Synopsys, Inc. - Climate Change 2021

C0. Introduction

C0.1

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

Synopsys, Inc. provides products and services used across the entire Silicon to Software™ spectrum to bring smart devices to life. From engineers creating advanced semiconductors to product teams developing advanced electronic systems to software developers seeking to ensure the security and quality of their code, our customers trust that our technologies will enable them to meet new requirements for low power as well as reliability, mobility, and security. We are a global leader in supplying the electronic design automation (EDA) software that engineers use to design and test integrated circuits (ICs), also known as chips. We also offer semiconductor intellectual property (IP) products, which are pre-designed circuits that engineers use as components of larger chip designs rather than designing those circuits themselves. We provide software and hardware used to validate the electronic systems that incorporate chips and the software that runs on them. To complement these offerings, we provide technical services and support to help our customers develop advanced chips and electronic systems.

Synopsys has global operations, with more than 15,000+ employees working in more than 30 countries. Synopsys' largest environmental impact stems from the operation of our facilities and data centers. To achieve the greatest possible reduction of these impacts, we are implementing energy efficient practices at our facilities as well as procurement of clean energy to power our data centers.

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2020	December 31 2020	No	<Not Applicable>

C0.3

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

Armenia
Australia
Belgium
Canada
Chile
China
China, Hong Kong Special Administrative Region
China, Macao Special Administrative Region
Denmark
Finland
France
Germany
Hungary
India
Ireland
Israel
Italy
Japan
Malaysia
Netherlands
Poland
Portugal
Republic of Korea
Romania
Russian Federation
Singapore
Sri Lanka
Sweden
Switzerland
Taiwan, Greater 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

C1. Governance

C1.1

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

Yes

C1.1a

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

Position of individual(s)	Please explain
Board-level committee	Oversight of climate-related issues occurs at the highest level of the company. The Corporate Governance and Nominating Committee (CGN) of the Synopsys Board of Directors has direct oversight of our Corporate Social Responsibility (CSR) program, the scope of which includes climate-related issues. The CGN Committee Charter directs the Committee to "review and assess Synopsys' policies and practices regarding CSR and sustainability performance, including environmental, social and governance matters."
Chief Executive Officer (CEO)	Management oversight of climate-related issues occurs at the highest level of our company. Synopsys' co-founder, chairman and co-CEO is actively involved in overseeing our CSR program, including our greenhouse gas (GHG) emissions reduction programs. During 2020, he participated in several meetings with the CSR management team and external advisors with regards to our emissions reduction target, strategies to deliver this target and external communications about our GHG emissions footprint and broader CSR program. He personally signed off on Synopsys' participation in a virtual power purchase agreement that was completed in 2020 and publicly announced in 2021.

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	<Not Applicable>	The increasing relevance of our CSR performance and commitments are reviewed on a regular basis by the Corporate Governance and Nominating Committee (CGN) of the Synopsys Board of Directors. These discussions are led by the Synopsys General Counsel. The Charter for the CSR Leadership Committee directs this Committee to provide an annual update to the CGN Committee. In 2020, in his update to the CGN Committee, Synopsys General Counsel outlined plans and progress towards mitigating the company's carbon footprint, including the establishment of a new science-based greenhouse gas reduction goal, and employee engagement activities including education on our carbon neutrality commitment and the initiation of a Global Green Team program. The CGN played a guiding role in establishing a science-based GHG emissions goal to reduce our total scope 1 and 2 emissions by 25% by 2024 (2018 baseline).

C1.2

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

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Other C-Suite Officer, please specify (General Counsel)	<Not Applicable>	Managing climate-related risks and opportunities	<Not Applicable>	Quarterly
Corporate responsibility committee	<Not Applicable>	Other, please specify (Guides CSR strategy (including in relation to our GHG emissions) and advances implementation of a CSR roadmap)	<Not Applicable>	Annually

C1.2a

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

The Synopsys Corporate Social Responsibility Leadership Committee (the "CSR Leadership Committee") has been formed to drive the integration of social, environmental, and governance goals across our business and as such is the highest-level Committee with direct responsibility for climate-related issues.

The Committee provides CSR leadership to ensure responsible and sustainable business practices and to identify and address emerging risks and opportunities. The Committee is chaired by our Deputy General Counsel and Chief Ethics & Compliance Officer and provides our General Counsel with CSR updates for the board. The CSR Leadership Committee comprises Vice President and Director level leaders representing Real Estate and Facilities, Finance, Information Technology, Human Resources, Investor Relations and Legal. Through this cross-functional representation, we ensure that the groups with the most influence over the environmental, social and governance issues of highest relevance to our business are actively engaged in our CSR efforts at a senior level.

