,990,448

Country/area of origin (generation) of the renewable electricity/attribute consumed

United States of America

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

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

2021

Brand, label, or certification of the renewable electricity purchase

Green-e

Comment

In the United States and Canada, we are supplied with 100 percent renewable green power through the purchase of RECs. All RECs are Green-e certified. We have listed the United States in the country dropdown list, but these EACs were generated and consumed throughout North America.

Country/area of renewable electricity consumption

United States of America

Sourcing method

Green electricity products from an energy supplier (e.g. Green Tariffs)



Renewable electricity technology type

Renewable electricity mix, please specify Wind, solar

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

30,915

Tracking instrument used

US-REC

Total attribute instruments retained for consumption by your organization (MWh)

30,915

Country/area of origin (generation) of the renewable electricity/attribute consumed

United States of America

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

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

2021

Brand, label, or certification of the renewable electricity purchase

Green-e

Comment

Our LinkedIn offices in San Francisco and Silicon Valley receive 100 percent green power via their utilities: CleanPower SF and Silicon Valley Clean Energy, respectively.

Country/area of renewable electricity consumption

Netherlands



Sourcing method

Unbundled Energy Attribute Certificate (EAC) purchase

Renewable electricity technology type

Wind

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

1,088,651

Tracking instrument used

GO

Total attribute instruments retained for consumption by your organization (MWh)

1,088,651

Country/area of origin (generation) of the renewable electricity/attribute consumed

Netherlands

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

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

2021

Brand, label, or certification of the renewable electricity purchase

Other, please specify

A portion has EECS certification

Comment

In the European Union (EU), we are supplied with 100 percent renewable green power through the purchase of guarantees of origin (GOs). We have listed the Netherlands in the country dropdown list, but these EACs were generated and consumed throughout the European common market.



Country/area of renewable electricity consumption

Australia

Sourcing method

Unbundled Energy Attribute Certificate (EAC) purchase

Renewable electricity technology type

Renewable electricity mix, please specify Wind, solar

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

277,904

Tracking instrument used

Australian LGC

Total attribute instruments retained for consumption by your organization (MWh)

277,904

Country/area of origin (generation) of the renewable electricity/attribute consumed

Australia

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

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

2021

Brand, label, or certification of the renewable electricity purchase

No brand, label, or certification



Comment

In Australia, we are supplied with 100 percent renewable green power through the purchase of large-scale generation certificates (LGCs).

Country/area of renewable electricity consumption

Republic of Korea

Sourcing method

Unbundled Energy Attribute Certificate (EAC) purchase

Renewable electricity technology type

Wind

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

113,768

Tracking instrument used

Other, please specify PowerPlus

Total attribute instruments retained for consumption by your organization (MWh)

113,768

Country/area of origin (generation) of the renewable electricity/attribute consumed

Republic of Korea

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

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

2021



Brand, label, or certification of the renewable electricity purchase

Other, please specify PowerPlus

Comment

In South Korea and Pakistan, we are supplied with 100 percent renewable green power through the purchase of PowerPlus instruments. We have listed Republic of Korea in the country dropdown list, but these EACs were generated and consumed in a combination of Pakistan and South Korea.

Country/area of renewable electricity consumption

Japan

Sourcing method

Unbundled Energy Attribute Certificate (EAC) purchase

Renewable electricity technology type

Solar

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

229,760

Tracking instrument used

J-Credit

Total attribute instruments retained for consumption by your organization (MWh)

229,760

Country/area of origin (generation) of the renewable electricity/attribute consumed

Japan

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



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

2020

Brand, label, or certification of the renewable electricity purchase

No brand, label, or certification

Comment

In Japan, we are supplied with 100 percent renewable green power through the purchase of Japanese J-credits.

Country/area of renewable electricity consumption

United Kingdom of Great Britain and Northern Ireland

Sourcing method

Unbundled Energy Attribute Certificate (EAC) purchase

Renewable electricity technology type

Wind

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

276,130

Tracking instrument used

REGO

Total attribute instruments retained for consumption by your organization (MWh)

276,130

Country/area of origin (generation) of the renewable electricity/attribute consumed

United Kingdom of Great Britain and Northern Ireland



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

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

2020

Brand, label, or certification of the renewable electricity purchase

No brand, label, or certification

Comment

In the UK, we are supplied with 100 percent renewable green power through the purchase of renewable energy guarantees of origin (REGOs).

Country/area of renewable electricity consumption

Malaysia

Sourcing method

Unbundled Energy Attribute Certificate (EAC) purchase

Renewable electricity technology type

Solar

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

17,209

Tracking instrument used

TIGR

Total attribute instruments retained for consumption by your organization (MWh)

17,209

Country/area of origin (generation) of the renewable electricity/attribute consumed



Malaysia

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

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

2021

Brand, label, or certification of the renewable electricity purchase

Other, please specify TIGR

Comment

In Malaysia and Guatemala, we are supplied with 100 percent renewable green power through the purchase of Tradable Instruments for Global Renewables (TIGRs). We have listed Republic of Malaysia in the country dropdown list, but these EACs were generated and consumed in a combination of Malaysia and Guatemala.

Country/area of renewable electricity consumption

Brazil

Sourcing method

Unbundled Energy Attribute Certificate (EAC) purchase

Renewable electricity technology type

Renewable electricity mix, please specify Wind, solar, biomass, geothermal, hydro

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

719,065

Tracking instrument used



I-REC

Total attribute instruments retained for consumption by your organization (MWh)

719,065

Country/area of origin (generation) of the renewable electricity/attribute consumed

Brazil

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

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

2021

Brand, label, or certification of the renewable electricity purchase

No brand, label, or certification

Comment

In Brazil, Central America, Chile, China, Colombia, East Africa, India, Indonesia, Israel, Malaysia, Mexico, the Philippines, Russia, South Africa, Taiwan, Thailand, Turkey, the United Arab Emirates (UAE), Vietnam, and Saudi Arabia, we are supplied with 100 percent renewable green power through the purchase of I-REC instruments. We have listed Brazil in the country dropdown list, but these EACs were generated and consumed in a combination of Brazil, Central America, Chile, China, Colombia, East Africa, India, Indonesia, Israel, Malaysia, Mexico, the Philippines, Russia, South Africa, Taiwan, Thailand, Turkey, the United Arab Emirates (UAE), Vietnam, and Saudi Arabia.

C8.2i

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

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

Canada



Sourcing method

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

Energy carrier

Low-carbon technology type

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

Comment

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

Finland

Sourcing method

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

Energy carrier

Low-carbon technology type

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

Comment

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



	Country/area of consumption of low-carbon heat, steam or cooling Japan		
	Sourcing method None (no purchases of low-carbon heat, steam, or cooling)		
	Energy carrier		
	Low-carbon technology type		
Low-carbon heat, steam, or cooling consumed (MWh)			
	Comment		
	Country/area of consumption of low-carbon heat, steam or cooling		

Energy carrier

Norway

Sourcing method



Low-carbon technology type
Low-carbon heat, steam, or cooling consumed (MWh)
Comment
 Country/area of consumption of low-carbon heat, steam or cooling Czechia
Sourcing method None (no purchases of low-carbon heat, steam, or cooling)
Energy carrier
Low-carbon technology type
Low-carbon heat, steam, or cooling consumed (MWh)
Comment
Country/area of consumption of low-carbon heat, steam or cooling Germany



Sourcing method

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

Energy carrier

Low-carbon technology type

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

Comment

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

Egypt

Sourcing method

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

Energy carrier

Low-carbon technology type

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

Comment

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



ountry/area of consumption of low-carbon heat, steam or cooling Singapore	
ourcing method None (no purchases of low-carbon heat, steam, or cooling)	
nergy carrier	
ow-carbon technology type	
ow-carbon heat, steam, or cooling consumed (MWh)	
omment	
ountry/area of consumption of low-carbon heat, steam or cooling	
varially/aroa or companipation or four carbon moat, oteans or cooling	

Energy carrier

Sourcing method

China



Low-carbon technology type		
Low-carbon heat, steam, or cooling consumed (MWh)		
Comment		
 Country/area of consumption of low-carbon heat, steam or cooling Hong Kong SAR, China		
Sourcing method None (no purchases of low-carbon heat, steam, or cooling)		
Energy carrier		
Low-carbon technology type		
Low-carbon heat, steam, or cooling consumed (MWh)		
Comment		
 Country/area of consumption of low-carbon heat, steam or cooling Poland		



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

Energy carrier

Low-carbon technology type

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

Comment

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

Sweden

Sourcing method

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

Energy carrier

Low-carbon technology type

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

Comment



Country	//area d	of consum	ption of	low-carbon	heat.	, steam or	cooling

Taiwan, China

Sourcing method

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

Energy carrier

Low-carbon technology type

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

Comment

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

United Kingdom of Great Britain and Northern Ireland

Sourcing method

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

Energy carrier



Low-carbon technology type
Low-carbon heat, steam, or cooling consumed (MWh)
Comment
 Country/area of consumption of low-carbon heat, steam or cooling Bulgaria
Sourcing method None (no purchases of low-carbon heat, steam, or cooling)
Energy carrier
Low-carbon technology type
Low-carbon heat, steam, or cooling consumed (MWh)
Comment
Country/area of consumption of low-carbon heat, steam or cooling United States of America



Sourcing method

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

Energy carrier

Low-carbon technology type

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

Comment

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

Georgia

Sourcing method

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

Energy carrier

Low-carbon technology type

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

Comment



Country/area of consumption of low-carbon heat, steam or cooling Indonesia
Sourcing method None (no purchases of low-carbon heat, steam, or cooling)
Energy carrier
Low-carbon technology type
Low-carbon heat, steam, or cooling consumed (MWh)
Comment
 Country/area of consumption of low-carbon heat, steam or cooling

Sourcing method

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

Energy carrier

Serbia



Low-carbon technology type

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

Comment

C8.2j

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

Country/area of generation

United States of America

Renewable electricity technology type

Solar

Facility capacity (MW)

0.24

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

147

Renewable electricity directly consumed by your organization from this facility in the reporting year for which certificates were not issued (MWh)

147



Renewable electricity directly consumed by your organization from this facility in the reporting year for which certificates were issued and retired (MWh)

0

Renewable electricity sold to the grid in the reporting year (MWh)

0

Certificates issued for the renewable electricity that was sold to the grid (MWh)

0

Certificates issued and retired for self-consumption for the renewable electricity that was sold to the grid (MWh)

0

Type of energy attribute certificate

Total self-generation counted towards RE100 target (MWh) [Auto-calculated]

147

Comment

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.

The vast majority of Microsoft's direct carbon emissions footprint comes from electricity and, as such, our work on carbon reduction has centered on using less of it, while at the same time ensuring we support the adoption of more carbon-free energy in the grids where we operate. Our renewable energy sourcing strategy both directly and indirectly brings new capacity into the grid in the countries/areas in which we operate.



Direct impact: Recognizing the importance of linking our renewable purchases to new impactful and additional renewable energy projects, Microsoft began engaging in renewable energy procurement through power purchase agreements (PPAs). A PPA is a direct contractual relationship between a purchaser and a supplier for new renewable energy via a project or several projects; that is, the execution of the PPA provides the necessary revenue stream for new renewable energy projects to be built. The direct contract establishes greater investor confidence in renewable projects and paves the way for more renewable generation on the grid.

