Welcome to your CDP Climate Change Questionnaire 2020

C0. Introduction

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

We enable our customers to design electronic products. Our strategy, which we call Intelligent System Design™, provides the technologies necessary for our customers to develop and optimize a complete and functional electronic product. Our products and services are designed to give our customers a competitive edge in their development of electronic systems, integrated circuits ("ICs"), electronic devices and increasingly sophisticated manufactured products. Our products and services do this by optimizing performance, minimizing power consumption, shortening the time to bring our customers' products to market and reducing their design, development and manufacturing costs. Our customers create and sell electronic products at differing levels of completeness. 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 memory chips, systems-on-chip ("SoCs"), analog chips, processors and other types of chips. We offer software, hardware, services and reusable IC design blocks, which are commonly referred to as intellectual property ("IP"). Systems customers use our offerings to develop and integrate software that is key to the functionality of their products, as well as to design their ICs and PCBs. Our semiconductor customers use our offerings to design, configure, analyze and verify ICs. Additionally, some customers license our IP, which accelerates their product development processes by providing pre-designed and verified circuit blocks for their ICs.

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

<table>
<thead>
<tr>
<th>Reporting year</th>
<th>Start date</th>
<th>End date</th>
<th>Indicate if you are providing emissions data for past reporting years</th>
<th>Select the number of past reporting years you will be providing emissions data for</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 1, 2019</td>
<td>December 31, 2019</td>
<td>Yes</td>
<td>1 year</td>
<td></td>
</tr>
</tbody>
</table>
C0.3

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

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

C0.4

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

USD

C0.5

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

Operational control

C1. Governance

C1.1

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

Yes
C1.1a

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

<table>
<thead>
<tr>
<th>Position of individual(s)</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board-level committee</td>
<td>Our Board through its Corporate Governance and Nominating Committee oversees our corporate social responsibility program and the progress of our environmental, social and governance issues, including climate-related risks and opportunities.</td>
</tr>
</tbody>
</table>

C1.1b

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

<table>
<thead>
<tr>
<th>Frequency with which climate-related issues are a scheduled agenda item</th>
<th>Governance mechanisms into which climate-related issues are integrated</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheduled – some meetings</td>
<td>Reviewing and guiding strategy</td>
<td>Our Board through its Corporate Governance and Nominating Committee oversees our corporate social responsibility program and the progress of our environmental, social and governance issues, including climate-related risks and opportunities.</td>
</tr>
<tr>
<td></td>
<td>Reviewing and guiding major plans of action</td>
<td>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. In 2019, the Corporate Governance and Nominating Committee held four meetings.</td>
</tr>
</tbody>
</table>

C1.2

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

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

Our General Counsel & 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 Deputy General Counsel, who in turn reports to the General Counsel & Secretary. The General Counsel & Secretary reports to the Board of Directors on climate-related issues at least half-yearly.

C1.3

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

<table>
<thead>
<tr>
<th>Provide incentives for the management of climate-related issues</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1: Yes</td>
<td>Facilities managers and some members of their teams are considered for incentives linked to the management of climate-related issues such as energy reduction and efficiency projects and behavior change.</td>
</tr>
</tbody>
</table>

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).

<table>
<thead>
<tr>
<th>Entitled to incentive</th>
<th>Type of incentive</th>
<th>Activity incentivized</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities manager</td>
<td>Non-monetary reward</td>
<td>Energy reduction project</td>
<td>Facilities managers and some members of their teams are considered for non-monetary incentives based on achieving goals that relate to energy reduction and efficiency projects.</td>
</tr>
</tbody>
</table>
Facilities manager | Monetary reward | Energy reduction project | Efficiency project | Facilities managers and some members of their teams are considered for monetary incentives based on achieving goals that relate to energy reduction and efficiency projects.

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?

<table>
<thead>
<tr>
<th>From (years)</th>
<th>To (years)</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Medium-term</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Long-term</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

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 on a case by case basis.

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

**Description of process**
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.

**Value chain stage(s) covered**
- Downstream

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

**Frequency of assessment**
- Annually

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

**Description of process**
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.

**C2.2a**

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

<table>
<thead>
<tr>
<th></th>
<th>Relevance &amp; inclusion</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current regulation</td>
<td>Relevant, always included</td>
<td>Risks relating to current and emerging regulations are integrated into our multi-disciplinary company-wide risk management process.</td>
</tr>
<tr>
<td>Emerging regulation</td>
<td>Relevant, always included</td>
<td>Risks relating to current and emerging regulations are integrated into our multi-disciplinary company-wide risk management process.</td>
</tr>
</tbody>
</table>
| Technology       | Relevant, always included | Technology 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.

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. |

| Legal           | Relevant, always included | Legal risks are integrated into our multi-disciplinary company-wide risk management process. |

| Market          | Relevant, always included | Market 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.

