

## C0. Introduction

---

### C0.1

---

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

Cadence is a leader in electronic system design, building upon more than 30 years of computational software expertise. We apply our underlying Intelligent System Design™ strategy to deliver computational software, hardware and IP that turn design concepts into reality. Our customers include some of the world's most innovative companies that deliver extraordinary electronic products from chips to boards to systems for dynamic market applications.

We enable our customers to develop electronic products. Our products and services are designed to give our customers a competitive edge in their development of integrated circuits ("ICs"), systems-on-chip ("SoCs"), and increasingly sophisticated electronic devices and systems. Our products and services do this by optimizing performance, minimizing power consumption, shortening the time to bring our customers' products to market, improving engineering productivity and reducing their design, development and manufacturing costs.

Our electronic systems customers deliver entire devices, such as smartphones, laptop computers, gaming systems, automobiles and autonomous driving systems, servers, cloud data center infrastructure, artificial intelligence ("AI") systems, aerospace and defense, medical equipment and networking products. These systems companies internally develop, or externally purchase, the sub-components for their products, including printed circuit boards ("PCBs"), which interconnect all the hardware components, ICs, which are often referred to as computer chips, and software at various levels which runs on the hardware. Our semiconductor customers deliver ICs, which include subcategories such as processors, SoCs, AI, memory, analog and other types of chips.

We offer software, hardware, services and reusable IC design blocks, which are commonly referred to as intellectual property ("IP"). Our semiconductor customers use our offerings to design, configure, analyze and verify ICs. Additionally, customers license our IP, which accelerates their product development processes by providing pre-designed and verified circuit blocks for their ICs. Systems customers use our offerings to design, simulate, and verify the electrothermal and physical functionality of their ICs, PCBs, and systems products.

Our strategy, which we call Intelligent System Design, is to provide the computational software technologies necessary for our electronic system and semiconductor customers to develop products across a variety of vertical markets including consumer, hyperscale computing, mobile, 5G communications, automotive, aerospace and defense, industrial and healthcare. We address the challenges posed by the needs and trends of electronic systems companies as well as semiconductor companies delivering greater portions of these systems.

The development of electronic products, or their sub-components, is complex and requires many engineers using our solutions with specialized knowledge and skill. The rate of technical innovation in electronics is swift, long driven by a concept known as Moore's Law, which more than 50 years ago predicted that the complexity of ICs would double approximately every 24 months. In order to make our customers successful, our products must handle this exponential growth rate in complexity, without requiring a corresponding increase in our customers' costs. Historically, the industry that provided the tools used by IC engineers was referred to as Electronic Design Automation ("EDA"). Today, our offerings include and extend beyond EDA to enable computational software for Intelligent System Design across three layers—starting with IC and SoC design excellence, followed by system innovation, and then pervasive intelligence.

Cadence is committed to investing our resources to improve our own operational footprint. In 2022, Cadence achieved CarbonNeutral® company certification in accordance with The CarbonNeutral Protocol, the leading global framework for carbon neutrality. We also achieved 100% renewable energy for our global operations. We expanded the breadth, depth, and transparency of our environmental sustainability program as evidenced by our reporting to the TCFD recommendations. While we're excited about our progress, we remain focused on our full value chain to achieve Net-Zero by 2040.

### C0.2

---

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

**Reporting year**

**Start date**

January 1 2022

**End date**

December 31 2022

**Indicate if you are providing emissions data for past reporting years**

No

### C0.3

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

Belgium  
Brazil  
Canada  
China  
Finland  
France  
Germany  
Hungary  
India  
Ireland  
Israel  
Italy  
Japan  
Malaysia  
Poland  
Republic of Korea  
Russian Federation  
Singapore  
Sweden  
Taiwan, China  
United Kingdom of Great Britain and Northern Ireland  
United States of America  
Viet Nam

### C0.4

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

USD

### C0.5

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

Operational control

### C0.8

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

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	US1273871087
Yes, a CUSIP number	127387108
Yes, a Ticker symbol	CDNS
Yes, a SEDOL code	BYZHHC4

C1. Governance

C1.1

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

Yes

C1.1a

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

Position of individual or committee	Responsibilities for climate-related issues
Board-level committee	<p>Our Board, through its Corporate Governance and Nominating Committee oversees the Company's policies and practices regarding corporate social responsibility and sustainability programs, including climate-related, environmental, social and governance matters and initiatives, and reports to the Board on these programs. Our Board oversees risks related to the Company's corporate governance including climate-related issues.</p> <p>Further, the Corporate Governance and Nominating Committee regularly reviews the plans and progress of our environmental program, including climate-related risks and opportunities, and is informed on Cadence's carbon footprint breakdown and the strategy to achieve greenhouse gas emissions reduction targets by 2025, 2030, and 2040.</p> <p>In the previous reporting year, the Corporate Governance and Nominating Committee approved our Net-zero and 2030 carbon reduction targets.</p>
Chief Executive Officer (CEO)	<p>The Chief Executive Officer of Cadence is a member of the Board of Directors.</p> <p>Our Board, through its Corporate Governance and Nominating Committee, oversees our corporate social responsibility program and the progress of our environmental (including climate-related risks and opportunities), social (including health, wellness, and safety), and governance efforts, matters, and initiatives.</p> <p>In 2022, our Chief Executive Officer put forth a climate-related decision of achieving CarbonNeutral® company certification across our operations including Scope 1, Scope 2, and select Scope 3 emission sources. Cadence is certified as a CarbonNeutral® company in accordance with The CarbonNeutral Protocol. Furthermore, our product Palladium Cloud is certified CarbonNeutral®.</p>

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 – all meetings	<p>Reviewing and guiding strategy</p> <p>Monitoring the implementation of a transition plan</p> <p>Monitoring progress towards corporate targets</p>	<Not Applicable>	<p>Our Board through its Corporate Governance and Nominating (CGN) Committee oversees our corporate social responsibility program and the progress of our environmental, social and governance issues, including climate-related risks and opportunities.</p> <p>The Corporate Governance and Nominating Committee formally reviews our environmental, social and governance efforts at every regular meeting, and oversees our policies and practices regarding our corporate social responsibility and sustainability program, including environmental/climate-related, social and governance matters and initiatives, and report at least annually on such program. Climate-related issues are considered when reviewing and guiding company strategy and major plans of action. In 2022, the CGN Committee held three meetings.</p>

C1.1d

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

Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1 Yes	The criteria used to assess Board members competence on climate-related issues are based on the Corporate Governance and Nominating Committee's charter which requires consideration of a director nominee's integrity, experience, judgment, diversity of background, independence, financial literacy, and ability to commit sufficient time and attention to Board activities.	<Not Applicable>	<Not Applicable>

C1.2

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

**Position or committee**

Other C-Suite Officer, please specify (General Counsel & Secretary)

**Climate-related responsibilities of this position**

Monitoring progress against climate-related corporate targets  
 Assessing climate-related risks and opportunities  
 Managing climate-related risks and opportunities

**Coverage of responsibilities**

<Not Applicable>

**Reporting line**

Other, please specify (Legal)

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

Half-yearly

**Please explain**

Our General Counsel & Corporate Secretary is the highest management-level position with responsibility for climate-related issues. Our Senior Group Director of Corporate Social Responsibility is responsible for assessing climate-related risks and opportunities and reports to the Associate General Counsel, who in turn reports to the General Counsel & Corporate Secretary.

Our General Counsel & Corporate Secretary is briefed regularly on our ESG program and initiative progress, reviews and accepts new proposals, and approves major actions. The Senior Group Director of Corporate Social Responsibility reports to the Board of Directors Corporate Governance and Nominating Committee on climate-related issues three times out of the year.

**Position or committee**

Other C-Suite Officer, please specify (Executive Management Team (EMT) that lead Strategy and Governance functions at Cadence )

**Climate-related responsibilities of this position**

Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)  
 Integrating climate-related issues into the strategy  
 Assessing climate-related risks and opportunities

**Coverage of responsibilities**

<Not Applicable>

**Reporting line**

CEO reporting line

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

Half-yearly

**Please explain**

Representatives of our Executive Management Team (EMT) that lead Strategy and Governance functions at Cadence have responsibility for climate-related issues. Briefed regularly on our ESG programs by our Senior Group Director of Corporate Social Responsibility, these executives review and accept new proposals and approve major actions.

Our Senior Group Director of Corporate Social Responsibility chairs a cross-functional team consisting of internal leaders in Human Resources, Facilities, Finance, Procurement, Marketing, and Legal. These leaders identify and assess climate-related risks and opportunities, as well as establish ESG priorities within their areas. Our Senior Group Director of Corporate Social Responsibility also briefs the CGN Committee on ESG priorities at every regular meeting, and on climate-related issues specifically, three times a year.

**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	To further strengthen our ESG initiatives, we are focusing our top leaders on the company's impact on climate and sustainability as well as diversity, equity, and inclusion. To motivate leaders and create accountability their incentive plans will be aligned to their progress in these areas. We have a Cadence culture modifier that affects the bonus of the top 100 leaders at the company. 20 percent of their bonus is affected by how well they do in ESG metrics, including sustainability and climate to encourage our key leaders to put more focus on ESG going forward.  Facilities managers and some members of their teams are also considered for incentives linked to the management of climate-related issues such as energy reduction and efficiency projects and behavior change.

**C1.3a**

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

**Entitled to incentive**

Corporate executive team

**Type of incentive**

Monetary reward

**Incentive(s)**

Bonus – set figure

**Performance indicator(s)**

Achievement of a climate-related target

**Incentive plan(s) this incentive is linked to**

Short-Term Incentive Plan

**Further details of incentive(s)**

We have a Cadence culture modifier that affects the bonus of the top 100 leaders at the company. 20 percent of their bonus is affected by how well they do against specific ESG metrics to encourage our key leaders to put more focus on ESG going forward.

**Explain how this incentive contributes to the implementation of your organization’s climate commitments and/or climate transition plan**

This year, Cadence introduced a compensation incentive for leaders; we tied ~20% of 100 senior leaders’ bonuses to driving our sustainability priorities. Our goal with this compensation strategy is to create meaningful incentives to drive change towards our sustainability priorities such as our climate commitments.

**C2. Risks and opportunities**

**C2.1**

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

Yes

**C2.1a**

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

	From (years)	To (years)	Comment
Short-term	0	3	We consider a short-term horizon for climate-related issues up to three years in the future.
Medium-term	3	5	We consider a medium-term horizon for climate-related issues between three and five years in the future.
Long-term	5	10	We consider a long-term horizon for climate-related issues between five and ten years in the future.

**C2.1b**

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

Substantive financial or strategic impact on our business is defined based on the concept of materiality. An event or set of circumstances would be considered material (and therefore substantive) if the impact of the event would, in light of surrounding circumstances, make it probable that the judgement of a reasonable person in determining whether to buy or sell Cadence common stock would be changed or influenced by the event.

More specifically for the purposes of climate-related risks, we define substantive or strategic impact as any event that could have a material, adverse effect on our business including: our ability to deliver on our commitments to clients, our ability to operate our research and development activities which result in the development of new or improved existing products, our financial condition, results of operations, cash flows, and the trading price of our common stock.

Quantitative indicators may include whether or not the event of set of circumstances was substantive enough to be disclosed in our filings with the United States Securities and Exchange Commission.

**C2.2**

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

**Value chain stage(s) covered**

Direct operations

**Risk management process**

Integrated into multi-disciplinary company-wide risk management process

**Frequency of assessment**

Annually

**Time horizon(s) covered**

Short-term  
Medium-term  
Long-term

**Description of process**

Climate-related risks are identified and assessed by the cross-functional ESG Team at Cadence with a focus on:  
Decarbonizing operations  
Decarbonizing data centers  
Decarbonizing our supply chain  
Decarbonizing compute activities

Process(es) for identifying, assessing, and responding to climate-related risks and opportunities in our direct operations are integrated into our multi-disciplinary company-wide risk management process. When potential climate-related risk factors are identified, we assess the potential impact they may have on our operations and whether the identified risk may have the potential to impede our ability to develop new or improved existing products, deliver on our commitments to clients, or harm our reputation.

We evaluate potential risks and opportunities in our direct operations at least annually based on our short-term horizon of 0-3 years, medium-term horizon of 3-5 years, and long-term horizon of 5-10 years. However, our climate related risk assessments extend beyond those timeframes, in some cases through 2050 and beyond.

Identify and Assess:

In the reporting year, we worked with consulting partners to expand our climate-related risk identification and assessment process. The following risk types are considered: acute and chronic physical risk, current and emerging regulations, legal, market, reputation, and technology.

For physical risks our process consists of mapping asset level data, quantifying climate hazard exposure, applying asset specific impact functions, and quantifying modeled financial impact. For transitional risks our process consists of mapping macro-level transition risks to our operations and value chain, quantifying the impact of carbon pricing risk exposure, applying future carbon price scenarios, quantifying potential financial or strategic impact on Cadence's business. Relative risk is assessed through industry and peer benchmarking, as well as against the science-based climate transition pathway.

Response:

Through innovation, aggressive investment and collaboration with value chain partners, we anticipate reaching Net-Zero emissions across our value chain by 2040. Although our Paris-aligned 2030 target to halve our market-based Scope 1 and 2 emissions by 2030 was exceeded in 2022, we will continue to track progress against this goal until 2030.