Indirect impact: In July 2021, we set a new 100/100/0 goal. Our commitment is that by 2030, 100 percent of Microsoft's energy supply, 100 percent of the time, will come from zero carbon resources on grids where we operate. The 100/100/0 commitment completes the link between zero carbon resources and our facilities in both space and time. Our 100/100/0 commitment provides a vision and roadmap to pair our operational goals with our research, technologies, and investments to drive global change. It also sends a market signal to renewable energy project developers that organizations like Microsoft value the addition of more carbon-free energy to the grid, which will help bring more resources and technologies online to help benefit everyone. We are bringing new research to bear, including a briefing paper authored by RMI that highlights the potential for hourly energy monitoring tools to provide transparency into supply and demand for zero carbon energy. The paper illustrates that hourly renewable supply and demand matching strategies can help lay the groundwork for a decarbonized grid. The impact of our 100/100/0 commitment will be significant. Matching zero carbon resources in both space and time will reduce Microsoft's emissions to zero at all times and also bring benefits to the broader grid since the zero carbon resources we contract for will also be available to serve the grid when our consumption is lower or zero carbon energy output is higher. Moreover, we will be driving early deployment of advanced resources like hydrogen and long-duration storage to fill in the gaps when renewable energy sources are not generating. And finally, the energy transition will affect all and needs to benefit all, which is why we have built climate equity into our purchasing commitments. For example, we purchased the first-ever Peace REC (P-REC), issued by Energy Peace Partners from Congolese solar developer Nuru's newly commissioned 1.3-MW commercial solar-plus-storage project in Goma, Democratic Republic of the Congo; the purchase helped Nuru install and operate 35 mini-grid-connected streetlights in the Ndosho neighborhood of Goma. We know that our actions alone will not decarbonize the grids, but we are committed to taking ambitious action to drive market demand signals that will influence the speed and scale at which the transformation happens. As Microsoft builds the tools and markets to meet our zero carbon commitments, we are mindful of the need for products, purchases, and policies that will enable a carbon-free energy system for all.

C8.21

(C8.2I) 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-specific
I	Row	Yes, both in specific	Microsoft strives to procure renewable energy in the grids that it operates in; however, policies and market structures
	1	countries/areas and in	that enable us to procure don't exist in every market today. Additionally, challenges in the supply chain began to
		general	emerge in FY21 that may result in delays to projects.

C8.2m

(C8.2m) Provide details of the country-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
Singapore	Limited supply of renewable electricity in the market	
Qatar	Lack of credible renewable electricity procurement options (e.g. EACs, Green Tariffs)	
Costa Rica	Lack of credible renewable electricity procurement options (e.g. EACs, Green Tariffs)	
Russian Federation	Lack of credible renewable electricity procurement options (e.g. EACs, Green Tariffs)	
Egypt	Lack of credible renewable electricity procurement options (e.g. EACs, Green Tariffs)	
Serbia	Lack of credible renewable electricity procurement options (e.g. EACs, Green Tariffs)	
Nigeria	Lack of credible renewable electricity procurement options (e.g. EACs, Green Tariffs)	



Republic of Korea	Lack of credible renewable electricity procurement options (e.g. EACs,	
	Green Tariffs)	

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

Limited assurance

Attach the statement

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Relevant standard

Attestation standards established by AICPA (AT105)

Proportion of reported emissions verified (%)

100

C10.1b

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

Scope 2 approach

Scope 2 location-based



Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

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Relevant standard

Attestation standards established by AICPA (AT105)

Proportion of reported emissions verified (%)

100

Scope 2 approach

Scope 2 market-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete



Type of verification or assurance

Limited assurance

Attach the statement

0 2021 Environmental Sustainability_Report.pdf

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Relevant standard

Attestation standards established by AICPA (AT105)

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: Downstream transportation and distribution

Scope 3: Use of sold products

Scope 3: End-of-life treatment of sold products

Scope 3: Downstream leased assets

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

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Relevant standard

Attestation standards established by AICPA (AT105)

Proportion of reported emissions verified (%)

100

C10.2

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

Yes



C10.2a

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

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C4. Targets and performance	Other, please specify Net GHG emissions within carbon neutral boundary	Attestation Standards established by the American Institute of Certified Public Accountants/AICPA, AT-C 105 with AT-C 210 for Review Engagements	We engaged Deloitte & Touche LLP to perform a review in accordance with the attestation standards established by the American Institute of Certified Public Accountants (AICPA) of management's assertion that our net GHG emissions within carbon neutral boundary included in our 2021 Environmental Sustainability Report are presented in accordance with the reporting criteria in the GHG Protocol: A Corporate Reporting and Accounting Standard. Our net GHG emissions within carbon neutral boundary, which includes global Scope 1, Scope 2 market-based, and Scope 3 business air travel, stated in C4.1a under ABSOLUTE TARGET 4 in this CDP disclosure is included in our 2021 Environmental Sustainability Report. Please see page 112 of our 2021 Environmental Sustainability Report to find the independent accountant's review report.
C8. Energy	Energy consumption	Attestation Standards established by the American Institute of Certified Public Accountants/AICPA, AT-C 105 with AT- C 210 for Review Engagements	We engaged Deloitte & Touche LLP to perform a review in accordance with the attestation standards established by the American Institute of Certified Public Accountants (AICPA) of management's assertion that energy consumption within the organization included in our 2021 Environmental Sustainability Report is presented in accordance with Disclosure 302-1: Energy



			consumption within the organization from the GRI Standard: 302 Energy 2016. C8.2a total energy consumption in this CDP disclosure is included in our 2021 Environmental Sustainability Report. Please see page 112 of our 2021 Environmental Sustainability Report to find the independent accountant's review report.
C8. Energy	Other, please specify 100 percent renewable electricity disclosure	Attestation Standards established by the American Institute of Certified Public Accountants/AICPA, AT-C 105 with AT-C 210 for Review Engagements	We engaged Deloitte & Touche LLP to perform a review in accordance with the attestation standards established by the American Institute of Certified Public Accountants (AICPA) of management's assertion that the 100 percent renewable electricity disclosure included in our 2021 Environmental Sustainability Report is presented in accordance with the Microsoft-specified indicator criterion: total renewable electricity consumption in megawatt-hours and the percentage of renewable electricity. C8.2a MWh from renewable sources in this CDP disclosure is included in our 2021 Environmental Sustainability Report. Please see page 112 of our 2021 Environmental Sustainability Report to find the independent accountant's review report.
C2. Risks and opportunities	Other, please specify Environmental management system (EMS) for the Experiences + Devices Group (E+D)	ISO 14001	Third-party verification (by DNV GL Business Assurance USA, Inc.) of the EMS for E+D Devices through ISO 14001 certification. The EMS includes targets that impact GHG emissions.

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C11. Carbon pricing

C11.1

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

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

Beijing pilot ETS EU ETS

C11.1b

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

Beijing pilot ETS

% of Scope 1 emissions covered by the ETS 0.2

% of Scope 2 emissions covered by the ETS

0.3

Period start date

January 1, 2021

Period end date

December 31, 2021



Allowances allocated

19,333

Allowances purchased

16,589

Verified Scope 1 emissions in metric tons CO2e

256.76

Verified Scope 2 emissions in metric tons CO2e

16,332.36

Details of ownership

Facilities we own and operate

Comment

The verified emissions provided include both the Scope 1 and the Scope 2 emissions taxed under this scheme. Ninety-eight percent of the 16,589 mtCO2e of emissions covered under this trading scheme result from electricity consumption and are based on Scope 2 location-based accounting.

EU ETS

% of Scope 1 emissions covered by the ETS

0.9

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2021

Period end date

December 31, 2021



Allowances allocated

0

Allowances purchased

1,062

Verified Scope 1 emissions in metric tons CO2e

1,062

Verified Scope 2 emissions in metric tons CO2e

0

Details of ownership

Facilities we own and operate

Comment

The verified emissions provided only include Scope 1 emissions from diesel used in generators. We are not taxed for Scope 2 emissions under this scheme.

C11.1d

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

Microsoft's strategy for complying with the emission trading schemes that we are regulated by is to optimize operations, pursue progressive energy conservation measures, and make progress against our commitment to reduce our Scope 1 and Scope 2 emissions to near zero by 2025. In FY21 (the reporting period) we applied this strategy by actively improving the efficiency of our operations by retrofitting lighting in office areas with light-emitting diodes (LEDs), adding lighting sensors in rooms, installing a water distributor and air flow guiding duct for cooling tower efficiency, installing solar photovoltaic (PV) panels, and continuing to optimize lighting and heating, ventilation, and air conditioning (HVAC) systems. We measure and monitor our emissions to ensure that we have not exceeded the limit. Going forward, to continue to apply our efficiency strategy, we will apply more clean energy solutions and work with our employees to further enhance waste management.

Microsoft has an internal carbon fee that we use to reduce carbon emissions and fund initiatives that contribute to our carbon commitments.



C11.2

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

Yes

C11.2a

(C11.2a) Provide details of the project-based carbon credits originated or purchased by your organization in the reporting period.

Credit origination or credit purchase

Credit purchase

Project type

Forests

Project identification

Jubilación Segura: Agroforestry and Restoration with Smallscale Farmers in Peru

Verified to which standard

VCS (Verified Carbon Standard)

Number of credits (metric tonnes CO2e)

100,000

Number of credits (metric tonnes CO2e): Risk adjusted volume

100,000

Credits cancelled

Yes



Purpose, e.g. compliance

Voluntary Offsetting

Credit origination or credit purchase

Credit purchase

Project type

Forests

Project identification

Klamath West IFM

Verified to which standard

Other, please specify
California ARB & ACR

Number of credits (metric tonnes CO2e)

90,000

Number of credits (metric tonnes CO2e): Risk adjusted volume

90,000

Credits cancelled

Yes

Purpose, e.g. compliance

Voluntary Offsetting

Credit origination or credit purchase



Credit purchase

Project type

Forests

Project identification

Klamath East IFM

Verified to which standard

Other, please specify
California ARB & ACR

Number of credits (metric tonnes CO2e)

95,199

Number of credits (metric tonnes CO2e): Risk adjusted volume

95,199

Credits cancelled

Yes

Purpose, e.g. compliance

Voluntary Offsetting

Credit origination or credit purchase

Credit purchase

Project type

Forests

Project identification



Black River Afforestation

Verified to which standard

Other, please specify VCS & CCB

Number of credits (metric tonnes CO2e)

6,908

Number of credits (metric tonnes CO2e): Risk adjusted volume

6,908

Credits cancelled

Yes

Purpose, e.g. compliance

Voluntary Offsetting

C11.3

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

Yes

C11.3a

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

Objective for implementing an internal carbon price

Change internal behavior Drive energy efficiency



Drive low-carbon investment Identify and seize low-carbon opportunities Supplier engagement

GHG Scope

Scope 1

Scope 2

Scope 3

Application

Business units

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

10.75

Variance of price(s) used

We reevaluate the carbon price annually. The listed price is a blended average across all scopes. The carbon price reflects our total investment strategy to reduce our emissions, achieve our commitments and targets (including to maintain carbon neutrality across Scopes 1, 2, and 3 business air travel and to be carbon negative by 2030), and drive innovation. The same price is used companywide across our business groups operating in more than 100 countries. In the reporting period, it was set and administered through our corporate Environmental Sustainability team in partnership with the corporate Finance department. Starting in July 2020 (our FY21), in support of our new commitment to be carbon negative by 2030, we began charging the fee for not only our own operational emissions (at \$15 per ton) but also all our Scope 3 emissions (at the time, \$15 per ton for business travel and \$5 per ton for all other Scope 3 emissions) (except for LinkedIn, which charged a single rate of \$15 per mtCO2e across all scopes and sources in FY21). We continue to restructure and increase our internal carbon fee to help incentivize more aggressive measures to reduce Scope 3 emissions and better match the underlying cost of carbon abatement. In March 2022, we announced that we would increase our fee across all scopes: \$15 per ton for all electricity-related emissions, \$100 per ton for business travel emissions, and \$8 per ton for remaining emissions. To meet our FY30 goals in an increasingly competitive market, we will continue to increase the annual fee at an accelerated rate, which will also help promote energy efficiency and design changes that utilize low-carbon materials.