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. |
measures could result in further disruptions to our operations and those of our customers.

<table>
<thead>
<tr>
<th></th>
<th>Relevant, always included</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reputation</strong></td>
<td></td>
<td>Reputation risks are integrated into our multi-disciplinary company-wide risk management process.</td>
</tr>
<tr>
<td><strong>Acute physical</strong></td>
<td>Relevant, always included</td>
<td>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. 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.</td>
</tr>
<tr>
<td><strong>Chronic physical</strong></td>
<td>Relevant, always included</td>
<td>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. 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,</td>
</tr>
</tbody>
</table>
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?

<table>
<thead>
<tr>
<th>Primary reason</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation in process</td>
<td>We are assessing our evaluation of climate-related risks that would have the potential to have substantive financial or strategic impact on Cadence. In order to measure the success of our energy efficiency and carbon reduction initiatives in 2019, we established energy and greenhouse gas (GHG) baselines. Our 2018 GHG baseline and 2019 carbon footprint were calculated in accordance with the World Resources Institute (WRI) and the World Business Council for Sustainable Development GHG Protocol Corporate Standard. As we work to set long-term and science-based 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, and on-site solar installations.</td>
</tr>
</tbody>
</table>

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**

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

**Opportunity type**
- Products and services

**Primary climate-related opportunity driver**
- Development of new products or services through R&D and innovation

**Primary potential financial impact**
- Increased revenues resulting from increased demand for products and services

**Company-specific description**

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.

Examples include: the Cadence® Tensilica® Vision digital signal processor (DSP) family offers a breakthrough in terms of energy efficiency and performance. Offloading to a DSP such as the Tensilica Vision P5 can yield substantial energy consumption savings while supporting high workloads of image and vision processing apps. The Tensilica Vision DSP family offloads the host CPU for lower energy consumption running intensive imaging and vision apps. It offers general-purpose imaging and vision products that were designed for the complex algorithms in imaging and computer vision, including innovative multi-frame noise reduction, video stabilization, high dynamic range (HDR) processing, object and face recognition and tracking, low-light image enhancement, digital zoom, and gesture recognition, plus many more. The Tensilica Vision DSP family also offers outstanding performance while running AI. By choosing the right DSP, customers can maintain the functionality needed for their computer vision design without sacrificing performance or power.

We introduced Tempus Power Integrity in 2019, which allows design teams to identify areas in the design where they have to account for possible spikes or drops in voltage and fix those areas so they are optimized and more power aware. This capability greatly
lowers overall power consumption, making the design more efficient while not impacting performance.

We also launched our Celsius™ Thermal Solver, which enables customers to mitigate thermal issues from chip to package to printed circuit board all the way through to system enclosures. Cadence is the only provider to offer customers this holistic view of their products at a complete system level. This view gives customers not only the opportunity to identify hot spots in design early so they can be addressed and minimize late-stage modifications, but also enables them to find opportunities for product differentiation.

Time horizon
   Short-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)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

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
   Our future performance depends on our ability to innovate, commercialize newly developed solutions and enhance and maintain our current products. We must continuously re-engineer our products to solve new or increased physics challenges that arise with each successive process node and address the increase in complexity that is introduced by the resulting much larger designs. We must also keep pace with our customers' technical developments, satisfy industry standards and meet our customers' increasingly demanding performance, productivity, quality and predictability requirements. Therefore, we expect to continue to
C3. Business Strategy

C3.1

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

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?
   Yes, qualitative and quantitative

C3.1b

(C3.1b) Provide details of your organization’s use of climate-related scenario analysis.

<table>
<thead>
<tr>
<th>Climate-related scenarios and models applied</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCP 4.5</td>
<td>How the selected scenario(s) were identified, with reference to the inputs, assumptions and analytical methods used: The RCP 4.5 climate-related scenario was utilized in the scenario analysis produced for Cadence Design Systems without modification. The tool leveraged was the World Resources Institute (WRI) Water Risk Atlas, and the assumptions utilized include business as usual, optimistic, and pessimistic conditions for the period examined. A description of the time horizon(s) considered, and why they are relevant to your organization: This time horizon considered was 2019 through 2040 and this time horizon was deemed relevant to the organization as it is being leveraged to inform future emissions reductions targets. Our future aim is to produce a target that is approved by the Science Based Target Initiative (SBTI), and these time horizons are consistent with that methodology. A description of the areas of your organisation that have been considered as part...</td>
</tr>
</tbody>
</table>
of the scenario analysis:
In this assessment, all Cadence Design Systems operational sites were examined, including both owned and leased locations.

C3.1d

(C3.1d) Describe where and how climate-related risks and opportunities have influenced your strategy.