The CSR Leadership Committee Charter sets out the responsibilities of this Committee: to guide CSR strategy, advance implementation of a CSR roadmap, determine key metrics for the success of the CSR program, build stakeholder awareness of CSR and drive our related disclosure efforts, as well as oversee special projects. The Committee meets four times per year and the General Counsel provides quarterly updates to the Governance and Nominating Committee.

The Committee is kept informed about CSR issues, including those related to climate, through various channels including Synopsys' membership of trade associations and various industry groups, including the Sustainability Roundtable, the Responsible Business Alliance and ITI. The committee regularly features discussions on climate-related progress.

We also retain the expertise of specialist sustainability consulting firms and maintain subscriptions to regulatory databases that help us to keep up to date with CSR-related risks and opportunities relevant to our business.

C1.3

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

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

C1.3a

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

Entitled to incentive	Type of incentive	Activity inventivized	Comment
All employees	Non-monetary reward	Other (please specify) (Matching gift program: Charitable financial donations and/or volunteer time with NGOs related to environmental causes)	In CY2020, The Synopsys Foundation donated $13,261 USD to 38 organizations whose primary purpose is to preserve, protect, and improve the environment. The Foundation's matching gift donations increased 138% in this category from CY2019.
Other, please specify (North America Employees)	Non-monetary reward	Emissions reduction project Behavior change related indicator	The Synopsys Transportation and Ridesharing (STAR) program is a valuable resource for all North America employees who commute and want to find alternatives to driving solo to work each day. STAR offers several services, including the Commuter Spending Account (CSA) program, to help facilitate environmentally friendly, cost-effective ways to get to work. The Commuter Spending Account (CSA) lets employees set aside pretax money from their paycheck to pay for qualified transportation expenses incurred while traveling to and from work. In 2020, participation in this program was quite low due to COVID-19, however the program continued to run throughout the year.
Other, please specify (North America Employees)	Non-monetary reward	Emissions reduction project Behavior change related indicator	The Bay Area Scoop Carpooling Program is a valuable resource for all San Francisco Bay Area employees who commute and want to find alternatives to driving solo to work each day. In 2020, the program continued with a few adjustments to ensure safety during COVID-19. The program shifted to allow a maximum of 2 people in a shared ride. The program also covered the cost of rides for workers unable to find local drivers and will continue to do so for the foreseeable future.

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?

No

C2.1a

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

	From (years)	To (years)	Comment
Short-term	0	2	
Medium-term	2	5	
Long-term	5	0	

C2.1b

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

We have not yet defined substantive financial or strategic impact on our business as it relates to climate change specifically. This will be defined as part of the climate risk assessment we will complete over the next year. Climate risks will be reviewed and rated as part of the annual company-wide prioritization of risks faced by our business. This prioritization process informs our understanding of which risks present the most substantive financial or strategic implications for Synopsys.

C2.2g

(C2.2g) Why does your organization not have a process in place for identifying, assessing, and responding to climate-related risks and opportunities, and do you plan to introduce such a process in the future?

	Primary reason	Please explain
Row 1	We are planning to introduce a climate-related risk management process in the next two years	As we make progress towards formalizing our CSR program, we are examining the relative significance of CSR issues including climate-related risks and opportunities for our business and stakeholders. In 2018, we completed a CSR materiality analysis (refreshed in 2020) to inform our priorities. Through this process we determined that climate change and GHG emissions are of moderate-high concern to our stakeholders. As part of our business continuity program, we conduct risk and vulnerability assessments for our locations. We focus our attention on our business-critical sites and will scale to all other locations as our program matures. The assessments consider a range of risk factors including natural disasters, climate-driven events, man-made threats, utility reliability and technological vulnerability. In the next year, we intend to add climate related risks to our annual company-wide prioritization of risks faced by our business, the results of which are reported to the Board. This process will include a climate risk screening review project facilitated by an external advisor. This project will engage a cross functional internal stakeholder group in reviewing a broad range of physical and transitional climate risks to determine those of greatest potential relevance to Synopsys, given our business activities and geographical profile. This in turn will inform the need for and planning of a more detailed assessment (e.g., scenario analysis) of specific risk types.