Type of internal carbon price

Internal fee



Impact & implication

From July 2012 (the start of Microsoft FY13), we began charging a fee based on the emissions associated with our operations. In FY20, we applied the carbon fee to Scope 1, Scope 2, and Scope 3 business air travel emissions across the company. As of FY21 (the reporting period), the carbon fee applies to all Scope 1, Scope 2, and Scope 3 emissions. Our internal carbon fee isn't a "shadow fee" (i.e. calculated but not charged). Our fee is paid by each division in our business based on its carbon emissions, and the funds are used to pay for sustainability improvements. By charging business groups based on the emissions they generate, we help to drive efficiency initiatives and innovation across our business. The carbon fee affects investment decisions by providing an incentive and financial justification for climate-related energy and technology innovation. The fee also helps drive culture change by raising internal awareness of the environmental implications of our business and establishing an expectation for environmental and climate responsibility within the company. In FY21, the carbon fee fund was used to support investments in:

- (a) 7,083,737 MWh in renewable electricity globally (the US portion of which earned Microsoft a Green Power Leadership Award and made us the #2 purchaser in the US EPA Green Power Partnership list).
- (b) Carbon removal purchases in nine countries to remove more than 1.4 million mtCO2e.
- (c) Technology innovation projects that are part of our AI for Earth program.
- (d) Several embodied carbon and environmental justice projects.

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

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

2

% total procurement spend (direct and indirect)

65

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

57

Rationale for the coverage of your engagement

In FY21 (the reporting period), we requested that our top suppliers participate in the CDP Supply Chain program (including those representing 100 percent of our directly contracted manufacturing supplier spend, as well as our top indirect/nonmanufacturing suppliers, tier 1–3 datacenter server suppliers, LinkedIn suppliers constituting more than 80 percent of LinkedIn indirect supplier emissions, and top datacenter suppliers). We selected these suppliers as they represent the majority of our spend and carbon impact from our supply chain.

Impact of engagement, including measures of success

We measure the success of our CDP Supply Chain program based on number/percentage of our suppliers that disclose emissions, set emissions reduction commitments, and perform against those commitments at the business group level. Our interim target/thresholds for success are for CDP disclosure by in-scope suppliers; for example, 95% for indirect/nonmanufacturing suppliers, 100% for directly contracted manufacturing suppliers, 80% for datacenter server suppliers, and 50% for LinkedIn suppliers. In 2021, 87% of our total requested suppliers reported emissions to CDP, up 12% from 2020, including 92% of requested indirect/nonmanufacturing suppliers, 91% of requested directly contracted manufacturing suppliers (an increase of 43%, representing more than 98% of our direct sourcing spend in 2020), 87% of requested datacenter server suppliers, 61% of requested LinkedIn suppliers, and 60% of requested datacenter suppliers. Of all responding suppliers, 60% reported an active target. These suppliers reported emissions reduction activities totaling about 81.7 million mtCO2e, for more than \$66 million



in estimated annual savings. This data informs suppliers' baselines for reduction targets. We work with our top suppliers to perform emissions hot spotting and develop plans of records with suppliers to ensure they will meet our 2030 commitments. Microsoft Procurement is finding that many suppliers are now disclosing to CDP for the first time and using Microsoft requirements to emphasize the importance of emissions reduction to their company leadership; the group is evolving its sourcing process to incentivize internal buyers to award business to suppliers who reduce their emissions. Through joint efforts with our suppliers, both the response rate and the response quality have improved. For example, in June 2021, one of our cable and connector suppliers received an Improvement Award on Climate Action from CDP for improving performance in environmental disclosure; in the past year, the supplier set up a corporate sustainability team to guide and coordinate CDP reporting for its factories globally and raised its CDP climate change score from D to C and water security score from D to B- year over year.

Comment

We have released a set of in-depth capacity-building tools and resources, developed in partnership with ENGIE Impact, WSP, and CDP to help companies, especially our suppliers, report their greenhouse gas (GHG) emissions and set strategies to reduce emissions from electricity. In addition to requesting CDP responses, our Cloud Supply Chain Sustainability (CSCS) team (part of the Azure Hardware Systems and Infrastructure [AHSI] group) developed a Sustainability Data Xchange questionnaire to collect key information about supplier GHG targets, renewable energy procurement, and other sustainability considerations. The questionnaire helps guide one-on-one engagements with AHSI suppliers to identify and implement GHG emissions reductions activities. LinkedIn also offered webinar training to engaged suppliers participating in CDP for the first time.

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

1

% total procurement spend (direct and indirect)

13



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

17

Rationale for the coverage of your engagement

We monitor the energy consumption and carbon emissions from major sources at our top five tier 1 directly contracted manufacturing suppliers in China (and have done so since approximately 2016). We collect information on energy consumption and carbon emissions from these suppliers on a monthly basis. We then compile and analyze the information to identify any signs of significant shifts in energy consumption that may require our attention (based on our understanding of the operations at these supplier sites). We selected these suppliers as they represent the majority of our spend in our manufacturing supply chain. This monitoring is conducted by our Experiences + Devices Group (E+D) and so is specific to directly contracted manufacturing suppliers. In FY21, with WSP, we selected five strategic suppliers on which to conduct a carbon assessment, to (1) understand the existing energy consumption and carbon emissions of the selected facility; (2) analyze and recommend a list of proposed actions for energy efficiency improvement and green energy introduction to reduce factory carbon footprint; and (3) support the determination of each facility's carbon reduction goals in alignment with Microsoft's 2030 sustainability commitment. The assessment identified savings opportunities of 21,506 mtCO2e. We provided guidance for carbon reduction to these suppliers.

Impact of engagement, including measures of success

These suppliers represent the most significant business in our manufacturing supply chain and, therefore, it is important that we track and understand the climate change impacts on their operations. We measure the success of this work in two ways: (1) whether the suppliers have established and work to continually improve the methods and systems that they use to track energy consumption and carbon emission information; and (2) whether the information provided by the suppliers is accurate and sufficient. This monitoring gives us a clear understanding of the current situation at our top manufacturing supplier sites and enables us to identify potential opportunities to minimize energy consumption and carbon emissions in our supply chain. We selected the five suppliers based on the following criteria: (1) business impact (strategic suppliers); (2) heavy hitter (top 20 carbon emitters among our Devices suppliers globally); (3) category presence (one factory for each of five selected categories [tier 1 assembly, mechanical & enclosure, printed circuit board, display, and battery]); and (4) location in China (given travel restrictions due to COVID-19).

Comment



Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Offer financial incentives for suppliers who reduce your operational emissions (Scopes 1 &2)

% of suppliers by number

1

% total procurement spend (direct and indirect)

•

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

•

Rationale for the coverage of your engagement

Initiated in FY18, the Microsoft Global Workplace Services (GWS) business unit revised tier 1 facilities management (FM) service provider contracts to incorporate monetary incentives and key performance indicators (KPIs) for sustainability. We have focused on these service providers because together these contracts dictate operations for the global portfolio of GWS facilities (offices and labs), systematically ensuring sustainability is incorporated. Tier 1 FM service providers are required to input utility data for every site (where Microsoft pays for utilities) in assigned portfolios in a timely manner. Starting in FY19, they are required to produce on an annual basis site-specific sustainability plans, including establishing qualitative project goals focused on energy, water, and waste and quantitative reduction targets where possible.

Impact of engagement, including measures of success

This is an ongoing effort that will enable Microsoft to continually track and monitor progress towards GWS's global sustainability goals. These contracts help ensure that tier 1 FM service providers report all utility data quarterly for each site they manage, that each site has initiated a sustainability plan, and that mechanisms are in place to track progress against the projects listed within those plans. We measure the success of this effort by scoring 1–5, 5 being the highest score possible and achieved by entering utility data, establishing a plan, performing against the plan, and identifying net-new initiatives. In future reporting periods, achieving a high score will require demonstrated and measurable outcomes against the projects and reduction targets stated in these plans.

Comment



Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Offer financial incentives for suppliers who reduce your upstream emissions (Scopes 3)

% of suppliers by number

-

% total procurement spend (direct and indirect)

2

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

2

Rationale for the coverage of your engagement

In FY20, suppliers working on our Puget Sound campus used the Embodied Carbon in Construction Calculator (EC3) to reduce upstream emissions through building materials selection. Microsoft partnered with other industry leaders to create this open-source, Azure-hosted tool to track the embodied carbon of the raw building materials. We used the EC3 tool in designing 17 new buildings (3 million square feet) in our Puget Sound campus modernization project.

Impact of engagement, including measures of success

Microsoft has committed to reducing embodied carbon (upstream emissions from building materials) on the Puget Sound campus modernization project by 15 percent, with an aspirational reduction target of 30 percent, and we are on track to reduce embodied carbon emissions by at least 30 percent. We are now using the EC3 tool around the world in both our campuses and our datacenters to track and reduce embodied carbon and have found opportunities to reduce concrete and steel embodied carbon in our datacenters. Supplier partners on these projects are using the EC3 tool to evaluate embodied carbon emissions of raw building materials, inform materials selection decisions, and track progress towards upstream emissions reduction goals.



Comment

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Other, please specify

Identify emission hotspots and reduce Microsoft upstream emissions related to cloud hardware

% of suppliers by number

1

% total procurement spend (direct and indirect)

2

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

3

Rationale for the coverage of your engagement

In FY21, the Cloud Supply Chain Sustainability (CSCS) team (part of the Azure Hardware Systems and Infrastructure [AHSI] group) direct supplier engagement program prioritized suppliers based on emissions and maturity and then met 1:1 with suppliers to develop their emissions reductions plans. In FY21, the team engaged more than 30 percent of cloud hardware suppliers by spend/emissions by requesting their emissions performance through 1:1 engagement.

Impact of engagement, including measures of success

The impact of the CSCS direct supplier engagement program will be to reduce Microsoft's financial risk of inheriting supplier emissions that are not aligned to our commitment to reduce our Scope 3 category 1 and 2 emissions by more than half. Our measure of success is achieving concrete, credibly calculated emissions reductions in alignment with our goal.



Comment

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Offer financial incentives for suppliers who reduce your upstream emissions (Scopes 3)

% of suppliers by number

1

% total procurement spend (direct and indirect)

-

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

1

Rationale for the coverage of your engagement

There was very little existing data on the embodied carbon of systems furniture, so through this initiative we engaged our top four Global Workplace Services (GWS) furniture manufacturing suppliers. The first stage was to focus on disclosure of embodied carbon data. The second stage is to optimize performance. In the next phase, we will target setting embodied carbon performance limits. The GWS team purchases systems furniture in bundles. We influenced the latest systems furniture bundle and will be looking to advance standards for the next one. Interviews and information gathering with the furniture manufacturers all occurred in FY21.

Impact of engagement, including measures of success

The impact of this engagement has been to gain an understanding of the embodied carbon impact of furniture systems within the current market, establish a baseline from which to set performance limits and, going forward, track embodied carbon reduction.

Comment



C12.1b

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

Type of engagement & Details of engagement

Education/information sharing

Run an engagement campaign to education customers about your climate change performance and strategy

% of customers by number

100

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

100

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

Rationale for the group of customers selected: We view climate performance as a key selling point of our technology products and services, and so we aim to share related stories as widely as possible to reach all of our current and potential future customers globally. Scope of engagement: We share related stories through our website, events, outreach, and public relations (PR) activities. We also include information on the carbon savings of our cloud services and other sustainability qualifications in some of our direct business-to-business marketing materials for our cloud services and AI offerings. Note: the figure reported in the "% of customer-related Scope 3 emissions as reported in C6.5" column refers to the emissions associated with the electricity consumption by physical devices only, as emissions associated with energy consumption from our cloud services are covered in Microsoft Scope 1 and 2 emissions.