While our targets will be primarily measured and achieved through power-consumption efficiency and procuring clean energy, we also invest in projects that provide other benefits such as organic carbon storage, ecosystem restoration, safe water, clean air, and wildlife and habitat protection. We achieved company-wide Carbon Neutral certification in 2022 through our investments in decarbonization including energy efficiency measures, procurement of 100% renewable energy through utility contracts and high-quality Energy Attribute Certificates (EACs), onsite solar installations and high-impact carbon avoidance/removal offsets. In 2022, we have taken steps to shift our electricity supply to long-term renewable energy virtual power purchase agreements (VPPAs).

Robust business continuity programs are in place to mitigate risk factors for various uncertainties that could adversely affect our business, financial condition, or results of operations, including acute, physical, climate-related risks.

---

**Value chain stage(s) covered**

Downstream

**Risk management process**

Integrated into multi-disciplinary company-wide risk management process

**Frequency of assessment**

More than once a year

**Time horizon(s) covered**

Short-term  
Medium-term  
Long-term

**Description of process**

Climate-related risks are identified and assessed by the cross-functional ESG Team at Cadence with a focus on:  
Decarbonizing operations  
Decarbonizing data centers  
Decarbonizing our supply chain  
Decarbonizing compute activities

Process(es) for identifying, assessing, and responding to climate-related risks and opportunities downstream in our value chain are integrated into our multi-disciplinary company-wide risk management process. When potential climate-related risk factors are identified downstream in our value chain, we assess the potential impact they may have on our operations and whether the identified risk may have the potential to impede our ability to develop new or improved existing products, deliver on our commitments to clients, or harm our reputation. Downstream climate-related risks are identified and assessed primarily by the cross-functional ESG Team at Cadence. Downstream climate-related opportunity factors are identified primarily by the marketing and account management teams that support our customers.

We evaluate potential risks and opportunities downstream in our supply chain more than once a year based on our short-term horizon of 0-3 years, medium-term horizon of 3-5 years, and long-term horizon of 5-10 years. However, our climate related risk assessments extend beyond those timeframes, in some cases through 2050 and beyond.

Identify and Assess:

Our customers, the world's most innovative companies delivering extraordinary electronic products from chips to boards to systems, use Cadence technology to design sustainable innovation that optimizes power, space, and energy needs of end products for the most dynamic market applications, including consumer, hyperscale computing, 5G communications, automotive, mobile, aerospace, industrial, and healthcare.

Tools from across all business groups are used to create products with an impact on the world's carbon footprint. As global efforts to achieve the Paris Agreement targets

accelerate, decarbonization-related innovations are expected across sectors. This may have a positive effect on our revenues resulting from increased demand for our products and services that our customers use to develop new products through research and development. Our short to mid-term strategy including acquisition and research and development investment has been influenced by this demand. We expect to continue to invest in our own research and development to support our customers, as well as climate change mitigation and adaptation across our operations and value chain. A dedicated budget for energy efficiency and investments in emissions reduction activities is in place.

Response:

We continue to develop low emission goods and services and opportunities for our customers to develop new products or services through R&D and innovation that may increase revenues resulting from increased demand for products and services.

Through innovation, aggressive investment and collaboration with value chain partners, we anticipate reaching Net-Zero emissions across our value chain by 2040.

---

**Value chain stage(s) covered**

Upstream

**Risk management process**

Integrated into multi-disciplinary company-wide risk management process

**Frequency of assessment**

More than once a year

**Time horizon(s) covered**

Short-term

Medium-term

Long-term

**Description of process**

Climate-related risks are identified and assessed by the cross-functional ESG Team at Cadence with a focus on:

Decarbonizing operations

Decarbonizing data centers

Decarbonizing our supply chain

Decarbonizing compute activities

Process(es) for identifying, assessing, and responding to upstream climate-related risks and opportunities are integrated into our multi-disciplinary company-wide risk management process. When potential climate-related risk factors are identified in our supply chain, we assess the potential impact they may have on our operations and whether the identified risk may have the potential to impede our ability to develop new or improved existing products, deliver on our commitments to clients, or harm our reputation.

We identify and assess upstream climate-related risks and opportunities more than once a year based on our short-term horizon of 0-3 years, medium-term horizon of 3-5 years, and long-term horizon of 5-10 years. However, our climate related risk assessments extend beyond those timeframes, in some cases through 2050 and beyond. We continue to expand our evaluation processes of climate-related risks.

Identify and Assess:

Decarbonizing our supply chain is one of the primary focus points of our cross-functional ESG team in identifying and assessing climate-related risks. Working with consulting partners, we extended our climate-related risk assessment to include key suppliers in 2022. Their analysis validated our focus on tracking key supplier's decarbonization plans and GHG data.

Specifically, we have analyzed the market risk due to Cadence's suppliers potentially being subject to increased carbon taxes and passing those increases to Cadence. In 2022, we analyzed our top 100 suppliers, by GICS industry and based on activity to determine the potential risk to their EBITDA for 2025, 2030 and 2050.

Response:

When climate-related opportunities are identified, we assess the potential impact they may have on our revenues against the cost and benefits of addressing the opportunity in order to make decisions about how to respond.

For partners in high emitting industries, lack of an adequate climate transition plan could result in long-term transition risks which is why we initiate engagement discussions with the relevant suppliers.

---

**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	Risks relating to current and emerging regulations are integrated into our multi-disciplinary company-wide risk management process. Specifically, costs related to climate-related risks relating to current legislation, as well as impact of future carbon prices on company financials are assessed. Policy/regulatory risk exposure in the form of increased pricing of regulated GHG emissions and increased operating costs was analyzed in five-year intervals from 2025 through 2050.  Further, since we are headquartered in San Jose, California, we include state-wide regulations in our climate-related risk assessments.
Emerging regulation	Relevant, always included	Risks relating to current and emerging regulations are integrated into our multi-disciplinary company-wide risk management process. Given our status as a technology company with a global presence, we consider climate-related risks relating to emerging legislation in our risk assessments. Specifically, costs related to climate-related risks relating to emerging legislation, as well as impact of future carbon prices on company financials are assessed. Policy/regulatory risk exposure in the form of increased pricing of regulated GHG emissions and increased operating costs was analyzed in five-year intervals from 2025 through 2050.  Although regulations around carbon reductions are emerging throughout the world, our current focus is on the U.S. Securities and Exchange Commission's (SEC) proposal for The Enhancement and Standardization of Climate-Related Disclosures for Investors because we are listed on the Nasdaq and have a significant presence in the United States.
Technology	Relevant, always included	Technology risks are integrated into our multi-disciplinary company-wide risk management process.  As part of our risk assessments, we consider potential climate-related risks involving the data centers and digital infrastructure our business often relies on. Our offices in the United States and in other countries around the world may be adversely impacted by natural disasters, including fires, earthquakes, flooding and other climate change-related risks, or actions by utility providers, as well as other catastrophic events such as an actual or threatened public health emergency.  If a catastrophic event occurs at or near any of our offices, or utility providers or public health officials take certain actions (e.g., shut off power to our facilities or impose travel restrictions), our operations may be interrupted, which could adversely impact our business and results of operations.  If a catastrophic event impacts a significant number of our customers, resulting in decreased demand for their and our products, or our ability to provide services and maintenance to our customers, our business and results of operations could be adversely impacted. For example, the continued spread of the corona virus and related public health measures could result in further disruptions to our operations and those of our customers.  Additionally, substitution of existing products and service with lower emissions options, and costs to transition to lower emission technologies are assessed. Technology risk exposure was assessed based on current low carbon service offerings and R&D spend for relevant EU taxonomy activity areas, as well as evidence of low-carbon CAPEX, OPEX and value chain spend.
Legal	Relevant, always included	Legal risks are integrated into our multi-disciplinary company-wide risk management process.  As part of our risk assessments, we consider potential exposure to legal risks of overstating the climate-related benefits of our energy optimization products and services; such energy optimization products are Cadence Cerebrus Intelligent Chip Explorer and the Voltus-XFI.
Market	Relevant, always included	Market risks are integrated into our multi-disciplinary company-wide risk management process.  Since our business is highly dependent on electricity, we consider climate-related market risks of gradual or sudden changes in electricity pricing and supply. Further, changes in revenue mix and increased supplier costs on company financials are assessed, as well as the market risk due to Cadence's suppliers potentially being subject to increased carbon taxes and passing those increases to Cadence. In 2022, we analyzed our top 100 suppliers, by GICS industry and based on activity to determine the potential risk to their EBITDA for 2025, 2030 and 2050.  Our offices in the United States and in other countries around the world may be adversely impacted by natural disasters, including fires, earthquakes, flooding and other climate change-related risks, or actions by utility providers, as well as other catastrophic events such as an actual or threatened public health emergency.  If a catastrophic event occurs at or near any of our offices, or utility providers or public health officials take certain actions (e.g., shut off power to our facilities or impose travel restrictions), our operations may be interrupted, which could adversely impact our business and results of operations.  If a catastrophic event impacts a significant number of our customers, resulting in decreased demand for their and our products, or our ability to provide services and maintenance to our customers, our business and results of operations could be adversely impacted. For example, the continued spread of the corona virus and related public health measures could result in further disruptions to our operations and those of our customers.
Reputation	Relevant, always included	Reputation risks are integrated into our multi-disciplinary company-wide risk management process.  We consider climate-related reputational risks in our risk assessments, and proactively look for ways to reduce our carbon footprint and set targets in line with best practice. Additionally, we conduct benchmarking to ensure that our programs are in line with best practices to mitigate potential reputational risks.  Further, challenges regarding talent attraction and retention, long-term customer relationships, license to operate, and access to capital, due to stakeholder concern or negative feedback are assessed. Specifically, reputation risk exposure was assessed through Cadence's S&P Global ESG Climate Strategy score and by comparing Cadence's carbon intensity against the S&P Carbon Global Standard, as well as the alignment of our carbon reduction targets with the Paris agreement through 2030 vis-à-vis a peer set.
Acute physical	Relevant, always included	Acute physical risks are integrated into our multi-disciplinary company-wide risk management process. Our offices in the United States and in other countries around the world may be adversely impacted by natural disasters, including fires, earthquakes, flooding and other climate change-related risks, or actions by utility providers, as well as other catastrophic events such as an actual or threatened public health emergency. Specifically, estimated average annual loss of asset value due to wildfire, tropical cyclones, coastal and fluvial flooding is assessed.  In particular, we assess the risk of acute physical risk from seismic activity and wildfires and how these may affect our headquarters in San Jose, California as part of our climate-related risk assessments. In the reporting year, we also analysed the extent to which our offices are inherently vulnerable to flooding.  If a catastrophic event occurs at or near any of our offices, or utility providers or public health officials take certain actions (e.g., shut off power to our facilities or impose travel restrictions), our operations may be interrupted, which could adversely impact our business and results of operations.  If a catastrophic event impacts a significant number of our customers, resulting in decreased demand for their and our products, or our ability to provide services and maintenance to our customers, our business and results of operations could be adversely impacted. For example, the continued spread of the corona virus and related public health measures could result in further disruptions to our operations and those of our customers.
Chronic physical	Relevant, always included	Chronic physical risks are integrated into our multi-disciplinary company-wide risk management process. Our offices in the United States and in other countries around the world may be adversely impacted by natural disasters, including fires, earthquakes, flooding and other climate change-related risks, or actions by utility providers, as well as other catastrophic events such as an actual or threatened public health emergency. Specifically, estimated average annual loss of asset value due to temperature extremes, drought, water stress is assessed.  If a catastrophic event occurs at or near any of our offices, or utility providers or public health officials take certain actions (e.g., shut off power to our facilities or impose travel restrictions), our operations may be interrupted, which could adversely impact our business and results of operations.  If a catastrophic event impacts a significant number of our customers, resulting in decreased demand for their and our products, or our ability to provide services and maintenance to our customers, our business and results of operations could be adversely impacted. For example, the continued spread of the corona virus and related public health measures could result in further disruptions to our operations and those of our customers.

**C2.3**

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

No



C2.3b

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

	Primary reason	Please explain
Row 1	Risks exist, but none with potential to have a substantive financial or strategic impact on business	<p>We have not identified any climate-related risks with the potential to have a substantive financial or strategic impact on Cadence. We have conducted assessments to identify acute and chronic physical risks, as well as transitional climate-related risks for Cadence in the short-term (0-3 years), medium-term (3-5 years), long-term (5-10 years) timeframes that align with our business strategy. However, our climate-related risk assessments extend beyond those timeframes, in some cases through 2050 and beyond. We continue to expand our evaluation processes of climate-related risks that could have the potential to have substantive financial or strategic impact on Cadence.</p> <p>In the reporting year, we worked with consulting partners to expand our climate-related risk identification and assessment process. The following risk types are considered: acute and chronic physical risk, current and emerging regulations, legal, market, reputation, and technology.</p> <p>As we work towards our longer-term energy and GHG reduction targets, we are evaluating additional ways to reduce emissions, such as clean energy contracts with our utilities providers, renewable power purchase agreements, carbon offsets, renewable energy credits, operational efficiencies, and on-site solar installations.</p>

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?**

Upstream

**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**

We have identified opportunities for development and/or expansion of low emission goods and services and opportunities for our customers to develop new products or services through R&D and innovation that may increase revenues resulting from increased demand for products and services. We continue to expand our evaluation processes of climate-related opportunities with a focus on:

Decarbonizing compute

Energy optimization through our low-power solution

Tools from across all business groups are used to create products with an impact on the world's carbon footprint. As global efforts to achieve the Paris Agreement targets accelerate, decarbonization-related innovations are expected across sectors. This may have a positive effect on our revenues resulting from increased demand for our products and services that our customers use to develop new products through research and development. Our short to mid-term strategy including acquisition and research and development investment has been influenced by this demand.