<table>
<thead>
<tr>
<th>Have climate-related risks and opportunities influenced your strategy in this area?</th>
<th>Description of influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Products and services</td>
<td>Yes</td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Examples include:</td>
<td></td>
</tr>
<tr>
<td>We introduced Tempus™ Power Integrity in 2019, which allows design teams to identify areas in the design where they have to account for possible spikes or drops in voltage and fix those areas so they are optimized and more power aware. This capability greatly lowers overall power consumption, making the design more efficient while not impacting performance.</td>
<td></td>
</tr>
<tr>
<td>We launched our Celsius™ Thermal Solver, which enables customers to mitigate thermal issues from chip to package to printed circuit board all the way through to system enclosures. Cadence is the only provider to offer customers this holistic view of their products at a complete system level. This view gives customers not only the opportunity to identify “hot spots” in a design early so they can be addressed and minimize late-stage modifications, but also enables them to find opportunities for product</td>
<td></td>
</tr>
</tbody>
</table>
differentiation.

Cadence products are constantly evolving to help customers reduce design iterations, improve design optimization and avoid delays. Cadence also offers Cloud services to customers, which gives them access to more processing power for faster turnaround times for their designs. A secondary benefit for customers using the Cadence Cloud offerings is reducing their need to buy, power, and maintain specialized hardware. Through the Cadence Cloud offerings, we provide an “as needed” model versus an on-premises, always-on high power consumption usage model. This saves data center resources by reducing the number of servers that customers need to purchase, power up, and maintain for peak design use. Reduced design iterations means customers can shorten the design cycle and get to market faster and potentially ahead of their competitors who don’t use Cadence Cloud, with the added benefit of consuming less power and other resources.

<table>
<thead>
<tr>
<th>Supply chain and/or value chain</th>
<th>Evaluation in progress</th>
<th>We are evaluating climate related risks and opportunities in our supply chain.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment in R&amp;D</td>
<td>Yes</td>
<td>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.</td>
</tr>
<tr>
<td>Operations</td>
<td>Yes</td>
<td>When we lease offices, energy efficiency is a key factor in our decision to lease. All of our office remodels and expansions now utilize energy efficient technologies. In 2019, we completed the following energy-related initiatives, the benefits of which we expect to see in 2020 and beyond. At our San Jose headquarters, we expanded our relationship with San Jose Clean Energy, which is a community choice energy program that provides customers with a cleaner energy mix with more renewable and carbon free electricity. Due to our increased use of San Jose Clean Energy, 25% of Cadence’s aggregate global electricity use</td>
</tr>
</tbody>
</table>
is renewable. For one of our data centers at our San Jose headquarters, we completed an economizer retrofit that utilizes outside air to naturally cool our servers. As we migrate to more colocated data centers, we will look for air-cooled data centers that can run on 100% renewable power if the local climate allows for outdoor air cooling.

As we work to set long-term and science-based 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, and on-site solar installations.

C3.1e

(C3.1e) Describe where and how climate-related risks and opportunities have influenced your financial planning.

<table>
<thead>
<tr>
<th>Financial planning elements that have been influenced</th>
<th>Description of influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>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.</td>
</tr>
<tr>
<td>Direct costs</td>
<td></td>
</tr>
<tr>
<td>Indirect costs</td>
<td>Our Intelligent System Design strategy guides everything we do, influencing our product and service offerings, as well as partnerships with other industry leaders. Our products and services enable our customers to design innovative and differentiated electronic products. We believe that giving our customers a systems-level perspective throughout the design cycle provides faster and better design, shorter verification cycles, seamless integration of software and hardware, and new product leadership. We promote innovation at every level within Cadence.</td>
</tr>
<tr>
<td>Capital expenditures</td>
<td>In 2019, we completed the following energy-related initiatives, the benefits of which we expect to see in 2020 and beyond. For one of our data centers at our San Jose headquarters, we completed an economizer retrofit that utilizes outside air to naturally cool our servers.</td>
</tr>
<tr>
<td>Assets</td>
<td></td>
</tr>
</tbody>
</table>
As we migrate to more colocated data centers, we will look for air-cooled data centers that can run on 100% renewable power if the local climate allows for outdoor air cooling. We invested in LED lighting retrofits throughout our San Jose headquarters and offices in Noida, India and in a solar panel canopy at our San Jose headquarters to power our periphery lighting.

**C3.1f**

(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

N/A

**C4. Targets and performance**

**C4.1**

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

No target

**C4.1c**

(C4.1c) Explain why you did not have an emissions target, and forecast how your emissions will change over the next five years.

<table>
<thead>
<tr>
<th>Primary reason</th>
<th>Five-year forecast</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
<td>We are planning to introduce a target in the next two years</td>
<td>In 2019, we made progress towards reducing our carbon footprint. Our Scope 1 and 2 emissions decreased by 5% from 2018 to 2019. During 2019 we completed several energy-related initiatives, the benefits of which we expect to see in 2020 and beyond. Further, we continued to shift data center capacity to colocated centers. While this resulted in an increase in emissions this year, we are working with our colocation</td>
</tr>
</tbody>
</table>
partners to ensure that these off-site data centers will be powered with renewable energy in the future. We expect these emissions to decline over time footprint were calculated in accordance with the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD) GHG Protocol Corporate Standard.