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	Evaluation in process	Our business may face risks related to climate change including i) business continuity risks due to physical changes such as increased frequency and severity of severe weather events, flooding and wildfire ii) stakeholder pressure related to corporate climate engagement and iii) potential for regulations as well as increased energy costs due to carbon pricing. As we build out our CSR program, we are evaluating the relevance and significance of climate change to our business and whether any related risks would be considered 'substantive' for Synopsys. Within the next year, we intend to add climate related risks in our annual company-wide prioritization of risks faced by our business, the results of which are reported to the Board. This process will include a climate risk screening review project facilitated by an external advisor. This project will engage a cross functional internal stakeholder group in reviewing a broad range of physical and transitional climate risks to determine those of greatest potential relevance to Synopsys, given our business activities and geographical profile. This in turn will inform the need for and planning of a more detailed assessment (e.g., scenario analysis) of specific risk types.

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

Identifier
Opp1

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Energy source

Primary climate-related opportunity driver
Use of lower-emission sources of energy

Primary potential financial impact
Returns on investment in low-emission technology

Company-specific description
With emerging policies aimed at placing a price on fossil fuels and incentivizing the expansion of clean and renewable forms of energy, we anticipate that the cost of carbon-intensive forms of energy will continue to increase relative to lower emissions energy sources. As a key component of our ongoing carbon neutral commitment, Synopsys has publicly announced a goal to reduce our scope 1 and 2 emissions by 25% between 2018 and 2024. As a technology company, almost 90% of our scope 1 and 2 emissions results from the electricity that we use in our global offices and data centers. The US and India are particular regions of focus. We are working to identify and implement projects that will reduce our energy consumption and increase our use of clean and renewable forms of energy. Policies that place a carbon price on fossil fuels and/or directly incentivize energy efficiency and clean and renewable energy generation assist us to build the financial case for investing in projects to deliver our GHG emissions reduction goal. We expect that as we make our business more energy efficient and invest in clean sources of energy which have reached or are forecasted to reach price parity or better with more carbon intensive power sources, we will see our operating costs reduce. This will be driven both by a reduction in the direct cost of the energy we purchase to run our business as well as a reduction in the volume of carbon credits we must purchase to deliver our carbon neutral commitment.

Time horizon
Medium-term

Likelihood
Very likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
700000

Potential financial impact figure – maximum (currency)
1400000

Explanation of financial impact figure
The range reflects analysis completed by our Finance group to estimate the net present value (NPV) that could result from our participation in a 12-year virtual power purchase agreement for US generated wind energy. The lower end of the NPV range is based on the historical market price (at a 90% confidence rate) while the upper end of the NPV range is based on a forecasted market price over a 12- year term.

Cost to realize opportunity
190000

Strategy to realize opportunity and explanation of cost calculation
In 2020 we announced that Synopsys was a CarbonNeutral® certified company for the second consecutive year. Through our carbon neutrality commitment to offset our emissions through the purchase of renewable energy certificates and carbon offsets, we have placed an internal price on carbon. This serves to increase the cost of electricity we use that is not sourced from renewable energy and creates an internal incentive to invest in lowering our energy consumption and switching to renewable energy. We take this internal price, as well as forecasted power prices into account as we evaluate renewable electricity contracts. Case Study: In working to develop our reduction goal, we forecasted business as usual emissions and identified reductions needed in key regions such as the US and India to deliver a meaningful, science-based reduction in emissions in the face of continuing business growth. Having identified the US as a key region, our Facilities group partnered with three other companies, MilliporeSigma, Akamai and Uber in 2020 to leverage our collective buying power through an aggregated virtual power purchase agreement (vPPA). Facilitated by Sustainability Roundtable, and together with our partners, we will serve as an anchor tenant for the AzureSky wind project, purchasing 430,000 MWh each year, equivalent to the electricity used by approximately 40,000 average US homes annually. Azure Sky is the first large-scale project to combine wind and battery storage for Enel Green Power globally and is expected to begin in the first-half of 2022. Our Finance team was closely involved in evaluating the deal for Synopsys and calculated a favorable NPV over the lifetime of the agreement. This agreement will not only help us to deliver our 25% reduction target, it also provides long term price certainty, reduces the cost of our ongoing carbon neutrality commitment and helps to hedge against future rising costs of grid electricity. The annual costs of $190,000 reported to realize this opportunity include purchasing renewable energy certificates for our North America operations as part of our carbon neutrality commitment (approximately $100,000). The costs also include external expertise, including consulting services and memberships (approximately $90,000). As we make progress towards making our business more energy efficient and transitioning to clean and renewable forms of power, we expect the annual costs to purchase renewable energy certificates to reduce.