Our customers use Cadence technology to design sustainable innovation that optimizes power, space and energy needs of end products for the most dynamic market applications, including consumer, hyperscale computing, 5G communications, automotive, mobile, aerospace, industrial, and healthcare. Our products and services enable our customers to design products for tomorrow—today and help drive advancements in sustainability.

**Time horizon**

Long-term

**Likelihood**

Likely

**Magnitude of impact**

Unknown

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

At this time, we are not disclosing the financial impact of these opportunities.

**Cost to realize opportunity**

0

**Strategy to realize opportunity and explanation of cost calculation**

We expect to continue to invest in our own research and development to support our customers, as well as climate change mitigation and adaptation across our operations and value chain. Cadence introduced 9 significant, innovative products in 2022, across all business groups. These new innovations will be key drivers of our future growth as our customers use these tools to create products with an impact on the world's carbon footprint.

## Sectoral examples:

Cadence Cerebrus Intelligent Chip Explorer is one of our generative AI solutions that automatically optimizes tool and chip design options to deliver better power, performance, and area (PPA) with significantly less engineering effort and overall time to tapeout.

Enabling the development of efficient, low-power integrated circuits, the Voltus-XFi solution is a custom EM-IR technology that delivers improved ease of use with minimal tuning.

Cadence OnCloud contributes to lowering the overall carbon footprint by enabling the transition of development tools from enterprise data centers to best-in-class carbon-optimized cloud data centers.

Cadence's innovative CFD solutions enable customers to optimize thermal, power, and capacity efficiencies in the data center using physics-based 3D digital twins that enable the calculation of the thermal profile, including airflow and cooling, thereby helping to optimize energy use and carbon footprint. Fidelity CFD software is used in the automotive industry to push engines to maximum performance with minimum battery or fuel consumption and CO2 emissions. Fidelity Automesh's Hexpress tool accelerates low-carbon innovation in the aviation industry including the successful prototype of the world's first liquid hydrogen-powered aircraft by AeroDelft.

Future Facilities' innovative solutions enable customers to optimize thermal, power, and capacity efficiencies in the data center using physics-based 3D digital twins, helping reduce our customer's carbon footprint.

Costs related to this opportunity are absorbed into business-as-usual activities. We report the cost of realizing the opportunity as \$0, since we do not currently have a system in place to determine which revenue streams are associated with this specific opportunity.

**Comment**

N/A

---

**Identifier**

Opp2

**Where in the value chain does the opportunity occur?**

Downstream

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Shift in consumer preferences

**Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

**Company-specific description**

Context: Cadence applies its underlying Intelligent System Design strategy to deliver software, hardware, and IP that enables our customers to turn design concepts into reality. Our products and services enable our customers to design products for tomorrow—today and help drive advancements in sustainability.

Our customers, the world's most innovative companies delivering extraordinary electronic products from chips to boards to systems, use Cadence technology to design sustainable innovation that optimizes power, space and energy needs of end products for the most dynamic market applications, including consumer, hyperscale computing, 5G communications, automotive, mobile, aerospace, industrial, and healthcare.

Tools from across all our business groups are used to create products with an impact on the world's carbon footprint. As global efforts to achieve the Paris Agreement targets accelerate, decarbonization-related innovations are expected across sectors. This may have a positive effect on our revenues resulting from increased demand for our products and services that our customers use to develop new products through research and development.

## Sectoral Example: Palladium cloud

We see opportunities in the area of carbon neutral products in the long-term. Cadence and our partners are paving the way for more sustainable cloud computing to meet rapidly growing data demands. As a pivotal leader in electronic design, Cadence works with the leading processor providers to deliver the next generation of power and energy efficiency throughout the design flow.

## Products and services:

By leveraging the public cloud to augment internal compute resources, Palladium Cloud provides a dynamic, elastic supply of emulation capacity that can be activated as needed, thereby accelerating project turnaround time to meet critical market windows. The Palladium Cloud provides customers short-term access to dynamically scalable emulation capacity. The Palladium Cloud extends to the public cloud a capability that had traditionally been deployed only in on-premise labs, turning what would have been a capital expenditure into an operational expense, and allowing customers to augment their environmental resources with on-demand, cloud-based emulation hardware.

**Time horizon**

Long-term

**Likelihood**

Likely

**Magnitude of impact**

Unknown

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

&lt;Not Applicable&gt;

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

At this time, we are not disclosing the financial impact of these opportunities.

**Cost to realize opportunity**

0

**Strategy to realize opportunity and explanation of cost calculation**

Costs related to this opportunity are absorbed into business-as-usual activities. We report the cost of realizing the opportunity as \$0, since we do not currently have a system in place to determine which revenue streams are associated with this opportunity. We expect to continue to invest in research and development for EDA solutions focused on cloud computing.

**Comment**

N/A

**C3. Business Strategy**

**C3.1**

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

**Row 1**

**Climate transition plan**

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

**Publicly available climate transition plan**

No

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

We have a different feedback mechanism in place

**Description of feedback mechanism**

We currently publish details on our transition plan and emissions reduction targets in our annual ESG Report, our 10-K and in our Proxy Statement and encourage feedback from all relevant stakeholders. In the reporting year, we committed to validating our Net-Zero target through the SBTi, where our progress is disclosed.

As our stockholders play an important role in governance, Cadence maintains a robust stockholder engagement program to better understand your viewpoints on topics such as sustainable business practices, board composition and refreshment, climate change, culture, diversity, equity and inclusion and executive compensation. Our stockholders also have the opportunity to communicate their views at Cadence’s annual meeting or by writing to us at the address provided in the section of this proxy statement entitled “Communication with Directors.”

**Frequency of feedback collection**

More frequently than annually

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

2022 ESG Report, 2022 10-K, 2023 Proxy  
2022 10k.pdf  
proxy2023.pdf  
cadence-2022-environmental-social-and-governance-report.pdf

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

<Not Applicable>

**Explain why climate-related risks and opportunities have not influenced your strategy**

<Not Applicable>

**C3.2**

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

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

**C3.2a**

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

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Physical climate scenarios RCP 4.5	Company-wide	<Not Applicable>	<p>The RCP 4.5 climate-related scenarios were used to assess potential physical risks related to our operations by decade from the 2020s through the 2090s using business as usual, optimistic, and pessimistic conditions. This time horizon was deemed relevant to the organization as it aligns with our 2040 Net-Zero target and 2030 Science Based Target, and these time horizons are consistent with that methodology.</p> <p>In this assessment, all Cadence Design Systems operational sites were examined, including both owned and leased locations.</p>
Physical climate scenarios RCP 8.5	Company-wide	<Not Applicable>	<p>The RCP 8.5 climate-related scenarios were used to assess potential physical risks related to our operations by decade from the 2020s through the 2090s using business as usual, optimistic, and pessimistic conditions. This time horizon was deemed relevant to the organization as it aligns with our 2040 Net-Zero target and 2030 Science Based Target, and these time horizons are consistent with that methodology.</p> <p>In this assessment, all Cadence Design Systems operational sites were examined, including both owned and leased locations.</p>
Transition scenarios IEA ZDS	Company-wide	<Not Applicable>	<p>For transitional risks our process consists of mapping macro-level transition risks to our operations and value chain, quantifying the impact of carbon pricing risk exposure, applying future carbon price scenarios, quantifying potential financial or strategic impact on Cadence’s business. Relative risk is assessed through industry and peer benchmarking, as well as against the science-based climate transition pathway.</p> <p>Our Policy Risk Exposure scenario analysis considers the impact of future carbon prices on company financials. Policy/regulatory risk exposure in the form of increased pricing of regulated GHG emissions and increased operating costs was analyzed in five-year intervals from 2025 through 2050. The analysis considered three future carbon pricing scenarios:</p> <p>High Carbon Price Scenario: This scenario represents the implementation of policies that are considered sufficient to reduce greenhouse gas emissions in line with the goal of limiting climate change to 2°C by 2100. This scenario is based on research by the Organisation for Economic Co-operation and Development (OECD) and the International Energy Agency (IEA) (2017).</p> <p>Moderate Carbon Price Scenario: This scenario assumes that policies will be implemented to reduce greenhouse gas emissions and limit climate change to 2°C in the long term, but with action delayed in the short term. This scenario draws on research by the OECD and the IEA along with assessments of the sufficiency of country Nationally Determined Contributions by Climate Action Tracker by Ecofys, a leading international energy and climate consultancy focused on sustainable energy for everyone, Climate Analytics, Global climate science and policy institute, and New Climate Team. Countries with Nationally Determined Contributions that are not aligned to the 2°C goal in the short term are assumed to increase their climate mitigation efforts in the medium and long term.</p> <p>Low Price Scenario: This scenario represents the full implementation of country Nationally Determined Contributions under the Paris Agreement, based on research by OECD and IEA (2017). Prices in this scenario are considered likely to be insufficient to achieve the goals of the Paris Agreement.</p>
Transition scenarios Bespoke transition scenario	Company-wide	1.6°C – 2°C	<p>For transitional risks our process consists of mapping macro-level transition risks to our operations and value chain, quantifying the impact of carbon pricing risk exposure, applying future carbon price scenarios, quantifying potential financial or strategic impact on Cadence’s business. Relative risk is assessed through industry and peer benchmarking, as well as against the science-based climate transition pathways</p> <p>We have analyzed Market Risk Exposure due to Cadence’s suppliers potentially being subject to increased carbon taxes and passing those increases to Cadence. In 2022, we analyzed our top 100 suppliers, by GICS industry and based on activity to determine the potential risk to their EBITDA for 2025, 2030 and 2050.</p> <p>Reputation Risk Exposure was assessed through Cadence’s S&amp;P Global ESG Climate Strategy score and by comparing Cadence’s carbon intensity against the S&amp;P Carbon Global Standard, as well as the alignment of our carbon reduction targets with the Paris agreement through 2030 vis-a-vis a peer set.</p> <p>Technology Risk Exposure was assessed based on current low carbon service offerings and R&amp;D spend for relevant EU taxonomy activity areas, as well as evidence of low-carbon CAPEX, OPEX and value chain spend.</p>

**C3.2b**

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

**Row 1**

**Focal questions**

Focal questions revolve around the extent to which our current strategy is resilient in the transition to a 1.5°C world today through 2030. In the reporting year, we expanded our climate-related scenario analysis to include transition risks including market risk, policy/regulatory risk, reputation risk, and technology risk. Additionally, we broadened the scope of our analysis of physical risks to include temperature extremes, tropical cyclones, and wildfire, in addition to water stress, drought, and flooding (coastal and fluvial).

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

Based on our current risk assessments and scenario analysis, we believe our strategy is resilient. We have not identified any climate-related risks with the potential to have a substantive financial or strategic impact on Cadence. Cadence’s Intelligent System Design strategy positions us well to capture climate-related opportunities. An evolving transition plan which aligns with a 1.5°C world is in place.

The results of our scenario analysis informed several decisions and actions in relation to the focal question. In 2022, Cadence launched nine significant products that enable the next wave of technology advancements and sustainable innovation in intelligent system design. We also made strategic acquisitions which further increase the impact of our innovation on sustainability including technology that optimizes energy performance for data center design. In the 2022 ESG report, we highlight how our customers and the next generation of innovators at universities around the world are creating products with a lower carbon footprint. We also remain committed to investing our resources to improve our own operational footprint. In 2022, Cadence achieved CarbonNeutral® company certification in accordance with The CarbonNeutral Protocol, the leading global framework for carbon neutrality. We also achieved 100% renewable energy for our global operations. We expanded the breadth, depth, and transparency of our environmental sustainability program as evidenced by our reporting to the TCFD recommendations. While we’re excited about our progress, we remain focused on our full value chain to achieve Net-Zero by 2040.