Impact of engagement, including measures of success

The impact of these engagements includes enhanced reputation, increased customer education and direct feedback to Microsoft on our environmental sustainability strategy. We measure our success in a variety of ways: We conduct regular media analyses and benchmarking reviews to determine the impact of our marketing and communications engagements. We track customer and stakeholder inquiries on climate issues to shape our policies and performance. We track the inclusion of sustainability topics in our executive briefing conferences to assess how



many customers we've reached over the course of the year on a quarterly basis. For all other PR engagements, including earned stories in external outlets, owned stories on our own blog properties and social media platforms, and value of events, we use standard metrics, including reach, impressions and engagements with the posts. We also directly share key earned and owned stories with our sales teams and customers. We have different thresholds for success for each measure. For example, we run a regular sustainability webinar series, for which our threshold for success is if we exceed the average across Microsoft cloud and industry webinars for the number of customers who attended/viewed the webinars (cloud/industry average: 271 attendees/webinar), average minutes viewing the webinar (cloud/industry average: 36 minutes/webinar) and overall satisfaction with the webinar (cloud/industry average: 87%). In FY21, we ran six webinars covering sustainability transformations in business, energy decarbonization, circular economy, internal carbon fees, sustainability insights from our real-world lessons and sustainability strategies in government. More than 2,650 customers attended/viewed the webinars (average 442 per webinar), customers spent an average of 38 minutes viewing the webinars, and 94% of customers who completed our survey indicated that they were either "very satisfied" or "satisfied" with the webinars. Other results: We have a dedicated customer website focused on Microsoft sustainability (Microsoft.com/sustainability), which had >112,000 unique visitors and >125,000 visits from July 2020 to July 2021. An October 2021 TED Talk by Lucas Joppa, Microsoft Vice President and Chief Environmental Officer, on how to fix the "bugs" in the net-zero code has seen >900,000 views and has been featured on various social channels.

Type of engagement & Details of engagement

Education/information sharing

Share information about your products and relevant certification schemes (i.e. Energy STAR)

% of customers by number

100

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

100

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

Rationale for the group of customers selected: All customers have access to energy efficiency information for our devices. Our rationale is to provide transparency regarding the environmental footprint of the products that our customers purchase and use. Scope of engagement: We publish the environmental labels, registrations, and certifications, including EPEAT and ENERGY STAR, for our devices both on our website



and through Eco Profiles for our leading products. Our Eco Profiles provide the results of lifecycle assessments for our Microsoft-branded devices.

Impact of engagement, including measures of success

Sharing information on the environmental footprint of our products with our customers informs our design teams about our customer use habits and eco-preferences. In addition to providing visibility to customers on the impact of our devices on their own sustainability roadmaps, we use these Eco Profiles internally to influence product design. The Eco Profiles help us assess where improvements can occur in the next generation of projects. We gauge if our Eco Profiles are successful by how they support customers on their own carbon and waste reduction journeys by demonstrating the total impact of their device purchase during requests for proposals (RFPs). Given the resource intensity of product lifecycle analyses (LCAs), we set a target to identify and procure a tool that would allow us to complete the LCAs on our remaining products. In April 2019, we purchased a simplified version of the tool from the developer of our GaBi tool. The LCAs enable us to identify our product carbon emission "hot spots," so we can address them in design and production with the goal of continuing to reduce the carbon footprint related to production and product energy use, the major contributors.

C12.1d

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

We engage with partners across our value chain, including technology partners, non-governmental organizations (NGOs), governments, scientists, and universities, through one-on-one meetings, consortiums, events, and industry associations, to develop sustainability solutions in energy, carbon, water, waste, agriculture, biodiversity, buildings, infrastructure, planning, and transportation.

We look to partner deeply to democratize access to data and tools, to advance work at the intersection of data and environmental science, and to scale learnings, best practices, and data equally across the globe to every person and organization. Guiding our climate-related engagements specifically are our overarching carbon and energy commitments, which focus on:

- Reducing our Scope 1 and 2 greenhouse gas emissions to near zero by 2025 and reducing our Scope 3 emissions by more than half and
 removing more carbon than we emit by 2030, setting us on a path to remove by 2050 the equivalent of all the carbon dioxide Microsoft has
 emitted either directly or by electrical consumption since its founding in 1975.
- Enabling the measurement and management of global carbon and climate change impacts through technology solutions (such as partnering
 with other industry leaders to create a new open-source, Azure-hosted tool, the Embodied Carbon in Construction Calculator [EC3], to track the
 embodied carbon of raw building materials).



- Procuring enough renewable energy to cover 100 percent of our electricity usage by 2025 (meaning that we will have power purchase
 agreements for green energy contracted for 100 percent of carbon-emitting electricity consumed by all our datacenters, buildings, and
 campuses).
- Sourcing 100 percent of our energy supply, 100 percent of the time, from carbon-free resources by 2030 (for example, our research led to the co-creation and adoption of the first commercial round-the-clock hourly energy-matching solution with our utility partner Vattenfall).
- Helping green the grid and accelerate the transition to a zero-carbon energy future.
- Enabling energy efficiency with and through technology that enables a transition to a cleaner, more energy-efficient economy.
- Accelerating research breakthroughs by working with leading scientists to expand the boundaries of our knowledge of the planet (such as the Microsoft Climate Research Initiative, collaborating with leading scientists from academic institutions and other research organizations).
- Accelerating the global development of carbon reduction and removal technologies, as well as related climate solutions to reduce water and waste, through a \$1 billion Climate Innovation Fund.

We further prioritize opportunities according to the following investment principles:

- 1. Ambition—using the broadest area of influence available to Microsoft to make deepening investments in carbon removal.
- 2. Measurable impact—making verified volumetric removals in scoped carbon emissions that directly accrue to our quantitative commitments.
- 3. Benefit—creating benefit for Microsoft business and communities of operation.
- 4. Leadership—establishing best practices in carbon removal that other entities can adopt.
- 5. Innovation—unlocking more efficient, scalable approaches to carbon removal.

In July 2020, we became a founding member of Transform to Net Zero, with eight leading organizations with an aim to accelerate the corporate transition to net zero.

We engage with various third-party reporting/rating agencies within the US and abroad. Beginning in FY21, we publish an annual Microsoft Environmental Sustainability Report. We also communicate our progress externally through third-party organizations like CDP as well as our own annual Microsoft Impact Summary report. Our relative transparency and performance are evaluated by those organizations and the public, influencing perceptions and the company's overall brand value. To measure the success of direct engagements focused on driving sustainability through technology, we look at customer satisfaction surveys, revenue, and whether we have sufficient technology partners offering sustainability solutions to meet demand.

An example of our climate-related engagement strategy with our technology partners is our work with Algo Engines to help Ørsted, the world leader in offshore wind energy, to optimize the performance of more than 1,300 turbines on its wind farms, enabling it to fully phase out coal by 2023 and increase offshore wind capacity to 15 GW (enough for 30 million people) by 2025. Ørsted uses Microsoft Azure AI to determine where new turbines



should be deployed. Previously, the computations for the foundations alone took weeks. With the Microsoft Cloud, that time is reduced to four to eight hours. The company also uses drones to inspect equipment and predictive maintenance to ensure all equipment is running at peak performance.

C12.2

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

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

C12.2a

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

Climate-related requirement

Climate-related disclosure through a public platform

Description of this climate related requirement

Microsoft requires all suppliers to uphold the ethical and environmental practices outlined in our Supplier Code of Conduct (SCOC). In July 2020, Microsoft added additional sustainability requirements to the SCOC to support our carbon commitments: "Suppliers must disclose complete, consistent, and accurate scope 1, 2 and 3 greenhouse gas (GHG) emissions data and/or components required to calculate GHG emissions data, via CDP or an alternative method that Microsoft will provide. If requested by Microsoft, Suppliers must provide plans to reduce greenhouse gas (GHG) emissions in alignment with Microsoft's requirements. The timing of Supplier conformance to this requirement may be determined by Microsoft standards and requirements that are set forth in their contract with Microsoft." We require suppliers to be aware of, attest to, train on, and always adhere to the SCOC. Each Microsoft supply chain team determines an appropriate approach for supplier compliance with these requirements, including potential repercussions (e.g. marking them out of compliance, putting them on remediation, removing them from our systems). Our Procurement team has updated its sourcing process to look at emissions associated with a supplier's bid as part of our decision criteria. We spent FY21 rolling out these requirements to a subset of our suppliers and building a program to support them.



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

65

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

50

Mechanisms for monitoring compliance with this climate-related requirement

First-party verification
Supplier scorecard or rating

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

Retain and engage

C12.3

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

Row 1

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

Yes, we engage directly with policy makers

Yes, we engage indirectly through trade associations

Yes, we engage indirectly by funding other organizations whose activities may influence policy, law, or regulation that may significantly 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)



- United For The Paris Agreement.pdf
- Microsoft's Climate Action Contribution_We Are Still In.pdf
- Transform-to-Net-Zero-Position-Paper-Action-Plan.pdf
- Businesses & Investors Call for Ambitious U.S. NDC We Mean Business Coalition.pdf

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

Our participation in the political process is transparent and based on our principles. We are pleased that Microsoft ranks in the first tier of rating given by the CPA-Zicklin Index of Corporate Political Accountability and Disclosure for our policies that ensure the accountability and transparency of our public policy engagement. Our Senior Director of Global Sustainability Policy coordinates across business groups and directly with government affairs teams around the world to ensure consistency between our advocacy work and our climate change and sustainability strategy. The responsibilities of the Environmental, Social, and Public Policy Committee of the Microsoft Board of Directors include reviewing and providing guidance to the Board and management about key environmental and social matters such as climate change and environmental sustainability. We articulate our public policy position on climate change in our January 2020 carbon negative statement. Microsoft's "Principles and Policies for Guiding Participation in the Public Policy Process" in the US includes principles on oversight of trade association memberships. Those policies note, "We review these memberships annually to assess their business value and alignment with Microsoft's overall public policy agenda. We work with many of these groups on narrowly-tailored technology policy issues relevant to specific business objectives and it is unrealistic to expect any group's agenda to align with ours in all policy areas. Therefore our engagement with a particular group does not and should not imply our endorsement of all the policy positions those groups have taken. However, we will not support groups that spend an abundance of their time working against our direct business interests and public policy agenda." When we have policy differences, we have issued statements that clarify that the trade association is not representing Microsoft on that specific policy.

C12.3a

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



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

Other, please specify
Sustainable finance

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

Sustainable Corporate Governance Initiative: proposed further to Action 10 of the European Union's 2018 Action Plan on sustainable finance and stems from the essential premise that sustainability should be embedded into corporate governance so that companies focus on long-term objectives and contribute to a more shock-resilient economy

Policy, law, or regulation geographic coverage

Regional

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

Other, please specify EU

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

Support with minor exceptions

Description of engagement with policy makers

Filed a submission to the European Commission's public consultation on the Sustainable Corporate Governance Initiative.

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

There may be exceptions related to operational and implementation issues.

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

Yes, we have evaluated, and it is aligned

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

Other, please specify



Sustainable finance, sustainable reporting

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

Revision of the Non-Financial Reporting Directive (2014/95/EU)

Policy, law, or regulation geographic coverage

Regional

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

Other, please specify

EU

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

Support with minor exceptions

Description of engagement with policy makers

Filed a submission to the European Commission's public consultation on the revision of the Non-Financial Reporting Directive.

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

There may be exceptions related to operational and implementation issues.

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

Yes, we have evaluated, and it is aligned

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

Adaptation and/or resilience to climate change

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

H.R. 5859, the Trillion Trees Act: establishes requirements and incentives to plant trees and conduct other land management practices for the purpose of capturing and storing carbon



Policy, law, or regulation geographic coverage

National

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

United States of America

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

Support with no exceptions

Description of engagement with policy makers

Submitted Trillion Tree pledge; joined US Trillion Tree stakeholder committee.