Comment

Identifier
Opp2

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
The tech industry has tremendous potential to minimize energy consumption through the design and integration of more energy-efficient silicon chips. The future of smart devices depends on silicon chips running faster, scaling down to fit into smaller devices, integrating more capabilities, and processing massive amounts of data—all while consuming less power. Synopsys has more than 25 years of low-power design and verification technology leadership and has contributed extensive technical input to industry groups advancing standards on this topic. Our advanced silicon chip design technologies directly enable our customers to optimize power consumption—for example, by extending battery life or reducing heat generated or adding cooling structures—as they develop their next generation products. We have received several accolades and industry awards for our product innovations that optimize power efficiency. For example, we received a 2018 World Electronic Achievement Award (WEAA) for our Artificial Intelligence (AI) Solution. WEAA honors companies and individuals who have made outstanding contributions to the innovation and the development of electronics industry worldwide. Our AI solution comprises several proven products and technologies and the combination of these products has enabled several AI SoC companies to achieve maximum efficiency for chip architecture and software performance. These recognitions and our involvement in standards development in collaboration with industry groups such as Acellera and IEEE, provide external validation of our power efficiency credentials and help to build our reputation for leadership on this topic in the marketplace.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium

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
We do not currently have a financial impact figure to report.

Cost to realize opportunity
0

Strategy to realize opportunity and explanation of cost calculation
Our strategies to realize this opportunity include direct investment in research and development of high-efficiency products, internal collaboration among individuals and groups working on our high-efficiency products, participation in industry partnerships and external collaborations, contributing to technical standards on power efficiency through industry trade associations, and publishing technical as well as non-technical communications about our work in this area. Case study: With the establishment in 2020 of a cross-functional Low Power Task Force, we are driving a software-led Low Power Platform built on Synopsys products and solutions to enable an additional 25% power reduction for system on a chip (SoCs) over the solutions and flows currently used by our customers. The goal of the Low Power Platform is to equip the semiconductor and the broader electronics industry with the capability to not only build better, faster, and more innovative products, but to do so more sustainably. As an example of our investments in new high-efficiency products, in 2020 we launched a new product called RTL Architect, which enables designers to do a Power-Performance-Area (PPA) much earlier in the design cycle (at the design creation stage). This was a significant investment in new technology and is now an integral component of the Synopsys end to end Low Power platform. With electronics playing a larger part of energy consumption, our leadership in low power technology plays a meaningful role in enabling our customers to innovate mobile and IoT solutions that are less energy and carbon intensive. Through our Low Power platform, we are uniquely positioned to deliver energy savings in chip designs that translate to significant reductions in total energy consumption for our customers and positively differentiate us in the industry. Our investments in high-efficiency products are integral to our research and development costs. We invest approximately 35% ($1.29 billion in the most recent year) of annual revenue into R&D. We have reported a value of $0 because to date we have not incurred additional costs to realize this opportunity that can be separately tracked and reported.

Comment

Identifier
Opp3

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Markets

Primary climate-related opportunity driver
Other, please specify (Increased stakeholder trust)

Primary potential financial impact
Other, please specify (Improved shareholder value)

Company-specific description
We see opportunities to further enhance our relationships with customers, investors and employees as societal concern and awareness about global climate change intensifies. These stakeholder groups are critical to our business success, and they are showing increased interest in our climate-related commitments and performance. We will further strengthen customer relationships if we demonstrate to our customers an alignment on environmental sustainability and if we reduce our carbon footprint to help deliver on customer supply chain emissions reduction targets. Our customers who have communicated requirements related to our climate commitments and disclosure represent 14.9% of our annual revenue. This percentage has grown, and continues to grow, over time. We regularly receive climate-related inquiries and expectations from additional customers. The investor community has substantially increased its focus on the environmental, social and governance (ESG) performance of investee companies in the last year. We are seeing clear evidence that investors increasingly understand the financial risks and opportunities their investee companies

potentially face because of climate change. Per Synopsys' 2020 Proxy Statement, BlackRock is one of our institutional investors. Climate change is a key theme in the 2020 and 2021 BlackRock CEO letters to investee companies. In this letter, the BlackRock CEO signaled strongly an increased expectation for climate action among investee companies. There is growing evidence that the social and environmental credentials of employers are an important factor in talent recruitment and retention. For example, a 2020 survey by Anthesis found that over half (53%) of the UK's workforce say sustainability is an important factor in choosing a company to work for. The figure rises to 67% for 16-24 year-olds. Within Synopsys, we have observed increased interest in environmental sustainability among our employees, as evidenced by participation in our employee-led Green Teams which we established in 2019. We expect that strengthening our customer relationships, demonstrating to our investors that we are managing climate-related risks and opportunities, and engaging our employees positively in our environmental sustainability program will all serve to strengthen our stakeholder relationships, enhance our reputation, and contribute to our financial success.