**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	<p>Our Intelligent System Design strategy enables customers to design innovative electronic products. One essential driver for the electronics industry is the desire to develop products that reduce power consumption while increasing performance. Awareness of power usage, performance, and area (PPA) in electronic design is critical. We understand these pressures &amp; continue to innovate &amp; provide technology to achieve the ideal combination of low power with high performance. Our short to mid-term strategy for products &amp; services has been influenced by this demand.</p> <p>Cadence is revolutionizing sustainable electronics by reducing semiconductor power consumption with new AI-based innovative solutions for chip design. Our previously launched Cerebrus™ Intelligent Chip Explorer is a revolutionary, machine learning-driven, automated approach to chip design flow optimization. Cadence Cerebrus Intelligent Chip Explorer is one of our generative AI solutions that automatically optimizes tool and chip design options to deliver better power, performance, and area (PPA) with significantly less engineering effort and overall time to tapeout. Cerebrus enables each designer to easily optimize the flow for multiple blocks concurrently for improved engineering productivity whether it be on premises or on cloud resources.</p> <p>Cadence products are constantly evolving to help customers improve design optimization. Cadence offers Cloud services, which gives access to more processing power for faster turnaround times. A secondary benefit is the reduced need for customers to buy, power, &amp; maintain specialized hardware. We provide an as needed model versus an on-premises, always-on high power consumption usage model. This reduces the number of servers customers need to purchase, power, &amp; maintain for peak design use. Cadence OnCloud contributes to lowering the overall carbon footprint by enabling the transition of development tools from enterprise data centers to best-in-class carbon-optimized cloud data centers.</p>
Supply chain and/or value chain	Yes	<p>Because scope 3 emissions make up the majority of our carbon footprint, our short-term strategy around supplier engagement has been influenced. Our Scope 3 emissions consistently account for ~90% of our total carbon footprint. In 2022, with growth and increased business activity, we saw a 66% increase in our Scope 3 emissions compared to 2021. Business demand for our hardware product line drove an increase in production spend which resulted in a commensurate increase in emissions.</p> <p>We understand that with the pressures of business demand comes emission increases which is why we focus our climate engagement with suppliers of purchased goods and services and capital goods.</p> <p>Working with consulting partners, we have extended our climate-related risk assessment to include key suppliers in 2022. Their analysis validated our focus on tracking key supplier's decarbonization plans and GHG data. For partners in high emitting industries, lack of an adequate climate transition plan could result in long-term transition risks which is why we are initiating engagement discussions with the relevant suppliers.</p> <p>The process approach and principle of continual improvement govern the sustainability of our supply chain. Building on our supplier engagement survey, we map ESG-related risks and opportunities in our supply chain. We target high impact areas for direct engagement with key suppliers around issues relating to climate change and integrity. To identify to what extent suppliers are aligned with our decarbonization strategy, we track which suppliers have set carbon reduction targets and respond to CDP.</p> <p>Lastly, we will continue to partner with suppliers that have committed to Net-Zero emissions and encourage partners that have not to set GHG reduction targets.</p>
Investment in R&D	Yes	<p>Cadence's Intelligent System Design strategy enables our customers to design innovative and differentiated electronic products. One essential driver for the electronics industry is the desire to develop products that continuously reduce power consumption while increasing performance. The computational fluid dynamics (CFD) industry faces increasing demand for efficiency, fidelity, and speed. Furthermore, the semiconductor industry is experiencing strong growth based on drivers like 5G, autonomous driving, hyperscale compute, industrial IoT (IIoT), and many others. We understand these pressures &amp; continue to innovate &amp; provide technology to achieve the ideal combination of low power with high performance in smaller form factors. Our short to mid-term strategy including acquisition &amp; R&amp;D investment has been influenced by this demand.</p> <p>Fidelity CFD is the end-to-end solution for all CFD-related applications. The dedicated tools within the Fidelity CFD environment can solve each step of the simulation process quickly and efficiently. Cadence's innovative CFD solutions enable customers to optimize thermal, power, and capacity efficiencies in the data center using physics-based 3D digital twins that enable the calculation of the thermal profile, including airflow and cooling, thereby helping to optimize energy use and carbon footprint. Furthermore, Fidelity CFD software is used in the automotive industry to push engines to maximum performance with minimum battery or fuel consumption and CO2 emissions. In addition to the automotive industry, Fidelity Automesh's Hexpress tool accelerates low-carbon innovation in the aviation industry including the successful prototype of the world's first liquid hydrogen-powered aircraft by AeroDelf.</p> <p>In addition to CFD, Cadence is revolutionizing sustainable electronics by reducing semiconductor power consumption with new AI-based innovative solutions for chip design. Our previously launched Cerebrus™ Intelligent Chip Explorer is a revolutionary, machine learning-driven, automated approach to chip design flow optimization. Cadence Cerebrus Intelligent Chip Explorer is one of our generative AI solutions that automatically optimizes tool and chip design options to deliver better power, performance, and area (PPA) with significantly less engineering effort and overall time to tapeout.</p>
Operations	Yes	<p>In the reporting year, we achieved our greenhouse gas reduction target of 50% by 2030 over our 2019 baseline emissions and will continue to track progress against this goal until 2030. Furthermore, we continue to work towards our Net-Zero target for 2040. Setting these targets influences our medium and long-term operations strategy.</p> <p>We will continue to identify and implement opportunities for GHG removals through system upgrades, replacement, and electrification. In 2022, we were able to shift a portion of our electricity use in Noida to renewable sources. We also implemented energy reductions within lighting upgrades and Heating, Ventilation and Air conditioning efficiency improvements.</p> <p>We will continue to work towards our data center decarbonization strategy which includes energy efficient design features on-premise, continuing the process of shifting to efficient co-located and cloud-based data centers, partnering with co-located and cloud-based data center partners that have goals to be 100% renewable electricity powered, and purchasing high-quality RECs to reduce emissions that remain.</p> <p>Currently, our co-located data centers run on 100% renewable electricity and our German co-located data center also maintains ISO14001 and ISO50001 certification. Our on-premise data centers in San Jose, CA runs on 100% renewable electricity and servers have been upgraded to increase our computing power while implementing energy-efficient design features, such as automated mister controls for extreme hot weather, a building management system (BMS) digital control network, and free cooling economizers to temper the increase in electricity consumption as our business continues to grow. Outside air and water cooling is used to cool servers.</p> <p>As we work to achieve our medium-term, long-term, science based and GHG reduction targets, we are evaluating additional ways to reduce emissions, such as clean energy contracts with our utility providers, renewable power purchase agreements, carbon offsets, renewable energy credits, on-site solar installations, operational efficiencies, and flexible working arrangements.</p>

**C3.4**

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

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Capital expenditures	<p>During 2022, climate-related risks and opportunities influenced our financial planning in terms of revenues, direct costs, and capital expenditures. Internally, our carbon reduction targets - Net-Zero emissions by 2040 for Scopes 1, 2, and 3 (market-based) and Scope 1 and 2 reduction of 50% by 2030 over the 2019 baseline - have influenced our financial planning. We follow Greenhouse Gas Protocol standards in measuring and managing our emissions, which also influences financial planning. In addition, we have undertaken technology upgrades and retrofits at our on-premises data centers and office space to reduce energy consumption, increase redundancy, and improved upon product sustainability. Cadence is certified as a CarbonNeutral® company in accordance with The CarbonNeutral Protocol. Furthermore, our product Palladium Cloud is certified CarbonNeutral®.</p> <p>Products from across all Cadence business groups are used to create products with an impact on the world's carbon footprint. As global efforts to achieve the Paris Agreement targets accelerate, decarbonization-related innovations are expected across sectors. This may have a positive effect on our revenues resulting from increased demand for our products and services that our customers use to develop new products through research and development. Our short to mid-term strategy including acquisition and research and development investment has been influenced by this demand. We expect to continue to invest in our own research and development to support our customers, as well as climate change mitigation and adaptation across our operations and value chain. A dedicated budget for energy efficiency and investments in emissions reduction activities is in place.</p>

**C3.5**

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

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

**C4. Targets and performance**

**C4.1**

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

Absolute target

**C4.1a**

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

**Target reference number**

Abs 1

**Is this a science-based target?**

No, but we anticipate setting one in the next two years

**Target ambition**

<Not Applicable>

**Year target was set**

2020

**Target coverage**

Company-wide

**Scope(s)**

Scope 1

Scope 2

**Scope 2 accounting method**

Market-based

**Scope 3 category(ies)**

<Not Applicable>

**Base year**

2019

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

6314

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

26363

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

32677

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

100

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

100

**Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1:**

**Purchased goods and services (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

100

**Target year**

2025

**Targeted reduction from base year (%)**

15

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

27775.45

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

6281

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

16072

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>



**Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

22353

**Does this target cover any land-related emissions?**

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

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

210.627250563597

**Target status in reporting year**

Achieved

**Please explain target coverage and identify any exclusions**

The goal covers Scope 1 and 2 emissions for all of our owned and leased properties with no exclusions. We are pleased to announce we achieved our greenhouse gas reduction target of 15% by 2025 over our 2019 baseline emissions in 2021, four years early. The goal covers Scope 1 and 2 emissions for all of our owned and leased properties and is informed by the Science Based Targets Initiative and the 2 degree Celsius scenario.

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

<Not Applicable>

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

Increased use of renewable energy is the primary driver for our 24% year-over-year decrease in combined Scope 1 and 2 emissions. Overall energy use decreased 7% compared to 2020 due to emissions reduction initiatives listed in question 4.3b.

---

**Target reference number**

Abs 2

**Is this a science-based target?**

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

**Target ambition**

1.5°C aligned

**Year target was set**

2021

**Target coverage**

Company-wide

**Scope(s)**

Scope 1

Scope 2

**Scope 2 accounting method**

Market-based

**Scope 3 category(ies)**

<Not Applicable>

**Base year**

2019

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

6314

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

26363

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

32677

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

100

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

100

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12:**

**End-of-life treatment of sold products (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13:**

**Downstream leased assets (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

100

**Target year**

2030

**Targeted reduction from base year (%)**

50

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

16338.5

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

7709

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

0

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

7709

**Does this target cover any land-related emissions?**

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

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

152.816966061756

**Target status in reporting year**

Underway

**Please explain target coverage and identify any exclusions**

The goal covers Scope 1 and 2 emissions for all of our owned and leased properties with no exclusions.

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

For all actions under consideration to achieve our 2030 target, strong preference will be given to those providing additionality. We are pursuing and evaluating 100% renewable electricity and energy optimization projects. We reduced our Scope 1+2 emissions by 76% from the 2019 baseline.

Increased use of renewable energy is the primary driver for our 28% year-over-year decrease in combined Scope 1 and 2 emissions.

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

<Not Applicable>

---

## C4.2

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

Net-zero target(s)

---

## C4.2c

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

**Target reference number**

NZ1

**Target coverage**

Company-wide

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

Abs2

**Target year for achieving net zero**

2040

**Is this a science-based target?**

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

**Please explain target coverage and identify any exclusions**

The goal covers Scope 1, 2 and 3 emissions for all of our owned and leased properties with exclusions to scope 3 category 11 use of sold products and scope 3 category 12 end of life.

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

Unsure

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

<Not Applicable>

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

We have reduction milestones in place for 2025 (15% over baseline), 2030 (50% over baseline), and 2040 (Net-Zero). Since 2019, we have reduced Scope 1+2 emissions by 76%.

Our 2030 and Net-Zero target will be primarily measured and achieved by power-consumption efficiency and procuring clean energy. For all actions under consideration, strong preference will be given to those providing additionality. We are pursuing and evaluating 100% renewable electricity and energy optimization projects.

---

## C4.3

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

Yes

C4.3a

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

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	2	61
Implementation commenced*	0	0
Implemented*	4	25544
Not to be implemented	0	0

C4.3b

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

**Initiative category & Initiative type**

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

**Estimated annual CO2e savings (metric tonnes CO2e)**

6.5

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

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

1080

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

26761

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

Replaced all building lights with LED in a building.

**Initiative category & Initiative type**

Energy efficiency in buildings	Heating, Ventilation and Air Conditioning (HVAC)
--------------------------------	--

**Estimated annual CO2e savings (metric tonnes CO2e)**

900

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

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

100000

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

40000

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

Night setback of heating and cooling units.

**Initiative category & Initiative type**

Low-carbon energy consumption	Solar PV
-------------------------------	----------

**Estimated annual CO2e savings (metric tonnes CO2e)**

345.6

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

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

65000

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

2900000

**Payback period**

11-15 years

**Estimated lifetime of the initiative**

21-30 years

**Comment**

Installed rooftop solar system on a building.

**Initiative category & Initiative type**

Low-carbon energy consumption	Low-carbon electricity mix
-------------------------------	----------------------------

**Estimated annual CO2e savings (metric tonnes CO2e)**

24292

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

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

0

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

293617

**Payback period**

No payback

**Estimated lifetime of the initiative**

<1 year

**Comment**

RECs purchased for entire scope 2 market-based emissions for 2022 reporting year.

**C4.3c**

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

Method	Comment
Dedicated budget for energy efficiency	We use a dedicated budget for energy efficiency to drive investment in emissions reduction activities.

**C4.5**

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

Yes

**C4.5a**

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

**Level of aggregation**

Group of products or services

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

Other, please specify (Power optimization of the design)

**Type of product(s) or service(s)**

Other	Other, please specify (Power optimization of the design)
-------	--

**Description of product(s) or service(s)**

Cadence's Intelligent System Design strategy enables our customers to design innovative and differentiated electronic products. One of the essential drivers for the electronics industry is the desire to develop products that continuously reduce power consumption while increasing performance. Awareness of power usage, performance, and area (PPA) in electronic design is critical. We understand these pressures and continue to innovate and provide technology to achieve the ideal combination of low power with high performance in smaller form factors.

Cadence's innovative computational fluid dynamics (CFD) solutions enable customers to optimize thermal, power, and capacity efficiencies in the data center, thereby helping to optimize energy use and carbon footprint. Fidelity CFD software is used in the automotive industry to push engines to maximum performance with minimum battery or fuel consumption and CO2 emissions.

Furthermore, Cadence OnCloud contributes to lowering the overall carbon footprint by enabling the transition of development tools from enterprise data centers to best-in-class carbon-optimized cloud data centers. The Palladium Cloud extends to the public cloud a capability that had traditionally been deployed only in on-premise labs, allowing customers to augment their environmental resources with on-demand, cloud-based emulation hardware.

