

C0. Introduction

C0.1

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

Apple Inc. and its wholly-owned subsidiaries (hereinafter, collectively, Apple or the Company) designs, manufactures and markets smartphones, personal computers, tablets, wearables and accessories, and sells a variety of related services. The Company's products include iPhone®, iPad®, Mac®, Apple Watch®, AirPods®, Apple TV®, Beats® products, HomePod®, HomePod mini™, iPod touch® and other Apple-branded and third-party accessories. We operate various platforms, including the App Store®, that allow customers to discover and download applications and digital content, such as books, music, video, games and podcasts. We also offer digital content through subscription-based services, including Apple Arcade™, Apple Music®, Apple News+™, Apple TV+™ and Apple Fitness+™, and a variety of other services, including AppleCare®, iCloud®, Apple Card™, and Apple Pay®. The Company also offers services including digital content stores and streaming services, AppleCare®, and iCloud® among others.

The Company's customers are primarily in the consumer, small and mid-sized business, education, enterprise and government markets. The Company sells its products and resells third-party products in most of its major markets directly to consumers, small and mid-sized businesses, and education, enterprise and government customers through its retail and online stores and its direct sales force. The Company also employs a variety of indirect distribution channels, such as third-party cellular network carriers, wholesalers, retailers and resellers. The Company's fiscal year is the 52 or 53-week period that ends on the last Saturday of September, with fiscal year 2020 beginning September 27, 2019 and ending on September 26, 2020. The Company is a California corporation established in 1977.

Apple has provided responses in this Questionnaire upon the request of the CDP signatory investors. All such responses are provided solely on a non-reliance basis. Apple's responses may also contain forward-looking statements that involve risks and uncertainties. Forward-looking statements provide current expectations of future events based on certain assumptions and include any statement that does not directly relate to any historical or current fact. Forward-looking statements are not guarantees of future performance and the Company's actual results may differ significantly from the results discussed in the forward-looking statements. Apple assumes no obligation to revise or update any information included in this Questionnaire.

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	September 27 2019	September 26 2020	Yes	1 year

C0.3

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

C0.4

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

USD

C0.5

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

Operational control

C1. Governance

C1.1

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

Yes

C1.1a

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

Position of individual(s)	Please explain
Director on board	Apple's Board of Directors (Board) acts collectively and receives briefings on a range of social and environmental topics, including climate-related issues. Apple values accessibility, education, environment, inclusion and diversity, privacy and supplier responsibility, and believes that oversight of these values, due to their importance to the Company, is best suited to both executives and the Board. Apple's Board regularly meets with management to exercise oversight and provide guidance on strategic objectives of importance to the Company. Materials are generally distributed to the Board in advance and certain items may be brought for formal Board approval, while other items are presented to the Board for their analysis, debate and discussion amongst all members of the board. Given that the Board provides input on and exercises oversight of strategy, the Company's environmental strategy, including climate-related issues, fall within this purview. An example of a climate-related Board decision was the approval, in December 2014, of a 25-year, 130-megawatt power purchase agreement for the California Flats solar project. The project, which came online in 2017, supplies renewable energy through Direct Access to Apple's facilities in northern California, like our Apple Park headquarters.

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding risk management policies	<Not Applicable>	The Vice President of Environment, Policy, and Social Initiatives briefs Apple's Board on a range of social and environmental topics, including climate-related issues as a regularly scheduled agenda item. Regular communications from the VP ensure that the Board has insight into and oversight over the Company's risks, strategy, and initiatives relating to Apple's efforts to address climate change. These governance mechanisms ensure that climate risks, opportunities, and strategies reach the highest levels of governance within Apple for review and oversight.

C1.2

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

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

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).

i. Lisa Jackson is Apple's Vice President of Environment, Policy and Social Initiatives. Her responsibilities include those of a Chief Sustainability Officer and she reports directly to Apple's CEO, Tim Cook. Lisa Jackson, who previously was the Administrator of the U.S. Environmental Protection Agency from 2009 to 2013, oversees Apple's environmental program, including climate-related activities, as well as social initiatives and Apple's global Government Affairs team. Reporting directly to Apple's CEO, Tim Cook, Ms. Jackson is the most senior individual below the Board with direct oversight of climate-related activities.

ii. In this capacity, Ms. Jackson briefs the Board on Apple's climate change strategy and progress, while also addressing a variety of other environment and social issues. These briefings are scheduled annually and as important matters arise. Ms. Jackson established a centralized environment team that works with senior leaders and their teams across Apple (such as Industrial Design, Product Design, Operations, Energy, and Hardware Engineering, among others) to set climate strategy, monitor progress, engage external stakeholders, including non-governmental organizations (NGOs), and policymakers, and communicate progress on environmental issues. Strategy is set by leveraging Apple's comprehensive carbon footprint (CCF), which is based on lifecycle carbon assessment (LCA) data that quantifies the lifecycle impacts of Apple's products, as well as facilities. The CCF identifies hot spots and areas to focus Apple's emissions reduction efforts. Most recently, Apple, with the approval of Company leadership, announced an ambitious plan to reach net zero emissions for its entire CCF by 2030. This goal includes an emissions reduction target of 75 percent compared to 2015, with investment in carbon removal projects to address the remaining 25 percent of unavoidable emissions. Our footprint has decreased by 40 percent, marking steady progress toward our 2030 target. And we avoided more than 15 million metric tons of emissions through initiatives to use low-carbon materials, drive energy efficiency, and switch to clean energy—carbon reduction efforts that separated a rise in sales from increases in our carbon footprint. Progress is tracked through annual LCAs as well as by monitoring growth in renewable energy capacity at our own facilities and in our supply chain. Progress is communicated internally to employees and externally to our customers by engaging with communications teams, such as the Marketing Communications, Corporate Communications, and Employee Communications teams.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	

C1.3a

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

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Chief Sustainability Officer (CSO)	Monetary reward	Emissions reduction project Emissions reduction target	Lisa Jackson is Apple's Vice President of Environment, Policy and Social Initiatives. In this capacity, her responsibilities include those of a Chief Sustainability Officer for Apple, reporting directly to Apple's CEO, Tim Cook. She is expected to advance Apple's environmental and social initiatives. Her annual performance review and compensation components, including restricted stock units and annual salary adjustments, are tied to Apple's success in these areas, including work to minimize Apple's contribution to climate change.
Facilities manager	Monetary reward	Energy reduction project	Our Data Center, Environment and Energy teams drive the efficiency and sustainability of their facilities, including designing green buildings and reducing energy efficiency at new and existing facilities. Apple now has a number of public-facing climate goals, including maintaining 100 percent renewable energy for its facilities, as part of Apple's broader goal of reaching carbon neutrality by 2030. Implementing these goals falls on the facilities managers, and their performance directly influences their monetary compensation.
All employees	Non-monetary reward	Emissions reduction project	All employees at Apple are expected to uphold the values of the Company in their work and everyday activities. Apple's CEO Tim Cook has openly stated that the company must leave the world better than we found it. Accordingly, Apple employees are expected to create products that benefit people as well as the environment. Significant achievements toward environmental goals that include using recycled or renewable materials, less packaging and reducing emissions from our facilities and supply chain are recognized in Apple's annual environmental report, internal companywide communications, and individual performance reviews.
Procurement manager	Monetary reward	Environmental criteria included in purchases Supply chain engagement	Apple has a procurement team dedicated to the consideration of environmental criteria in purchasing decisions. These criteria include supplier commitments and progress toward using 100 percent renewable energy for Apple production, as well as the procurement of recycled or renewable materials for use in the production of Apple products. Both of these actions have the potential to significantly reduce the carbon footprint of Apple products. Factors in determining monetary rewards for employees include performance and progress toward meeting their environmental procurement goals.
Environment/Sustainability manager	Monetary reward	Emissions reduction project Energy reduction project	Our Environmental Technologies team in Hardware Engineering tracks compliance with energy efficiency programs for product use such as Energy Star and the California Energy Commission requirements. Energy efficiency is rewarded amongst other criteria for Apple products in accordance with product sustainability standards (IEEE 1680.1 and UL110). Implementing product energy efficiency goals in collaboration with product design teams is key to the success of the Environmental Technologies manager, whose performance directly influences monetary compensation.

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	1	For environmental and climate-related initiatives, we consider short-term horizon to be between 0 to 1 year, medium-term between 1 to 10 years, and long term to be greater than 10 years. These timeframes help us best plan for risks and opportunities relating to climate change.
Medium-term	1	10	For environmental and climate-related initiatives, we consider medium-term horizon to be between 1 to 10 years.
Long-term	10	30	For example, some of Apple's power purchase agreements are 25 -30 years.

C2.1b

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

i. In determining a “substantive financial or strategic impact”, Apple considers whether the impact would be “material”, where “material” means that there is a substantial likelihood that a reasonable investor would attach importance to it in determining whether to buy or sell shares. We consider the impact of climate change to be a potential risk that could make it difficult or impossible for the Company to manufacture and deliver products, create delays and inefficiencies in the Company’s supply and manufacturing chain, and result in slowdowns and outages to the Company’s service offerings.

In 2017, for example, Hurricane Harvey temporarily displaced Apple employees located in/around Houston, Texas and caused us to close several stores in the Houston area for a limited time. We responded to this crisis by helping our employees secure temporary housing, donating \$5 million to the Hand in Hand relief effort, and creating a simple mechanism for our customers to donate to the cause through iTunes. While these events did not have a substantive financial or strategic impact on Apple, these kinds of acute physical risks are regularly assessed.

ii. Regardless of the significance of climate change’s potential financial impact on the Company, Apple strongly believes it has a responsibility to reduce its impact on climate change and consider climate change in how it plans for the future. Apple identifies the potential size and scope of climate risks and opportunities relative to other business risks and opportunities, considering the proportion of business units affected, the significance of those business units, and redundancies we’ve already built into our business to minimize impacts. In 2019, Apple announced a goal of becoming carbon neutral for its operations as well as the entire product lifecycle by 2030. To help meet this goal, we are leveraging Apple’s USD\$2.2 billion green bond issued in November 2019

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

Climate-related risks and opportunities for Apple are identified and assessed on an ongoing basis (more frequently than every 6 months), as part of Apple’s broader climate strategy. As mentioned in 2.1b, Apple strongly believes it has a responsibility to reduce its impact on climate change regardless of the financial materiality of climate impacts. Apple recently announced a goal of becoming carbon neutral for its operations as well as the entire product lifecycle by 2030. This presents a tremendous opportunity for Apple to continue to demonstrate meaningful leadership on climate. To reach this goal, Apple has adopted a broad climate strategy that was developed by a cross-functional working group of teams across the company that meets multiple times each year to discuss risks and opportunities. For regulatory transition risks, for example, Apple has global governmental affairs and environmental teams that monitor climate-related policies (like those relating to carbon pricing or renewable energy) at different stages of development. The significance of these policies is determined by their alignment to our strategic climate goals, such as whether a policy would enable or prevent market access to renewable energy. When teams consider that a proposed policy or regulation could affect our strategic goals and priorities, the proposed policy or regulation is escalated within the Company. Apple continually identifies potential policy or regulatory changes that raised concerns relating to advancing our climate strategy and prompted Apple to advocate accordingly. For example, in March of 2019, Apple participated in the UN Environmental Assembly and conducted bilateral discussions with a number of countries to advocate for policies that enable a circular economy and bold action on climate. And in December 2020, our CEO Tim Cook addressed the United Nations’ Climate Ambition Summit resoundingly reinforcing our commitment to transition to a carbon neutral economy and create inclusive opportunities. Apple has a full-time energy policy advisor who tracks and advises environmental, product and operations teams across Apple on risks and opportunities from proposed or recently enacted energy-related policies at the national and state level in regions where Apple has operations. These teams work together to assess if energy policy changes will: (i) interfere with our market access to robust renewable energy options or to well-priced electric power, or (ii) create a financial impact by increasing/decreasing the cost of renewables or the tariff rate for electricity. To assess the significance of the impacts, we weigh Apple’s exposure to the significance of the policy. Any action taken in response to energy policy changes is coordinated through the Vice President of Environment, Policy and Social Initiatives. Climate-related physical risks are identified and assessed at an asset level on an ongoing basis. For example, we regularly conduct water risk analyses to understand facilities that are vulnerable to existing as well as future climate-related water stress. Tools like the World Wildlife Fund (WWF) Risk Filter and the World Resources Institute (WRI) Water Risk Atlas provide us detailed profiles of geographically specific water use and water-related risks that inform our local strategy. We evaluate the risk based on the size and significance of our operations as well as the magnitude of water stress—then prioritize our actions accordingly. And we take action according to the type and significance—with material risks escalated within the company. Where we have facilities located in areas of high water stress, we seek to minimize use of freshwater through rainwater capture, onsite wastewater recycling, or use of third-party-provided recycled water. Additionally, we invest further in building out alternative water sources for our non-potable needs. For example, we’ve expanded our recycled water use at our offices in Santa Clara Valley and Elk Grove, California; Singapore; India; and Taiwan; as well as at two of our three largest collocated data centers. We partnered with local water agencies and municipalities in Santa Clara Valley to bring recycled water to our new Apple Park and Wolfe campuses, and in 2019 those systems came online, replacing 11 million gallons of potable freshwater with recycled water. We saved 111 million gallons of freshwater in fiscal year 2020 due to efficiency projects implemented since 2017, including 11 million gallons due to new improvements made this year. At one of our locations in Santa Clara Valley, equipment upgrades—including an improved cooling system—resulted in almost 1 million gallons of water savings per year.