Time horizon
Short-term

Likelihood
Very likely

Magnitude of impact
Medium

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
We do not currently have a financial impact figure to report.

Cost to realize opportunity
590000

Strategy to realize opportunity and explanation of cost calculation
Our primary strategies for realizing this opportunity are to measure our climate impacts, take responsibility for reducing them through our carbon neutrality commitment and science-based target and to communicate and engage with our external stakeholders and our employees. We disclosed our emissions in our first CSR Report, published in early 2020. We have recently published our second CSR Report which describes our climate impact emissions, reduction initiatives and employee engagement activities. Our commitment to reducing our climate impacts starts at the top of our company. Our sustainability program has direct sponsorship and participation from the Synopsys co-founder, chairman and co-CEO. A senior- level CSR Leadership Committee, chaired by our Deputy General Counsel, provides oversight to our program and reports out to the Nominating and Corporate Governance Committee on a quarterly basis. We are proactively communicating our commitments and progress to interested customers, investors and other stakeholders through one-to-one communications, press releases, and website communications. We are increasing internal communications about our climate action. In 2020, we provided several educational sessions for our employees on climate change and our response to it. These included a deep dive into our emissions footprint, carbon neutrality commitment and science-based target which we initially provided to our global Green Team members then repeated for all interested employees on Earth Day. We also provided an educational session on Life Cycle Analysis to our Green Teams, and another session on our Low Power platform to all employees. Through these engagement activities we aim to raise employee awareness and satisfaction about the actions we are taking, and we hope to inspire our employees to advance sustainability in the office and at home. The reported annual costs of $590,000 to realize this opportunity comprise the approximate costs of our carbon neutrality initiative, specifically the costs to purchase renewable energy certificates and carbon offsets (approximately $500,000), as well as external consulting services to support our CSR program (approximately $90,000).

Comment

C3. Business Strategy

C3.1

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

C3.1b

(C3.1b) Does your organization intend to publish a low-carbon transition plan in the next two years?

	Intention to publish a low-carbon transition plan	Intention to include the transition plan as a scheduled resolution item at Annual General Meetings (AGMs)	Comment
Row 1	No, we do not intend to publish a low-carbon transition plan in the next two years	<Not Applicable>	We are currently at the stage of understanding what a net zero commitment might involve for Synopsys.

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?
No, but we anticipate using qualitative and/or quantitative analysis in the next two years

C3.2b

(C3.2b) Why does your organization not use climate-related scenario analysis to inform its strategy?

We have not yet performed scenario analysis. We are initially focusing on quantifying our full scope 1, 2 and 3 GHG emissions footprint to better understand our emissions profile, which in turn will inform scenario analysis. Additionally, climate scenario analysis is a relatively new concept for companies in our sector. We have made an internal commitment to incorporate climate risk to our company wide risk assessment process and as part of this commitment will consider how best to conduct scenario analysis.