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

No

**Methodology used to calculate avoided emissions**

<Not Applicable>

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

<Not Applicable>

**Functional unit used**

<Not Applicable>

**Reference product/service or baseline scenario used**

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Explain your calculation of avoided emissions, including any assumptions**

<Not Applicable>

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

0

---

**C5. Emissions methodology**

---

**C5.1**

---

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

No

---

**C5.1a**

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

**Row 1**

**Has there been a structural change?**

Yes, an acquisition

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

OpenEye  
Future Facilities  
Cascade Technologies  
Crevinn

**Details of structural change(s), including completion dates**

The acquisition of OpenEye was completed on July 14, 2022 and the acquisition of Future Facilities was completed on August 31, 2022. The addition of OpenEye and Future Facilities brings technological support and talent which aligns with Cadence® Intelligent System Design™ strategy and broadens its system analysis portfolio with computational fluid dynamics (CFD) solutions. These products will contribute to the best-in-class Cadence system analysis solutions for integrated circuits (ICs), electronic subsystems and full system designs. In 2022 the acquisition of Cascade Technologies and Crevinn were also completed.

**C5.1b**

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

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in methodology	This year we introduced several improvements to the calculation methodologies for Scope 3 emissions. For 32% of 2022 spend, we employed the hybrid method using actual data from our key suppliers to calculate our emissions for the related goods and services. For the remaining 68% of spend, we employed an input/output calculator to calculate related emissions.  Additional improvement to our calculation methodology included separately reporting emissions from Downstream Transportation and Distribution, and Upstream Leased Assets, which account for 5% and 2% of our 2022 Scope 3 emissions respectively. Previously, emissions from these categories were reported as part of Purchased Goods and Services. We also incorporated the distance-based method when calculating business travel as well as radiative forcing DEFRA emission factors when calculating flight travel. Business travel makes up 3% of our 2022 Scope 3 emissions respectively.

**C5.1c**

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

	Base year recalculation	Scope(s) recalculated	Base year emissions recalculation policy, including significance threshold	Past years' recalculation
Row 1	No, because the impact does not meet our significance threshold	<Not Applicable>	The base year recalculation policy for emissions is currently based on a 5% significance threshold. The base year emissions are recalculated if errors are found that would result in significant changes to total Scope-specific emissions for the base year, or structural changes occur due to events such as acquisitions or divestitures that similarly impact base year emissions above the significance threshold. Organic changes to emissions, such as the opening and closure of sites because of growth or contraction, rather than acquisition or divestment, are not considered for recalculations. Opportunities for base year recalculation are identified and evaluated during both the annual emissions inventory data collection and calculation process, as well as the 3rd-party limited assurance verification process that is conducted following the completion of each annual emissions inventory.	No

**C5.2**

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

**Scope 1**

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

6314

**Comment**

Our base year (2019) scope 1 emissions were 6,314 metric tons of CO2e.



**Scope 2 (location-based)****Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

31796

**Comment**

Our base year (2019) scope 2 (location-based) emissions were 31,796 metric tons of CO2e.

**Scope 2 (market-based)****Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

26363

**Comment**

Our base year (2019) scope 2 (market-based) emissions were 26,363 metric tons of CO2e.

**Scope 3 category 1: Purchased goods and services****Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

220647

**Comment**

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Our 2019 scope 3 purchased goods and services emissions were 220,647 metric tons of CO2e.

**Scope 3 category 2: Capital goods****Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

55502

**Comment**

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Our 2019 scope 3 Capital goods emissions were 55,502 metric tons of CO2e.

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

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

1088

**Comment**

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Our 2019 scope 3 Fuel-and-energy-related activities (not included in Scope 1 or 2) emissions were 1,088 metric tons of CO2e.

**Scope 3 category 4: Upstream transportation and distribution****Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

0

**Comment**

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Scope 3 emissions for this category were not calculated in 2019.

### Scope 3 category 5: Waste generated in operations

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

0

**Comment**

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Scope 3 emissions for this category were not calculated in 2019.

### Scope 3 category 6: Business travel

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

23578

**Comment**

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Our 2019 scope 3 (Business travel) emissions were 23,578 metric tons of CO2e.

### Scope 3 category 7: Employee commuting

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

12750

**Comment**

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Our 2019 scope 3 Employee commuting emissions were 12,750 metric tons of CO2e.

### Scope 3 category 8: Upstream leased assets

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

0

**Comment**

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Scope 3 emissions for this category were not calculated in 2019.

### Scope 3 category 9: Downstream transportation and distribution

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

1194

**Comment**

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Our 2019 scope 3 Downstream transportation and distribution emissions were 1,194 metric tons of CO2e.

### Scope 3 category 10: Processing of sold products

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

0

**Comment**

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Scope 3 emissions for this category were not calculated in 2019.

### Scope 3 category 11: Use of sold products

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

0

**Comment**

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Scope 3 emissions for this category were not calculated in 2019.

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

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

0

**Comment**

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Scope 3 emissions for this category were not calculated in 2019.

### Scope 3 category 13: Downstream leased assets

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

0

**Comment**

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Scope 3 emissions for this category were not calculated in 2019.

### Scope 3 category 14: Franchises

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

0

**Comment**

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Scope 3 emissions for this category were not calculated in 2019.

### Scope 3 category 15: Investments

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

0

**Comment**

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Scope 3 emissions for this category were not calculated in 2019.

### Scope 3: Other (upstream)

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

0

**Comment**

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Scope 3 emissions for this category were not calculated in 2019.

**Scope 3: Other (downstream)**

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

0

**Comment**

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Scope 3 emissions for this category were not calculated in 2019.

---

C5.3

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

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

The Greenhouse Gas Protocol: Scope 2 Guidance

---

C6. Emissions data

---

C6.1

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

**Reporting year**

**Gross global Scope 1 emissions (metric tons CO2e)**

7709

**Start date**

<Not Applicable>

**End date**

<Not Applicable>

**Comment**

Scope 1 emissions in the 2022 reporting year were 7,709 metric tons of CO2e.

---

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 are reporting both location-based and a market-based Scope 2 figures.

---

C6.3

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

**Reporting year**

**Scope 2, location-based**

25792

**Scope 2, market-based (if applicable)**

0

**Start date**

<Not Applicable>

**End date**

<Not Applicable>

**Comment**

Scope 2 (location-based) emissions in the 2022 reporting year were 25,792 metric tons of CO2e. Scope 2 (market-based) emissions in the 2022 reporting year were 0 metric tons of CO2e.

**C6.4**

---

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

Yes

**C6.4a**

---

**(C6.4a) Provide details of the sources of Scope 1, Scope 2, or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure.**

**Source of excluded emissions**

The following Scope 3 categories are excluded: Use of sold products and End of life treatment of sold products.

**Scope(s) or Scope 3 category(ies)**

Scope 3: Use of sold products

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

**Relevance of Scope 1 emissions from this source**

<Not Applicable>

**Relevance of location-based Scope 2 emissions from this source**

<Not Applicable>

**Relevance of market-based Scope 2 emissions from this source**

<Not Applicable>

**Relevance of Scope 3 emissions from this source**

Emissions are relevant but not yet calculated

**Date of completion of acquisition or merger**

<Not Applicable>

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

<Not Applicable>

**Estimated percentage of total Scope 3 emissions this excluded source represents**

0

**Explain why this source is excluded**

Since Cadence Design Systems enables customers to design electronic products by offering software, hardware, services and reusable IC design blocks, we believe that the use of sold products is a relevant category. Currently we do not have comprehensive information to calculate the emissions from this category, but we plan to in the future. Full data is not available for end of life treatment of sold products. Therefore, this category has not yet been evaluated.

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

Currently, we have no basis to estimate the percentage of total scope 3 that this excluded source represents. We plan to evaluate these emissions in more detail.

---

**C6.5**

---

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

## Purchased goods and services

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

123061

### Emissions calculation methodology

Hybrid method  
Spend-based method

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

32

### Please explain

The emissions estimate reported for Purchased Goods and Services is based on spend that is accounted for as goods and services in the general ledger. For key vendors the hybrid method is used to calculate emissions, whereas the average spend-based method is used for the balance of spend. Those emissions were calculated using the environmentally extended input/output (EEIO) methodology with the Quantis Scope 3 Evaluator.

## Capital goods

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

89570

### Emissions calculation methodology

Hybrid method  
Average spend-based method

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

32

### Please explain

Emissions reported for Capital Goods are based on the purchase of Real Estate-related services, construction, R&D-related manufacturing, vehicles, computer hardware and software that are accounted for as capital goods in the general ledger. For key vendors the hybrid method is used to calculate emissions, whereas the average spend-based method is used for the balance of spend. Those emissions were calculated using the environmentally extended input/output (EEIO) methodology with the Quantis Scope 3 Evaluator.

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

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

576

### Emissions calculation methodology

Average data method

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

100

### Please explain

Within the U.S., T&D losses are calculated using % loss information from EPA's eGrid for Carbon Footprinting Electricity Purchases in Greenhouse Gas Emission Inventories, 2021. We use energy purchase activity data as the basis for calculating emissions in this category. Upstream emissions from purchased electricity within the US are quantified using activity data and emission factors calculated.

## Upstream transportation and distribution

### Evaluation status

Not relevant, explanation provided

### Emissions in reporting year (metric tons CO2e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

The emissions associated with the upstream transportation and distribution goods and services are included in Scope 3 figure reported in the 'Purchased Goods and Services' category. Transportation of purchased goods is included in the purchase price and not billed separately. The spend on upstream transportation and distribution is included in the spend figure used to estimate Scope 3 emissions from purchased goods and services. The relevant data for upstream transportation and distribution is not available, therefore we are not able to report separately on this category. Further, these emissions are already accounted for elsewhere in this inventory, so they are deemed not relevant to be reported here as a separate category. Therefore, emissions from this category are estimated at zero (0) and this category is deemed to be not relevant.

## Waste generated in operations

### Evaluation status

Not relevant, calculated

### Emissions in reporting year (metric tons CO2e)

18

### Emissions calculation methodology

Waste-type-specific method

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

100

### Please explain

Because calculated emissions from this category are relatively low this category is deemed to be not relevant. As a software and IT company the impact of the other categories like purchased goods and services is much more significant. Emissions were calculated using recycling data compiled regionally focusing mainly on e-waste recycling. The volume of recycled materials by material in either kg or tons is multiplied by emissions factors from DEFRA.

## Business travel

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

6634

### Emissions calculation methodology

Spend-based method

Distance-based method

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

0

### Please explain

Emissions related to airfare is calculated using DEFRA factors with radiative forcing based on flight distance in km. Emissions related to ground transportation and hotel stays were calculated using the environmentally extended input/output (EEIO) methodology with the Quantis Scope 3 Evaluator. The emissions estimate reported here is based on total passenger km travelled that is posted with airfare spend, ground transportation spends, and hotel stay spend in the internal general ledger system as well as logged for reimbursements by employees.

## Employee commuting

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

6151

### Emissions calculation methodology

Average data method

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

0

### Please explain

Emissions were calculated using the environmentally extended input/output (EEIO) methodology with the Quantis Scope 3 Evaluator. Due to COVID-19, the calculations were updated to represent 25% of typical commuting in a pre-pandemic year. The emissions for employee commuting are estimated on the range of number of employees of the company. Emissions for remote work are accounted for on an annual basis, using a custom model that estimates remote work-related emissions from electricity and fuels used for heating, cooling, lighting, and computer equipment. Assumptions around the number of employees working remotely and estimated hours worked are set based on our remote work policies.

## Upstream leased assets

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

4541

### Emissions calculation methodology

Average data method

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

0

### Please explain

Emissions reported here are based on spend data related to vehicle leases, petrol used in leased vehicles, and other miscellaneous equipment leases in the internal general ledger system. Emissions were calculated using the environmentally extended input/output (EEIO) methodology with the Quantis Scope 3 Evaluator.

## Downstream transportation and distribution

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

11294

### Emissions calculation methodology

Spend-based method

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

0

### Please explain

Emissions reported here are based on spend data related to shipping of sold products in the internal general ledger system. The total spend is broken out for air and land transport where 95% is air and 5% is land. Emissions are calculated using the environmentally extended input/output (EEIO) methodology with the Quantis Scope 3 Evaluator.

## Processing of sold products

### Evaluation status

Not relevant, explanation provided

### Emissions in reporting year (metric tons CO2e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

Cadence Design Systems enables customers to design electronic products by offering software, hardware, services and reusable IC design blocks, which are commonly referred to as intellectual property ("IP"). These products are not intermediate products and hence not relevant. Therefore, emissions from this category are estimated at zero (0) and this category is deemed to be not relevant.

## Use of sold products

### Evaluation status

Relevant, not yet calculated

### Emissions in reporting year (metric tons CO2e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

Cadence Design Systems enables customers to design electronic products by offering software, hardware, services and reusable IC design blocks, we believe that the use of sold products is a relevant category. Currently we do not have comprehensive information to calculate the emissions from this category, but we plan to in the future.

## End of life treatment of sold products

### Evaluation status

Relevant, not yet calculated

### Emissions in reporting year (metric tons CO2e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

We believe that end of life treatment of sold products is a relevant category. Currently we do not have comprehensive information to calculate the emissions from this category, but we plan to in the future.

## Downstream leased assets

### Evaluation status

Not relevant, explanation provided

### Emissions in reporting year (metric tons CO2e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

Cadence Design Systems does not have any downstream leased assets. Therefore, emissions from this category are estimated at zero (0) and this category is deemed to be not relevant.