C2.2a

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	We consider existing regulation and climate policies, as well as areas where regulations are lacking, when assessing climate-related risks for the Company, as both can impact Apple. For regulatory risks, Apple has a global governmental affairs and environmental teams monitor existing climate-related policies (such as those relating to carbon pricing or renewable energy) at different stages of implementation. The significance of these policies is determined based on their alignment to our strategic climate goals—for example, whether a renewable energy policy would enable or prevent market access to renewable energy. For example, in fiscal year 2017, Apple joined other tech companies in signing a statement backing the renewable energy policies that the current U.S. Administration had recently taken steps to reverse: "We believe that strong clean energy and climate policies, like the Clean Power Plan, can make renewable energy supplies more robust and address the serious threat of climate change while also supporting American competitiveness, innovation, and job growth." The U.S. Administration's action to reverse clean energy policy poses a risk to all organizations exposed to the negative impacts of climate change. Our response to this action was elevated within our risk assessment process and involved coordination between our governmental affairs and environmental teams. The fact that Apple signed on to a formal statement with other companies demonstrates how significant risks with respect to current climate-related policies are elevated within the Company.
Emerging regulation	Relevant, always included	We consider emerging regulation, such as regulation that enables investments in renewable energy, as critical to our climate strategy, and therefore both monitor and support emerging regulation in this area. Apple's global governmental affairs and environment teams monitor emerging climate-related policies at different stages of development. The significance of these policies is determined based on their alignment to our strategic climate goals—for example, whether a renewable energy policy would enable or prevent market access to renewable energy. For example, in January 2018, Apple filed comments to the Federal Energy Regulatory Commission (FERC), urging it not to finalize a rule that would subsidize fossil fuels, which would limit the ability of renewables to compete in the electricity market. FERC chose not to finalize that rule. Identifying relevant emerging regulations early in the process is important to advancing Apple's climate-related goals, and opposing emerging regulations that make achieving such goals more difficult, such as where regulations may limit the financial competitiveness of renewable energy, is equally important.
Technology	Relevant, always included	Technology creates both risks and opportunities in a number of ways. Apple is a technology company that delivers products to our customers. These products have a carbon footprint, which we calculate through a carbon life cycle assessment (LCA) process. This carbon footprint, if not otherwise addressed, would constitute a risk to Apple, as it represents scope 3 emissions that Apple takes responsibility for as part of its comprehensive carbon footprint. Having committed to carbon neutrality by 2030, failure to address product-related emissions could represent a reputational risk to Apple. Product-related emissions also represent an opportunity for Apple to demonstrate leadership and drive down emissions. In particular, we leverage the LCA data in order to identify opportunities to reduce emissions associated with our products throughout their lifecycle. For example, aluminum makes up a large portion of our manufacturing carbon footprint, as it's a key material in many of Apple's products, and, for more than 130 years, it's been produced through a carbon-intensive process. Through a partnership with aluminum manufacturers Alcoa Corporation and Rio Tinto Aluminum, announced in May 2018, that's changing. The joint venture between Alcoa and Rio Tinto will commercialize patented technology that eliminates direct greenhouse gas emissions from the traditional smelting process, a key step in aluminum production. Apple believes that this is a revolutionary advancement in the manufacturing of one of the world's most widely used metals. In December 2019, we announced that Apple had bought the first ever commercial batch of direct carbon-free aluminum, which is currently being used in the development of the 16-inch MacBook Pro.
Legal	Relevant, sometimes included	We consider legal risks as part of our climate strategy in so much as climate-related regulatory risks have a legal component, in terms of compliance as well as risk of litigation. Such legal risks are monitored by our environmental, governmental affairs, and legal teams. For example, the EU has in effect a directive requiring, in management reports for certain legal entities, non-financial disclosures addressing environmental matters (including climate change), social and employee matters, human rights, and bribery and corruption. This directive applies to Apple because of our subsidiary operations in various EU member states. Regulation and policies like the non-financial reporting directive in the EU represent a compliance risk and a potential for reputational effects or litigation for non-compliance.
Market	Relevant, always included	We assess and consider market risks as part of our climate strategy by identifying challenges to deploying renewable energy within our operational footprint and in our supply chain. The robustness of a renewable energy market is an essential element to implementing renewable energy solutions. In countries where the local market conditions create a challenging environment to implement renewable energy solutions, we work with local government and other stakeholders to promote active, market-driven renewable energy projects. Challenging markets include ones with limited renewable energy availability, a lack of established renewable energy markets, or changes in policy to subsidize fossil fuels. These challenges are addressed through our assessment process—first identified by environmental or governmental affairs teams, who then bring proposals for addressing the challenges to our VP of Environment, Policy and Social Initiatives, as needed. Following the assessment process and proposal determination, we then take action, with the ultimate goal of advancing renewable energy and our ability to access it. For example, in January 2018, Apple filed comments to the Federal Energy Regulatory Commission, urging it not to finalize a rule that would subsidize fossil fuels, and, consequently, limit the ability of renewables to compete in the electricity market. FERC chose not to finalize that rule.
Reputation	Relevant, always included	How our customers and stakeholders perceive Apple's performance on climate-related issues could affect the demand for the Company's products. For example, a lack of action on climate change may result in customers opting to purchase electronics from companies that are demonstrating stronger leadership on climate change. We assess this risk by regularly conducting surveys to monitor customer perceptions. To manage this risk, we plan to continue to aggressively reduce emissions and communicate Apple's emissions reduction activities—including our most recent announcement to be carbon neutral by 2030. Apple also monitors the perceptions of respected NGOs and media. For example, in its most recently published Guide to Greener Electronics, Greenpeace rated Apple as one of the top scoring companies. And in a review of the new 13-inch MacBook Air with Retina Display, The Guardian described it as "one of the most sustainable laptops you can buy" and noted that "what makes the MacBook Air stand apart is its use of recycled material, including 100% recycled aluminum in the casing, 100% recycled tin in the solder of its logic board and at least 35% recycled plastic used in multiple components."
Acute physical	Relevant, always included	Acute physical impacts of climate change have the potential to interrupt Apple's operations. In fiscal year 2017, for example, Hurricane Harvey displaced Apple employees located in and around Houston, Texas and caused us to close several stores in the Houston area. We responded to this crisis by helping our employees secure temporary housing, donating \$5 million to the Hand in Hand relief effort, and creating a simple mechanism for our customers to donate to hurricane recovery efforts through iTunes. While these events did not substantially affect Apple financially, these kinds of acute physical risks are regularly assessed through Apple's risk assessment and planning processes described in our response to question C2.2d to understand and mitigate any potential financial impact. Teams across Apple are involved in assessing the impact of these acute physical risks, including Apple's Travel team, global Giving team, and Facilities and Operations teams. Urgent risks are escalated through Apple's Vice President of Environment, Policy and Social Initiatives, Lisa Jackson. An example of changes made directly into the planning process to account for heightened acute physical risks include the consideration of 200- to 500-year flood events / floodplains in planning for facilities, using best available data, beyond the typical 100-year flood events.
Chronic physical	Relevant, always included	We assess and respond to chronic physical impacts of climate change on our facilities. Northern California, for example, where our headquarters is located, has been subject to drought from time to time. This drought increases potential regulatory risk of water limits on Apple facilities and a perception risk if the local community believes Apple is not taking sufficient action to reduce water use. Most importantly, we believe it to be Apple's responsibility to contribute to the wellbeing of its local community by being as water efficient as possible. We consider these risks on an ongoing basis by monitoring water use and regional demands on municipal water systems. Broader drought risk persists and as such we are implementing landscape water reduction activities at our headquarters in Santa Clara Valley, California. In addition to drought-related landscape concerns, there are also potential increased costs from adapting to water availability in a changing climate. For example, near our data center in Prineville, Oregon, we partnered with the city to invest in a 180-million-gallon aquifer storage and recovery system that holds water throughout the year for use in peak demand months. This system uses natural underground spaces for cost-effective storage, helping mitigate seasonal impacts and future climate-related risks of water shortages.

C2.3

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

Yes

C2.3a

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

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Carbon pricing mechanisms
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Primary potential financial impact

Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Carbon taxes, or any other regulatory scheme addressing climate change, may create upward pressure on energy prices, as low-cost but high-emission sources are replaced by lower-emitting sources. One effect of this risk is increased electricity prices, which could increase Apple's cost of operations, most notably at operating U.S. data centers in California, Oregon, North Carolina, Arizona, Nevada, as well as Denmark. We've not yet experienced any regulatory changes that have notably increased electricity prices. Were a change to occur, our behind-the-meter renewable energy projects are insulated from this risk, and certain PPAs partially insulate us. Based upon an assessment completed in 2017, we determined this climate risk was very low in the short term, considering the stance of the U.S. Administration, but still applicable to the medium-term. We have taken actions to mitigate this risk through our investments in renewable energy (see below). Our recently conducted climate scenario analysis confirmed that there is variation in the potential future costs from regulations that place a price on carbon, depending on the scenario and discount rate used. Applying the IEA SDS scenario at a 5 percent discount rate across Apple's global operations (scopes 1 and 2), shows the potential impact of carbon pricing to be approximately \$8 million per year by 2040, in the absence of any further emissions reduction for Apple. Apple's ambitious 2030 carbon neutral goal that applies to its scope 1, 2 and 3 emissions would mitigate the majority of that risk, primarily through emissions reductions and continuing to procure 100 percent renewable energy through long-term contracts for Apple's direct electricity use.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

19300000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Climate change regulation may result in small energy price increases. We estimate that electricity spend represents less than 1 percent of Apple's annual operating expense, which in fiscal year 2020 was \$38.6 billion. A hypothetical 5 percent rise in electricity prices across the board could raise Apple's electricity spend by approximately \$19.3 million annually; while this would have minimal effect on Apple's overall financial positions, it is part of our business strategy to manage this exposure through use of renewable energy. While this impact is greater than the projected 2040 carbon pricing scenario, we still believe it to be an accurate conservative estimate.

Cost of response to risk

2500000000

Description of response and explanation of cost calculation

Our management approach for this risk is two-fold. 1) Operationally, we are making substantial investments in Apple-created renewable energy projects, which in many cases provide a price hedge against rising retail energy rates. For example, in 2015 we announced a 130-megawatt solar PV array in Monterey County, California, which directly serves renewable energy to our California Direct Access facilities with energy cost price certainty. Overall, in fiscal year 2020, 90 percent of the renewable energy we procured came from Apple-created renewable sources. 2) We are also focusing on reducing our energy consumption through energy efficiency by investing in projects focused on operational efficiency, and investing in skilled energy management staff. For example, in fiscal year 2020, our energy efficiency program avoided an additional 13.9 million kilowatt-hours and 199,700 therms per year from existing buildings and retrocommissioning, as well as new building design. Together, these initiatives will avoid about 4900 metric tons of CO2e per year. With these efforts, we believe we are well-positioned should energy prices rise due to climate legislation and carbon pricing. Our renewable energy projects require substantial capital investment. While our renewable energy investments mitigate this risk, our primary objective in pursuing these efforts is to reduce our emissions and demonstrate climate leadership. We have committed over \$2.5 billion to renewable energy and energy efficiency projects since the inception of our renewable energy program. These renewable energy projects often reduce our overall cost of energy over the long term, while hedging against future increases or fluctuations in energy costs including those due to carbon pricing mechanisms. In addition, these projects bring us non-financial benefits and contribute to our efforts to tackle climate change. Our energy efficiency program is integrated into our facilities budget, and is generally handled within existing allocations.

Comment

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical	Increased severity and frequency of extreme weather events such as cyclones and floods
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Primary potential financial impact

Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Changes in the severity and frequency of extreme weather events strain the infrastructure systems (e.g., power, water, transportation, and communication) supporting our

supply chain and our operations, as well as the human resources needed to maintain normal operations at Company facilities. Effects from severe weather events could cause a temporary disruption in production or the availability of component parts or finished products, in the availability of a data center, or in the availability or productivity of our workforce. For example, Hurricane Harvey caused record flooding beyond that for which impacted regions of Texas were prepared. Hence the region suffered significant damage to infrastructure with a significant impact on residents' lives. Though direct Apple facilities were not significantly impacted by the hurricane, many Apple employees' homes were damaged. This indirectly impacted the Company as employees had to relocate and recover. The likelihood of rain-heavy storms like Harvey in areas not typically exposed to such extreme weather increases due to climate change. Because Apple has dozens of retail locations across more than 40 U.S. states, our geographic exposure to changing extreme weather events is high. Though most of these impacts will not, by themselves, affect the Company in an immediate or significant way, there are some exceptions. For example, Apple has sales channels that depend on certain facilities and services being operational (e.g., retail stores, the iTunes Store and the App Store, which collectively supported part of Apple's total new sales of \$274,515 million in fiscal year 2020, as reported in the Form 10-K filing with the U.S. Securities and Exchange Commission). Disruptions to these facilities and services due to changes in precipitation patterns or extreme weather events such as flooding, hurricanes, etc. could create immediate lost-revenue effects. While we consider this risk to be medium-term, we experienced disruptions from hurricanes that occurred in the United States in 2018.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

110000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Severe weather events or water-related service disruption of an unusually long duration, or which affect an unusually widespread area, or of unusually intense force, could impact product or service availability, which may affect our financial positions. The magnitude would depend on the facilities affected and the duration of the disruption. Climate change could make it difficult or impossible for the Company to manufacture and deliver products, create delays and inefficiencies in the Company's supply and manufacturing chain, and result in slowdowns and outages to the Company's service offerings. As a hypothetical example, if a flooding event affected our ability to deliver 0.5% of product sales, this could potentially result in a net impact of about \$1.1 billion—based on fiscal year 2020 product sales number of \$220,747 million (based on combined net sales of iPhone, Mac, iPad, Wearables, Home, and Accessories, as reported in our Form 10-K filing with the U.S. Securities and Exchange Commission).