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	How strategy has been influenced: Designing products for low power and energy consumption optimization have long been strategic priorities for Synopsys. More recently strong semiconductor market drivers like autonomous driving and the adoption of artificial intelligence (AI) are driving global demand for larger, faster, and more energy-efficient system-on-chips (SoCs). Factors such as increased customer concern about climate change serve to intensify the focus on energy efficiency and power performance. This creates opportunities for us to build our reputation for leadership on this topic in the marketplace and drive increased demand for our products and services. Significant decision: In 2020 we took the decision to form an internal, cross functional Low Power Taskforce to explore and recommend areas of sustainable differentiation through low power solutions. With executive level oversight from our co-CEO and COO, the Taskforce collaborates to coordinate and direct our investment in low power products and services. Key goals are to enable >25% reduction in power for silicon on chip over existing solutions used by our customers, to create an overall Synopsys positioning and vision for market leadership in low power, and identify high value opportunities for sustainable differentiation by leveraging synergies between Synopsys tools and IP portfolio. Our strategy is influenced over the short, medium and long term.
Supply chain and/or value chain	Yes	How strategy has been influenced. As a technology company, we recognize that the majority of our total GHG emissions arise beyond our direct operations. Recognizing the magnitude of emissions arising in our supply chain, we decided to start engaging with our suppliers on their GHG emissions as part of our new vendor onboarding process. Significant Decision In 2020 we joined the Renewable Energy Buyers Alliance (REBA), with the goal of collaborating with our suppliers and customers on climate action strategies. We are participating in REBA workstreams focused on how to effectively engage with data center and real estate vendors on renewable energy adoption and other climate action strategies. Through this involvement, we have recently signed on to the REBA Commercial Real Estate Principles. The Principles were developed by members of the REBA Future of Real Estate Power (FoREP) program which is part of REBA's Supply Chain and International Collaboration initiative. The FoREP program develops resources and is a community of practice to help landlords and tenants address the challenges of renewable energy procurement and energy management in commercial real estate. The Commercial Real Estate Principles are a set of statements intended to guide and encourage landlord-tenant collaboration to accelerate renewable energy procurement, energy efficiency, and data sharing in commercial real estate. In becoming a signatory to the Principles we aim to signal to our real estate providers our commitment to reducing the climate impacts of our leased offices and will use the Principles to guide our decision making regarding real estate as well as our engagement with landlords and other vendors. Our strategy is influenced over the short, medium and long term.
Investment in R&D	Yes	How strategy has been influenced: Designing products for low power and energy consumption optimization have long been strategic priorities for Synopsys' investment in research and development. These R&D investments mean that our highly efficient products help our customers to avoid emissions that would result from less efficient products. This is one of several factors that influenced our decision to establish an internal cross-functional taskforce focused on low power design. Significant Decision In 2020, we invested in new low power products and services, in support of our goal to enable >25% reduction in power for silicon on chip compared to existing solutions used by our customers. We developed and launched a new product called RTL Architect, which enables designers to do a Power-Performance-Area (PPA) much earlier in the design cycle (at the design creation stage). This was a significant investment in new technology and is now an integral component of the Synopsys end to end Low Power platform. With electronics playing a larger part of energy consumption, our leadership in low power technology plays a meaningful role in enabling our customers to innovate mobile and IoT solutions that are less energy and carbon intensive. Through our Low Power platform, we are uniquely positioned to deliver energy savings in chip designs that translate to significant reductions in total energy consumption for our customers and positively differentiate us in the industry. Our strategy is influenced over the short, medium and long term.
Operations	Yes	How strategy has been influenced: Climate-related risks and opportunities have influenced our operational strategies for our offices and data centers. These are the drivers of our scope 1 and 2 emissions and where we have the most direct control and opportunity to deliver emissions reductions. Our strategies have been influenced in several ways, including the incorporation of sustainability features to the design of new buildings, investment in energy efficiency projects at our offices and evaluation of renewable electricity purchasing opportunities. Significant Decision We actively seek U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) certifications for our office buildings and currently have nine certified sites in five countries, including two LEED Platinum certified sites in India. We took the decision to seek LEED Gold certification for our three newest buildings at our Northern California headquarters and achieved this certification in April 2021. We project that these buildings will use 20% less energy than comparable buildings due to the incorporation of energy efficiency features. Our strategy is influenced over the short, medium and long term.

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	Indirect costs	In 2019 and 2020 we committed to and achieved CarbonNeutral® certification for our operations. This commitment results in annual indirect costs to purchase renewable energy certificates and carbon offsets to compensate for our emissions. This has added cost to our business in the short term and these costs are incorporated into our annual financial planning process. In 2020 we committed to participate in a virtual Power Purchase Agreement for renewable energy in the U.S. This commitment involved substantial financial analysis to understand the potential net present value of the project. Indirect costs and savings associated with the project are factored into our short, medium and long term financial planning process.

C3.4a

(C3.4a) 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?
Absolute target

C4.1a

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

Target reference number
Abs 1

Year target was set
2019

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 1+2 (market-based)

Base year
2018

Covered emissions in base year (metric tons CO2e)
33482.89

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

Target year
2024

Targeted reduction from base year (%)
25

Covered emissions in target year (metric tons CO2e) [auto-calculated]
25112.1675

Covered emissions in reporting year (metric tons CO2e)
24993.38

% of target achieved [auto-calculated]
101.419083000303

Target status in reporting year
Underway

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

Target ambition
1.5°C aligned

Please explain (including target coverage)
In 2019, a cross functional taskforce was convened to develop a new GHG reduction goal for Synopsys. This new goal has been publicly announced and targets a 25% reduction in total scope 1 and 2 emissions between 2018 and 2024. In developing this goal, we referred to guidance from the Science Based Targets Initiative. Our goal targets a 4.2% reduction on average per year over the goal period and is aligned with a 1.5 degree Celsius warming pathway. Synopsys has taken the decision not to count the renewable energy certificates purchased as part of its carbon neutrality commitment towards this goal in order to focus our emissions reduction investments on energy efficiency projects and initiatives that we feel confident are helping to bring new renewable power onto the electricity grid, with virtual power purchase agreements being an example. We experienced a significant reduction in our energy consumption in 2020 due to office closures driven by the COVID19 pandemic.