**C4.2**

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

No other climate-related targets

**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.

<table>
<thead>
<tr>
<th>Initiative category &amp; Initiative type</th>
<th>Number of initiatives</th>
<th>Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under investigation</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>To be implemented*</td>
<td>1</td>
<td>15.8</td>
</tr>
<tr>
<td>Implementation commenced*</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Implemented*</td>
<td>2</td>
<td>6,315</td>
</tr>
<tr>
<td>Not to be implemented</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**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 production processes
- Cooling technology

Estimated annual CO2e savings (metric tonnes CO2e)
Scope(s)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
13,465

Investment required (unit currency – as specified in C0.4)
187,500

Payback period
1-3 years

Estimated lifetime of the initiative

Comment

Initiative category & Initiative type
Low-carbon energy consumption
Low-carbon electricity mix

Estimated annual CO2e savings (metric tonnes CO2e)
6,047

Scope(s)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
39,000

Investment required (unit currency – as specified in C0.4)
0

Payback period
<1 year

Estimated lifetime of the initiative

Comment
C4.3c

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

<table>
<thead>
<tr>
<th>Method</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dedicated budget for energy efficiency</td>
<td>We use a dedicated budget for energy efficiency to drive investment in emissions reduction activities.</td>
</tr>
</tbody>
</table>

C4.5

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

Yes

C4.5a

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

---

**Level of aggregation**

Group of products

**Description of product/Group of products**

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.

Examples include:

The Cadence® Tensilica® Vision digital signal processor (DSP) family offers a breakthrough in terms of energy efficiency and performance. The Tensilica Vision DSP family offloads the host CPU for lower energy consumption running intensive imaging and vision apps. It offers general-purpose imaging and vision products that were designed for the complex algorithms in imaging and computer vision, including innovative multi-frame noise reduction, video stabilization, high dynamic range (HDR) processing, object and face recognition and tracking, low-light image enhancement, digital zoom, and gesture recognition, plus many more. The Tensilica Vision DSP family also offers outstanding performance while running AI. By choosing the right DSP, customers can maintain the functionality needed for their computer vision design without sacrificing performance or power.
We introduced Tempus Power Integrity in 2019, which allows design teams to identify areas in the design where they might have to account for possible spikes or drops in voltage and fix those areas so they are optimized and more power aware. This capability greatly lowers overall power consumption, making the design more efficient while not impacting performance.

We also launched our Celsius™ Thermal Solver, which enables customers to mitigate thermal issues from chip to package to printed circuit board all the way through to system enclosures. Cadence is the only provider to offer customers this holistic view of their products at a complete system level. This view gives customers not only the opportunity to identify ‘hot spots’ in design early so they can be addressed and minimize late-stage modifications, but also enables them to find opportunities for product differentiation.

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

Avoided emissions

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

Other, please specify

Power optimization of the design

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

Comment

N/A

**C5. Emissions methodology**

**C5.1**

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

**Scope 1**

**Base year start**

January 1, 2018

**Base year end**

December 31, 2018

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

7,752

Comment
Our base year (2018) scope 1 emissions were 7,752 metric tons of CO2e.

Scope 2 (location-based)

Base year start
January 1, 2018

Base year end
December 31, 2018

Base year emissions (metric tons CO2e)
31,145

Comment
Our base year (2018) scope 2 (location-based) emissions were 31,145 metric tons of CO2e.

Scope 2 (market-based)

Base year start
January 1, 2018

Base year end
December 31, 2018

Base year emissions (metric tons CO2e)
24,663

Comment
Our base year (2018) scope 2 (market-based) emissions were 24,663 metric tons of CO2e.

C5.2

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

# C6. Emissions data

## C6.1

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

<table>
<thead>
<tr>
<th>Reporting year</th>
<th>Gross global Scope 1 emissions (metric tons CO2e)</th>
<th>Start date</th>
<th>End date</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6,314</td>
<td>January 1, 2019</td>
<td>December 31, 2019</td>
<td>Scope 1 emissions in the 2019 reporting year were 6,314 metric tons of CO2e.</td>
</tr>
<tr>
<td>Past year 1</td>
<td>7,752</td>
<td>January 1, 2018</td>
<td>December 31, 2018</td>
<td>Scope 1 emissions in the 2018 reporting year were 7,752 metric tons of CO2e.</td>
</tr>
</tbody>
</table>

## C6.2

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

<table>
<thead>
<tr>
<th>Row 1</th>
<th>Scope 2, location-based</th>
<th>Scope 2, market-based</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>We are reporting a Scope 2, location-based figure</td>
<td>We are reporting a Scope 2, market-based figure</td>
<td>We are reporting both location-based and a market-based Scope 2 figures.</td>
</tr>
</tbody>
</table>
## C6.3

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

### Reporting year

<table>
<thead>
<tr>
<th>Scope 2, location-based</th>
<th>31,796</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 2, market-based (if applicable)</td>
<td>24,639</td>
</tr>
</tbody>
</table>

**Start date**

January 1, 2019

**End date**

December 31, 2019

**Comment**

Scope 2 (location-based) emissions in the 2019 reporting year were 31,796 metric tons of CO2e.