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

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

Yes, we have evaluated, and it is aligned

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

Climate-related targets

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

EU Green Deal; Fit for 55

Policy, law, or regulation geographic coverage

Regional

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

Other, please specify

EU



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

Support with no exceptions

Description of engagement with policy makers

Joined letter in support of increasing EU 2030 GHG emissions reduction target to at least 55 percent net GHG emission reductions compared with 1990 levels.

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

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

Yes, we have evaluated, and it is aligned

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

Other, please specify Climate action

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

EU Green Deal; Fit for 55

Policy, law, or regulation geographic coverage

Regional

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

Other, please specify EU

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

Support with no exceptions

Description of engagement with policy makers



Joined Corporate Leaders Group Europe to advocate for progressive public policy that supports progress towards net zero in Europe.

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

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

Yes, we have evaluated, and it is aligned

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

Other, please specify Energy innovation

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

Energy Act of 2020: authorizes programs at the US Department of Energy to more closely align research and development efforts with the most current and urgent technology challenges

Policy, law, or regulation geographic coverage

National

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

United States of America

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

Support with no exceptions

Description of engagement with policy makers

Participated in letter in support of American Energy Innovation Act (later named Energy Act of 2020).

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



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

Yes, we have evaluated, and it is aligned

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

Electricity grid access for renewables

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

Virginia State Corporation Commission (SCC) grid investment plan

Policy, law, or regulation geographic coverage

Sub-national

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

Other, please specify Virginia

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

Oppose

Description of engagement with policy makers

Participated in letter to Virginia SCC to require utility to incorporate more cost-effective clean energy in its investment plan.

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

We support a provision for utilities to add more cost-effective clean energy investments.

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

Yes, we have evaluated, and it is aligned

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



Adaptation and/or resilience to climate change

Circular economy

Transparency requirements

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

Proposed directive on empowering the consumer in the green transition

Policy, law, or regulation geographic coverage

Regional

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

Other, please specify

EU

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

Support with major exceptions

Description of engagement with policy makers

Filed a submission to the European Commission's public consultation on "Empowering the consumer for the green transition."

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

There may be exceptions related to operational and implementation issues.

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

Yes, we have evaluated, and it is aligned

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

Electricity grid access for renewables

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



US Federal Energy Regulatory Commission (FERC) proposed policy statement encouraging efforts to incorporate state-determined carbon prices in wholesale electricity markets

Policy, law, or regulation geographic coverage

National

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

United States of America

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

Support with no exceptions

Description of engagement with policy makers

Filed comments to US FERC in support of FERC issuing policy guidance on integrating state carbon pricing into power market design.

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

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

Yes, we have evaluated, and it is aligned

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

Other, please specify Climate action

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

Statement in support of ambitious, durable, bipartisan climate solutions

Policy, law, or regulation geographic coverage

National



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

United States of America

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

Support with no exceptions

Description of engagement with policy makers

Participated in a statement encouraging US Congress and the President-elect to work together to enact ambitious, durable, and bipartisan climate policies.

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

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

Yes, we have evaluated, and it is aligned

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

Other, please specify
Climate action

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

US rejoining the Paris Agreement

Policy, law, or regulation geographic coverage

National

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

United States of America

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

Support with no exceptions



Description of engagement with policy makers

Expressed public support for the US rejoining the Paris Climate Accord.

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

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

Yes, we have evaluated, and it is aligned

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

Electricity grid access for renewables

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

Climate and Equitable Jobs Act: would accelerate a transition to 100 percent clean energy in Illinois

Policy, law, or regulation geographic coverage

Sub-national

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

Other, please specify Illinois

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

Support with minor exceptions

Description of engagement with policy makers

Signed onto letter supporting policy in Illinois accelerating a transition to 100 percent clean energy.

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

There may be exceptions related to the implementation of the legislation as well as issues outside of the 100 percent clean provisions.



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

Yes, we have evaluated, and it is aligned

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

Adaptation and/or resilience to climate change

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

The European Green Digital Coalition: a new initiative by the European Parliament, implemented by the European Commission's DG CNECT and supported by the EU Member States, with the goal to gather companies to support the green and digital transformation of the EU

Policy, law, or regulation geographic coverage

Regional

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

Europe

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

Support with no exceptions

Description of engagement with policy makers

Joined European Green Digital Coalition to demonstrate the role of digital technologies in advancing climate goals.

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

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

Yes, we have evaluated, and it is aligned

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



Adaptation and/or resilience to climate change Climate-related targets Electricity grid access for renewables

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

EU Fit for 55 package: proposed revisions to the EU Directive on Renewable Energy

Policy, law, or regulation geographic coverage

Regional

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

Other, please specify EU

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

Support with minor exceptions

Description of engagement with policy makers

Joined letter supporting Green and Digital Transformation in the EU. Filed a submission to the European Commission public consultation on the review of the Renewable Energy Directive (RED) II supporting increased EU GHG emissions reduction target in the European Commission public consultation on the Renewable Energy Directive.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation There may be exceptions related to operational and implementation issues.

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

Yes, we have evaluated, and it is aligned

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

Adaptation and/or resilience to climate change Climate-related targets



Other, please specify Energy efficiency

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

EU Fit for 55 package: proposed revision to the EU Directive on Energy Efficiency

Policy, law, or regulation geographic coverage

Regional

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

Other, please specify EU

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

Support with minor exceptions

Description of engagement with policy makers

Filed a submission to the European Commission's public consultation on the review and revision of the Energy Efficiency Directive

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation There may be exceptions related to operational and implementation issues.

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

Yes, we have evaluated, and it is aligned

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

Adaptation and/or resilience to climate change Circular economy

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

EU Circular Economy Action Plan



Policy, law, or regulation geographic coverage

Regional

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

Other, please specify EU

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

Support with minor exceptions

Description of engagement with policy makers

Met with Marius Vaščega, Head of Cabinet of Commissioner Virginijus Sinkevicius, Commissioner for Environment, Oceans and Fisheries, in support of a Sustainable Product Policy Framework that includes the creation of digital product passports, European dataspaces with data on value chains and product information, and new requirements for information and communications technology (ICT) to last longer and be easier to repair, upgrade, recycle, and reuse, to name just a few.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation There may be exceptions related to operational and implementation issues.

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

Yes, we have evaluated, and it is aligned

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

Electricity grid access for renewables

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

HB2248 and SB1175: would remove certain authority to set state energy policy from the Arizona Corporation Commission (ACC)

Policy, law, or regulation geographic coverage

Sub-national



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

Other, please specify Arizona

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

Oppose

Description of engagement with policy makers

Joined letter supporting Arizona's 100 percent clean energy rules.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation We support maintaining ACC authority to approve and execute 100 percent clean energy policy.

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

Yes, we have evaluated, and it is aligned

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

Adaptation and/or resilience to climate change

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

US Department of Agriculture Request for Public Comment on climate-smart agriculture and forestry strategy

Policy, law, or regulation geographic coverage

National

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

United States of America

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

Support with no exceptions



Description of engagement with policy makers

Submitted comments to the US Department of Agriculture on ways to advance climate-smart agriculture, carbon removal, and forestry strategy.

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

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

Yes, we have evaluated, and it is aligned

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

Carbon tax

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

Climate Commitment Act: established a cap on carbon emissions and a revenue source for clean transportation

Policy, law, or regulation geographic coverage

Sub-national

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

Other, please specify Washington state

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

Support with no exceptions

Description of engagement with policy makers

Advocated through public statements and legislator meetings for Washington state's Climate Commitment Act, which sets a robust carbon price through a cap and invest program.

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



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

Yes, we have evaluated, and it is aligned

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

Electricity grid access for renewables

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

HB4466, SB 1278, and ancillary service charges in SB3: would change how ancillary services are shared across electricity load

Policy, law, or regulation geographic coverage

Sub-national

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

Other, please specify Texas

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

Oppose

Description of engagement with policy makers

Joined letter supporting resilient energy grid policies in Texas and opposing policies that penalize renewable energy.

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

We support advancing a tech neutral clean energy strategy and preventing penalties and new burdens on renewable energy.

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

Yes, we have evaluated, and it is aligned

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



Climate-related targets

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

Cutting GHG emissions by at least 50 percent below 2005 levels by 2050

Policy, law, or regulation geographic coverage

National

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

United States of America

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

Support with no exceptions

Description of engagement with policy makers

Joined a letter to President Biden supporting ambitious climate targets for the US's nationally determined contributions (NDCs).

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

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

Yes, we have evaluated, and it is aligned

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

Adaptation and/or resilience to climate change

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

US Growing Climate Solutions Act: would establish a voluntary Greenhouse Gas Technical Assistance Provider and Third-Party Verifier Certification Program

Policy, law, or regulation geographic coverage



National

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

United States of America

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

Support with no exceptions

Description of engagement with policy makers

Engaged and advocated in public statements and legislator meetings for the US Growing Climate Solutions Act to advance high-quality standards for nature-based carbon removal.

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

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

Yes, we have evaluated, and it is aligned

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

Mandatory climate-related reporting

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

Securities and Exchange Commission Request for Information on the Regulation of Climate Change Disclosures

Policy, law, or regulation geographic coverage

National

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

United States of America

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



Support with no exceptions

Description of engagement with policy makers

Filed comments to the Securities and Exchange Commission supporting the Commission's development and adoption of climate disclosure rules.

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

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

Yes, we have evaluated, and it is aligned

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

Other, please specify Climate action

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

General support for robust climate policy in the US

Policy, law, or regulation geographic coverage

National

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

United States of America

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

Support with no exceptions

Description of engagement with policy makers

Participated in US Congressional Climate Infrastructure Lobby Day to support robust domestic climate policy.



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

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

Yes, we have evaluated, and it is aligned

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

Other, please specify Climate action

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

US Infrastructure Investment and Jobs Act: clean energy and climate investments

Policy, law, or regulation geographic coverage

National

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

United States of America

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

Support with no exceptions

Description of engagement with policy makers

Supported through public statements and legislator meetings clean energy and climate provisions in the US Infrastructure Investment and Jobs Act.

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

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

Yes, we have evaluated, and it is aligned



C12.3b

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

Trade association

Advanced Energy Economy (AEE)

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

Consistent

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

We publicly promote their current position

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

AEE is a national association of business leaders who are making the global energy system more secure, clean, and affordable. Its mission is to transform public policy to enable rapid growth of advanced energy companies. Its efforts in support of US Environmental Protection Agency (EPA) regulation of electricity sector carbon emissions are an example of its stance on climate change: "EPA's regulation of carbon emissions from the electric power sector under Section 111(d) of the Clean Air Act represents an opportunity to modernize the electric power system, making it higher performing and more consumer-focused while reducing emissions. Advanced energy technologies and services make it possible to cut emissions while improving reliability, reducing costs, increasing competition, and creating new services for consumers." For more information, see www.aee.net/initiatives. We are on the board for AEE. We regularly engage with AEE and its members on the creation of research reports and policy recommendations focused on advancing the adoption of alternative energy.



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

Yes, we have evaluated, and it is aligned

Trade association

Business Council of Australia

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

Unknown

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

We are not attempting to influence their position

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

The Business Council of Australia represents Australia's largest employers, advocating for good policy on behalf of the business community and the Australians they employ. It works to ensure that Australia is economically strong to support a fair, free, and inclusive society for all Australians. Within its 2021 policy platform, the Business Council listed among its advocacy priorities the following: "That Australia sets a national goal of net-zero emissions by 2050 and establishes nationally consistent regulations to drive private-sector investment in new technologies to achieve this goal, build new export industries and improve environmental outcomes." For more information, see https://www.bca.com.au.