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.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	1	9460
Implementation commenced*	0	0
Implemented*	4	1206
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	Other, please specify (LEED Gold Certification)

Estimated annual CO2e savings (metric tonnes CO2e)
910

Scope(s)
Scope 1
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
490000

Investment required (unit currency – as specified in C0.4)
15000000

Payback period
>25 years

Estimated lifetime of the initiative
21-30 years

Comment
LEED Gold Certification of three buildings at our Sunnyvale, California headquarters. These buildings are expected to deliver 20% energy savings compared with buildings of standard construction.

Initiative category & Initiative type

Energy efficiency in buildings	Other, please specify (LEED Gold Certification)

Estimated annual CO2e savings (metric tonnes CO2e)
116

Scope(s)
Scope 1
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
22000

Investment required (unit currency – as specified in C0.4)
442000

Payback period
16-20 years

Estimated lifetime of the initiative
21-30 years

Comment
LEED Gold design for commercial interiors (Interior design and construction) at new office building and data center in Wuhan, China. Effective use of LEED building practices during design, efficient equipment selection, and industry efficient building materials.

Initiative category & Initiative type

Energy efficiency in buildings	Lighting

Estimated annual CO2e savings (metric tonnes CO2e)
169

Scope(s)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
27000

Investment required (unit currency – as specified in C0.4)
72200

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment
LED Lighting upgrade projects at our India offices.

Initiative category & Initiative type

Energy efficiency in buildings	Other, please specify (Equipment Upgrades)

Estimated annual CO2e savings (metric tonnes CO2e)
11

Scope(s)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
2733

Investment required (unit currency – as specified in C0.4)
65000

Payback period
21-25 years

Estimated lifetime of the initiative
21-30 years

Comment
Replaced older 24/7 cooling units with new energy efficiency models at our Hillsboro, Oregon office.

C4.3c

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

Method	Comment
Compliance with regulatory requirements/standards	We evaluate all projects first against regulatory requirements, then against best practice and optimization initiatives that have financial feasibility.
Financial optimization calculations	We evaluate all projects first against regulatory requirements, then against best practice and optimization initiatives that have financial feasibility.

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
The tech industry has tremendous potential to minimize energy consumption through the design and integration of more energy-efficient silicon chips. The future of smart devices depends on silicon chips running faster, scaling down to fit into smaller devices, integrating more capabilities, and processing massive amounts of data—all while consuming less power. Synopsys has more than 25 years of low-power design and verification technology leadership and has contributed extensive technical input to industry groups advancing standards on this topic. Our advanced silicon chip design technologies directly enable our customers to optimize power consumption—for example, by extending battery life or reducing heat generated or adding cooling structures—as they develop their next generation products. With the establishment in 2020 of a cross-functional Low Power Task Force, we are driving a software-led Low Power Platform built on Synopsys products and solutions to enable an additional 25% power reduction for system on a chip (SoCs) over the solutions and flows currently used by our customers. The goal of the Low Power Platform is to equip the semiconductor and the broader electronics industry with the capability to not only build better, faster, and more innovative products, but to do so more sustainably. As an example of our investments in new high-efficiency products, in 2020 we launched a new product called RTL Architect, which enables designers to do a Power-Performance-Area (PPA) much earlier in the design cycle (at the design creation stage). This was a significant investment in new technology and is now an integral component of the Synopsys end to end Low Power platform. With electronics playing a larger part of energy consumption, our leadership in low power technology plays a meaningful role in enabling our customers to innovate mobile and IoT solutions that are less energy and carbon intensive. Through our Low Power platform, we are uniquely positioned to deliver energy savings in chip designs that translate to significant reductions in total energy consumption for our customers and positively differentiate us in the industry.

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 (Evaluating the carbon-reducing impacts of ICT)

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

% of total portfolio value
<Not Applicable>

Asset classes/ product types
<Not Applicable>

Comment

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)
4665.5

Comment

Scope 2 (location-based)

Base year start
January 1 2018

Base year end
December 31 2018

Base year emissions (metric tons CO2e)
36561.78

Comment

Scope 2 (market-based)