Scope 2 (market-based) emissions in the 2019 reporting year were 24,639 metric tons of CO2e.

### Past year 1

<table>
<thead>
<tr>
<th>Scope 2, location-based</th>
<th>31,145</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 2, market-based (if applicable)</td>
<td>24,663</td>
</tr>
</tbody>
</table>

**Start date**

January 1, 2018

**End date**

December 31, 2018

**Comment**

Scope 2 (location-based) emissions in the 2018 reporting year were 31,145 metric tons of CO2e.

Scope 2 (market-based) emissions in the 2018 reporting year were 24,663 metric tons of CO2e.
C6.4

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

No

C6.5

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

Purchased goods and services

<table>
<thead>
<tr>
<th>Evaluation status</th>
<th>Relevant, calculated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric tonnes CO2e</td>
<td>220,647</td>
</tr>
</tbody>
</table>

**Emissions calculation methodology**

Emissions were calculated using the environmentally extended input/output (EEIO) methodology with the Quantis Scope 3 Evaluator. The emissions estimate reported here is based on spend that is posted for goods and services in the internal general ledger system.

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

0

Please explain

See emissions calculation methodology

Capital goods

<table>
<thead>
<tr>
<th>Evaluation status</th>
<th>Relevant, calculated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric tonnes CO2e</td>
<td>55,502</td>
</tr>
</tbody>
</table>

**Emissions calculation methodology**

Emissions were calculated using the environmentally extended input/output (EEIO) methodology with the Quantis Scope 3 Evaluator. The emissions estimate reported here is based on spend that is posted for goods in the internal general ledger system.

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

0
Please explain
See emissions calculation methodology

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

Evaluation status
Relevant, calculated

Metric tonnes CO2e
1,088

Emissions calculation methodology
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. 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, July 2012.

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

Please explain
See emissions calculation methodology

Upstream transportation and distribution

Evaluation status
Not relevant, explanation provided

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, explanation provided

Please explain
We consider waste generated in operations to be irrelevant as Cadence Design Systems is primarily a software and IT company where the impact of the other
categories like purchased goods and services is much more significant. Therefore, emissions from this category are estimated at zero (0) and this category is deemed to be not relevant.

### Business travel

<table>
<thead>
<tr>
<th>Evaluation status</th>
<th>Relevant, calculated</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Metric tonnes CO2e</strong></td>
<td>23,578</td>
</tr>
</tbody>
</table>

**Emissions calculation methodology**

Emissions were calculated using the environmentally extended input/output (EEIO) methodology with the Quantis Scope 3 Evaluator. The emissions estimate reported here is based on spend that is posted for airfare, ground transportation and hotel stay in the internal general ledger system as well as logged for reimbursements by employees.

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

0

Please explain

See emissions calculation methodology

### Employee commuting

<table>
<thead>
<tr>
<th>Evaluation status</th>
<th>Not relevant, calculated</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Metric tonnes CO2e</strong></td>
<td>12,750</td>
</tr>
</tbody>
</table>

**Emissions calculation methodology**

Emissions were calculated using the environmentally extended input/output (EEIO) methodology with the Quantis Scope 3 Evaluator. The emissions for employee commuting are estimated on the range of number of employees of the company.

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

0

Please explain

See emissions calculation methodology

### Upstream leased assets

<table>
<thead>
<tr>
<th>Evaluation status</th>
<th>Not relevant, explanation provided</th>
</tr>
</thead>
</table>

Please explain
Cadence Design Systems has leased cars with associated spend data which has been included in the purchased goods and services category as there is no mileage data available to calculate the emissions from this as a separate category. Therefore, emissions from this category are estimated at zero (0) and this category is deemed to be not relevant.

**Downstream transportation and distribution**

- **Evaluation status**
  Relevant, calculated
- **Metric tonnes CO2e**
  1,194
- **Emissions calculation methodology**
  Emissions were calculated using the environmentally extended input/output (EEIO) methodology with the Quantis Scope 3 Evaluator. The emissions in this category are based on the spend data associated with freight, courier and postage, and other delivery services.
- **Percentage of emissions calculated using data obtained from suppliers or value chain partners**
  0
- **Please explain**
  See emissions calculation methodology

**Processing of sold products**

- **Evaluation status**
  Not relevant, explanation provided
- **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
- **Please explain**
  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.
End of life treatment of sold products

Evaluation status
Not evaluated

Please explain
Full data is not available for end of life treatment of sold products. Therefore this category has not yet been evaluated.