Cost of response to risk

38600000

Description of response and explanation of cost calculation

There is minimal incremental cost to our current approach of managing extreme weather events potentially brought on by climate change. Because our current approach is forward-looking, and because we already consider physical risks that may arise from a variety of causes, the costs of expanding the list of potential causes—and even broadening the geographic areas of interest—are integrated into broader capital improvements. As we operate our sites, the incremental operational cost of additional redundancies and protections to avoid disruptions—such as back-up generators, micro-grids, and onsite renewable energy—is minimal, less than 0.1% of Apple's annual operating expenses in fiscal year 2020, or less than \$38.6 million.

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Reputation	Increased stakeholder concern or negative stakeholder feedback
------------	--

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

As one of the most valuable companies in the world, Apple is highly visible and attracts many diverse stakeholders—including people for whom the Company's future is of direct importance (147,000 full time employee equivalents as of the end of fiscal year 2020, customers, investors, partners, developers, suppliers, communities where we operate, etc.) and indirect stakeholders who are concerned with corporate behavior and action (non-governmental organizations, political participants, media outlets, etc.). This visibility and extensive stakeholder interest heightens the perceived impact of our operations and products. For example, on Earth Day 2019, Apple released on its YouTube channel a video entitled "Don't Mess with Mother", showing spectacular images of nature from around the world. The video was a reminder of the importance of protecting this planet we all share. It received over 37 million views, which is an indication of Apple's reach and visibility. Because the threat of climate change is held as relevant and important by a portion of Apple's direct and indirect stakeholders, Apple's actions or lack thereof concerning climate change could create reputational risk. A 2018 Nielsen Report entitled "The Evolution of the Sustainability Mindset" found that 81% of global respondents feel strongly that companies should help improve the environment. Ever-evolving consumer data continues to show emphasis on environmental issues, including climate change, demonstrating the reputational risks to companies of poor environmental performance. For example, if Apple is not transparent and does not adequately explain its actions to its stakeholders, public misconception could create the perception that the Company is not environmentally responsible. This will limit Apple's ability to communicate effectively with our stakeholders. Though any one incident is unlikely to affect the Company's reputation, over time and cumulatively a perceived lack of transparency could detract from Apple's brand value, and could reduce people's inclination to purchase from, invest in, or work for Apple.

Time horizon

Long-term

Likelihood

Very unlikely

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

322000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Reputational risk related to a perceived lack of transparency surrounding our environmental initiatives is likely to be zero or near zero in the short term. Over the longer term reduced demand could occur if stakeholder misconceptions were to persist. Interbrand's 2020 Best Global Brands report estimates Apple's brand value at over \$322 billion. A hypothetical 0.1 percent decrease in that value due to a perceived lack of transparency or a poor reputation related to climate change could represent an approximate \$322 million loss of brand value.

Cost of response to risk

3860000

Description of response and explanation of cost calculation

Apple manages this risk by taking visible actions that define and communicate our values as a Company, and by disseminating clear and factual information on an ongoing basis. Regarding climate change, Apple releases not only annual environmental reports, but also product environmental reports at every product release. Apple also creates additional opportunities to interact with stakeholders such as press interviews, conference appearances and presence on social media. For example, in June 2017, following the U.S. Administration's decision to withdraw from the 2015 Paris Agreement, Apple's CEO Tim Cook tweeted to his 10.9 million followers "Decision to withdraw from the #ParisAgreement was wrong for our planet. Apple is committed to fight climate change and we will never waver." Investing in renewable energy makes good business sense for Apple. The cost of disseminating clear, accurate information about Apple's climate change agenda is low—less than 0.01 percent of Apple's annual operating expenses, or less than \$3.86 million. However, executing the programs themselves—the actions that comprise Apple's reputation—costs more. For example, Apple recently issued a green bond to help meet our 2030 carbon neutrality goal. This green bond issuance was intended to demonstrate climate leadership and help mitigate Apple's emissions.

Comment

C2.4

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

Yes

C2.4a

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

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Jurisdictions seeking to address climate change may implement new or more stringent regulatory schemes aimed at reducing the energy consumed by electronic devices, and/or they may require energy use labeling to better inform consumer choices. For example, the California Energy Commission is developing energy efficiency standards for computers and monitors, an activity Apple is involved in, as described in 12.3a. Apple would be well positioned to benefit from such regulations, due to our ongoing focus on the energy efficiency of our products. For example, in fiscal year 2020, 100 percent of our eligible products received an ENERGY STAR rating for superior energy efficiency (specifically, for Apple TV, Mac Pro, MacBook Air, MacBook Pro, MacBook, iPad, iMac and Mac Mini). Broader or more stringent standards would call upon a particular strength of Apple's product design teams, enabling us to comply rapidly if changes were required, or to demonstrate best-in-class results. This may favor Apple in competitive procurements, or become more of a differentiator among consumers; both of these effects would increase demand for Apple's products.

Time horizon

Medium-term

Likelihood

More likely than not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

0

Potential financial impact figure – maximum (currency)

1900000000

Explanation of financial impact figure

If new efficiency laws are implemented, Apple should have a more broadly compliant product line than its competitors and hence be in a stronger position to sell more products, at least in the short term. For example, if a European regulation targeting portable and desk-based computers resulted in a hypothetical one to two year regulatory advantage for Apple and yielded between 0 and 1 percent increase in product sales, Apple's annual revenue could increase by between approximately \$0 and \$1.9 billion in net sales (based on Apple's fiscal year 2019 net sales figure for iPhone, iPad, and Mac of approximately \$190,127 million per our Form 10-K filing with the U.S. Securities and Exchange Commission). This financial impact could vary widely from this estimate; therefore we included a range of financial return from 0 to this estimate.

Cost to realize opportunity

93000000

Strategy to realize opportunity and explanation of cost calculation

As energy consumed by Apple's products during everyday use represents 14 percent of Apple's carbon footprint, we work to reduce the energy use of Apple products by designing: 1) more efficient power supplies to bring electricity from the wall to the device, 2) more efficient hardware, and 3) smarter power management software. For example, Mac OS puts the hard drive to sleep and runs processors in an ultralow power mode when not in use. It can even save energy when the screen is static and between keystrokes. Apple sets energy targets early in the design process for every product. As a result, Apple products not only meet but exceed ENERGY STAR standards—like the iPad Air (4th generation), which consumes 61 percent less energy than the ENERGY STAR® energy efficiency requirement. Through our efforts to improve energy efficiency, the average product energy use across all major product lines has declined by more than 70 percent since 2008. Our energy efficient product design work is embedded into product R&D budgets, and therefore an exact cost estimate cannot be allocated to this work. In aggregate, total R&D expense was approximately \$18.7 billion in fiscal year 2020 per our Form 10-K filing with the U.S. Securities and Exchange Commission. The cost of tracking and participating in regulatory developments and testing our products against energy efficiency standards, in aggregate, could be estimated at less than 0.5% of Apple's R&D expenses in fiscal year 2020, or approximately \$93 million.

Comment**Identifier**

Opp2

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

Reduced direct costs

Company-specific description

As international consideration of carbon regulations increases with the pressure to limit emissions and combat climate change, our corporate climate strategy represents a clear advantage and opportunity for the Company. We have extensive programs to enhance our energy efficiency, and have already transitioned our facilities to 100 percent renewable energy, with 90 percent of the renewable energy we used in 2020 coming from projects Apple helped create. This is significant progress, and reflects early investment in renewable energy at a global scale—significantly reducing our exposure to the increased cost of carbon emissions. In fact, since 2011, Apple has reduced emissions from our offices, data centers, retail stores, and fleet vehicles by 73 percent—even while our energy use increased by more than four times in this same period. We're also helping our suppliers transition to renewable energy: as part of our 2030 carbon neutrality goal, we've committed to transition all of our manufacturing supply chain to 100 percent clean energy. These actions will help both Apple and our supply chain thrive in a low-carbon economy.

Time horizon

Long-term

Likelihood

About as likely as not

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

0

Potential financial impact figure – maximum (currency)

14000000

Explanation of financial impact figure

Apple recently conducted a comprehensive scenario planning analysis, which showed that under the IEA SDS scenario and with a 5 percent discount rate, projected reductions in scope 1 and scope 2 emissions would save about \$14 million a year by 2040 under a hypothetical global carbon tax or trade system, compared with a scenario of Apple having taken no action on reducing emissions. The financial impact may vary significantly from this estimate—higher as regulation has the potential to be

far more significant, or lower given the low likelihood of a global scheme affecting 100 percent of our emissions. Regardless of this uncertainty, Apple's initiatives have the potential to leave both our operations and those of our suppliers better adapted to low-emissions markets, in addition to other benefits like price certainty--locking in renewable pricing over a long-term while oil and gas markets may fluctuate.

Cost to realize opportunity

2500000000

Strategy to realize opportunity and explanation of cost calculation

Since January 2018, 100 percent of the electricity used at our facilities has come from renewable sources. To secure renewable energy projects, we've taken on project ownership, made equity investments, sparked creative new partnerships with utilities, and entered into power purchase agreements. We've also deployed a variety of technologies like wind, solar PV, micro-hydro projects, and biogas fuel cells. For example, we've invested in an Illinois wind farm and a Virginia solar PV array, with a combined capacity of 245 megawatts. We're also helping our manufacturing partners transition to 100 percent clean energy for Apple production. The Supplier Clean Energy Program now has nearly 8 gigawatts of clean energy commitments, of which more than 4 gigawatts were operational in 2020. The renewable energy already online generated 11.4 million megawatt-hours of clean energy in fiscal year 2020, avoiding 8.6 million metric tons of carbon emissions in our supply chain. We have committed over \$2.5 billion to renewable energy and energy efficiency projects since the inception of our renewable energy program. These renewable energy projects often reduce our overall cost of energy over the long term, while hedging against future increases or fluctuations in energy cost as well as bringing us non-financial benefits. Our energy efficiency program is integrated into our facilities budget, and is generally handled within existing allocations.

Comment

Identifier

Opp3

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

Growing awareness and evidence of climate change can drive changes in consumer behavior on multiple fronts: (1) consumers who believe the climate is changing and want to do what they can to mitigate this harm may increasingly view their spending as an area where they can and should exercise responsibility, and where their values come into play; and (2) climate change policies may create upward pressure on electricity prices, which could alter consumer behavior regardless of personal values relating to climate change and energy use. In both cases, consumer behavior changes would favor useful, energy efficient products. And beyond energy efficiency, consumers in the first category may seek products that overtly speak to their values and beliefs and perhaps even serve as a symbol of their belief system. For these consumers, purchasing from companies that adhere to values similar to their own may become increasingly important. In other words, companies acting responsibly by caring for the climate may be favored by people making similar efforts in their own lives. Apple regularly conducts consumer sentiment surveys that have validated this approach: a more recent survey found that consumers increasingly value action against climate change and want to purchase from companies that share this value. This creates an opportunity for Apple to offer products that not only satisfy the practical needs and requirements of consumers focused on price/performance, but also to be the company of choice for consumers who make conscious efforts to align their spending with their values. For example, the iPad Air (4th generation) consumes 61 percent less energy than the ENERGY STAR® energy efficiency requirement. Thanks to improvements in energy efficiency, since 2008, we've reduced the average energy consumed by Apple products by more than 70 percent. Best-in-class innovations that are energy efficient and speak to the value propositions of conscious consumers could result in increased demand for Apple's products, including iPhone, iPad, MacBook, Apple Watch, etc. Further, Apple's goal to be carbon neutral by 2030 for the full lifecycle of our products further demonstrates to our customers Apple's commitment to climate change leadership.

Time horizon

Medium-term

Likelihood

More likely than not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

1900000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

If Apple is successful in creating products attractive to people whose purchasing habits are changing due to concerns about climate change or rising electricity prices, it may result in a small competitive differentiator for our hardware products. Apple's reported product sales for iPhone, iPad and Mac in fiscal year 2020 were \$190,127 million per our Form 10-K filing with the U.S. Securities and Exchange Commission. If this competitive differentiator resulted in a hypothetical 1 percent increase in net sales, it could raise annual net sales by approximately \$1.9 billion.