**Franchises**

**Evaluation status**

Not relevant, explanation provided

**Emissions in reporting year (metric tons CO2e)**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

**Please explain**

Cadence Design Systems does not have any franchises. Therefore, emissions from this category are estimated at zero (0) and this category is deemed to be not relevant.

**Investments**

**Evaluation status**

Not relevant, explanation provided

**Emissions in reporting year (metric tons CO2e)**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

**Please explain**

Cadence Design Systems, Inc. does not have investments. Therefore, emissions for this category are estimated at zero (0) and this category is deemed to be not relevant.

**Other (upstream)**

**Evaluation status**

Not relevant, explanation provided

**Emissions in reporting year (metric tons CO2e)**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

**Please explain**

Cadence Design Systems does not have other Scope 3 emissions. Therefore, emissions from this category are estimated at zero (0) and this category is deemed to be not relevant.

**Other (downstream)**

**Evaluation status**

Not relevant, explanation provided

**Emissions in reporting year (metric tons CO2e)**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

**Please explain**

Cadence Design Systems does not have other Scope 3 emissions. Therefore, emissions from this category are estimated at zero (0) and this category is deemed to be not relevant.

**C6.7**

---

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

No

**C6.10**

---

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

**Intensity figure**

0.0000094059

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

33501

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

3561718000

**Scope 2 figure used**

Location-based

**% change from previous year**

6.41

**Direction of change**

Decreased

**Reason(s) for change**

Other emissions reduction activities

Change in revenue

**Please explain**

A 6% decrease in Location-Based scope 2 emissions per unit of currency is mainly due to the combination of a year-on-year increase in revenue and implemented building energy efficiency initiatives.

Our net zero plan involves identifying and implementing opportunities for Greenhouse Gas removals through system upgrades, replacements, and electrification. Therefore during 2022, we implemented 3 building energy efficiency initiatives involving a retrofitted upgrade to LED lights, Heating, Ventilation & Air conditioning (HVAC) equipment efficiency upgrade and implementation of a solar rooftop.

During 2022 we experienced an overall 20% increase in revenue. The increase in revenue resulted in a larger percent decrease in overall metric tons of CO2e per unit of currency compared to the previous year.

---

**Intensity figure**

0.0000021644

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

7709

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

3561718000

**Scope 2 figure used**

Market-based

**% change from previous year**

71.07

**Direction of change**

Decreased

**Reason(s) for change**

Change in renewable energy consumption

Other emissions reduction activities

Change in revenue

**Please explain**

A 71% decrease in Market-Based scope 2 emissions per unit of currency is mainly due to the increase in renewable energy consumption and purchase of RECs along with an increase in revenue and implementation of building energy efficiency initiatives. During 2022, we achieved CarbonNeutral® company certification through our investments in decarbonization including energy efficiency measures, procurement of 100% renewable energy through utility contracts and high-quality Energy Attribute Certificates (EACs), onsite solar installations and high-impact carbon avoidance/removal offsets.

Our net zero plan involves identifying and implementing opportunities for Greenhouse Gas removals through system upgrades, replacements, and electrification. Therefore, we implemented 3 building energy efficiency initiatives involving a retrofitted upgrade to LED lights, Heating, Ventilation & Air conditioning (HVAC) equipment efficiency upgrade and implementation of a solar rooftop.

Lastly, during the reporting year we experienced an overall 20% increase in revenue. This increase in revenue caused a larger percent change in overall metric tons of CO2e per unit of currency compared to the previous year.

---

## C7. Emissions breakdowns

---

### C7.1

**(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?**

Yes

**C7.1a**

**(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).**

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	776.31	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	0.505	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	0.641	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	6932.4	IPCC Fifth Assessment Report (AR5 – 100 year)

**C7.2**

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

Country/area/region	Scope 1 emissions (metric tons CO2e)
Americas	2544.6
Asia Pacific (or JAPA)	4294.9
Eastern Europe, Middle East, and Africa (EEMEA)	869.1

**C7.3**

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

By activity

**C7.3c**

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

Activity	Scope 1 emissions (metric tons CO2e)
Stationary combustion (Natural gas)	623.9
Stationary combustion (Diesel)	142.7
Stationary combustion (Propane)	9.6
Fugitive Refrigerants	6932.4

**C7.5**

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

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Americas	12941.5	0
Asia Pacific (or JAPA)	11834.6	0
Eastern Europe, Middle East, and Africa (EEMEA)	1006.4	0

**C7.6**

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

By activity

**C7.6c**

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

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Purchased electricity	25791.5	0

**C7.7**

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

No

**C7.9**

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

Decreased

**C7.9a**

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

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	24292	Decreased	315.11	kwh consumed from renewable sources multiplied by market-based emission factors by specific region used to offset entire market-based scope 2 emissions.
Other emissions reduction activities	1313	Decreased	17.03	HVAC upgrades, rooftop solar, LED light upgrades.
Divestment	0	No change	0	No divestments influenced a change in our 2022 emissions.
Acquisitions	1428	Increased	18.52	12 Acquired sites (Tokyo01, New York, London, Hove, Tokyo02, Boston, Cologne, Santa Fe01, Santa Fe02, Palo Alto, Galway and Dublin.)
Mergers	0	No change	0	No mergers influenced a change in our 2022 emissions.
Change in output	0	No change	0	No change in output influenced a change in our 2022 emissions.
Change in methodology	0	No change	0	No change in methodology influenced a change in our 2022 emissions.
Change in boundary	0	No change	0	3 office downsizes & 1 office closure (San Jose slight reduction in space, Munich reduction in space, Ft Worth reduction in space, Moscow closed completely). 4 new offices (Ho Chi Minh city, Boston 02, Toronto, Tefen).
Change in physical operating conditions	0	No change	0	No change in physical operating conditions influenced a change in our 2022 emissions.
Unidentified	1313	Increased	17.03	Remaining change in emissions year to year.
Other	0	No change	0	No other changes influenced a change in our 2022 emissions.

**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)	HHV (higher heating value)	0	4597	4597
Consumption of purchased or acquired electricity	<Not Applicable>	71500	0	71500
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>	217	<Not Applicable>	217
Total energy consumption	<Not Applicable>	71717	4597	76314

**C8.2b**

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

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

**C8.2c**

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

**Sustainable biomass**

**Heating value**

Unable to confirm heating value

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

N/A

**Other biomass**

**Heating value**

Unable to confirm heating value

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

N/A

**Other renewable fuels (e.g. renewable hydrogen)**

**Heating value**

Unable to confirm heating value

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

N/A

**Coal**

**Heating value**

Unable to confirm heating value

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

N/A

**Oil**

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

1108

**MWh fuel consumed for self-generation of electricity**

1108

**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>

**Comment**

Diesel for all sites generated in Noida, Bangalore and Pune.

**Gas**

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

3489

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

3489

**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>

**Comment**

3,443 MWh from NG, 46 MWh from propane (EPA EF Hub gal/btu HHV used) .

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

**Heating value**

Unable to confirm heating value

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

N/A

**Total fuel**

**Heating value**

Unable to confirm heating value

**Total fuel MWh consumed by the organization**

4597

**MWh fuel consumed for self-generation of electricity**

1108

**MWh fuel consumed for self-generation of heat**

3489

**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>

**Comment**

Natural gas and propane are used for self-generation of heat and diesel is used for self-generation of electricity.

**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	1325	1325	217	217
Heat	3489	3489	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

**C8.2e**

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

**Country/area of low-carbon energy consumption**

United States of America

**Sourcing method**

Other, please specify (on-site solar generation/consumption)

**Energy carrier**

Electricity

**Low-carbon technology type**

Solar

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

217

**Tracking instrument used**

No instrument used

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

United States of America

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

Yes

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

2020

**Comment**

San Jose

**Country/area of low-carbon energy consumption**

United States of America

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Wind



Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

2549

**Tracking instrument used**

US-REC

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

United States of America

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

Yes

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

2022

**Comment**

Richmond COLO

---

**Country/area of low-carbon energy consumption**

Germany

**Sourcing method**

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

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify (German electricity mix)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

910

**Tracking instrument used**

Contract

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Germany

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

Yes

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

2022

**Comment**

Noris COLO

---

**Country/area of low-carbon energy consumption**

Ireland

**Sourcing method**

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

**Energy carrier**

Electricity

**Low-carbon technology type**

Wind

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

235

**Tracking instrument used**

Contract

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Ireland

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

Yes

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

2022

**Comment**

Cork & Dublin

---

**Country/area of low-carbon energy consumption**

United States of America

**Sourcing method**

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

**Energy carrier**

Electricity

**Low-carbon technology type**

Wind

---

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

14

Tracking instrument used

Contract

Country/area of origin (generation) of the low-carbon energy or energy attribute

United States of America

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

Yes

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

2022

Comment

Palo Alto

---

Country/area of low-carbon energy consumption

Brazil

Sourcing method

Unbundled procurement of energy attribute certificates (EACs)

Energy carrier

Electricity

Low-carbon technology type

Wind

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

291

Tracking instrument used

I-REC

Country/area of origin (generation) of the low-carbon energy or energy attribute

Brazil

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

Yes

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

2022

Comment

Onshore Wind

---

Country/area of low-carbon energy consumption

China

Sourcing method

Unbundled procurement of energy attribute certificates (EACs)

Energy carrier

Electricity

Low-carbon technology type

Wind

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

2485

Tracking instrument used

I-REC

Country/area of origin (generation) of the low-carbon energy or energy attribute

China

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

Yes

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

2022

Comment

Onshore Wind

---

Country/area of low-carbon energy consumption

India

Sourcing method

Unbundled procurement of energy attribute certificates (EACs)

Energy carrier

Electricity

Low-carbon technology type

Solar

---

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

12865

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

India

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

Yes

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

2022

**Comment**

Solar

---

**Country/area of low-carbon energy consumption**

Israel

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Solar

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

1520

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Israel

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

Yes

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

2022

**Comment**

Solar

---

**Country/area of low-carbon energy consumption**

Japan

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Solar

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

567

**Tracking instrument used**

Other, please specify (Powerplus)

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Japan

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

Yes

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

2022

**Comment**

Solar

---

**Country/area of low-carbon energy consumption**

Malaysia

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Wind

---

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

3

Tracking instrument used

I-REC

Country/area of origin (generation) of the low-carbon energy or energy attribute

Malaysia

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

Yes

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

2022

Comment

onshore wind

---

Country/area of low-carbon energy consumption

Russian Federation

Sourcing method

Unbundled procurement of energy attribute certificates (EACs)

Energy carrier

Electricity

Low-carbon technology type

Solar

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

21

Tracking instrument used

GO

Country/area of origin (generation) of the low-carbon energy or energy attribute

Russian Federation

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

Yes

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

2022

Comment

Solar & onshore wind

---

Country/area of low-carbon energy consumption

Singapore

Sourcing method

Unbundled procurement of energy attribute certificates (EACs)

Energy carrier

Electricity

Low-carbon technology type

Wind

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

40

Tracking instrument used

TIGR

Country/area of origin (generation) of the low-carbon energy or energy attribute

Singapore

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

Yes

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

2022

Comment

onshore wind

---

Country/area of low-carbon energy consumption

Republic of Korea

Sourcing method

Unbundled procurement of energy attribute certificates (EACs)

Energy carrier

Electricity

Low-carbon technology type

Wind

---

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

160

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

China

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

Yes

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

2022

**Comment**

onshore wind

---

**Country/area of low-carbon energy consumption**

Taiwan, China

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Wind

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

1642

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

China

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

Yes

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

2022

**Comment**

onshore wind

---

**Country/area of low-carbon energy consumption**

United Kingdom of Great Britain and Northern Ireland

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Sustainable biomass

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

195

**Tracking instrument used**

REGO

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

United Kingdom of Great Britain and Northern Ireland

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

Yes

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

2022

**Comment**

biomass

---

**Country/area of low-carbon energy consumption**

United States of America

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Solar

---

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

47352

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

United States of America

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

Yes

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

2022

**Comment**

Solar & onshore wind

---

**Country/area of low-carbon energy consumption**

Viet Nam

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Wind

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

4

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Viet Nam

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

Yes

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

2022

**Comment**

onshore wind

---

**Country/area of low-carbon energy consumption**

Belgium

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Solar

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

92

**Tracking instrument used**

GO

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Belgium

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

Yes

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

2022

**Comment**

Solar & onshore wind

---

**Country/area of low-carbon energy consumption**

Finland

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Solar

---

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

11

Tracking instrument used

GO

Country/area of origin (generation) of the low-carbon energy or energy attribute

Finland

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

Yes

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

2022

Comment

Solar & onshore wind

---

Country/area of low-carbon energy consumption

France

Sourcing method

Unbundled procurement of energy attribute certificates (EACs)

Energy carrier

Electricity

Low-carbon technology type

Solar

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

210

Tracking instrument used

GO

Country/area of origin (generation) of the low-carbon energy or energy attribute

France

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

Yes

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

2022

Comment

Solar & onshore wind

---

Country/area of low-carbon energy consumption

Germany

Sourcing method

Unbundled procurement of energy attribute certificates (EACs)

Energy carrier

Electricity

Low-carbon technology type

Solar

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

172

Tracking instrument used

GO

Country/area of origin (generation) of the low-carbon energy or energy attribute

Germany

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

Yes

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

2022

Comment

Solar & onshore wind

---

Country/area of low-carbon energy consumption

Hungary

Sourcing method

Unbundled procurement of energy attribute certificates (EACs)