Downstream leased assets

Evaluation status
Not relevant, explanation provided

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

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

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

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
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.

<table>
<thead>
<tr>
<th>Intensity figure</th>
<th>3.86</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)</td>
<td>30,953</td>
</tr>
<tr>
<td>Metric denominator</td>
<td>full time equivalent (FTE) employee</td>
</tr>
<tr>
<td>Metric denominator: Unit total</td>
<td>8,019</td>
</tr>
<tr>
<td>Scope 2 figure used</td>
<td>Market-based</td>
</tr>
<tr>
<td>% change from previous year</td>
<td>12</td>
</tr>
<tr>
<td>Direction of change</td>
<td>Decreased</td>
</tr>
<tr>
<td>Reason for change</td>
<td>We reduced our energy use and Scope 1 and 2 emissions per full-time employee by 12% compared to 2018. Overall our Scope 1 and 2 emissions decreased by 5% from 2018 to 2019 due in part to the emissions reduction initiatives listed in CDP C4.3b. Further, global total FTE</td>
</tr>
</tbody>
</table>
increased by 9% during the reporting period.

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).

<table>
<thead>
<tr>
<th>Greenhouse gas</th>
<th>Scope 1 emissions (metric tons of CO2e)</th>
<th>GWP Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO2</td>
<td>1,893</td>
<td>IPCC Fifth Assessment Report (AR5 – 100 year)</td>
</tr>
<tr>
<td>CH4</td>
<td>0.976</td>
<td>IPCC Fifth Assessment Report (AR5 – 100 year)</td>
</tr>
<tr>
<td>N2O</td>
<td>1.443</td>
<td>IPCC Fifth Assessment Report (AR5 – 100 year)</td>
</tr>
<tr>
<td>HFCs</td>
<td>4,419</td>
<td>IPCC Fifth Assessment Report (AR5 – 100 year)</td>
</tr>
</tbody>
</table>

C7.2

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

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Scope 1 emissions (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Americas</td>
<td>3,203</td>
</tr>
<tr>
<td>Asia Pacific (or JAPA)</td>
<td>2,315</td>
</tr>
<tr>
<td>Eastern Europe, Middle East, and Africa (EEMEA)</td>
<td>796</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Activity</th>
<th>Scope 1 emissions (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stationary combustion (Natural gas)</td>
<td>1,566</td>
</tr>
<tr>
<td>Stationary combustion (Diesel)</td>
<td>329</td>
</tr>
<tr>
<td>Fugitive Refrigerants</td>
<td>4,419</td>
</tr>
</tbody>
</table>

### C7.5

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

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Scope 2, location-based (metric tons CO2e)</th>
<th>Scope 2, market-based (metric tons CO2e)</th>
<th>Purchased and consumed electricity, heat, steam or cooling (MWh)</th>
<th>Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Americas</td>
<td>12,366</td>
<td>5,209</td>
<td>51,871</td>
<td>0</td>
</tr>
<tr>
<td>Asia Pacific (or JAPA)</td>
<td>14,775</td>
<td>14,775</td>
<td>16,261</td>
<td>3</td>
</tr>
<tr>
<td>Eastern Europe, Middle East, and Africa (EEMEA)</td>
<td>4,655</td>
<td>4,655</td>
<td>8,558</td>
<td>0</td>
</tr>
</tbody>
</table>

### 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.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Scope 2, location-based (metric tons CO2e)</th>
<th>Scope 2, market-based (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchased electricity</td>
<td>31,796</td>
<td>24,639</td>
</tr>
</tbody>
</table>