Cost to realize opportunity

2200000000

Strategy to realize opportunity and explanation of cost calculation

We recently announced our goal to become carbon neutral across our entire business, manufacturing supply chain, and product life cycle by 2030. We are already carbon neutral today for our global corporate operations, and this new commitment means that by 2030, every Apple device sold will have net zero climate impact. This goal builds on Apple's prior success powering all of our facilities worldwide with 100 percent renewable energy, which is another example of our substantive, visible commitment to mitigating climate change. As part of the 2030 carbon neutrality goal, we also plan to transition Apple's entire supply chain to 100 percent clean energy, which will significantly reduce our Scope 3 emissions from manufacturing products. The Supplier Clean Energy Program now has more than 8 gigawatts of clean energy

commitments, of which 4 gigawatts were operational in 2020. The renewable energy already online generated 11.4 million megawatt-hours of clean energy in fiscal year 2020, avoiding 8.6 million metric tons of carbon emissions in our supply chain. In 2019, we issued a USD\$2.2 billion green bond issued to help meet our 2030 carbon neutrality goal. We estimate that the majority of these projects will have a positive return on investment. Lisa Jackson, Apple's Vice President of Environment, Policy, and Social Initiatives, provided the following background on Apple's intention for the green bond issuance: "Apple is unwavering in its commitment to addressing the urgent threat of climate change. The time for action is now. By issuing an additional \$2.2 billion in green bonds, we will accelerate our work to lower carbon emissions across our supply chain and beyond, building on our successful transition to 100% renewable energy. Apple's progress is proof positive that businesses don't have to choose between what's right for the planet and a healthy bottom line."

Comment

C3. Business Strategy

C3.1

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

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

C3.1a

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

	Is your low-carbon transition plan a scheduled resolution item at AGMs?	Comment
Row 1	No, but we intend it to become a scheduled resolution item within the next two years	

C3.2

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

Yes, qualitative and quantitative

C3.2a

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

Climate-related scenarios and models applied	Details
RCP 2.6 RCP 8.5 IEA Sustainable development scenario	In alignment with the recommendations of the Task Force for Climate-related Financial Disclosure (TCFD), we conducted a comprehensive climate-related scenario analysis to better understand Apple's exposure to climate change and the impact of climate change on its operations and supply chain. The analysis was completed in fiscal year 2020 and results continue to be leveraged. i) How the selected scenario(s) were identified, with reference to the inputs, assumptions and analytical methods used: To assess physical risks, we used two scenarios that capture a broad range of future climate projections: a below 2°C scenario (RCP 2.6) and a business-as-usual scenario (RCP 8.5). We then used global climate models from the intercomparison project (CMIP5) that corresponded to these representative concentration pathways. We considered changes over time in three key hazards: heatwaves, heavy precipitation, and drought. We also undertook additional analyses to understand potential future changes in the frequency and intensity of tropical cyclones. Inputs included the geographic location and activities performed at facilities. To assess transition risks, we leveraged the IEA's 'Sustainable Development Scenario' (SDS) as well as a range of carbon prices from the IPCC's special report on global warming of 1.5°C. ii) Time horizon and rationale: The analysis incorporated multiple timeframes (short- and mid-term), extending through 2040 to account for the expected lifespan of major facilities. This timeframe also allowed us to capture divergence in the climate models. iii) Areas of your organization considered: The analysis considered physical and transition risks to our global facilities (offices, retail stores, and data centers) as well as our top 200 suppliers. iv) Summary of results: The results of the scenario analysis contribute to a larger body of internal analyses on the physical and transition impacts of climate change on our business. These assessments inform our environmental strategy and goals, including our use of 100 percent renewable energy for our own facilities, and our goal to transition our entire supply chain to 100 percent renewable energy (reference answers to C2.4, 3.3, 4). Examples of actions we've taken due to these analyses include our public support for the Clean Power Plan in the United States, our goal to transition all of the electricity used to make our products to 100 percent renewable energy, expansion in planning to consider the effects of 200- to 500-year flood events / floodplains (using best available data), and prioritizing water efficiency and mitigation initiatives in areas of high water risk and stress. For example, we've prioritized water efficiency and re-use efforts at our new Austin, Texas facility due in part to data from analyses like the scenario analysis, which flagged potential future susceptibility to drought and heatwaves that could impact water availability. Most importantly, the results of the scenario analysis reinforce our commitment to reach neutrality for the entire life cycle of our products by 2030, and to reduce emissions by 75 percent compared to 2015.

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	As a global business, we have a responsibility to our customers, employees, shareholders, and the world at large, to take strong, decisive action on climate change. That's why we recently announced our goal to become carbon neutral for our entire footprint—from our supply chain to the use of the products we make—by 2030. This relates directly to our products and services, as these are included in this 10-year goal. Setting this ambitious goal was one of the most substantial strategic decisions we've made to date in our work to address climate change. We believe this goal is consistent with what our customers value and presents a climate-related opportunity to increase customer loyalty and brand value. We've already taken strong actions on climate change with impacts to our products and services. For example, we recently launched a 13-inch MacBook Air with Retina Display made with 100 percent recycled aluminum, which helped to reduce its carbon footprint by almost half compared to the previous model made without recycled aluminum. In a review of the new 13-inch MacBook Air with Retina Display, The Guardian described it as "one of the most sustainable laptops you can buy" and noted that "what makes the MacBook Air stand apart is its use of recycled material, including 100% recycled aluminum in the casing, 100% recycled tin in the solder of its logic board and at least 35% recycled plastic used in multiple components." In addition to changing customer perceptions, jurisdictions seeking to address climate change may implement new or more stringent regulatory schemes aimed at reducing the energy consumed by electronic devices. We have already taken action to move beyond current regulation: every Apple product not only meets, but exceeds ENERGY STAR standards—the strict guidelines set by the U.S. Environmental Protection Agency for energy efficiency. For example, iPad Air (4th generation) consumes 61 percent less energy than the requirement for ENERGY STAR. As a result of improvements in energy efficiency, since 2008, we've reduced the average energy consumed by Apple products by more than 70 percent.
Supply chain and/or value chain	Yes	Our recent climate-related scenario analysis showed the potential for increased physical climate risks like heavy precipitation and drought over the short and medium term. Our strategy to source component parts, in many cases, through multiple suppliers and facilities, mitigates our exposure to weather events of extended duration or heightened severity. Our management strategy is not limited to managing the physical risks of climate change but extends to preventing them. Among the most substantial decisions we have made are our significant investments to reduce our contribution to climate change through generating or sourcing 100 percent renewable electricity for our own operations (as of January 2018) and our goal to transition our entire supply chain to 100 percent renewable electricity by 2030 through our Supplier Clean Energy Program. The Supplier Clean Energy Program now has nearly 8 gigawatts of clean energy commitments, of which over 4 gigawatts were operational in 2020. The renewable energy already online generated 11.4 million megawatt-hours of clean energy in fiscal year 2020, avoiding 8.6 million metric tons of carbon emissions in our supply chain. To help support our suppliers' transition to renewable energy, we have integrated policy advocacy into our climate strategy. Suppliers often face regulatory barriers to cost-effective renewable energy options. Clean energy technology offers tremendous benefits to our suppliers, to electricity grids, and to countries. We believe that when policymakers fully value these benefits, clean energy becomes more cost competitive than fossil fuel energy. So we actively support policies that create cost-effective renewable energy markets, and we work closely with suppliers and other climate-leading companies to engage local, regional, and national governments. This encourages the development of country-specific policies that support scalable renewable energy solutions, with impact far beyond Apple's supply chain.
Investment in R&D	Yes	As part of our goal to become carbon neutral for our comprehensive carbon footprint by 2030, we are investing in research and development to support new technologies like the use of recycled materials in our products, which presents an opportunity to reduce emissions associated with the product lifecycle. In 2019, we issued a USD\$2.2 billion green bond issued to help meet our climate goal. The green bond included 2 tranches, one with a 6-year maturity, the other with a 12-year maturity. These initiatives have represented some of the most significant strategic decisions informed by climate impacts.
Operations	Yes	Changes in climate have the potential to affect our operations at a potential low level of impact. While there have been some extreme weather events in the past (such as hurricanes Harvey and Irma) that are believed to have been exacerbated by climate change and that impacted our business, they did not have a significant impact. We anticipate our operations may be impacted by climate change on the medium and long-term, both in terms of reputational risks to our business if we do not continue to take strong action against climate change and in terms of physical risks that could cause service disruption to our data centers, offices, or retail stores, and potentially our product supply chain. To address these operational risks, we've built redundancy into our data services by having data centers in California, North Carolina, Oregon, Nevada, and Arizona, and deploying backup power supply sources at critical facilities. Not only have we mitigated our risks through expanding geographically, we've also begun planning for larger flooding events than the 100-year flood events / floodplains typically used in planning; we now are considering the effects of 200- to 500-year flood events / floodplains, using best available data.

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	Access to capital	In February 2016, Apple issued a \$1.5 billion green bond and in June 2017 an additional \$1 billion green bond to support capital investments in environmental projects like those that reduce carbon emissions -- such as energy efficiency and renewable energy projects. The \$2.5 billion in aggregate green bond proceeds represents a substantial financial commitment to address climate change, and demonstrates how our business strategy has been influenced by climate change. In fiscal year 2018, we fully allocated the \$2.5 billion of green bond proceeds to a number of environmental projects, including renewable energy and energy efficiency projects. Most recently, in 2019, Apple issued a USD\$2.2 billion green bond issued focused on financing emissions reduction projects that would help meet our 2030 carbon neutrality goal. The green bond included 2 tranches, one with a 6-year maturity, the other with a 12-year maturity.

C3.4a

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

C4. Targets and performance

C4.1

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

Absolute target

C4.1a

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

Target reference number

Abs 1

Year target was set

2021

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (market-based) +3 (upstream & downstream)

Base year

2019

Covered emissions in base year (metric tons CO2e)

25100000

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

100

Target year

2030

Targeted reduction from base year (%)

61.7

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

9613300

Covered emissions in reporting year (metric tons CO2e)

22600000

% of target achieved [auto-calculated]

16.1428838939219

Target status in reporting year

New

Is this a science-based target?

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

Target ambition

1.5°C aligned

Please explain (including target coverage)

For years, we have increased energy efficiency and the use of renewable energy, yet we know we have to do more. That's why last year, we unveiled our most ambitious plan to date: to achieve carbon neutrality for the entire life cycle of our products by 2030. Our plan to reach neutrality by 2030 centers around our strategy to reduce emissions by 75 percent, relative to our 2015 footprint. This reduction aligns with what current climate science shows is necessary to limit warming to 1.5° Celsius. The Science Based Targets initiative (SBTi) recently validated an emissions reduction target for Apple: 61.7 percent by 2030 relative to our 2019 emissions. This SBTi-approved target is derived from our current target—to reduce emissions by 75 percent by 2030—only with a 2019 base year, instead of 2015. This target is company-wide.

Target reference number

Abs 2

Year target was set

2020

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (location-based) +3 (upstream & downstream)

Base year

2015

Covered emissions in base year (metric tons CO2e)

38400000

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

100

Target year

2030

Targeted reduction from base year (%)

75

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

9600000

Covered emissions in reporting year (metric tons CO2e)

22600000

% of target achieved [auto-calculated]

54.86111111111111

Target status in reporting year

Underway

Is this a science-based target?

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

Target ambition

1.5°C aligned

Please explain (including target coverage)

As of April 2020, we are carbon neutral for scope 1, 2, and scope 3 emissions relating to Apple's operations (employee commute and business travel) beginning in fiscal year 2021. In 2020, we also set a new goal to become carbon neutral for our entire carbon footprint by 2030. We plan to reduce emissions by 75 percent by 2030, compared to 2015 levels, through product design and engineering, energy efficiency and renewable energy, and direct emissions abatement. A science-based target aligned with 1.5° C trajectory calls for a 4.2% annual linear reduction. Since this equates to a 47% reduction over our target period, we consider our target to well-exceed the requirements for a science-based target. The Science Based Targets initiative (SBTi) recently validated an emissions reduction target for Apple: 61.7 percent by 2030 relative to our 2019 emissions. This SBTi-approved target is derived from our current target—to reduce emissions by 75 percent by 2030—only with a 2019 base year, instead of 2015. This target is company-wide.

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

Other climate-related target(s)

C4.2a

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

Target reference number

Low 1

Year target was set

2011

Target coverage

Company-wide

Target type: absolute or intensity

Absolute

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Metric (target numerator if reporting an intensity target)

Percentage

Target denominator (intensity targets only)

<Not Applicable>

Base year

2011

Figure or percentage in base year

24

Target year

2019

Figure or percentage in target year

100

Figure or percentage in reporting year

100

% of target achieved [auto-calculated]

100

Target status in reporting year

Achieved

Is this target part of an emissions target?

Abs 1

Is this target part of an overarching initiative?

RE100

Please explain (including target coverage)

We set an ambitious goal to power 100% of our global facilities with 100% renewable energy. We reached this goal in 2018 and have since maintained it, driving our scope 2 emissions from electricity to zero. We have additionally committed through the Science Based Targets initiatives to maintain our use of 100 percent renewable electricity for our facilities through 2030.