Energy carrier

Electricity

Low-carbon technology type

Solar

---

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

1

Tracking instrument used

GO

Country/area of origin (generation) of the low-carbon energy or energy attribute

Hungary

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

Yes

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

2022

Comment

Solar & onshore wind

---

Country/area of low-carbon energy consumption

Ireland

Sourcing method

Unbundled procurement of energy attribute certificates (EACs)

Energy carrier

Electricity

Low-carbon technology type

Solar

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

4

Tracking instrument used

GO

Country/area of origin (generation) of the low-carbon energy or energy attribute

Ireland

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

Yes

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

2022

Comment

Solar & onshore wind

---

Country/area of low-carbon energy consumption

Italy

Sourcing method

Unbundled procurement of energy attribute certificates (EACs)

Energy carrier

Electricity

Low-carbon technology type

Solar

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

28

Tracking instrument used

GO

Country/area of origin (generation) of the low-carbon energy or energy attribute

Italy

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

Yes

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

2022

Comment

Solar & onshore wind

---

Country/area of low-carbon energy consumption

Poland

Sourcing method

Unbundled procurement of energy attribute certificates (EACs)

Energy carrier

Electricity

Low-carbon technology type

Solar

---



Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

83

Tracking instrument used

GO

Country/area of origin (generation) of the low-carbon energy or energy attribute

Poland

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

Yes

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

2022

Comment

Solar & onshore wind

---

Country/area of low-carbon energy consumption

Sweden

Sourcing method

Unbundled procurement of energy attribute certificates (EACs)

Energy carrier

Electricity

Low-carbon technology type

Solar

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

45

Tracking instrument used

GO

Country/area of origin (generation) of the low-carbon energy or energy attribute

Sweden

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

Yes

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

2022

Comment

Solar & onshore wind

---

## C8.2g

---

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

Country/area

Belgium

Consumption of purchased electricity (MWh)

92

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

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

0

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

0

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

92

---

Country/area

Brazil

Consumption of purchased electricity (MWh)

291

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

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

0

---

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

0

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

291

---

Country/area

Canada

Consumption of purchased electricity (MWh)

323

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

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

0

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

0

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

323

---

Country/area

China

Consumption of purchased electricity (MWh)

2485

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

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

0

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

0

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

2485

---

Country/area

Finland

Consumption of purchased electricity (MWh)

11

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

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

0

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

0

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

11

---

Country/area

France

Consumption of purchased electricity (MWh)

210

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

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

0

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

0

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

---

---

**Country/area**

Germany

**Consumption of purchased electricity (MWh)**

172

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

&lt;Not Applicable&gt;

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

0

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

0

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

172

---

**Country/area**

Hungary

**Consumption of purchased electricity (MWh)**

1

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

&lt;Not Applicable&gt;

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

0

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

0

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

1

---

**Country/area**

India

**Consumption of purchased electricity (MWh)**

12584

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

&lt;Not Applicable&gt;

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

0

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

0

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

12584

---

**Country/area**

Ireland

**Consumption of purchased electricity (MWh)**

239

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

&lt;Not Applicable&gt;

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

0

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

0

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

239

---

**Country/area**

Israel

**Consumption of purchased electricity (MWh)**

1520

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

<Not Applicable>

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

0

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

0

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

1520

---

**Country/area**

Italy

**Consumption of purchased electricity (MWh)**

28

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

<Not Applicable>

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

0

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

0

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

28

---

**Country/area**

Japan

**Consumption of purchased electricity (MWh)**

567

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

<Not Applicable>

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

0

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

0

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

567

---

**Country/area**

Malaysia

**Consumption of purchased electricity (MWh)**

3

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

<Not Applicable>

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

0

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

0

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

3

---

**Country/area**

Poland

**Consumption of purchased electricity (MWh)**

83

**Consumption of self-generated electricity (MWh)**

0

---

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

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

0

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

0

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

83

---

Country/area

Republic of Korea

Consumption of purchased electricity (MWh)

160

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

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

0

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

0

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

160

---

Country/area

Russian Federation

Consumption of purchased electricity (MWh)

21

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

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

0

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

0

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

21

---

Country/area

Singapore

Consumption of purchased electricity (MWh)

40

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

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

0

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

0

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

40

---

Country/area

Sweden

Consumption of purchased electricity (MWh)

45

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

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

0

---

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

0

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

45

---

Country/area

Taiwan, China

Consumption of purchased electricity (MWh)

1642

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

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

0

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

0

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

1642

---

Country/area

United Kingdom of Great Britain and Northern Ireland

Consumption of purchased electricity (MWh)

195

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

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

0

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

0

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

195

---

Country/area

United States of America

Consumption of purchased electricity (MWh)

50503

Consumption of self-generated electricity (MWh)

217

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

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

0

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

0

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

50720

---

Country/area

Viet Nam

Consumption of purchased electricity (MWh)

4

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

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

0

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

0

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

4

---

---

## C9. Additional metrics

---

### C9.1

---

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

---

## C10. Verification

---

### C10.1

---

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

---

### C10.1a

---

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

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

Cadence Design Systems 2022 GHG Verification Opinion (1).pdf

**Page/ section reference**

p.1-3

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

---

### C10.1b

---

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

**Scope 2 approach**

Scope 2 location-based

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

Cadence Design Systems 2022 GHG Verification Opinion (1).pdf

**Page/ section reference**

p.1-3

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

---

**Scope 2 approach**

Scope 2 market-based

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

Cadence Design Systems 2022 GHG Verification Opinion (1).pdf

**Page/ section reference**

p.1-3

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

---

**C10.1c**

---

**(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.**

**Scope 3 category**

Scope 3: Purchased goods and services

Scope 3: Capital goods

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

Scope 3: Waste generated in operations

Scope 3: Business travel

Scope 3: Employee commuting

Scope 3: Upstream leased assets

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**

Limited assurance

**Attach the statement**

Cadence Design Systems 2022 GHG Verification Opinion (1).pdf

**Page/section reference**

p.1-3

**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
C6. Emissions data	Other, please specify (CarbonNeutral® company across our operations including Scope 1, Scope 2, and select Scope 3 emission sources)	Cadence is certified as a CarbonNeutral® company in accordance with The CarbonNeutral Protocol.	Cadence achieved CarbonNeutral® company across our operations including Scope 1, Scope 2, and select Scope 3 emission sources. Cadence is certified as a CarbonNeutral® company in accordance with The CarbonNeutral Protocol. Furthermore, our product Palladium Cloud is certified CarbonNeutral®.  We achieved CarbonNeutral® company certification in 2022 through our investments in decarbonization including energy efficiency measures, procurement of 100% renewable energy through utility contracts and high-quality Energy Attribute Certificates (EACs), onsite solar installations and high-impact carbon avoidance/removal offsets. We have chosen to verify our Palladium cloud and company-wide Scope 2 emissions to ensure carbon neutrality and obtain CarbonNeutral® certification. 2022 Cadence Design Systems Enterprise CarbonNeutral Attestation Report.pdf
C4. Targets and performance	Financial or other base year data points used to set a science-based target	Limited assurance. ISO14064-3	Cadence has chosen to verify our baseline to satisfy customer emissions as well as to provide complete verification for all reporting years. This verification contains limited assurance for company-wide emissions from scope 1, scope 2 market based, scope 2 location based, and scope 3 categories: purchased goods and services, capital goods, fuel and energy related activities not included in scope 1 and 2, business travel, employee commuting, and downstream transportation and distribution. Verification frequency is annually for every reporting year following 2019. Cadence Design Systems 2019 GHG Verification Opinion (1).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 canceled any project-based carbon credits within the reporting year?**

Yes

### C11.2a

**(C11.2a) Provide details of the project-based carbon credits canceled by your organization in the reporting year.**

**Project type**

Energy efficiency: households

**Type of mitigation activity**

Emissions reduction

**Project description**

In 2022, we invested in the Orb Household Solar Project to support energy efficiencies for household devices in India. This project brought over 160,000 reliable solar power and solar water heating systems to customers throughout India, while cutting approximately 55,000 metric tons of CO<sub>2</sub>e a year by replacing the use of kerosene or electricity from a grid reliant on fossil fuels. Orb Household Solar, India, supports the UN Sustainable Development Goals and is a value chain partner aligned with our own goals. Our investment in the Orb Household Solar Project offsets our palladium cloud emissions for 2022 and helps us become closer to 2040 goal of company-wide carbon neutrality by 2040.

**Credits canceled by your organization from this project in the reporting year (metric tons CO<sub>2</sub>e)**

12239

**Purpose of cancellation**

Voluntary offsetting

**Are you able to report the vintage of the credits at cancellation?**

Yes

**Vintage of credits at cancellation**

2022

**Were these credits issued to or purchased by your organization?**

Purchased

**Credits issued by which carbon-crediting program**

Gold Standard

**Method(s) the program uses to assess additionality for this project**

Consideration of legal requirements  
Investment analysis  
Positive lists

**Approach(es) by which the selected program requires this project to address reversal risk**

Monitoring and compensation

**Potential sources of leakage the selected program requires this project to have assessed**

Activity-shifting  
Market leakage

**Provide details of other issues the selected program requires projects to address**

N/A

**Comment**

In 2022, we invested in the Orb Household Solar Project to support energy efficiencies for household devices in India.

---

**Project type**

Other, please specify (Forest conservation)

**Type of mitigation activity**

Emissions reduction

**Project description**

In 2021, we invested in the Rainier Gateway Project to support the protection of the forests surrounding Mount Rainier in Washington State, home to many species, including nine that are listed as threatened or of concern to state and federal agencies. Managed by the Nisqually tribe (Nisqually Land Trust), sustainable forest management techniques are applied throughout the area to support watershed conservation, salmon recovery efforts, as well as to provide local employment opportunities. This project also helps maintain consolidated ownership of the land by those native to it. Our investment in the Rainier Gateway Project offsets our Scope 1 emissions for 2021 as well as our Scope 1 emissions for 2022.

**Credits canceled by your organization from this project in the reporting year (metric tons CO2e)**

5709

**Purpose of cancellation**

Voluntary offsetting

**Are you able to report the vintage of the credits at cancellation?**

No

**Vintage of credits at cancellation**

<Not Applicable>

**Were these credits issued to or purchased by your organization?**

Purchased

**Credits issued by which carbon-crediting program**

Other private carbon crediting program, please specify (Carbon offsets come from a variety of different project types including: ACR (American Carbon Registry), CAR (The Climate Action Reserve), Gold Standard, VCS (Verified Carbon Standard) )

**Method(s) the program uses to assess additionality for this project**

Consideration of legal requirements  
Investment analysis  
Positive lists

**Approach(es) by which the selected program requires this project to address reversal risk**

Monitoring and compensation

**Potential sources of leakage the selected program requires this project to have assessed**

Market leakage  
Ecological leakage

**Provide details of other issues the selected program requires projects to address**

N/A

**Comment**

In 2021, we invested in the Rainier Gateway Project to support the protection of the forests surrounding Mount Rainier in Washington State, home to many species, including nine that are listed as threatened or of concern to state and federal agencies.

---

## C11.3

---

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

No, but we 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/clients
- Yes, other partners in the value chain

## C12.1a

---

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

#### Type of engagement

Information collection (understanding supplier behavior)

#### Details of engagement

Collect GHG emissions data at least annually from suppliers

#### % of suppliers by number

0.39

#### % total procurement spend (direct and indirect)

32

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

11

#### Rationale for the coverage of your engagement

Building on our supplier engagement survey, we map ESG-related risks and opportunities in our supply chain. We target high impact areas for direct engagement with key suppliers around issues relating to climate change, data security, ethics, and integrity, including human rights.

To identify to what extent suppliers are aligned with our decarbonization strategy, we track which suppliers have set carbon reduction targets and respond to CDP.

We collect GHG emissions data at least annually from our key suppliers. In 2022, we collected actual emissions data from our top suppliers who reported their GHG emissions, accounting for 32% of our procurement spend. The rationale for focusing on these key suppliers is to target our largest areas of Scope 3 emissions within our supply chain.

#### Impact of engagement, including measures of success

Our primary measure of success is improved coverage and accuracy of our Scope 3 GHG accounting. Thresholds of success include any measurable improvement in data quality, coverage, methodology, or accuracy of our reported Scope 3 GHG emissions, including increased percentage of suppliers using actual data. Example: in 2022, the number of vendors from which we gather actual GHG emissions data increased 50% from the previous year.

#### Comment

N/A

---

#### Type of engagement

Information collection (understanding supplier behavior)

#### Details of engagement

Collect climate-related risk and opportunity information at least annually from suppliers

#### % of suppliers by number

3.28

#### % total procurement spend (direct and indirect)

76

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

0

#### Rationale for the coverage of your engagement

Building on our supplier engagement survey, we map ESG-related risks and opportunities in our supply chain. We target high impact areas for direct engagement with key suppliers around issues relating to climate change, data security, ethics, and integrity, including human rights.

To identify to what extent suppliers are aligned with our decarbonization strategy, we track which suppliers have set carbon reduction targets and respond to CDP.

In 2022, we collected climate-related risk and opportunity information from our top suppliers. The rationale for focusing on these top suppliers was because they represented 76 percent of our total procurement spend and therefore provide broad insight into our value chain-related risks on the whole.

