Cisco 2023 Task Force on Climate-related Financial Disclosures (TCFD) response

Introduction

This report reflects our most recent scenario analysis aligned with the Task Force on Climate-related Financial Disclosures (TCFD) and our work to advance our goal to reach net zero greenhouse gas (GHG) emissions across our value chain by 2040.

References in this report to "we," "our," "us," and similar terms refer to Cisco.

Governance

BOARD OVERSIGHT

The highest level of oversight for climate-related issues resides with the Environmental, Social, and Public Policy (ESPP) Committee of Cisco's Board of Directors. The ESPP Committee is responsible for overseeing Cisco's initiatives, policies, programs, and strategies concerning environmental sustainability and other key corporate social responsibility and public policy matters. The Board receives regular updates from the Chief Sustainability Office and other management on Cisco's overall Corporate, Social Responsibility, and ESG strategy and the progress we are making under it.

MANAGEMENT'S ROLE

Building further on its strong foundation of climate change initiatives and goals that began nearly two decades ago in 2006, Cisco's first Chief Sustainability Officer (CSO) was named in 2022 and is responsible for executing the enterprisewide sustainability strategy, stewarding sustainability initiatives across Cisco, and driving progress toward its goals.

Cisco's People, Policy, and Purpose organization leads our social investment programs and champions our commitment to ESG performance and transparency. In addition, Cisco has several crossfunctional committees which oversee various ESG initiatives and help implement our strategy, including environmental initiatives and strategies. A core reporting team is responsible for supporting the CSO and our enterprisewide sustainability initiatives, setting and driving an environmental sustainability reporting strategy, engaging internal and external stakeholders, and researching and monitoring environmental sustainability trends.

Business functions are also responsible for certain ESG priorities, which align with the enterprisewide sustainability strategy. Business function management teams set goals, implement plans, and measure performance to integrate identified priorities into the business strategy.

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Strategy

Climate change and GHG are high-priority topics among our stakeholders and are long-term strategic priorities for Cisco–not just to manage related risks, but also to help enable the transition to a low-carbon future. Building upon nearly two decades of setting and achieving emissions goals, in September 2021, we set an ambitious long-term goal to reach net zero across our value chain (Scope 1, Scope 2, and Scope 3 emissions) by 2040, which has been validated by the Science-Based Targets initiative (SBTi) under its Net-Zero Standard. Cisco is one of the first technology hardware and equipment companies to have its net zero goal validated under the SBTi Net-Zero Standard.

Our strategy to achieve our net zero goal includes:

- continuing to increase the energy efficiency of our products through innovative product design;
- accelerating the use of renewable energy, including in the communities where our suppliers and customers operate;
- further embedding sustainability and circular economy principles across our business, including:
  - incorporating the circular economy principles of reuse and resource efficiency into how we design, source, make, deliver, and take back products;
  - collaborating with manufacturing, component, and logistics suppliers to manage and report GHG reduction targets, influencing improvements in performance year-over-year; and
  - evolving our business models to support multiple product lifecycles;
- embracing hybrid work; and
- investing in innovative carbon removal solutions.

Risks, Opportunities, and Scenario Analysis

To better understand our climate-related risks and opportunities, and to help inform our strategy, we conducted an enhanced scenario analysis in 2023. This analysis examined two scenarios, a "low-carbon economy" (LCE) and a "high-carbon economy" (HCE) scenario, and we modeled them against future time horizons, including 2030 and 2040.

The HCE scenario represents inaction with respect to decarbonization, or a 4-degree Celsius temperature rise by the end of the century, while the LCE scenario represents a climate scenario aligned with a 2-degree Celsius temperature rise by the end of the century.