C4.2b

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

Target reference number

Oth 1

Year target was set

2015

Target coverage

Company-wide

Target type: absolute or intensity

Absolute

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

Energy consumption or efficiency	Other, please specify (Gigawatts)
----------------------------------	-----------------------------------

Target denominator (intensity targets only)

<Not Applicable>

Base year

2015

Figure or percentage in base year

0

Target year

2020

Figure or percentage in target year

4

Figure or percentage in reporting year

4.5

% of target achieved [auto-calculated]

112.5

Target status in reporting year

Achieved

Is this target part of an emissions target?

No

Is this target part of an overarching initiative?

Other, please specify (RE100)

Please explain (including target coverage)

We've achieved our initial goal, set in 2015, of bringing online over 4 gigawatts of additional renewable energy to our supply chain—with additional supplier commitments bringing the total commitments to nearly 8 gigawatts. The renewable energy already online generated 11.4 million megawatt-hours of clean energy in fiscal year 2020, avoiding 8.6 million metric tons of carbon emissions in our supply chain. Currently, over 110 manufacturing partners in 24 different countries have committed to 100 percent renewable energy for Apple production.

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	10	
To be implemented*	9	10850000
Implementation commenced*	4	1140000
Implemented*	8	7050000
Not to be implemented	0	0

C4.3b

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

Initiative category & Initiative type

Other, please specify	Other, please specify (Product design or service)
-----------------------	---

Estimated annual CO2e savings (metric tonnes CO2e)

644000

Scope(s)

Scope 3

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

By transitioning to materials that lend themselves more readily to low-carbon processing and recycling, we can reduce our carbon footprint. We've seen clear progress with aluminum—a material where we've had success in shifting to recycled materials and those generated from low-carbon processes. Several of our products use 100 percent recycled aluminum in their enclosures—including our latest MacBook Air, Mac mini, and the latest iPad devices. And all enclosures made with virgin aluminum for products released in 2020 were smelted using hydroelectricity rather than fossil fuels—for a lower carbon impact. As a result of these changes, our carbon emissions associated with aluminum have decreased by 72 percent since 2015. These projects are operating expenditures, not capital expenditures, so they do not require a capital investment. They also do not generate monetary savings and therefore the payback period does not apply.

Initiative category & Initiative type

Other, please specify	Other, please specify (Product energy efficiency)
-----------------------	---

Estimated annual CO2e savings (metric tonnes CO2e)

2000

Scope(s)

Scope 3

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

Designing energy-efficient products even as we continually enhance performance represents another essential pillar of our approach to carbon neutrality. While this is a continual effort with each new generation of products, we've already made progress. iPad (8th generation), for example, consumes 66 percent less energy than the requirement for ENERGY STAR, thanks in part to a more energy-efficient power adapter. These projects are operating expenditures, not capital expenditures, so they do not require a capital investment. They also do not generate monetary savings and therefore the payback period does not apply.

Initiative category & Initiative type

Low-carbon energy consumption	Other, please specify (Solar PV, Solar CSP, Wind, Hydropower, Biomass)
-------------------------------	--

Estimated annual CO2e savings (metric tonnes CO2e)

4020000

Scope(s)

Scope 3

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

We launched the Supplier Clean Energy Program in 2015 to advance the use of clean energy in our supply chain. Through this program, Apple works with suppliers to advocate for policy change in key markets, connects them with high-quality clean energy projects and developers, and educates them on how they can take full advantage of the benefits of clean energy. To date, over 110 manufacturing partners in 24 countries have committed to 100 percent renewable energy for Apple production. Apple itself has invested directly in renewable energy projects to cover a portion of upstream emissions. In addition, Apple launched the China Clean Energy Fund, a first-of-its-kind investment fund in China that connects suppliers with renewable energy projects. The Supplier Clean Energy Program now has brought online 4.5 GW of additional renewable energy to our supply chain—with additional supplier commitments bringing the total to nearly 8GW. Suppliers are responsible for the financial investments in clean energy projects and benefit from any monetary savings. Because supplier investments and potential savings are unknown, we are unable to estimate the total investments and savings associated with the clean energy program. Per CDP guidance, we only report incremental emissions savings from initiatives that became operational during the reporting year. However, all suppliers engaged in the Clean Energy Program avoided 8.6 million metric tons of carbon emissions in fiscal year 2020.

Initiative category & Initiative type

Energy efficiency in buildings	Other, please specify (HVAC optimization, efficient lighting and controls, building envelope and glazing, building controls, energy modeling, and energy audits)
--------------------------------	--

Estimated annual CO2e savings (metric tonnes CO2e)

5000

Scope(s)

Scope 1

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

2500000

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

10000000

Payback period

4-10 years

Estimated lifetime of the initiative

11-15 years

Comment

Apple's energy efficiency program targets natural gas and electricity use at data centers, retail stores, offices, and R&D facilities located around the world. Initiatives address primarily Scope 2 emissions, but some Scope 1 emissions to a lesser extent as well. For existing buildings, we take a methodical approach, auditing building performance, and then deploying identified energy reduction measures. For new buildings and substantial renovations, we integrate energy efficiency early in the design process when developing new offices or Apple stores, facilitating design that accommodates local conditions, such as temperature and humidity. And once a building is operational, we continue to monitor energy performance to ensure it is performing optimally throughout its lifetime. In fiscal year 2020, our energy efficiency program helped us reduce our usage by an additional 13.9 million kilowatt-hours and 199,700 therms per year through adjustments made to 7.1 million square feet of new and existing buildings. Together, these new initiatives will avoid about 4,900 metric tons of CO2e per year.

Initiative category & Initiative type

Low-carbon energy consumption	Other, please specify (Solar PV, Wind, REC purchases)
-------------------------------	---

Estimated annual CO2e savings (metric tonnes CO2e)

49000

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

0

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

0

Payback period

No payback

Estimated lifetime of the initiative

11-15 years

Comment

Facilities renewable energy projects: we've undertaken a number of renewable energy projects to meet our 100% renewable energy goal for our facilities, retail stores, and data centers. These projects include solar PV or wind projects worldwide. In addition, Apple signed up for green utility programs for some of our meters to receive 100% renewables from utility suppliers. Apple also made unbundled Renewable Energy Certificate purchases in various markets to ensure we meet our renewable goals. The above initiatives primarily address Apple's scope 2 emissions. Apple participates in renewable projects in many ways, PPA, VPPA, and long term environmental attributes off-take. Apple's participation in these projects will provide stable cashflow to the projects, therefore, helping the projects to secure long term financing, which will support adding new renewable energy to the grid. These renewable energy projects are not structured as capital expenditures and therefore do not represent investments. Rather, they are structured as operational expenses. Per CDP guidance, we only report emissions savings initiatives that became operational during the reporting year. However, overall renewable energy use avoided more than 948,000 metric tons of emissions in fiscal year 2020.

Initiative category & Initiative type

Non-energy industrial process emissions reductions	Other, please specify (f-ghg abatement)
--	---

Estimated annual CO2e savings (metric tonnes CO2e)

2058000

Scope(s)

Scope 3

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

16-20 years

Comment

Fluorinated gases, such as sulfur hexafluoride (SF6) and nitrogen trifluoride (NF3), are key chemicals used in the manufacturing of integrated circuit (IC) chips and display panels. These gases have high global warming potentials when emitted to the atmosphere as fluorinated greenhouse gas (F-GHG). Since 2018, we have partnered with our IC and display suppliers to better understand F-GHG emissions related to the manufacturing of Apple products and to evaluate emission reduction strategies. We encourage our suppliers to reduce the F-GHG emissions by implementing reduction strategies recognized by international and industry standards. As of December 2020, our display suppliers have installed mitigation technologies to reduce F-GHG emissions associated with producing all of our display panels by more than 90 percent on average. Since the launch of our efforts in 2019, our key display suppliers have reduced the equivalent of more than 2,300,000 annualized metric tons of CO2e. Relevant investments were made by our suppliers, not Apple, and so there is no Apple investment or cost savings to report and no payback period applies.

C4.3c

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

Method	Comment
Compliance with regulatory requirements/standards	We always use the state's standards for determining eligibility of renewable resources; abide by Green-e requirements.
Dedicated budget for low-carbon product R&D	Research and Development for new materials and processes with lower carbon emissions.
Internal incentives/recognition programs	In the form of Company-wide publicly-stated goals, internal targets, and annual reporting.
Lower return on investment (ROI) specification	ROI is not the only criteria for selecting emissions reduction investments.
Other (Calculation of a comprehensive carbon footprint)	We calculate a comprehensive carbon footprint using product life cycle analyses, which enables us to prioritize investments.

C4.5

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

Yes

C4.5a

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

Level of aggregation

Company-wide

Description of product/Group of products

Apple has committed to becoming carbon neutral for the full life cycle of our products by 2030. This includes emissions reductions across all major product lines, including iPhone, iPad, Apple Watch, Mac, and HomePod.

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

Low-carbon product and avoided emissions

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

Other, please specify (ENERGY STAR, Life cycle assessment)

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

100

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

We believe that well-designed products have a lower environmental footprint. This is a principle we strive to bring to everything we create, and a central pillar of our 2030 goal to achieve carbon neutrality for our entire product life cycle. To reach this goal, we are working to design products and manufacturing processes to be less carbon-intensive through thoughtful material selection, increased material efficiency, and greater product energy efficiency. And we also consider our services. Our data centers are filled with servers that help run Apple apps and services like Siri, iMessage, and iCloud. These facilities also represent our largest corporate energy loads, which is why we use 100% renewable electricity to power them. By transitioning to materials that lend themselves more readily to low-carbon processing and recycling, we can reduce our carbon footprint. We've seen clear progress with aluminum—a material where we've had success in shifting to recycled materials and those generated from low-carbon processes. Designing energy-efficient products even as we continually enhance performance represents another essential pillar of our approach to carbon neutrality. Apple looks at three ways to reduce a product's energy consumption: more efficient power supplies to bring electricity from the wall to the device, more efficient hardware, and smarter power management software. Through our efforts to improve energy efficiency, the average product energy use across all major product lines has declined by more than 70 percent since 2008. We use U.S. Environmental Protection Agency's ENERGY STAR standards to measure our progress. Every single product not only meets but exceeds the U.S. Environmental Protection Agency's strict guidelines for efficiency, when applicable. For example, iPad (8th generation) consumes 66 percent less energy than the requirement for ENERGY STAR, thanks in part to a more energy-efficient power adapter.

C5. Emissions methodology

C5.1

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

Scope 1

Base year start

October 26 2010

Base year end

October 25 2011

Base year emissions (metric tons CO2e)

21700

Comment

Scope 2 (location-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 2 (market-based)

Base year start

October 26 2010

Base year end

October 25 2011

Base year emissions (metric tons CO2e)

154300

Comment

C5.2

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

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

US EPA Center for Corporate Climate Leadership: Direct Emissions from Stationary Combustion Sources

US EPA Center for Corporate Climate Leadership: Direct Emissions from Mobile Combustion Sources

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

47430

Start date

September 27 2019

End date

September 26 2020

Comment

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)

52730

Start date

September 27 2018

End date

September 26 2019

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

We believe our market-based Scope 2 emissions figure most accurately represents our emissions profile since generating and sourcing renewable energy is a key aspect of our environmental strategy.

C6.3

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

Reporting year

Scope 2, location-based
890200

Scope 2, market-based (if applicable)
0

Start date
September 27 2019

End date
September 26 2020

Comment

Past year 1

Scope 2, location-based
862127

Scope 2, market-based (if applicable)
0

Start date
September 27 2018

End date
September 26 2019

Comment
FY19

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

Fire suppressant

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

No emissions excluded

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

No emissions excluded

Explain why this source is excluded

We have not included fire suppressant systems or refrigerant leakage in our Scope 1 emissions as it accounts for far less than 1 percent of our total CO2e emissions. Nevertheless, reducing emissions from these systems is of importance to us and we are deploying technologies and operational practices to reduce refrigerant leakage through improved maintenance and equipment replacement, combined with a program using refrigerants with low global warming potential.

Source

Fertilizer use

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

No emissions excluded

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

No emissions excluded

Explain why this source is excluded

We have not included fertilizer use from landscape applications in our Scope 1 emissions as it accounts for far less than 1 percent of our total CO2e emissions. Our landscape practices focus on composting our green waste trimmings collected onsite and reusing them as mulch, supplemented only as needed with additional organic fertilizers and a limited amount of slow-release fertilizer products. Apple also employs a robust integrated pest management system, which reduces the need for fertilizer application.

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.**Purchased goods and services****Evaluation status**

Relevant, calculated

Metric tonnes CO₂e

16100000

Emissions calculation methodology

We evaluate and publish the life cycle carbon footprint of all hardware products, including impacts farther up the value chain than our first-tier suppliers. The scope includes the extraction, production, and transportation of raw materials, as well as the manufacture, transport, and assembly of all parts and product packaging. We calculate this footprint using life cycle assessment ("LCA") software whose inputs have been modified to reflect components used to manufacture our products, and reflect their location of manufacture, as well as the weights of each component and number purchased and sold. Calculated in accordance to ISO 14040 and ISO 14044. For more detail, refer to our "Five-Step LCA Process" in the Comments section.