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

Describe the aim of your organization's funding



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

No, we have not evaluated

Trade association

Business Roundtable

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

Mixed

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

We are attempting to influence them to change their position

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

The Business Roundtable is an association of chief executive officers in the United States. It is a large association that advocates for policies in a number of different issue areas beyond energy and sustainability. Business Roundtable believes corporations should lead by example, support sound public policies, and drive the innovation needed to address climate change. To this end, the United States should adopt a more comprehensive, coordinated, and market-based approach to reduce emissions. This approach must be pursued in a manner that ensures environmental effectiveness while fostering innovation, maintaining US competitiveness, maximizing compliance flexibility, and minimizing costs to business and society. For more information, see https://www.businessroundtable.org. Microsoft has differed from the Business Roundtable in several ways. Microsoft publicly supported the climate-related provisions in the Build Back Better plan, filed comments in support of Securities and Exchange Commission (SEC) carbon disclosure rules, and supports the EPA's ability to regulate greenhouse gases, in contrast to the Business Roundtable's public action on these issues.



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

No, we have not evaluated

Trade association

BusinessEurope

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

Mixed

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

We are not attempting to influence their position

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

BusinessEurope is a leading advocate for growth and competitiveness at a European level, standing up for companies across the continent and campaigning on the issues that most influence their performance. It speaks for all-sized enterprises in 35 European countries whose national business federations are direct members. BusinessEurope works on behalf of member federations to ensure that the voice of business is heard in European policymaking. It interacts regularly with the European Parliament, Commission, and Council as well as other stakeholders in the policy community. It also represents European business in the international arena. BusinessEurope states that it is committed to and aware of the challenges that climate change presents as well as the impacts of human activities and that it highly welcomed the Paris Agreement. It believes that reaching the Paris Agreement requires all countries (especially major economies) to make significant efforts to bring down emissions. BusinessEurope is fully committed to implementation of the Paris Agreement, and the companies it represents invest billions in low-carbon innovation, as well as in the development and deployment of low-carbon technologies for the future. For more information, see https://www.businesseurope.eu. Microsoft supports a more ambitious timeline and strategy for EU decarbonization than BusinessEurope.



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

Describe the aim of your organization's funding

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

No, we have not evaluated

Trade association

Confederation of British Industry (CBI)

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

Consistent

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

We publicly promote their current position

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

The CBI speaks on behalf of every sector in the economy. Its membership includes firms and trade associations, coming together with common priorities and a shared vision. It represents 190,000 businesses that together employ nearly seven million people. The CBI fully supports the Committee on Climate Change's recommendations and is keen to see a timely, supportive response from the UK Government, to legislate for a 2050 net-zero target. For more information, see https://www.cbi.org.uk.



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

No, we have not evaluated

Trade association

Confederation of Indian Industries (CII)

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

Unknown

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

We are not attempting to influence their position

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

CII is a non-government, not-for-profit, industry-led, and industry-managed organization, with over 9,000 members from the private and public sectors, including small and medium-sized enterprises and multinational corporations, and an indirect membership of over 300,000 enterprises from 294 national and regional sectoral industry bodies. CII works to create and sustain an environment conducive to the growth of business, partnering business and government alike through training, advisory, and consultative services. These services comprise capacity building and training programs and workshops related to environment policies, management systems, management frameworks, performance assessment, sustainability reporting, stakeholder engagement, sustainability assurance, climate change, sustainable business portfolios, and business model innovation. For more information, see https://www.cii.in.



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

No, we have not evaluated

Trade association

Eurelectric

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

Consistent

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

We publicly promote their current position

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

Eurelectric is the federation of the European electricity industry. It speaks for more than 3,500 European utilities active in power generation, distribution, and supply. Eurelectric strongly welcomed the Paris Agreement as a major landmark in addressing the global climate change challenge. Eurelectric believes that decarbonized electricity is an important part of the solution. Its members are committed to having a carbon-neutral electricity mix in Europe well before mid-century. It goes hand in hand with ensuring a competitively priced and reliable electricity supply throughout an integrated European energy market. Eurelectric supports efforts to move towards a low-carbon economy in a way that is environmentally and economically sustainable. It believes that it is essential for the EU energy and climate policy to support competitiveness by promoting reductions of greenhouse gas emissions in a cost-effective manner. For more information, see https://www.eurelectric.org.



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

Yes, we have evaluated, and it is aligned

Trade association

Federation of Indian Chambers of Commerce & Industry (FICCI)

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

Unknown

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

We are not attempting to influence their position

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

A non-government, not-for-profit organization, FICCI is the voice of India's business and industry. From influencing policy to encouraging debate, engaging with policymakers and civil society, FICCI articulates the views and concerns of industry. It serves its members from the Indian private and public corporate sectors and multinational companies, drawing its strength from diverse regional chambers of commerce and industry across states. For more information, see https://ficci.in.

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

Describe the aim of your organization's funding



No, we have not evaluated

Trade association

Japan Business Federation (Keidanren)

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

Unknown

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

We are not attempting to influence their position

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

KEIDANREN (Japan Business Federation) is a comprehensive economic organization with a membership comprised of 1,461 representative companies of Japan, 109 nationwide industrial associations and the regional economic organizations for all 47 prefectures (as of April 1, 2021). Its mission as a comprehensive economic organization is to draw upon the vitality of corporations, individuals, and local communities to support corporate activities that contribute to the sustainable development of the Japanese economy and improvement in the quality of life for the Japanese people. The federation's Keidanren Carbon Neutrality Action Plan (CN Action Plan) is aimed at achieving carbon neutrality by 2050. With the CN Action Plan at the core of its efforts, Keidanren will continue to take the initiative in addressing climate change issues and support the government in contributing to green transformation in Japan as a step towards global carbon neutrality. At the same time, it will urge the government to set out a specific path to achieving greenhouse gas reductions of 46 percent by fiscal 2030 and carbon neutrality by 2050 and spur national action to achieve these goals. For more information, see https://www.keidanren.or.jp/en.

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



Describe the aim of your organization's funding

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

No, we have not evaluated

Trade association

US Chamber of Commerce

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

Mixed

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

We are attempting to influence them to change their position

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

The US Chamber of Commerce is the world's largest business organization. The Chamber advocates for policies that help businesses create jobs and grow the economy. For more information, see https://www.uschamber.com. Microsoft has differed from the Chamber in several ways. Microsoft publicly supported the climate-related provisions in the Build Back Better plan, filed comments in support of Securities and Exchange Commission (SEC) carbon disclosure rules, and supports the US Environmental Protection Agency (EPA)'s ability to regulate greenhouse gases in contrast to the Chamber's public action on these issues.

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



No, we have not evaluated

Trade association

Other, please specify
AEE Advanced Energy (AE) Buyers Group

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

Consistent

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

We publicly promote their current position

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

The AE Buyers Group is a coalition of leading advanced energy purchasers who have come together to engage on the energy policy issues that will help them achieve their ambitious clean energy targets. By tapping into AEE's existing energy policy expertise and state engagement network and by working collaboratively with other companies, corporate purchasers participating in the AE Buyers Group will maximize the impact of their policy engagement. For more information, see https://www.advancedenergybuyersgroup.org. We collaborate with other AEE members to advance policies and engage policymakers in support of advanced energy procurement.

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



Yes, we have evaluated, and it is aligned

Trade association

Other, please specify
Alliance to Save Energy

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

Consistent

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

We publicly promote their current position

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

The Alliance to Save Energy is a nonprofit, bipartisan alliance of business, government, environmental, and consumer leaders advocating for enhanced energy productivity to achieve economic growth, a cleaner environment, and greater energy security, affordability, and reliability. Its mission is to improve energy productivity by: leading bipartisan initiatives that drive technological innovation and energy efficiency across all sectors of the economy, through policy advocacy, education, communications, and research; and convening and engaging in diverse public-private partnerships, collaborative efforts, and strategic alliances to optimize resources and expand its sphere of influence. For more information, see https://www.ase.org. We are on the board for the Alliance. We regularly engage with the Alliance and its members on policy recommendations focused on improving energy productivity.

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



Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

AmChamEU

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

Consistent

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

We publicly promote their current position

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

AmCham EU speaks for American companies committed to Europe on trade, investment, and competitiveness issues. It aims to ensure a growth-orientated business and investment climate in Europe. AmCham EU facilitates the resolution of transatlantic issues that impact business and plays a role in creating better understanding of EU and US positions on business matters. AmCham EU believes that what our planet looks like tomorrow will depend on how we balance economic recovery and environmental protection today. AmCham EU companies are playing an active role in the transition towards a greener economy in Europe. With clearly defined targets, and a path for achieving them, member companies will continue to be constructive partners in the definition and implementation of climate policies. For more information, see https://www.amchameu.eu.

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



Describe the aim of your organization's funding

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

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Breakthrough Energy

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

Consistent

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

We publicly promote their current position

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

Established in 2015 by Bill Gates and a coalition of private investors concerned about the impacts of accelerating climate change, Breakthrough Energy supports the innovations that will lead the world to net-zero emissions. It is building on the proven model of public-private partnerships that Gates has already used to transform health, education, and public welfare around the world. Breakthrough Energy is a network of entities and initiatives, including investment funds, nonprofit and philanthropic programs, and policy efforts linked by a common commitment to scale the technologies we need to achieve a path to net-zero emissions by 2050. It is encouraging the development of new net-zero energy technologies, championing policies that speed innovation from lab to market, and bringing together governments, research institutions, private companies, and investors to expand and enhance clean-energy investment. For more information, see https://www.breakthroughenergy.org. We engage with other Breakthrough Energy members to develop climate change solutions and advocate policies that encourage new climate change solutions across sectors in North America and Europe.



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

Describe the aim of your organization's funding

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

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Center for Climate and Energy Solutions (C2ES)

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

Consistent

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

We publicly promote their current position

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

The C2ES mission is to advance policy and action to reduce greenhouse gas emissions, promote clean energy, and strengthen resilience to climate impacts. C2ES believes a sound climate strategy is essential to ensure a strong, sustainable economy. C2ES is widely recognized as an influential and pragmatic voice on climate issues. It ranks regularly among the top environmental think tanks in the world, providing timely, impartial information and analysis on our pressing climate and energy challenges. It brings city, state, and national policymakers together with businesses and other stakeholders to achieve common understanding and consensus solutions. It develops market-based solutions and other practical policy approaches that deliver real and lasting climate progress. And it works with Fortune 500 companies to strengthen business



action and business support for effective climate policy. For more information, see https://www.c2es.org. Through C2ES, we collaborate with members to review and propose policy and corporate approaches to reduce carbon emissions, including voluntary carbon programs.

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

Describe the aim of your organization's funding

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

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Center for Environmental Health (CEH)

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

Consistent

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

We publicly promote their current position

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

CEH conducts research and spearheads policy advocacy promoting the use of healthy, non-toxic materials in the construction and furnishing of commercial buildings. For more information, see www.ceh.org. LinkedIn has been engaged with CEH since FY17.



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

Describe the aim of your organization's funding

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

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Ceres Business for Innovative Climate and Energy Policy (BICEP) Network

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

Consistent

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

We publicly promote their current position

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

The Ceres BICEP Network comprises influential companies advocating for stronger climate and clean energy policies at the state and federal level in the United States. As champions of the accelerated transition to a low-carbon economy, Ceres BICEP Network members have weighed in when it has mattered most. CERES BICEP NETWORK PRINCIPLES: Increase investment in a clean energy economy; promote energy efficiency, renewable energy, and clean transportation; and support climate change adaptation and resilience. For more information, see ceres.org/networks/ceres-policy-network. We regularly engage with BICEP Network members to advocate for stronger climate and energy policies at the state and federal level in the United States.