### 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.

<table>
<thead>
<tr>
<th>Change in emissions (metric tons CO2e)</th>
<th>Direction of change</th>
<th>Emissions value (percentage)</th>
<th>Please explain calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in renewable energy consumption</td>
<td>6,047</td>
<td>Decreased</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>At our San Jose headquarters, we expanded our relationship with San Jose Clean Energy, which is a community choice energy program that provides customers with a cleaner energy mix with more renewable and carbon free electricity. Due to our increased use of San Jose Clean Energy, 25% of Cadence’s aggregate global electricity use is renewable.</td>
</tr>
<tr>
<td>Other emissions reduction activities</td>
<td>268</td>
<td>Decreased</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>For one of our data centers at our San Jose headquarters, we completed an economizer retrofit that utilizes outside air to naturally cool our servers. As we migrate to more colocated data centers, we will look for air-cooled data centers that can run on 100% renewable power if the local climate allows for outdoor air cooling.</td>
</tr>
<tr>
<td>Divestment</td>
<td>0</td>
<td>No change</td>
<td>No change identified</td>
</tr>
<tr>
<td>Acquisitions</td>
<td>0</td>
<td>No change</td>
<td>No change identified</td>
</tr>
<tr>
<td>Mergers</td>
<td>0</td>
<td>No change</td>
<td>No change identified</td>
</tr>
<tr>
<td>Change in output</td>
<td>0</td>
<td>No change</td>
<td>No change identified</td>
</tr>
<tr>
<td>Change in methodology</td>
<td>0</td>
<td>No change</td>
<td>No change identified</td>
</tr>
<tr>
<td>Change in boundary</td>
<td>0</td>
<td>No change</td>
<td>No change identified</td>
</tr>
<tr>
<td>Change in physical operating conditions</td>
<td>0</td>
<td>No change</td>
<td>No change identified</td>
</tr>
<tr>
<td>Unidentified</td>
<td>0</td>
<td>No change</td>
<td>No change identified</td>
</tr>
</tbody>
</table>
During 2019, emissions may have increased due to factors such as increased business activity and a nine percent increase in workforce. Further, during 2019, we continued to shift data center capacity to collocated centers. While this resulted in an increase in emissions this year, we are working with our colocation partners to ensure that these off-site data centers will be powered with renewable energy in the future. We expect these emissions to decline over time.

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.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Indicate whether your organization undertook this energy-related activity in the reporting year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of fuel (excluding feedstocks)</td>
<td>Yes</td>
</tr>
<tr>
<td>Consumption of purchased or acquired electricity</td>
<td>Yes</td>
</tr>
<tr>
<td>Consumption of purchased or acquired heat</td>
<td>No</td>
</tr>
<tr>
<td>Consumption of purchased or acquired steam</td>
<td>No</td>
</tr>
<tr>
<td>Consumption of purchased or acquired cooling</td>
<td>No</td>
</tr>
<tr>
<td>Generation of electricity, heat, steam, or cooling</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### C8.2a

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

<table>
<thead>
<tr>
<th>Heating value</th>
<th>MWh from renewable sources</th>
<th>MWh from non-renewable sources</th>
<th>Total (renewable and non-renewable) MWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of fuel (excluding feedstock)</td>
<td>HHV (higher heating value)</td>
<td>0</td>
<td>9,958</td>
</tr>
<tr>
<td>Consumption of purchased or acquired electricity</td>
<td></td>
<td>31,567</td>
<td>45,122</td>
</tr>
<tr>
<td>Consumption of self-generated non-fuel renewable energy</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Total energy consumption</td>
<td></td>
<td>31,570</td>
<td>55,080</td>
</tr>
</tbody>
</table>

### C8.2b

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

<table>
<thead>
<tr>
<th>Consumption of fuel for the generation of electricity</th>
<th>Indicate whether your organization undertakes this fuel application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of fuel for the generation of heat</td>
<td>Yes</td>
</tr>
<tr>
<td>Consumption of fuel for the generation of steam</td>
<td>No</td>
</tr>
<tr>
<td>Consumption of fuel for the generation of cooling</td>
<td>No</td>
</tr>
<tr>
<td>Consumption of fuel for co-generation or tri-generation</td>
<td>No</td>
</tr>
</tbody>
</table>
C8.2c

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

---

**Fuels (excluding feedstocks)**
- Natural Gas

**Heating value**
- HHV (higher heating value)

**Total fuel MWh consumed by the organization**
- 8,658

**MWh fuel consumed for self-generation of electricity**
- 0

**MWh fuel consumed for self-generation of heat**
- 8,658

**Emission factor**
- 1.92

**Unit**
- kg CO2e per m3

**Emissions factor source**

**Comment**
- GWP-AR5

---

**Fuels (excluding feedstocks)**
- Diesel

**Heating value**
- HHV (higher heating value)

**Total fuel MWh consumed by the organization**
- 1,300

**MWh fuel consumed for self-generation of electricity**
- 1,300

**MWh fuel consumed for self-generation of heat**
- 0
Emission factor
2.71

Unit
kg CO2 per liter

Emissions factor source

Comment
GWP- AR5

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

<table>
<thead>
<tr>
<th></th>
<th>Total Gross generation (MWh)</th>
<th>Generation that is consumed by the organization (MWh)</th>
<th>Gross generation from renewable sources (MWh)</th>
<th>Generation from renewable sources that is consumed by the organization (MWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity</td>
<td>460</td>
<td>460</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Heat</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Steam</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cooling</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

C8.2e

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

Sourcing method
Other, please specify
Solar

Low-carbon technology type
Solar

Country/region of consumption of low-carbon electricity, heat, steam or cooling
Asia Pacific (or JAPA)

MWh consumed accounted for at a zero emission factor
3
Comment
In 2019, 3 MWh was generated from the solar power panel for campus periphery lights in Noida.

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.