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

50

Please explain

We compile primary data for components or materials we know to be carbon-intensive, regardless of their position in our value chain. Each year, we make adjustments in our model to better account for Apple's specific value chain. Approximately 50 percent of our manufacturing emissions are calculated using primary data. We focus our attention on aspects of the product life cycle where our choices can have a material impact on emissions reduction, and use our LCAs to prioritize our work. We purchase third-party computing services, which we approximate to be less than 1 percent of total emissions from purchased goods and services.

Capital goods**Evaluation status**

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Is metric is not relevant to Apple because data availability is limited, which in turn limits our ability to influence this category of emissions. As we recently engaged SBTi for validation of our science-based target, we performed an inventory of this category of emissions and again determined not to include these emissions. To calculate emissions from capital goods, data on Apple's capital expenditures are used along with Economic Input-Output (EIO) LCA models. This method relies upon emissions factors for each broad category of capital expenditures. While it provides an overall magnitude of CO₂e emissions associated with capital goods, it is not specific, and therefore not up to the standard of data applicability used elsewhere in Apple carbon emissions calculations. In addition, the lack of granular, up-to-date data across countries further creates concerns about accuracy. The most reputable, publicly available emissions factors for EIO LCA models are from the U.S. in 2007. More recent data, and data specific to the geographies in which many of these capital expenditures occur, are not available. We take climate change seriously and have undertaken real action to reduce our footprint. Our transition to 100% renewable electricity has reduced our scope 2 emissions. We are also tackling Scope 3 emissions by committing to 100 percent renewable energy in our supply chain. This is to say that we focus on where our impacts are largest and where we can affect the most change.

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

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Upstream emissions of purchased fuels and electricity, as well as transmission and distribution losses, do not result in material Scope 3 emissions. We calculated this figure in a previous CDP submission (covering fiscal year 2013), and found that it represented less than 0.1 percent of our Scope 3 carbon footprint. This amount has not increased substantively and therefore is still not relevant.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

600000

Emissions calculation methodology

To calculate product transportation and distribution (both upstream and downstream), we used data provided by Worldwide Logistics at Apple based on fiscal year 2019 shipment data. The detailed dataset provides resolution to final destinations at the country level. Two shipment scenarios are created based on the operation of Worldwide Logistics: 1) Hub shipping refers to shipments that are from final assembly site to an Apple operated or affiliated logistics hub, and then delivered to retail stores. 2) Direct shipping refers to shipment sent from final assembly site directly to a customer. Before point of sale shipment includes shipments that are shipped from final assembly site to an Apple operated or affiliated logistics hub, and then delivered to retail stores. Representative hub locations are modeled using the location of major logistics hubs in use. Final truck shipment from distribution centers to final destination is estimated as 200 kilometers. [Calculated in accordance to ISO 14040 and ISO 14044.]

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

80

Please explain

We use actual data provided from worldwide logistics, though some assumptions are still made regarding average trip distances. From the data we collect for product logistics, we are not able to entirely align with the "post-sale" and "pre-sale" delimitations of this upstream/downstream transportation emissions calculation. As a result, this upstream figure incorporates a small portion of downstream transportation emissions associated with products that have been sold and shipped directly from a final assembly site or to third party retail stores (which technically occurs post sale to these third-party stores). However, the net total for downstream and upstream transportation and distribution emissions account for all emissions in the product transportation category.

Waste generated in operations

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Waste generated does not result in material Scope 3 emissions. We calculated this figure in our CDP submission covering fiscal year 2013, and it represented less than 0.1 percent of our corporate carbon footprint. This amount has not increased substantively and therefore is still not relevant. That said, reducing waste and use of materials is a central element of our environmental strategy. We've created robust recycling and composting programs to minimize the environmental impact of the waste we produce in our corporate facilities: (i) This work begins by first understanding what we throw away. In some cases, we've installed remote waste monitoring systems to accurately measure waste generation and contamination.(ii) We prevent waste by closely managing what comes to our sites. For example, we've amended construction contracts to include waste reporting and diversion requirements. (iii)We've also worked on enhancing how we recycle and reuse materials. In fiscal year 2020, Apple facilities diverted more than 70 percent of our waste to recycling or composting rather than landfill. These high diversion rates helped limit the amount of waste sent to landfill to about 12,000 metric tons for our global operations. We also support our suppliers in the journey to zero waste. All established final assembly supplier sites for iPhone, iPad, Mac, Apple Watch, AirPods, HomePod, Apple TV, and Beats are third-party certified as Zero Waste. Altogether, suppliers involved in our Zero Waste program diverted 400,000 metric tonnes of waste in 2020.

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

153000

Emissions calculation methodology

Flight numbers and distances, and car rental numbers are collected from our global travel service provider. Emissions are estimated from these, using the guidance and emission factors provided by: (i) U.S. Environmental Protection Agency's The Climate Leaders Greenhouse Gas Inventory Protocol - Direct Emissions from Mobile Combustion Sources; (ii) U.S. Environmental Protection Agency's The Climate Leaders Greenhouse Gas Inventory Protocol - Direct Emissions from Stationary Combustion Sources; (iii) U.S. Environmental Protection Agency's The Climate Leaders Greenhouse Gas Inventory Protocol - Optional Emissions from Commuting, Business Travel and Product Transport; (iv) 2011 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting: Methodology Paper for Emissions Factors; and (v) The Climate Registry's 2013 Default Emissions Factors. We are constantly revisiting our methodology to hold ourselves to high accountability standards. So in fiscal year 2018, we changed how we calculate emissions from business travel in order to better account for classes of service in air travel.

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

90

Please explain

Emissions from employee travel are calculated using trip distance data obtained from our travel partner that manages all travel for Apple employees. We consider the data we obtain from our travel partner to be real data that provides roughly 90 percent of the calculation. However, we do not use carrier-specific fuel consumption data (which we would also interpret as primary data).

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO2e

134000

Emissions calculation methodology

Our commute emissions are estimated based on particular commute methods and our commute programs, and account for emissions across our employee base. Emission factors for vehicles and other guidance is taken from: (i) U.S. Environmental Protection Agency's The Climate Leaders Greenhouse Gas Inventory Protocol - Direct Emissions from Mobile Combustion Sources; (ii) U.S. Environmental Protection Agency's The Climate Leaders Greenhouse Gas Inventory Protocol - Direct Emissions from Stationary Combustion Sources; (iii) U.S. Environmental Protection Agency's The Climate Leaders Greenhouse Gas Inventory Protocol - Optional Emissions from Commuting, Business Travel and Product Transport; (iv) 2011 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting: Methodology Paper for Emissions Factors; and (v) The Climate Registry's 2013 Default Emissions Factors.

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

0

Please explain

We do not ask employees to report commute mileage directly, nor do we track fuel receipts. We do use employee demographic data (e.g., zip codes) and survey results of commute habits to estimate the average commute distance and to distribute the commuters among single-occupancy cars, car pools, bicycles, transit, Apple Transit, work-from-home, and other commute modes.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Any upstream leased asset is included in our Scope 1 and Scope 2 emissions. So 100 percent of the emissions from our leased assets are captured in Scope 1 and 2, leaving 0 emissions relevant to our Scope 3 calculations.

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1200000

Emissions calculation methodology

To calculate product transportation and distribution (both upstream and downstream), we used data provided by the Worldwide Logistics team at Apple based on fiscal year 2019 shipment data. The detailed dataset provides resolution to final destinations at the country level. Two shipment scenarios are created based on the operation of Worldwide Logistics: 1) Hub shipping refers to shipments that are from final assembly site to an Apple operated or affiliated logistics hub, and then delivered to retail stores. 2) Direct shipping refers to shipment sent from final assembly site directly to a customer. "Downstream transportation and distribution" includes shipments from the final assembly site directly via air to a customer. Final truck shipment from the airport to customer is estimated as 100 kilometers.

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

50

Please explain

We use actual data provided from our Worldwide Logistics team, though some assumptions are still made regarding average trip distances. Due to differences in how we collect data for product logistics, we are not able to perfectly align with the "post-sale" and "pre-sale" delimitations of this upstream/downstream transportation emissions calculation. As a result, this downstream figure incorporates a small portion of upstream transportation emissions associated with products that travel from our final assembly sites to our own retail stores (therefore are not yet technically post-sale). However, the net total for downstream and upstream transportation and distribution emissions account for all emissions in the product transportation category. Transportation emissions associated with customer travel from their homes to Apple retail stores are not material to this calculation for two reasons: 1) This number is very small compared to the total downstream transportation and distribution emissions. 2) Many of our stores are located in dense urban environments and often accessible by public transportation.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Not applicable as Apple does not produce intermediate goods, so we do not have activities that fall into this category.

Use of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

4300000

Emissions calculation methodology

Use phase emissions are calculated based on the energy consumed by a product over a three- or four-year use period (depending on the product type). Energy consumption patterns are modeled according to European Commission and the U.S. Environmental Protection Agency's computer eco-design studies that reflect aggressive assumptions on daily product usage. For example, for a computer, the calculation reflects the power consumed in off, sleep, idle and active-modes and the time in each mode of operation, over a four-year use period. The total power is then multiplied by the carbon coefficient appropriate for the geographic region and the number of products sold in that region in a given fiscal year. Carbon coefficients for each geographic region are based on published data and are reviewed by the Fraunhofer Institute on an annual basis to ensure consistency with best business practices.

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

80

Please explain

We use detailed primary data regarding the quantity of energy our products consume when in certain operational modes. Daily usage patterns are specific to each product and are based on historical customer use data.

End of life treatment of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

60000

Emissions calculation methodology

Includes transportation from collection hubs to recycling centers as well as the energy used in mechanical separation and shredding of parts. [Calculated in accordance to ISO 14040 and ISO 14044. For more detail, refer to our "Five-Step LCA Process" in the Further Information section below.] We use industry-average data regarding recycling processes to evaluate the impact of end-of-life treatment of sold products. When Apple-specific processes are used, for example, Apple's automated disassembly robot Daisy, primary measured data from that equipment is used.

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

50

Please explain

We use industry-average data regarding recycling processes to evaluate the impact of end-of-life treatment of sold products. When Apple-specific processes are used, for example, Apple's automated disassembly robot Daisy, primary measured data from that equipment is used.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Downstream leased assets (such as Apple-operated product recycling facilities) are included in our Scope 1 and Scope 2 emissions; so there are no emissions in this category that fall under our Scope 3 emissions.

Franchises

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Not applicable as we don't own or sell franchises; so we have 0 emissions from this Scope 3 category.

Investments

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

As per our form 10-K filing with the U.S. Securities and Exchange Commission, "the Company's investment policy and strategy are focused on the preservation of capital and supporting the Company's liquidity requirements." As a result, investments and their interest income are not a significant revenue stream for Apple and are not considered core to our business. Therefore, emissions from this category do not reach our threshold for relevance to our business.

Other (upstream)

Evaluation status

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Other (downstream)

Evaluation status

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

C6.7

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

No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

1.7e-7

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

47430

Metric denominator

unit total revenue

Metric denominator: Unit total

27451500000

Scope 2 figure used

Market-based

% change from previous year

11

Direction of change

Decreased

Reason for change

We estimate that gross global combined effective Scope 1 and Scope 2 emissions intensity per unit total revenue decreased by 11 percent from fiscal years 2019 to 2020, though it's key to note that both years' intensity metrics were extremely small. Apple's global Scope 1 and 2 emissions decreased from 52,730 in fiscal year 2019 to 47,430 in fiscal year 2020 due to scope 1 and scope 2 emissions reduction activities including low-carbon energy purchase, installation, and consumption, and building energy efficiency initiatives outlined in 4.3b. Note that revenue is so much greater than our Scope 1 and 2 emissions as to render both years' intensity factors essentially zero.

Intensity figure

0.32

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

47430

Metric denominator

full time equivalent (FTE) employee

Metric denominator: Unit total

147000

Scope 2 figure used

Market-based

% change from previous year

13

Direction of change

Decreased

Reason for change

We estimate that gross global combined Scope 1 and Scope 2 emissions intensity per full time equivalent (FTE) employee decreased by 13% percent primarily due to an increase in Apple's FTE headcount and a decrease in Scope 1 and 2 emissions. Emissions reductions were due to scope 1 and scope 2 emissions reduction activities including low-carbon energy purchase, installation, and consumption, and building energy efficiency initiatives outlined in 4.3b. For fiscal year 2019, we had an average annual FTE count of 137,000 and a combined Scope 1 and Scope 2 emissions of 52,730 metric tons CO2e. For fiscal year 2020, we had an average annual FTE count of 147,000 and a combined Scope 1 and Scope 2 emissions of 47,430 metric tons CO2e for an intensity figure of 0.32 metric tons CO2e per FTE.

Intensity figure

0.018

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

47430

Metric denominator

megawatt hour transmitted (MWh)

Metric denominator: Unit total

2580000

Scope 2 figure used

Market-based

% change from previous year

12

Direction of change

Decreased

Reason for change

We estimate that gross global combined Scope 1 and Scope 2 emissions intensity per megawatt hour (MWh) decreased by 12 percent between fiscal years 2019 and 2020 due to an increase in Apple's electricity consumption and a decrease in Scope 1 and 2 emissions due to emissions reduction activities including low-carbon energy purchase, installation, and consumption, and building energy efficiency initiatives outlined in 4.3b. For fiscal year 2019, we used approximately 2,427,000 MWh of electricity and had combined Scope 1 and Scope 2 emissions of 52,730 metric tons CO2e. For fiscal year 2020, we used approximately 2,580,000 MWh of electricity and had combined Scope 1 and Scope 2 emissions of 47,430 metric tons CO2e for an intensity figure of 0.018 metric tons CO2e per MWh.