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

Describe the aim of your organization's funding

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

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify
Clean Energy Buyers Alliance (CEBA)

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

Consistent

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

We publicly promote their current position

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

CEBA (formerly known as the Renewable Energy Buyers Alliance [REBA]) is helping grow corporate demand for renewable power and helping utilities and others meet it. CEBA exists to make the transition to renewable energy easier by helping companies understand the benefits of moving to renewables, connecting corporate demand to renewable energy supply, and helping utilities better understand and serve the needs of corporations. CEBA is led by four nonprofit organizations that have brought together their deep expertise in transforming energy markets. Collectively they work with more than 60 iconic, multinational companies that represent enormous demand for renewable power and, as part of that, coordinate with the We Mean Business' RE100 campaign, supporting companies who have signed onto their 100 percent renewable



energy commitment. Their goal is to help corporations purchase 60 gigawatts (GW) of additional renewable energy in the United States by 2025. For more information, see https://cebuyers.org. As a founding member, we collaborate with other CEBA members to share best practices and formulate new approaches to corporate procurement of renewable energy.

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

Describe the aim of your organization's funding

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

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify
Climate Leadership Council

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

Consistent

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

We have already influenced them to change their position

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

The Climate Leadership Council is an international policy institute founded in collaboration with a who's who of business, opinion, and environmental leaders to promote a carbon dividends framework as the most cost-effective, equitable, and politically viable climate solution. Despite mounting risks from climate change and growing international calls for action, leading nations have yet to settle on a strategy capable of



reducing greenhouse gas emissions at the necessary scale or speed. The Climate Leadership Council believes that the best solution is to return the income from a nation's carbon fees directly to its citizens through carbon dividends. This would simultaneously discourage carbon emissions, reward good behavior, and build popular support for a gradually increasing carbon fee. The council is currently active in the United States and United Kingdom and intends to expand to Germany, China, and India next. For more information, see clcouncil.org. Microsoft is open to different carbon pricing funding allocation and regulatory approaches to reducing carbon emissions. We joined the Climate Leadership Council in FY19. Microsoft is a founding member of the Climate Leadership Council. We provided input to help shape the updated carbon-dividend blueprint and met with Congressional offices to advocate for the proposal.

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

Describe the aim of your organization's funding

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

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Consumer Technology Association (CTA)

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

Consistent

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

We are not attempting to influence their position



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

CTA convenes companies of every size and specialty in the technology industry. It is the trade association representing the \$505 billion US consumer technology industry, which supports more than 18 million US jobs. In CTA's 2020 Industry Report on GHG Emissions, CTA commits to the following: "• Measuring GHG emissions produced by the consumer technology industry on an annual basis as reported through and vetted by a third-party organization (e.g., CDP). • Tracking and publicly reporting on the combined progress made by CTA's members in reducing GHG emissions on a year-over-year basis as well as highlighting individual company initiatives. • Recognizing the climate program achievements of individual CTA members – from those just starting on the journey to those already demonstrating extraordinary performance. • Encouraging members who have not yet either assessed their emissions or developed mid-term or long-term goals for GHG emission reductions to do so." For more information, see https://www.cta.tech/ and

https://cdn.cta.tech/cta/media/advocacy/pdfs/ctawhitepaper_climate2020_final.pdf. Through CTA, we collaborate with the membership toward finding common ground on the progress of energy efficiency measures for consumer electronic equipment.

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

Describe the aim of your organization's funding

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

No, we have not evaluated

Trade association

Other, please specify DIGITALEUROPE

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



Consistent

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

We publicly promote their current position

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

DIGITALEUROPE aims to ensure that products are designed, produced, used, and where possible reused or recycled in a sustainable and safe manner. It also promotes the benefits of digital solutions in achieving sustainable goals. By closely collaborating with all relevant stakeholders, it contributes to shape coherent policies, notably on product design, including substance use; resource efficiency and waste management; reducing greenhouse gas emissions; and broader global supply chain responsibility, including responsible sourcing. For more information, see https://www.digitaleurope.org. We engage with DIGITALEUROPE members on energy and datacenter-related initiatives including those derived for the EU Green Deal and Fit for 55 package such as the Energy Efficiency Directive and Renewable Energy Directive recasts. We also engage with DIGITALEUROPE on consumer product-specific initiatives including those derived from the Circular Economy Action Plan, such as the Sustainable Product Initiative, Circular Electronics Initiative, and Digital Product Passport. We are working as an industry to give insight to lawmakers, generate supportive solutions, and implement solutions industrywide.

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

Describe the aim of your organization's funding

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

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify



Energy UK

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

Consistent

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

We publicly promote their current position

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

Energy UK is a trade association for the energy industry with over 100 members spanning every aspect of the energy sector, from established FTSE 100 companies to new, growing suppliers and generators. Energy UK has outlined five policy recommendations for a successful clean energy transition: 1) A retail sector where competition and innovation flourish whilst vulnerable customers are protected. 2) An increase in private investment in net-zero businesses and innovation. 3) Centrally funding an energy efficiency retrofit program for buildings that supports decarbonizing heat and increases microgeneration. 4) A rapid decarbonization of transport, with new incentives for EV use (by fleets and individuals). 5) A smart, flexible energy system, fit for future energy sources and user needs. For more information, see https://www.energy-uk.org.uk.

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

Describe the aim of your organization's funding

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

No, we have not evaluated

Trade association



Other, please specify
Information Technology Council (ITI)

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

Consistent

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

We publicly promote their current position

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

ITI believes and advocates that innovative technologies are at the heart of the world's ability to develop clean, renewable energy sources and to use less energy where we live and work. Whether through the development of next-generation batteries or high-end computers that rely on less power to operate, through new approaches to recycling e-waste or by creating more effective ways to reduce our energy footprint, technology holds the key to energy independence. Smart grids, smart logistics, intelligent transportation systems, telework, and other information communications technology (ICT) can make a huge difference as we seek to broaden access to sustainable energy. ITI is committed to advancing policies that will strengthen energy security and global competitiveness while fostering long-term sustainable economic growth. It believes that ICT innovations will be essential to achieving the sustainability and growth targets that governments have established for themselves, and yet there remain barriers to realizing the full potential of ICT. ITI is determined to help governments identify and remove these barriers. For more information, see http://www.itic.org/policy/energy. We engage with the White House, federal agencies, and Congress to ensure that together we can successfully tap the potential of ICT to contribute to future security, sustainability, and competitiveness. We also work proactively with the US Environmental Protection Agency (EPA) through ITI as an active partner in and advisor to the ENERGY STAR program (the ITI Energy Efficiency Working Group [EEWG] helps coordinate meetings between the computer industry and the US EPA, which runs the ENERGY STAR program for computers).

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



Yes, we have evaluated, and it is aligned

Trade association

Other, please specify
Smart Electric Power Alliance (SEPA)

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

Consistent

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

We publicly promote their current position

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

SEPA is a nonprofit organization that envisions a carbon-free energy system by 2050. SEPA has a very specific role in the journey towards carbon free. Its mission is to facilitate the electric power industry's smart transition to a clean and modern energy future through education, research, standards, and collaboration. For more information, see https://sepapower.org. Microsoft joined the SEPA board in 2020. As a board member, we help drive the organization's priorities and steer engagement with SEPA's broad base of energy sector members.

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

Describe the aim of your organization's funding

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



Yes, we have evaluated, and it is aligned

Trade association

Other, please specify smartEN

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

Consistent

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

We publicly promote their current position

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

smartEn is the European association of market players driving digital and decentralized energy solutions. A successful European energy transition requires intelligent cooperation between consumption, distribution, transmission, and generation, acting as equal partners in an integrated energy system. The vision of smartEn is that digitally enabled interaction of demand and supply is an integral part of an increasingly decentralized, decarbonized energy system. For more information, see smarten.eu. We regularly engage with smartEn members to advocate for policies that advance a decentralized, decarbonized energy system in European member states and the European Union (EU).

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

Describe the aim of your organization's funding

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

Yes, we have evaluated, and it is aligned



Trade association

Other, please specify techUK

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

Consistent

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

We publicly promote their current position

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

techUK brings together people, companies, and organizations to realize the positive outcomes of what digital technology can achieve. It creates a network for innovation and collaboration across business, government, and stakeholders to provide a better future for people, society, the economy, and the planet. techUK is committed to helping its members, its sector, and all other industries to reach net zero. It develops resources, runs events, and publishes guidance to help organizations to reach this important goal. For more information, see https://www.techuk.org.

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

Describe the aim of your organization's funding

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

No, we have not evaluated



Trade association

Other, please specify Ukie

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

Consistent

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

We are not attempting to influence their position

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

Ukie is the trade association for the UK's games and interactive entertainment industry; a not-for-profit, representing businesses from micro studios to multinationals, developers, publishers, and service companies, working across online, mobile, console, PC, e-sports, and immersive. Ukie has partnered with Games London and the UN's Playing for the Planet Alliance to create a Green Games Guide to help companies think about how they can improve their approach to sustainability. It wants to accelerate how we collectively tackle the challenges ahead, help games companies understand where they can make a difference, and plan and shape milestones. For more information, see https://ukie.org.uk.

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

Describe the aim of your organization's funding

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

No, we have not evaluated



Other, please specify

World Business Council on Sustainable Development (WBCSD)

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

Consistent

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

We publicly promote their current position

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

WBCSD is a global, CEO-led organization of over 200 leading businesses working together to accelerate the transition to a sustainable world. It helps make member companies more successful and sustainable by focusing on the maximum positive impact for shareholders, the environment, and societies. Member companies come from all business sectors and all major economies, representing a combined revenue of more than US\$8.5 trillion and with 19 million employees. WBCSD's global network of almost 70 national business councils gives its members unparalleled reach across the globe. WBCSD is uniquely positioned to work with member companies along and across value chains to deliver high-impact business solutions to the most challenging sustainability issues. For more information, see wbcsd.org. We participate in meetings and regularly engage with WBCSD members on climate change and other environmental policies around the world.

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

Describe the aim of your organization's funding

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

Yes, we have evaluated, and it is aligned



C12.3c

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

Type of organization

Other, please specify

European alliance of stakeholders representing clean energy buyers and suppliers for corporate renewable energy sourcing

State the organization to which you provided funding

RE-Source: This alliance pools resources and coordinates activities to promote a better framework for corporate renewable energy sourcing at European Union (EU) and national levels. This is the first and only multi-stakeholder platform in Europe bringing together the interests of both buyers and sellers to unlock the potential of a new and promising financing stream for renewable energies. For more information, see resource-platform.eu.

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

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

We regularly engage the RE-Source platform and its members to influence EU and national renewable energy and energy market legislation and to coordinate and align advocacy strategies. We contribute annually via a sponsorship agreement that allows us to be partners and steering committee members and to have visibility during the RE-Source annual conference. Outcomes of the funding: We aim to a) influence policymakers to update the rules on power purchase agreements (PPAs) and guarantees of origins (GOs) in line with Microsoft sustainability priorities and b) work together with likeminded companies and organizations to draft reports and participate in events so that the legislative and business environment for PPAs and GOs is favorable. Favorable changes to the legislation on PPAs and GOs—currently under discussion by legislators—can unlock crucial renewable energy potential in Europe, which in turn will accelerate progress towards the goals of the Paris Agreement and support forward-looking companies like Microsoft to power their business via decarbonized energy. We do not disclose funding details, as this is company confidential. Note that the list in this table represents a selection of the most relevant funding made by Microsoft in FY21 and is not exhaustive.



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

Yes, we have evaluated, and it is aligned

Type of organization

Other, please specify

European think tank dedicated to ever better regulation for the energy & sustainability, tech, media, telecom, and mobility sectors

State the organization to which you provided funding

Centre on Regulation in Europe (CERRE): CERRE's membership includes independent regulators, corporations, and university research centers. CERRE actively engages with academics, policymakers, regulators, international organizations, the industry, and civil society to move climate and energy regulation forward. For more information, see https://cerre.eu.