#### Impact of engagement, including measures of success

Our primary measure of success is completion of a supply chain risk assessment. Thresholds for success include any measurable improvements in data collection or quality for vendor data.

#### Comment

N/A

---

#### Type of engagement

Information collection (understanding supplier behavior)

#### Details of engagement

Collect targets information at least annually from suppliers

#### % of suppliers by number

1.58

#### % total procurement spend (direct and indirect)

32

---

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

0

**Rationale for the coverage of your engagement**

Building on our supplier engagement survey, we map ESG-related risks and opportunities in our supply chain. We target high impact areas for direct engagement with key suppliers around issues relating to climate change, data security, ethics, and integrity, including human rights. To identify to what extent suppliers are aligned with our decarbonization strategy, we track which suppliers have set carbon reduction targets and respond to CDP. In 2022, we collected emission reduction target data from our top suppliers comprising 32% of procurement spend. The rationale for coverage was availability of targets information via the Science Based Targets initiative (SBTi).

**Impact of engagement, including measures of success**

Our primary measure of success is completing annual data collection of our suppliers' emissions reduction targets.

**Comment**

N/A

**Type of engagement**

Information collection (understanding supplier behavior)

**Details of engagement**

Collect other climate related information at least annually from suppliers

**% of suppliers by number**

1.54

**% total procurement spend (direct and indirect)**

44

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

0

**Rationale for the coverage of your engagement**

Building on our supplier engagement survey, we map ESG-related risks and opportunities in our supply chain. We target high impact areas for direct engagement with key suppliers around issues relating to climate change, data security, ethics, and integrity, including human rights. To identify to what extent suppliers are aligned with our decarbonization strategy, we track which suppliers have set carbon reduction targets and respond to CDP. In 2022, we collected CDP climate data from our top suppliers comprising 44% of procurement spend. The rationale for coverage was availability of CDP reporting information.

**Impact of engagement, including measures of success**

Our primary measure of success is collection of CDP climate data.

**Comment**

N/A

**C12.1b**

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

**Type of engagement & Details of engagement**

Education/information sharing	Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services
-------------------------------	---

**% of customers by number**

100

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

0

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

Scope: We market energy optimization products. During the reporting year we ran webinars, available to all Cadence customers, that included information around optimized power consumption to help our customers design the lowest power end products. Examples of our 2022 webinars include: "Adopting a Faster, More Efficient Path to Multi-Chiplet Design," "Driving Low-Power Design with High-Level Synthesis," and "Arm and Cadence: Achieving Best Silicon Power, Performance, and Area."

The rationale for providing access to our webinars to all Cadence customers is that the majority of gains in low power occur in the early stages of design—in the architecture and microarchitecture levels. Making effective decisions at those stages requires a combination of data and technology to accurately predict how they will translate into the final product, which traditionally has not been possible. We want to educate our customers about these possibilities.

Additionally, one of the essential drivers for the electronics industry is the desire to develop products that continuously reduce power consumption while increasing performance. Awareness of power usage, performance, and area (PPA) in electronic design is critical. This is one of the reasons that we run these webinars.

**Impact of engagement, including measures of success**

The impact of this engagement is that Cadence's Intelligent System Design strategy enables our customers to design innovative and differentiated electronic products while optimizing performance and power.

The measures of success of our engagement include continued innovation providing technology to achieve the ideal combination of low power with high performance in smaller form factors. An example of a threshold for measuring success is a gain in efficiency points at average to low power and without efficacy loss at maximum capacity.

**Customer example: Renault**

In response to fast-changing market demands and environmental pressures to reduce CO2 emissions, car manufacturer Renault pushes the designs of every component of their engines to maximum efficiency with minimum consumption using computational fluid dynamics (CFD) for the optimization of pumps, turbochargers, fans, and more—everything to obtain maximum performance with minimum fuel. One of the projects Renault used the Cadence Fidelity™ CFD solution for is the optimization of the water pump of an internal combustion engine. These pumps can also be found in plug-in hybrid and battery electric vehicles. Thanks to 3D simulation of the water pump using CFD, CO2 emissions could be decreased, gaining +5 to +8 efficiency points at average to low power and without any efficacy loss at maximum capacity.

## C12.1d

---

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

It is important to Cadence and to our employees and external stakeholders that we do our part to combat climate change and reduce our environmental footprint. Our key stakeholder groups include but are not limited to: current and former Cadence employees; customers; suppliers and vendors; societies and communities in which we operate; trade associations; government and regulatory agencies; and investors.

Investors are an important part of our value chain. In 2023, CDP reported over 746 financial institutions with assets of US \$136 trillion signed CDP's disclosure request. We are submitting a full CDP climate change questionnaire response as our primary method of engagement with investors. Other methods of climate-related engagement with investors include participation in other surveys such as the ISS E&S Disclosure Quality Score, institution-to-institution meetings, and written correspondence. We also provided investors with our 2022 ESG Report which includes details on our climate-related strategy and carbon footprint.

Additional examples of our climate-related engagement with other partners in the value chain include the Cadence Incubator Program for Sustainable Innovation and the Extreme Tech Challenge.

The Cadence University Incubator program supports university incubators and early-stage startup companies through their design- to-prototyping journey. By sharing design excellence practices and tapeout know-how, and by providing affordable access to industry- grade Cadence technology, the Cadence University Incubator program reduces cost and time in achieving a proof of concept. Cadence provides online training, remote development options, design services, and mentorship and networking opportunities to the startups participating in this program.

Cadence is devoted to introducing and promoting technology to the global community for the good of future generations. In 2022, we again sponsored the Extreme Tech Challenge (XTC), which funds new ventures whose missions align with the United Nations Sustainable Development Goals. This year, KT Moore, VP of Corporate Marketing, attended the XTC Bootcamp and spoke on the importance of diversity, equity, and inclusion in corporate sustainability. XTC's ongoing global effort will help pave the way for technology leaders and entrepreneurs of the future to deliver the breakthroughs necessary to help address the world's biggest problems and realize a sustainable future.

## C12.2

---

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

No, but we plan to introduce climate-related requirements within the next two years

## C12.3

---

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

#### Row 1

#### External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

Not assessed

#### Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

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

#### Attach commitment or position statement(s)

<Not Applicable>

#### Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan

The cross-functional ESG Team at Cadence takes into account a variety of stakeholder perspectives on climate related issues, including our customers, employees, investors, and experts from the scientific community. We use this feedback to drive environmental sustainability projects, develop climate-related KPIs, and improve efficiency in our operations, as well as in our engagements with stakeholders.

#### Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

#### Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

## C12.4

---

### (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**

2022 10k.pdf

**Page/Section reference**

Page 9: Corporate Responsibility (PDF page 11)

Page 11: Business and Operational Risks (PDF page 13)

**Content elements**

Governance

Risks & opportunities

Emission targets

**Comment**

The Corporate Responsibility section of our 2022 year end 10-K states:

We believe that, in general, the best and brightest talent is inclined to build a career with a responsible organization that positively impacts society. Among our efforts to be that type of organization, we recognize that climate change is one of the greatest challenges of our time, and we are committed to doing our part to contribute to the health of the planet by actively investing in initiatives to reduce our environmental footprint. We encourage you to review our 2021 Sustainability Report (located at [www.cadence.com](http://www.cadence.com)), and our 2022 ESG Report when released, for more information on our Environmental, Social and Governance ("ESG") initiatives.

**Publication**

In voluntary sustainability report

**Status**

Complete

**Attach the document**

cadence-2022-environmental-social-and-governance-report.pdf

**Page/Section reference**

Page 4: A message from our CEO (PDF page 4)

Page 7: 2022 Highlights (PDF page 7)

Page 8-9: Progress on our 2022 Environmental, Social and Governance Strategies (PDF p. 8-9)

Page 20-29: Environmental Sustainability (PDF pages 20-29)

Page 46: Board governance of CSR Program (PDF page 46)

Page 52: Responsible Supply Chain (PDF page 52)

**Content elements**

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Other metrics

**Comment**

We are proud to share with you our ESG report for 2022, which highlights the progress we made in our environmental, social, and governance efforts. This report shows the work that we are doing in six key areas that impact our business—innovation, workforce development, data privacy and security, environmental sustainability, governance, and supply chain management.

**Publication**

In voluntary communications

**Status**

Complete

**Attach the document**

CSR3.PNG

CSR1.PNG

CSR2.PNG

**Page/Section reference**

p. 1-3

**Content elements**

Governance

Strategy

Emission targets

**Comment**

Our ESG microsite highlights the progress we made in our environmental, social, and governance efforts. This microsite shows the work that we are doing in six key areas that impact our business—innovation, workforce, cybersecurity & data privacy, environmental sustainability, governance, and supply chain management. Regarding climate change the microsite covers our governance, strategy and emissions targets.

**Publication**

In mainstream reports

**Status**

Complete

**Attach the document**

proxy2023.pdf

**Page/Section reference**

Page 1-2: Human Capital Management and Corporate Social Responsibility (PDF page 3-4)

Page 2: Focus on Corporate Governance and Stockholder Engagement (PDF page 4)

Page 5: Environmental Sustainability (PDF page 7)

Page 7: Supply Chain Management (PDF page 9)

#### Content elements

Governance

Strategy

Emissions figures

Emission targets

#### Comment

Climate change continues to be one of the greatest challenges of our time, and Cadence is committed to enhancing our actions to combat climate change and taking steps to lessen the environmental impact of our facilities and business operations. We are investing our resources to improve our own operational footprint. In 2022, we secured CarbonNeutral® certification and achieved procurement of 100% renewable energy for our global operations. We expanded the breadth, depth, and transparency of our environmental sustainability program as evidenced by our reporting to the TCFD recommendations and formally committed to the Science Based Targets initiative and provision of our plan by 2025. As technology innovators, Cadence aims to contribute to the sustainability of our planet by advancing technologies that enable the design of high-performance systems which optimize power, space and energy needs.

#### Focus on Corporate Governance and Stockholder Engagement

As our stockholders play an important role in governance, Cadence maintains a robust stockholder engagement program to better understand your viewpoints on topics such as sustainable business practices, board composition and refreshment, climate change, culture, diversity, equity and inclusion and executive compensation. Our stockholders also have the opportunity to communicate their views at Cadence's annual meeting or by writing to us at the address provided in the section of this proxy statement entitled "Communication with Directors."

#### Environmental Sustainability

We reduced our Scope 1 and 2 emissions by 76% in 2022 over the 2019 baseline achieving our 2030 science-based global warming goal early. While we are excited about our progress, we remain focused on our full value chain to achieve Net-Zero by 2040 and joined The Climate Pledge to partner with around 400 companies who share our commitment. Additionally, through innovation and targeted investment, we anticipate reaching Net-Zero emissions across our operations by 2040.

---

#### Publication

In voluntary communications

#### Status

Complete

#### Attach the document

cdns-2022-cdp-climate-change-report.pdf

#### Page/Section reference

Cadence Climate Change Report pages 1-43

#### Content elements

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Other metrics

#### Comment

In addition to making our 2022 CDP Climate Change Response public through the CDP website, we made this disclosure available on our Cadence website in 2022.

---

#### Publication

Other, please specify (Fortune Media Best Places to Work with Cadence CEO)

#### Status

Complete

#### Attach the document

GPTW.PNG

#### Page/Section reference

p. 1

#### Content elements

Strategy

Other metrics

#### Comment

Cadence CEO speaks on why the company is a Great Place to Work 2022.

---

## C12.5

---

**(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.**

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	Task Force on Climate-related Financial Disclosures (TCFD) The Climate Pledge Other, please specify (SBTi)	In the reporting year Cadence Design Systems:  -Expanded on climate-related risk assessments and reported in-line with the TCFD recommendations.  -Joined The Climate Pledge to partner with ~400 companies who share our commitment to reach Net-Zero by 2040.  -Committed to validating our Net-Zero target through the SBTi.

**C15. Biodiversity**

**C15.1**

**(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?**

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	No, but we plan to have both within the next two years	<Not Applicable>	<Not Applicable>

**C15.2**

**(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?**

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	No, and we do not plan to do so within the next 2 years	<Not Applicable>	<Not Applicable>

**C15.3**

**(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?**

**Impacts on biodiversity**

**Indicate whether your organization undertakes this type of assessment**

No, but we plan to within the next two years

**Value chain stage(s) covered**

<Not Applicable>

**Portfolio activity**

<Not Applicable>

**Tools and methods to assess impacts and/or dependencies on biodiversity**

<Not Applicable>

**Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)**

<Not Applicable>

**Dependencies on biodiversity**

**Indicate whether your organization undertakes this type of assessment**

No, but we plan to within the next two years

**Value chain stage(s) covered**

<Not Applicable>

**Portfolio activity**

<Not Applicable>

**Tools and methods to assess impacts and/or dependencies on biodiversity**

<Not Applicable>

**Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)**

<Not Applicable>

**C15.4**

**(C15.4) Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?**

Not assessed



C15.5

**(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?**

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Land/water protection Land/water management Species management Education & awareness Livelihood, economic & other incentives

C15.6

**(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?**

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No	Please select

C15.7

**(C15.7) Have you published information about your organization’s response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Impacts on biodiversity	cadence-2022-environmental-social-and-governance-report.pdf

C16. Signoff

---

C-FI

---

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

C16.1

---

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	General Counsel & Corporate Secretary	Other C-Suite Officer