	LCE: Low-carbon economy scenario	HCE: High-carbon economy scenario
Assumed degrees of warming	Below 2°C by end of the century.	4-5°C by end of the century
Scenario	Transition risks and opportunities: Network for Greening the Financial System (NGFS) Below 2°C scenario. Physical risks: IPCC SSP-1, RCP2.6	Transition risks and opportunities: NGFS Current Policies scenario. Physical risks: IPCC SSP-5, RCP8.5

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To identify and model risks and opportunities, we considered both quantitative and qualitative factors. The physical assets selected for the physical risk analysis were prioritized based on a number of attributes, including location, to help identify the significance of the asset to the enterprise. For transition risks and opportunities, crossfunctional surveys and internal interviews were also considered.

PHYSICAL RISKS

Our analysis of physical risks focused on identifying potential impacts from climate-related physical hazards facing Cisco assets located worldwide, including Cisco-owned and leased facilities, logistics centers, data centers, contract manufacturers, and suppliers.

For each asset location, data was collected and processed to include in the physical risk modeling. Physical climate risk was quantified using the outputs of global climate models for historical baseline periods and for future periods using two scenarios aligned with Shared Socioeconomic Pathways (SSP1-2.6 and SSP5-8.5).

Physical Risks	Nature of Risk	Potential Impact Examples
Business disruptions due to climate disasters	Acute	• Overall, locations in Asia drive increases in Cisco's physical risk exposure under both the LCE and HCE scenarios. • Assets, employees, and business partners located within low-lying coastal areas and tropical regions are expected to face the greatest acute weather-related hazards by 2050. • The most prominent hazards potentially facing Cisco's assets (under both scenarios) are extreme precipitation and wind events, and the flooding that both can cause. • Hazards resulting from acute risks could lead to potential financial impacts associated with business interruption, downtime, emergency response, repair and maintenance, and relocation.
Business disruptions due to long-term climate shifts	Chronic	• Hazards resulting from chronic risks that cause the greatest potential risk to Cisco assets by 2050 (under both scenarios) are fluctuating precipitation patterns and extreme temperature changes. • Hazards resulting from chronic risks that drive the greatest potential increase in Cisco's financial exposure are extreme heat and drought by 2030 and 2050 under both scenarios. • Cisco assets located in the Middle East and Asia are anticipated to face the greatest chronic physical hazards by 2050 (under both scenarios). These geographical locations are modeled to be highly susceptible to rising sea levels, increased temperatures, and changing precipitation patterns.

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TRANSITION RISKS AND OPPORTUNITIES

The quantitative analysis of transition risks and opportunities compared Cisco's stated net zero goals and related pathway to global LCE and HCE scenarios for multiple future time horizons. The analysis focused on stress-testing Cisco's net zero goals against these scenarios, as well as assessing the potential financial impacts of the three transition risks and two opportunities below on Cisco's business.

Decarbonization pathways, internal data, market projections, and potential financial exposure and losses were modeled to understand Cisco's overall transition risk profile, risk hotspots, and financial implications.

Transition risks	Risk category	Potential impact examples
Cisco investment in product decarbonization	Technology	• Research and development (R&D) expenditures will likely need to increase to account for investments required to address product-related emissions and to reach our 2040 net zero goal for our full value chain. • Cisco faces higher risk in the HCE scenario, as the gap between projected R&D expenditures and spending needed to reach our net zero goals is projected to grow over time. If Cisco increases and sustains R&D expenditures under our net zero pathway, we project higher benefits.
Customer preferences for low-carbon products	Technology and market	• Risk exposure is higher in an HCE scenario where global emissions do not reduce rapidly (due to delayed grid decarbonization and the demand from customers for low-carbon products). • Both scenarios emphasize the importance of continuing to improve product energy efficiency and carbon intensity to help meet our net zero goals and support customer decarbonization efforts.
Delayed grid decarbonization (or delayed adoption of clean energy sources)	Technology	• In an HCE scenario where the grid decarbonizes at a slow rate, it is expected that Cisco would need to purchase more offsets and renewable energy credits (RECs) to reach its 2040 net zero goal. However, to meet the requirements of Cisco's SBTi net zero commitment, our decarbonization strategy limits our dependence (up to 10 percent) on carbon offsets. • While carbon offset prices are expected to increase in both scenarios, they will likely be higher in an LCE scenario, due to increased competition for avoidance-based credits. • While REC prices are expected to decrease in the long-term in both scenarios, they will likely be lower in an LCE scenario due to increased availability of renewable energy sources.