<table>
<thead>
<tr>
<th>Scope</th>
<th>Verification/assurance status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 1</td>
<td>No third-party verification or assurance</td>
</tr>
<tr>
<td>Scope 2 (location-based or market-based)</td>
<td>No third-party verification or assurance</td>
</tr>
<tr>
<td>Scope 3</td>
<td>No third-party verification or assurance</td>
</tr>
</tbody>
</table>

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?
No, but we are actively considering verifying within the next two years

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?
No, and we do not anticipate being regulated in the next three years

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?
No
C11.3

(C11.3) Does your organization use an internal price on carbon?
   No, and we do not currently anticipate doing so in the next two years

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?
   Yes, our customers
   Yes, other partners in the value chain

C12.1b

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

<table>
<thead>
<tr>
<th><strong>Type of engagement</strong></th>
<th>Collaboration &amp; innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Details of engagement</strong></td>
<td>Other, please specify</td>
</tr>
<tr>
<td></td>
<td>Marketing of energy optimization products</td>
</tr>
<tr>
<td><strong>% of customers by number</strong></td>
<td></td>
</tr>
<tr>
<td><strong>% of customer-related Scope 3 emissions as reported in C6.5</strong></td>
<td>0</td>
</tr>
<tr>
<td><strong>Please explain the rationale for selecting this group of customers and scope of engagement</strong></td>
<td></td>
</tr>
<tr>
<td>As an example, the Tensilica Vision DSP family offloads the host CPU for lower energy consumption running intensive imaging and vision apps. Imaging and vision algorithms can run on a DSP that's specifically optimized for the imaging and vision functions required. It offers general-purpose imaging and vision products that were designed for the complex algorithms in imaging and computer vision, including innovative multi-frame noise reduction, video stabilization, high dynamic range (HDR) processing, object and face recognition and tracking, low-light image enhancement, digital zoom, and gesture recognition, plus many more. The Tensilica Vision DSP family also offers outstanding performance while running AI. By choosing the right DSP, customers can maintain the functionality needed for their computer vision design without sacrificing performance or power.</td>
<td></td>
</tr>
</tbody>
</table>
Impact of engagement, including measures of success

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.

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 2019, over 525 investors with assets of US$96 trillion signed CDP’s disclosure request. In 2020, 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 QualityScore, institution-to-institution meetings, and written correspondence. We also provided investors with our 2019 CSR Report which includes details on our climate-related strategy and carbon footprint.

C12.3

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

No

C12.3g

(C12.3g) Why do you not engage with policy makers on climate-related issues?

The cross-functional Sustainability 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.

However, our organization does not engage with policy makers on climate-related issues. At this time, our engagement in the public sector is limited to our membership of trade associations, a full list of which can be found on our company website:

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 voluntary sustainability report

**Status**

Complete

**Attach the document**

[Cadence 2019 Sustainability Report.pdf](Cadence%202019%20Sustainability%20Report.pdf)

**Page/Section reference**

Cadence 2019 Sustainability Report

Page 24-25: Environmental Sustainability

Page 29: Board governance of CSR Program

**Content elements**

Governance

Strategy

Emissions figures

Other metrics

**Comment**

Other metrics – energy consumption

We are proud to share with you our sustainability report for 2019, 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**
C15. Signoff

C-FI

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

N/A

C15.1

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

<table>
<thead>
<tr>
<th>Job title</th>
<th>Corresponding job category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Vice President and General Counsel</td>
<td>Other C-Suite Officer</td>
</tr>
</tbody>
</table>

SC. Supply chain module

SC0.0

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

SC0.1

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

<table>
<thead>
<tr>
<th></th>
<th>Annual Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
<td>2,336,000,000</td>
</tr>
</tbody>
</table>
SC0.2

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

SC0.2a

(SC0.2a) Please use the table below to share your ISIN.

<table>
<thead>
<tr>
<th>ISIN country code (2 letters)</th>
<th>ISIN numeric identifier and single check digit (10 numbers overall)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
<td>US</td>
</tr>
</tbody>
</table>

SC1.1

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

SC1.2

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

SC1.3

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

<table>
<thead>
<tr>
<th>Allocation challenges</th>
<th>Please explain what would help you overcome these challenges</th>
</tr>
</thead>
</table>

SC1.4

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

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.
(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

(SC3.1) Do you want to enroll in the 2020-2021 CDP Action Exchange initiative?

(SC3.2) Is your company a participating supplier in CDP’s 2019-2020 Action Exchange initiative?

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

Submit your response

In which language are you submitting your response?
English

Please confirm how your response should be handled by CDP

<table>
<thead>
<tr>
<th>I am submitting to</th>
<th>Public or Non-Public Submission</th>
<th>Are you ready to submit the additional Supply Chain Questions?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investors Customers</td>
<td>Public</td>
<td>Yes, submit Supply Chain Questions now</td>
</tr>
</tbody>
</table>

Please confirm below

I have read and accept the applicable Terms