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

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

We contribute annually to CERRE on a membership fee basis and have been sponsoring a specific research project, the outcome of which was a publication (accompanied by a launch event involving EU policymakers and the industry): "Greening ICT in Europe: Data Centres and the Grid." The report looks into the drivers and nature of datacenter energy consumption, Europe's attractiveness for datacenter investment, the legal status of datacenters, and what net-zero energy policies imply for datacenters. The report also provides a range of regulatory and policy recommendations to frame the potential evolution of datacenters as active players in the EU energy system, helping to ensure adequate grid management and optimization in the context of growing computing needs. Outcome of our membership and projects with CERRE: Our engagement with CERRE has enabled us to lead discussions with EU stakeholders based on robust independent and in-depth research on energy and sustainability-related topics. For instance, during and following the launch event of the aforementioned report, we have been able to engage with heads of units and policy officers from the European Commission on energy efficiency—related questions and, more specifically, sustainability metrics related to datacenters and related carbon emissions reduction goals. We do not disclose funding details, as this is company confidential. Note that the list in this table represents a selection of the most relevant funding made by Microsoft in FY21 and is not exhaustive.



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

Yes, we have evaluated, and it is aligned

Type of organization

Other, please specify

Think tank dedicated to revitalizing the European Project and building a more inclusive, sustainable, and forward-thinking Europe

State the organization to which you provided funding

Friends of Europe: The Friends of Europe Climate, Energy & Sustainability program helps visualize the required shifts in energy production and use, food systems, and transport. It champions innovation, the role of technology in speeding up the transition, and the smart use of resources on the road to a decarbonized society. For more information, see https://www.friendsofeurope.org.

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

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

The focus of Friends of Europe in this space is to engage cross-sector stakeholders on a sustainable energy transition, including its cost and financing. We are funding Friends of Europe via a membership fee. Outcomes of the membership: Through our membership, we have the opportunity to attend and/or participate in roundtables and conferences on sustainability and climate change—related topics involving EU policymakers and Europe civil society. We do not disclose funding details, as this is company confidential. Note that the list in this table represents a selection of the most relevant funding made by Microsoft in FY21 and is not exhaustive.

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

Yes, we have evaluated, and it is aligned

Type of organization

Other, please specify

Cross-national, multi-sectoral, and cross-party European Parliamentary Network



State the organization to which you provided funding

Energy Solutions: Energy Solutions was created to facilitate dialogue between stakeholders and develop a holistic approach to energy regulation by working across the energy system and support practical and technological solutions to decarbonize the European economy and society. For more information, see http://www.enersolutions.eu/.

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

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

Energy Solutions is orchestrated by a Danish Member of the European Parliament (MEP). The membership funding that we contribute is for managing the Energy Solutions Network, which is a European cross-national, cross-sectoral, cross-party network of MEPs, the industry, and other actors, for discussing and promoting energy solutions for an integrated energy system towards a European Energy Union. They have been developing think pieces around the different areas of the Clean Energy Package and organizing briefings and panels with key MEPs and Commission representatives on those areas. Outcomes of our funding: Energy Solutions has helped us build new relationships on energy policy, a new area for our office, and provided a platform to support our messages for more ambitious policies and initiatives from European Union (EU) regulators on climate-related topics. We do not disclose funding details, as this is company confidential. Note that the list in this table represents a selection of the most relevant funding made by Microsoft in FY21 and is not exhaustive.

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

Yes, we have evaluated, and it is aligned

Type of organization

Governmental institution

State the organization to which you provided funding

The Minister for the Cabinet Office

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



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

Funding covered COP26 event sponsorship. Microsoft, together with the UK government, acted as a Principal Partner for the COP26 event, which took place in Glasgow during the months of October and November 2021. We do not disclose funding details, as this is company confidential. Note that the list in this table represents a selection of the most relevant funding made by Microsoft in FY21 and is not exhaustive.

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

Yes, we have evaluated, and it is aligned

Type of organization

Non-Governmental Organization (NGO) or charitable organization

State the organization to which you provided funding

Rocky Mountain Institute

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

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

Funding covered Sustainable Aviation Buyers Alliance (SABA) sponsorship. SABA was launched by the Rocky Mountain Institute (RMI) and Environmental Defense Fund (EDF), with support from Microsoft and other global corporates. SABA's mission is to accelerate the path to net-zero aviation by driving investment in high quality sustainable aviation fuel (SAF), catalyzing new SAF production and technological innovation, and supporting member engagement in policymaking. We do not disclose funding details, as this is company confidential. Note that the list in this table represents a selection of the most relevant funding made by Microsoft in FY21 and is not exhaustive.

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

Yes, we have evaluated, and it is aligned

Type of organization



Other, please specify

Media and events company

State the organization to which you provided funding

GreenBiz Group, Inc.

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

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

Funding covered the sponsorship cost for the VERGE Net Zero 2021 event. This online event has the objective of accelerating the transition to a climate-positive future. It gathers leaders to discuss a variety of topics including sustainability, supply chain, manufacturing, and policy. We do not disclose funding details, as this is company confidential. Note that the list in this table represents a selection of the most relevant funding made by Microsoft in FY21 and is not exhaustive.

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

Yes, we have evaluated, and it is aligned

Type of organization

Non-Governmental Organization (NGO) or charitable organization

State the organization to which you provided funding

The International Conservation Caucus Foundation (ICCF)

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

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

Funding covered membership fees. The ICCF Group advances leadership in international conservation through public and private partnerships and by raising conservation awareness among policymakers. We do not disclose funding details, as this is company confidential. Note that the list in this table represents a selection of the most relevant funding made by Microsoft in FY21 and is not exhaustive.



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

Yes, we have evaluated, and it is aligned

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In mainstream reports

Status

Complete

Attach the document

MSFT_FY21Q4_10K.docx

Page/Section reference

Pages 6-7, 32

Content elements

Governance

Strategy

Risks & opportunities

Emission targets

Other metrics

Comment



Microsoft FY21 10K

Publication

In mainstream reports

Status

Complete

Attach the document

0 2021_Proxy_Statement.docx

Page/Section reference

Page 8

Content elements

Governance

Strategy

Emission targets

Other metrics

Comment

Microsoft 2021 Annual Proxy Statement

Publication

Other, please specify
Annual Report



Status

Complete

Attach the document

Page/Section reference

Pages 6-7, 15

Content elements

Governance

Strategy

Emission targets

Other metrics

Comment

Microsoft 2021 Annual Report

Publication

Other, please specify
Annual Report

Status

Complete

Attach the document

0 2021_Shareholder_Letter.docx



Page/Section reference

Pages 6-7

Content elements

Strategy

Emission targets

Other metrics

Comment

Microsoft 2021 Letter to Shareholders

Publication

In voluntary sustainability report

Status

Complete

Attach the document

 \emptyset 2021 Environmental Sustainability_Report.pdf

Page/Section reference

Pages 4-43

Content elements

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets



Other metrics
Other, please specify
Policy

Comment

Microsoft 2021 Environmental Sustainability Report

Publication

In voluntary communications

Status

Complete

Attach the document

Microsoft_Impact_Summary_2021.pdf

Page/Section reference

Pages 16-19

Content elements

Strategy

Emission targets

Other metrics

Comment

Achieving More Together: 2021 Microsoft Impact Summary



Publication

In voluntary sustainability report

Status

Complete

Attach the document

Microsoft_TCFD_Report_2021.pdf

Page/Section reference

ΑII

Content elements

Governance

Strategy

Risks & opportunities

Emission targets

Other metrics

Comment

Task Force on Climate-related Financial Disclosures: 2021 Report

Publication

In voluntary communications

Status

Complete

Attach the document



Microsoft_Blog_Extracts_Climate.pdf

Page/Section reference

ΑII

Content elements

Governance

Strategy

Emission targets

Other metrics

Other, please specify

Environmental action, policy, supplier engagement, climate equity

Comment

FY21 extracts from the Microsoft blogs

Publication

In voluntary communications

Status

Complete

Attach the document

Microsoft_Sustainability_Sites_Carbon.pdf

Page/Section reference

ΑII



Content elements

Strategy
Emission targets
Other, please specify
Environmental action

Comment

Extracts from Microsoft sustainability websites

Publication

In voluntary communications

Status

Complete

Attach the document

Page/Section reference

ΑII

Content elements

Emissions figures

Comment

Microsoft Devices Eco Profiles



Publication

In voluntary communications

Status

Complete

Attach the document

 ${\color{red} \mathbb{Q}} \ \, \mathsf{Microsoft_Devices_Responsible_Sourcing_Report_FY21_FINAL.pdf}$

Page/Section reference

Pages 8-10, 20, 29, 40-46

Content elements

Strategy
Risks & opportunities
Other, please specify
Supplier engagement

Comment

Microsoft FY21 Devices Responsible Sourcing Report

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

Description of oversight and objectives relating to biodiversity



	responsibility for biodiversity-related issues	
Row 1	Yes, both board-level oversight and executive management-level responsibility	Microsoft has made sustainability part of its business, including embedding it deeply into its governance structure. Our Board of Directors provides oversight across a range of environmental and social matters. In particular, the charter for the Board's Environmental, Social, and Public Policy Committee (formerly called the Regulatory and Public Policy Committee) identifies the following (among other topics) in its responsibilities: "review and provide guidance to the Board and management about key environmental and social matters such as climate change, and environmental sustainability." This includes Microsoft's ecosystem commitment to protect more land than it uses by 2025 and build a Planetary Computer. Both of these components are directed towards better understanding and protecting biodiversity. The Environmental, Social, and Public Policy Committee meets at least three times a year with a varied agenda including updates on the company's commitments to environmental sustainability. During at least one meeting each year and on an as-needed basis, our President & Vice Chair and our Vice President & Chief Environmental Officer present to this committee on sustainability topics. In FY21 (the reporting period), the committee received a briefing from our Chief Environmental Officer about Microsoft's progress in environmental sustainability, including the achievement of our commitment to protect more land than we use.

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
Ro 1	Yes, we have made public commitments and publicly endorsed initiatives related to biodiversity	Other, please specify Protect more land than we use; build a Planetary Computer	Other, please specify Trillion Trees Pledge



C15.3

(C15.3) Does your organization assess the impact of its value chain on biodiversity?

	Does your organization assess the impact of its value chain on biodiversity?	
Row 1	No, and we do not plan to assess biodiversity-related impacts within the next two years	

C15.4

(C15.4) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row	Yes, we are taking actions to progress our biodiversity-related commitments	Land/water protection
1		Land/water management
		Other, please specify
		Environmental monitoring data

C15.5

(C15.5) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance	
Row 1	Yes, we use indicators	Response indicators	

C15.6

(C15.6) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).



Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In mainstream financial reports	Content of biodiversity- related policies or commitments	Microsoft FY21 10K: p6 (reference to commitment to build a Planetary Computer to protect ecosystems)
Other, please specify Annual Report	Content of biodiversity- related policies or commitments	Microsoft 2021 Annual Report: p7 (reference to building a Planetary Computer to help manage and protect Earth's natural systems)
Other, please specify Annual Report	Content of biodiversity- related policies or commitments	Microsoft 2021 Letter to Shareholders: p7 (reference to building a Planetary Computer to help manage and protect Earth's natural systems)
In voluntary sustainability report or other voluntary communications	Content of biodiversity- related policies or commitments Governance Impacts on biodiversity Details on biodiversity indicators Influence on public policy and lobbying Biodiversity strategy	Microsoft 2021 Environmental Sustainability Report, on ecosystems commitment/initiatives: p6 (progress), 12 (summary), 78-89 (detailed overview), 92-93 (timeline, partnerships, memberships), 103 (environmental data), 111 (reporting criteria)
In voluntary sustainability report or other voluntary communications	Content of biodiversity- related policies or commitments	FY21 extracts from Microsoft blogs (all pages) 0 5



or other voluntary related policies or communications commitments	
$lackbox{lackbox{}}$	
Biodiversity strategy	

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³2021_Shareholder_Letter.docx

⁰ ⁴2021 Environmental Sustainability_Report.pdf

 $\\ \textcircled{6Microsoft_Sustainability_Sites_Ecosystems.pdf}$

C16. Signoff

C-FI

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

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	President and Vice Chair	President