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	43510	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	50	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	70	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify (R&D Emissions)	4110	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
United States of America	36830
Other, please specify (All countries not including the US)	10600

C7.3

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

By business division

C7.3a

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

Business division	Scope 1 emissions (metric ton CO2e)
Corporate	40370
Data Centers	2640
Retail Stores	4420

C7.5

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
United States of America		0	768250	768250
Other, please specify (Americas except for the US)		0	0	0
Other, please specify (Europe, Middle East, India, Africa)		0	157540	157540
Other, please specify (Asia Pacific)		0	67400	67400

C7.6

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

By business division

C7.6a

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

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Corporate Facilities		0
Data centers		0
Retail Stores		0
Distribution Centers		0
Co-located data centers		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.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	49140	Decreased	93	Last year, additional consumption of renewable energy reduced emissions by approximately 49,000 tCO2e, and our total S1 and S2 emissions in the previous year was 52,730 tCO2e, therefore we arrived at -93%: $(-49,140/52,730 \times 100 = -93\%)$
Other emissions reduction activities	4900	Decreased	9	Last year, new emissions reductions activities—energy efficiency gains—reduced 4900 tCO2e, and our total S1 and S2 emissions in the previous year was 52,730 tCO2e, therefore we arrived at -9%: $(-4900 / 52,730 \times 100 = -9\%)$
Divestment		<Not Applicable >		
Acquisitions		<Not Applicable >		
Mergers		<Not Applicable >		
Change in output	48740	Increased	92	Last year, our increase in energy consumption due to a change in output had an additional 48,740 tonnes of associated emissions, and our total S1 and S2 emissions in the previous year was 52,730 tCO2e, therefore we arrived at an increase of 92%: $(48,740/52,730 \times 100 = 92\%)$
Change in methodology		<Not Applicable >		
Change in boundary		<Not Applicable >		
Change in physical operating conditions		<Not Applicable >		
Unidentified		<Not Applicable >		
Other		<Not Applicable >		

C7.9b

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

Market-based

C8. Energy

C8.1

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

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

C8.2

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

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	210820	228350	439170
Consumption of purchased or acquired electricity	<Not Applicable>	993190	0	993190
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	1501510	<Not Applicable>	1501510
Total energy consumption	<Not Applicable>	2705520	228350	2933870

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.

Fuels (excluding feedstocks)

Natural Gas

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

202360

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

202360

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

0.175

Unit

metric tons CO2e per MWh

Emissions factor sourcehttps://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf**Comment**

Fuels (excluding feedstocks)

Biogas

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

210820

MWh fuel consumed for self-generation of electricity

210820

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

0.0003

Unit

metric tons CO2e per MWh

Emissions factor sourcehttps://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf**Comment**

Fuels (excluding feedstocks)

Propane Liquid

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

140

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

140

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

0.2297

Unit

metric tons CO2e per MWh

Emissions factor sourcehttps://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf**Comment**

Fuels (excluding feedstocks)

Other, please specify (Gasoline)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization14910

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

0.2621

Unit

metric tons CO2e per metric ton

Emissions factor sourcehttps://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf**Comment**

Fuels (excluding feedstocks)

Diesel

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

9610

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

0.2703

Unit

metric tons CO2e per MWh

Emissions factor sourcehttps://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf**Comment**

Fuels (excluding feedstocks)

Other, please specify (Diesel (Mobile Combustion))

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

1330

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

0.2695

Unitmetric tons CO2e per MWh

Emissions factor source

https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

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	1501510	1501510	1501510	1501510
Heat	202500	202500	0	0
Steam				
Cooling				

C8.2e

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

Sourcing method

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

Low-carbon technology type

Low-carbon energy mix

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

United States of America

MWh consumed accounted for at a zero emission factor

740770

Comment

Includes our Oregon Direct Access purchases of Oregon wind to support our Prineville, Oregon data center; our California Direct Access purchases of mostly California wind and solar PV to support our facilities in northern California, including our Apple Park headquarters. Low-carbon technology type includes both solar PV and wind sources.

Sourcing method

Unbundled energy attribute certificates, Guarantees of Origin

Low-carbon technology type

Other, please specify (Wind and solar)

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

United Kingdom of Great Britain and Northern Ireland

MWh consumed accounted for at a zero emission factor

6900

Comment

This renewable energy is consumed in facilities across Europe—including in the United Kingdom—where the electric meter is not in Apple's name.

Sourcing method

Unbundled energy attribute certificates, International REC Standard (I-RECs)

Low-carbon technology type

Other, please specify (Solar, wind, hydropower)

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

India

MWh consumed accounted for at a zero emission factor

24300

Comment

Used in India, Taiwan, Hong Kong, China, Israel, South Africa and other markets to cover the initial start-up period while we develop and bring online new regional Apple-created grid-connected generation. Long-term renewable contracts with new wind and solar PV projects have been executed in a number of these countries Low-carbon technology type includes both solar PV, wind sources, and micro-hydro.

Sourcing method

Unbundled energy attribute certificates, other - please specify (Australia LGCs used for facilities in Australia where the electric meter is not in)

Low-carbon technology type

Other, please specify (Solar PV and wind)

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

Australia

MWh consumed accounted for at a zero emission factor

1950

Comment

Australia LGCs used for facilities in Australia where the electric meter is not in Apple's name. Low-carbon technology type includes both solar PV and wind sources.

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

Low-carbon technology type

Other, please specify (Low-carbon technology type includes both solar PV, wind sources, hydropower, and biomass.)

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

Ireland

MWh consumed accounted for at a zero emission factor

136680

Comment

Includes numerous robust utility green energy programs in Australia, Europe and the United States that create additionality and source certificates from local or nearby renewable projects. A portion of generation in this row has a small, non-zero emissions factor, but on average it is de minimis. Low-carbon technology type includes both solar PV, wind sources, hydropower, and biomass.

Sourcing method

Other, please specify (Renewables provided by the operators of our co-location data centers.)

Low-carbon technology type

Other, please specify (Low-carbon technology type includes both solar PV and wind sources.)

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

United States of America

MWh consumed accounted for at a zero emission factor

82590

Comment

Renewables provided by the operators of our co-location data centers at locations across the globe. Low-carbon technology type includes both solar PV and wind sources.

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

Reasonable assurance

Attach the statement

Apple_Corporate_FY2020_Assurance_Statement.pdf

Page/ section reference

Document page 2 shows the data assured. Document page 3 shows the degree of assurance.

Relevant standard

ISAE3000

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

Reasonable assurance

Attach the statement

Apple_Corporate_FY2020_Assurance_Statement.pdf

Page/ section reference

Document page 2 shows the data assured. Document page 3 shows the degree of assurance.

Relevant standard

ISAE3000

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

Reasonable assurance

Attach the statement

Apple_Corporate_FY2020_Assurance_Statement.pdf

Page/ section reference

Document page 2 shows the data assured. Document page 3 shows the degree of assurance.

Relevant standard

ISAE3000

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: Business travel

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

Apple_Corporate_FY2020_Assurance_Statement.pdf

Page/section reference

Document page 2 shows the data assured. Document page 3 shows the degree of assurance.

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Employee commuting

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

Apple_Corporate_FY2020_Assurance_Statement.pdf

Page/section reference

Document page 2 shows the data assured. Document page 3 shows the degree of assurance.

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Purchased goods and services

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Not applicable

Attach the statement

FY20 Product life cycle carbon footprint (Fraunhofer Institute).pdf

Page/section reference

document page 2 shows the data assured and 4 shows conclusions

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Upstream transportation and distribution

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Not applicable

Attach the statement

FY20 Product life cycle carbon footprint (Fraunhofer Institute).pdf

Page/section reference

document page 2 shows the data assured and 4 shows conclusions

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Downstream transportation and distribution

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Not applicable

Attach the statement

FY20 Product life cycle carbon footprint (Fraunhofer Institute).pdf

Page/section reference

document page 2 shows the data assured and 4 shows conclusions

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Use of sold products

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Not applicable

Attach the statement

FY20 Product life cycle carbon footprint (Fraunhofer Institute).pdf

Page/section reference

document page 2 shows the data assured and 4 shows conclusions

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

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

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Not applicable

Attach the statement

FY20 Product life cycle carbon footprint (Fraunhofer Institute).pdf

Page/section reference

document page 2 shows the data assured and 4 shows conclusions

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.2

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

Yes

C10.2a

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

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C8. Energy	Renewable energy products	ISAE3000	The verification document attached also includes verification of renewable energy consumption (page 2) both self-generated and purchased including certificates from our Apple-created projects, renewable energy supplied to our facilities via utility green energy programs, renewable energy procured on Apple's behalf from the wholesale market via Direct Access programs, and market purchases of renewable energy certificates. This number is referenced in 8.2e and 7.5 (MWh of low-carbon electricity consumed). Apple_Corporate_FY2020_Assurance_Statement.pdf
C8. Energy	Energy consumption	ISAE3000	The verification document also includes verification of total Natural Gas consumption referenced in 8.2c (found on page 2 of attached document). Apple_Corporate_FY2020_Assurance_Statement.pdf
C8. Energy	Energy consumption	ISAE3000	The verification document also includes verification of total electricity consumption (page 2), referenced in This number is referenced in 8.2e and 7.5 (MWh of electricity consumed) Apple_Corporate_FY2020_Assurance_Statement.pdf
C4. Targets and performance	Other, please specify (Progress against renewable target)	ISAE3000	The attached assurance document shows verification of our progress towards our 4-gigawatt goal referenced in c4.2. Apple FY2020 CEP Assurance Statement.pdf

Apple_Corporate_FY2020_Assurance_Statement.pdf

C11. Carbon pricing

C11.1

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

No, and we do not anticipate being regulated in the next three years

C11.2

(C11.2) Has your organization 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 origination

Project type

Forests

Project identification

We did not originate these carbon credits. Instead we partnered with Conservation International on projects in various geographies that generate carbon credits that were then retired on Apple's behalf.

Verified to which standard

VCS (Verified Carbon Standard)

Number of credits (metric tonnes CO2e)

70000

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

70000

Credits cancelled

No

Purpose, e.g. compliance

Voluntary Offsetting

C11.3

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

No, and we do not currently anticipate doing so in the next two years

C12. Engagement

C12.1

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

Yes, our suppliers
Yes, our customers

C12.1a

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

Type of engagement

Innovation & collaboration (changing markets)

Details of engagement

Run a campaign to encourage innovation to reduce climate impacts on products and services

% of suppliers by number

100

% total procurement spend (direct and indirect)

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

50

Rationale for the coverage of your engagement

Based on our comprehensive carbon footprint, we know that the manufacturing of our products—from mining to final assembly—represents the most significant source of our emissions—about 70 percent in fiscal year 2020. That is why we've engaged deeply with our suppliers to reduce our footprint from manufacturing, with a focus on energy use and material selection. Through these programs, we've engaged all Apple-managed direct suppliers. This pool of suppliers extends beyond our top suppliers by spend, to all direct suppliers involved in the manufacturing of Apple products. The Apple Supplier Code of Conduct requires all Apple suppliers to "regularly quantify, set targets, monitor progress, and reduce its emissions of greenhouse gasses through conservation, use of clean energy, or other measures." Apple suppliers sign and are required to uphold the provisions set forth in the Apple Supplier Code of Conduct and associated Supplier Responsibility Standards. In 2016, our Supplier Energy Efficiency Program launched a supplier energy training program to increase the suppliers' awareness of energy conservation and to stimulate energy efficiency improvement activities. As part of this engagement, Apple conducts energy audits to identify energy saving opportunities and offers technical assistance. We also developed a supplier GHG emission inventory reporting tool and distributed it to 100% of Apple-managed supplier facilities. The GHG tool helps suppliers calculate their Scope 1 and 2 emissions. As of 2019, we required our suppliers to report both their emissions and their reduction targets. For the energy that is needed, we launched our Supplier Clean Energy Program in 2015 to help suppliers transition to renewable energy through a combination of direct engagement and online resources. The program's Clean Energy portal of resources is available to all our suppliers, while suppliers who commit to addressing 100 percent of their global manufacturing footprint for Apple become official Clean Energy Program participants. We also work with suppliers to innovate around the materials used in our products. We've worked with suppliers to switch to aluminum smelted using hydroelectricity rather than fossil fuels, and are engaging with suppliers to transition to recycled materials, reducing the carbon emissions associated with manufacturing.