Opportunities	Opportunity category	Potential impact examples
Develop new sustainable product models	Products and services	• Cisco's greatest opportunity associated with products designed with sustainability in mind is under our net zero scenario, where projected revenue growth is expected to outpace the HCE and LCE scenarios as Cisco achieves both near-term and long-term SBTi targets.
Position Cisco as a trusted climate partner	Markets	• Cisco's revenue associated with sustainability-related solutions is projected to increase in alignment with an improved climate reputation (using increasing ESG ratings as a proxy), leading to benefits in both the LCE scenario and a case where we align with our planned net zero pathway. • Cisco can benefit by continuing to innovate and be a leader in sustainability.

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Risk management

Cisco manages climate-related risks to our employees and assets through our risk management teams. For example, within our supply chain risk management function, Cisco monitors global climate-related hazards and determines the potential impact across the value chain, including impacts to Cisco's employees, physical assets, suppliers, and operations using internal risk assessment tools.

Cisco's established Enterprise Risk Management (ERM) program works across the organization to identify, assess, govern, manage, and respond to risks, including climate-related risks. Cisco's Board of Directors and its various committees oversee risks to the enterprise and receive a regular cadence of updates from the ERM Operating Committee.

While Cisco's management is responsible for the day-to-day risk management activities within the organization, the Board of Directors is responsible for the overall oversight of Cisco's risk management. The Board of Directors has implemented practices, processes, and programs designed to help manage risks to which our business is exposed to and align risk tolerance appropriately. This TCFD-aligned climate risk scenario analysis provides a macro view of Cisco's climate change risks and opportunities, focused on physical and transition risk categories across our operations and the market. Through our ERM process, we embed these findings and larger trends into our broader ERM program to monitor and develop a plan to mitigate the identified physical and transition risks and capitalize on opportunities.

Metrics and targets

The primary metric we use for Scope 1, Scope 2, and Scope 3 emissions reduction reporting and progress is metric tons of carbon dioxide equivalents, and we are reporting the progress we are making on our net zero goal through the following near-term targets:

- Reduce absolute Scope 1 and Scope 2 emissions 90 percent by 2025;[1] and
- Reduce absolute Scope 3 emissions from purchased goods and services, upstream transportation and distribution, and use of sold products by 30 percent by 2030.[2]

We track and report progress on our interim targets annually on our ESG Reporting Hub.

Cisco also discloses an overview of our operational energy consumption, annual water usage, and waste generation and management as part of the ongoing initiatives to minimize the environmental impact caused by day-to-day activities. More information about our environmental footprint is available here.

Looking ahead

As a result of our 2023 quantitative climate risk scenario analysis, we continue to develop a deeper understanding of the impacts climate change will have on our business and our people. We believe effective climate risk management strategies will be important in our long-term sustainability and business strategies.

We will continue to assess emerging climate-related risks and opportunities and integrate climate-risk management responsibility into roles within our business. We remain focused on our 2025 and 2030 near-term targets and our 2040 long-term, SBTi-aligned net zero goal, and we are dedicated to advancing sustainability within our business so we can continue to Power an Inclusive Future for All.

[1] Compared to fiscal 2019. We will neutralize any remaining emissions by removing an equal amount from the atmosphere.

[2] Compared to fiscal 2019. The baseline and progress reported for our 2030 goal includes: purchased goods and services from manufacturing, component, and warehouse suppliers; upstream transportation and distribution from Cisco purchased air transportation; and use of sold products.