Impact of engagement, including measures of success

To measure the success of the Supplier Clean Energy Program, participants are asked to update their annual renewable energy information and progress to date, and this information is then verified through third party assurances; this allows us to track suppliers' progress towards powering 100 percent of their Apple production with renewable energy. To-date 110 suppliers have committed to procuring 100 percent clean energy for their Apple-related load, and even more have engaged with the Supplier Clean Energy Program. The Supplier Clean Energy Program has nearly 8 gigawatts of clean energy commitments. The renewable energy already online generated 11.4 million megawatt-hours of clean energy in fiscal year 2020, avoiding 8.6 million metric tons of carbon emissions in our supply chain. Regarding energy efficiency, we measure success based on level of engagement in our program and reduction in energy savings. Suppliers engaged in our program saved more than 1 million MWh of electricity through efficiency efforts. From the collaborative actions we've taken with our suppliers to accelerate toward carbon neutrality, more than 900,000 annualized metric tons of supply chain carbon emissions were avoided, a 44 percent improvement over 2019. To measure the success of our work to use recycled materials, we measure the use of recycled materials in each of our products, as well as the impact on the product's carbon footprint, and release this information in our Product Environmental Reports. For example, iPad Pro (11-inch) carbon footprint decreased by 16 percent compared with the previous generation, due in part to use of recycled aluminum in the enclosure.

Comment

C12.1b

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

Type of engagement

Collaboration & innovation

Details of engagement

Run a campaign to encourage innovation to reduce climate change impacts

% of customers by number

100

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

100

Portfolio coverage (total or outstanding)

<Not Applicable>

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

We engage with our customers to address emissions from use and manufacturing of our products. To address the impact from product use, we aim to reduce energy consumption associated with the use of products. We do so by designing more efficient power supplies to bring electricity from the wall to the device, more efficient hardware, and smarter power management software. To address the impact of use of services, our data centers are powered by 100% renewable energy and we are requiring third-party computing services to adopt a 100% renewable energy strategy for their Apple energy use. And to avoid greenhouse gas emissions from extraction of new raw materials, we also encourage our customers to return Apple products that have reached the end of their life for recycling. Through Apple Trade In, customers can trade in eligible devices for credit toward a purchase or an Apple Store Gift Card. If a device is not eligible for credit, we recycle it for free. We also offer and participate in product take-back and recycling collection programs for 99 percent of the countries where we sell products—and we hold our recyclers to high standards. Beyond product collection, we're working to enhance recycling technology. We designed disassembly robots, Daisy and Dave, to take apart iPhone devices and components so that recyclers can recover more important materials and at a higher quality than traditional recycling technologies. We communicate to our customers about product energy efficiency and recycling options both on our website and through Product Environmental Reports. These reports, released for core products at launch, also communicate the full lifecycle carbon footprint of the product to customers. These engagements and communications target emissions from product use and select manufacturing emissions (through promoting use of recycled rather than newly-extracted materials. We selected this group of customers—all those who use our energy efficient products and/or have products for which we offer recycling—in order to best address the emissions relating to customers.

Impact of engagement, including measures of success

We use U.S. Environmental Protection Agency's ENERGY STAR standards to measure our progress on product energy efficiency. We measure our success by continuing to meet this standard as we introduce new products: In fiscal year 2020, 100 percent of our eligible products received an ENERGY STAR rating for superior energy efficiency. And we disclose how each product's energy performance compares to the ENERGY STAR standard in our Product Environmental Reports. We also measure success by our ability to decrease overall product energy use as well. Through our efforts to improve energy efficiency, the average product energy use across all major product lines has declined by more than 70 percent since 2008. Engagement success for end of life initiatives is measured by tracking the quantity of products returned to us through our programs and re-directed to refurbishing or recycling for recovery of materials. In fiscal year 2020, we sent 10.4 million devices to be refurbished for new users. And we directed 39,000 metric tons of e-waste—including devices returned to us by customers—to recycling globally in 2020. The recovery and reuse of materials helps avoid greenhouse gas emissions resulting from extraction of raw materials.

C12.3

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

Direct engagement with policy makers

Trade associations

Other

C12.3a

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

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Energy efficiency	Support with minor exceptions	We are engaged with the California Energy Commission to develop energy efficiency standards for computers and monitors. Our engagement centers on ensuring the energy efficiency standards that are being developed are strong, clear, and actionable. Through our efforts to improve energy efficiency, the average product energy use across all major product lines has declined by more than 70 percent since 2008. And Apple products are consistently ranked by ENERGY STAR, which sets specifications that typically reflect the 25 percent most energy-efficient devices on the market.	Enhanced California energy efficiency standards for computers and monitors.
Clean energy generation	Support	Apple filed comments with the Japanese government, calling for the development of a renewable energy credit trading system better designed for market involvement and offering more detailed project data to accompany credits. Also, in Japan, we became the first of several multinationals to join the Japan Climate Leader's Partnership, which aligns business objectives with environmental goals. Apple is an Executive Member and participates in Advisory Working groups. Apple supported JCLP and RE100 letters to the Government supporting more ambitious climate and energy targets.	Development of a renewable energy credit trading system
Clean energy generation	Support	In Vietnam, we advocated for government action to enable companies to purchase renewable energy.	Advocating for a direct power purchase agreement to enable companies to purchase new renewable electricity
Clean energy generation	Oppose	Apple urged the United States Environmental Protection Agency (EPA) not to withdraw the Clean Power Plan, which would have reduced greenhouse gas emissions from the electricity sector. Apple filed briefs and spoke out against policies to withdraw the clean power plan.	Retain existing Clean Power Plan
Clean energy generation	Support	We joined China's Green Electricity Consumption Cooperative, a group of business and NGOs working with the Chinese government, in June 2017 to promote renewable energy procurement in China.	Provided feedback on China's renewable energy certificate market design following the launch of the voluntary green certificate market.
Other, please specify (regulation of GHG emissions)	Support	Apple is a signatory of "America Is All In", which supports the United States federal government in pursuing the newly announced national climate target of 50-52% emissions reductions by 2030. "We are all in" is a consortium of organizations engaging with the Biden administration on U.S. re-entry into the Paris Agreement.	Support the U.S. re-entry into the Paris Agreement.
Clean energy generation	Support	Support the creation of RE100's 'policy asks' in support of clean energy in India.	Advocating for more consistent policy for corporate renewable energy and clearer approval pathways for open access projects.

C12.3b

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

Yes

C12.3c

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

Trade association

Information Technology Industry Council

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Information Technology Industry Council (ITI) has a clear position supporting innovation leading to increased energy efficiency and the promotion of clean, renewable energy sources, as indicated on their website (<https://www.itic.org/policy/energy>): "ITI and our members seek to continuously improve the energy efficiency landscape in the U.S. and globally to leverage energy-efficient technologies. ITI works on behalf of our member companies to advocate for policies that advance both intelligent efficiency and product efficiency... On energy efficiency, ITI unites the tech sector and the NGO community to advance policies that drive sustainable economic growth through technology-enabled energy and product efficiency innovation. ITI works proactively with the Environmental Protection Agency as an active partner in and advisor to the ENERGY STAR program.

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

Our position and their positions are in alignment; we are not attempting to influence their position.

Trade association

Japan Climate Leadership Partners

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

JCLP advocates that companies should work aggressively to decarbonize their operations, and should speak up on climate policy. It is a coalition of Japanese companies, and companies that do business in Japan.

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

We are the first non-Japanese members, and are active in leadership, participating in the Executive Committee and the Advocacy Working Group.

C12.3e

(C12.3e) Provide details of the other engagement activities that you undertake.

We engage with industry, sustainability, and cross-sector organizations to share knowledge while learning from subject-matter experts in strategic areas. We prioritize associations that share our values, passion, and deeply held belief that companies can make a difference.

Great relationships are built over time. So we have renewed our commitments to Ceres, Corporate Eco Forum, the World Business Council for Sustainable Development (WBCSD), and the GreenBiz Executive Network, among others. We continue to serve as a member of several organizations, including the Japan Climate Leaders Partnership, and the Green Electricity Consumption Cooperative as a Board Member Company. We are also a member of RE100's advisory committee, which serves as the guiding body of the RE100 campaign through providing expert insight and advice relating to current plans, proposals and external opportunities. And in 2020, we received the RE100 award for "best green catalyst" due to our work engaging our suppliers on renewable energy. We believe that sharing our vision and our commitment can make a difference well beyond Apple's business. To increase our impact, our team presented at several notable events and hosted multi-stakeholder engagements. Last year in Seoul, we hosted members of RE100, a global initiative of some of the world's most influential businesses committed to 100 percent renewable electricity. In Vietnam, we advocated for government action to enable companies to purchase renewable energy. Also, in Japan, we became the first of several multinationals to join the Japan Climate Leader's Partnership, which aligns business objectives with environmental goals. In 2020, Lisa Jackson spoke at TED Countdown, a global initiative to champion and accelerate solutions to the climate crisis, and at the World Economic Forum Sustainable Development Impact Summit. In addition, our CEO Tim Cook addressed the United Nations' Climate Ambition Summit, resoundingly reinforcing our commitment to transition to a carbon neutral economy and create inclusive opportunities.

C12.3f

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

Apple's Vice President of Environment, Policy and Social Initiatives, Lisa Jackson, oversees Apple's worldwide governmental affairs team to ensure alignment of policy-influencing activities with our climate change strategy. Ms. Jackson reviews all significant legislative, public policy, and communications initiatives related to climate and environment, as well as all substantive participation requests for environmental advocacy. Apple believes that its clear and forceful position on climate action—through direct communications to employees and the broader public from both Ms. Jackson and Apple's CEO Tim Cook—leaves no ambiguity among its policy teams about Apple's stance on climate change. This clear direction from leadership also enables a unified approach to climate action regardless of employees' geographic location or business division. Apple works with various groups including those listed in C12.3c, to drive U.S. state, federal, and foreign-government policies that support climate action, such as increased access to renewable energy. When deciding whether to join or maintain membership in a trade association, that trade association's position and activity on climate change is a factor Apple considers. If direct or indirect engagement activities become inconsistent with our overall climate change strategy, we may disengage. For example, in 2009, Apple resigned its membership at the U.S. Chamber of Commerce directly as a result of the Chamber's public statements opposing the regulation of GHG emissions and its opposition to climate change legislation.

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

Proxy_Statement_2020.pdf

Page/Section reference

Page 9

Content elements

Strategy
Emission targets
Other metrics

Comment

Includes our high-level strategy to look across both products and facilities, with a link to our environment website and full strategy disclosure. It includes renewable energy use targets to reduce emissions both for facilities and supply chain. And it speaks to our commitment to using recycled materials, which also supports the reduction of our overall carbon footprint.

Publication

In mainstream reports

Status

Complete

Attach the document

Apple_10-K_2020.pdf

Page/Section reference

Page 8, 13

Content elements

Risks & opportunities

Comment

Publication

In voluntary sustainability report

Status

Complete

Attach the document

Apple_SR_2021_Progress_Report_Select Pages.pdf

Page/Section reference

Pages 1-21

Content elements

Strategy
Risks & opportunities
Emissions figures
Other metrics

Comment

Publication

In voluntary communications

Status

Complete

Attach the document

Apple-ESG-Index_2020.pdf

Page/Section reference

Pages all

Content elements

Emissions figures
Other metrics

Comment

Publication

In voluntary communications

Status

Complete

Attach the document

Apple-Supplier-Responsibility-Standards.pdf

Page/Section reference

Pages 38-40, 66- 83

Content elements

Governance

Comment

Publication

In voluntary sustainability report

Status

Complete

Attach the document

Apple_Watch_Series6_PER_sept2020.pdf

Page/Section reference

Page 2-9

Content elements

Strategy
Emissions figures
Other metrics

Comment

Publication

In voluntary sustainability report

Status

Complete

Attach the document

Apple_Environmental_Progress_Report_2021.pdf

Page/Section reference

All

Content elements

Governance

Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

C15. Signoff

C-FI

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

C15.1

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

	Job title	Corresponding job category
Row 1	Vice President, Environment, Policy & Social Initiatives	Chief Sustainability Officer (CSO)

SC. Supply chain module

SC0.0

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

We have a number of programs to reduce product-related emissions. We recently announced our goal to become carbon neutral across our entire business, manufacturing supply chain, and product life cycle by 2030. Apple is already carbon neutral today for its global corporate operations, and this new commitment means that by 2030, every Apple device sold will have net zero climate impact. This goal builds on Apple's prior success powering all of our facilities worldwide with 100 percent renewable energy, which is another example of our substantive, visible commitment to mitigating climate change. As part of its carbon neutrality goal, Apple also plans to transition its entire supply chain to 100 percent renewable energy, which will significantly reduce our Scope 3 emissions from manufacturing products. The Supplier Clean Energy Program now has nearly 8 gigawatts of clean energy commitments, of which more than 4 gigawatts was operational in 2020. The renewable energy already online generated 11.4 million megawatt-hours of clean energy in fiscal year 2020, avoiding 8.6 million metric tons of carbon emissions in our supply chain.

Our Product Environmental Reports include product-level carbon emissions data for each major product release. These are available at:
<https://www.apple.com/environment/#reports-product>

SC0.1

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

	Annual Revenue
Row 1	

SC0.2

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

SC1.1

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

SC1.2

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

SC1.3

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

Allocation challenges	Please explain what would help you overcome these challenges
Doing so would require we disclose business sensitive/proprietary information	

SC1.4

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

SC2.1

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

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

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

Please confirm below

I have read and accept the applicable Terms