Base year start
January 1 2018

Base year end
December 31 2018

Base year emissions (metric tons CO2e)
28817.38

Comment

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

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)
2749.22

Start date
<Not Applicable>

End date
<Not Applicable>

Comment

C6.2

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

Row 1

Scope 2, location-based
We are reporting a Scope 2, location-based figure

Scope 2, market-based
We are reporting a Scope 2, market-based figure

Comment

C6.3

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

Reporting year

Scope 2, location-based
29865.34

Scope 2, market-based (if applicable)
22244.15

Start date
<Not Applicable>

End date
<Not Applicable>

Comment

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

Evaluation status
Relevant, calculated

Metric tonnes CO2e
88241.71

Emissions calculation methodology
Emissions associated with Synopsys' purchased goods and services were estimated by multiplying category spend by the supply chain emission factors developed and published by the EPA in 2020. These emission factors cover all categories of goods and services in the US economy, and are intended for quantifying emissions from purchased goods and services using the spend-based method defined in the GHG Protocol Scope 3 guidance. These factors are calculated from USEEIO models at two levels of commodity/industry categorization of economic data ($ output) - detail and summary - for industries and commodities. (https://cfpub.epa.gov/si/si_public_record_Report.cfm?dirEntryId=349324&Lab=CESER) A spend category is mapped to a commodity factor if the goods or services purchased can be clearly distinguished. If the exact commodity factor cannot be determined, the emission factor based on the suppliers' industry is applied. These emission factors are adjusted for inflation.

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

Please explain

Capital goods

Evaluation status
Relevant, calculated

Metric tonnes CO2e
32095.97

Emissions calculation methodology
Emissions associated with capital goods acquired by Synopsys were estimated by multiplying category spend by the supply chain emission factors developed and published by the EPA in 2020. These emission factors cover all categories of goods and services in the US economy, and are intended for quantifying emissions from purchased goods and services using the spend-based method defined in the GHG Protocol Scope 3 guidance. These factors are calculated from USEEIO models at two levels of commodity/industry categorization of economic data ($ output) - detail and summary - for industries and commodities. (https://cfpub.epa.gov/si/si_public_record_Report.cfm?dirEntryId=349324&Lab=CESER) A spend category is mapped to a commodity factor if the goods or services purchased can be clearly distinguished. If the exact commodity factor cannot be determined, the emission factor based on the suppliers' industry is applied. These emission factors are adjusted for inflation.

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

Please explain

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

Evaluation status
Relevant, calculated

Metric tonnes CO2e
3198.97

Emissions calculation methodology
Emissions were calculated for fuel-and-energy-related activities (not included in Scope 1 or 2) by totaling activity data for each Scope 1 fuel type and electricity consumption by country. These totals were multiplied by their relevant specific emission factors from UK Defra / DECC 2020 Conversion Factors for Company Reporting.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain

Upstream transportation and distribution

Evaluation status
Relevant, calculated

Metric tonnes CO2e
557.23

Emissions calculation methodology
Transportation emissions for Synopsys products are calculated based on both air and truck transit. Data is sourced from vendor reports for both the US and International transport. Both the freight weight and freight distance were calculated and multiplied by the applicable emissions factors.

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

Please explain
Transportation of products from the contract manufacturer to distributors and customers.

Waste generated in operations

Evaluation status
Relevant, calculated

Metric tonnes CO2e
143.68

Emissions calculation methodology
The amount of waste is estimated using assumptions developed in relation to amount of waste generated per employee per day, number of working days per year and waste treatment/disposal methods. The GHG Protocol's scope 3 guidance was followed with use of emission factors from the UK Government GHG Conversion Factors for Company Reporting. For landfill, the factors include collection, transportation and landfill emissions ('gate to grave'). For combustion and recycling, the factors consider transport to an energy recovery or materials reclamation facility only. This is in line with GHG Protocol Guidelines, with subsequent emissions attributed to electricity generation or recycled material production respectively.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Waste generated in our facilities.

Business travel

Evaluation status
Relevant, calculated

Metric tonnes CO2e
6189.85

Emissions calculation methodology
Business travel airmiles by haul is provided by the travel agent, Travel Leaders Corporate. Employee car miles claimed for reimbursement were totaled from the provided mileage report and an average miles per gallon figure of 24.7mpg was applied to obtain total fuel gallons. Figures are multiplied by the relevant emissions factors: EPA factors for vehicle miles and DEFRA factors with Radiative Forcing for air travel miles.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
87.19

Please explain
Business travel, including all transportation by air and global vehicle miles claimed through employee reimbursement.

Employee commuting

Evaluation status
Relevant, calculated

Metric tonnes CO2e
10995.91

Emissions calculation methodology
Employee commute emissions are calculated based on estimated data from our largest sites, including average distance to work, and percent of employees using different transport modes (public rail transport, Synopsys operated vehicles, and motorbikes). The estimates are then extrapolated to all sites worldwide to determine global commute mileage and emissions. Extrapolated vehicle miles are based on a global average commute which is calculated from the average commute miles provided from the sites used in the analysis. The most recent EPA emission factors are used to determine emissions by mode, and then summed for total employee commute emissions. Additional work-from-home emissions are calculated based on the estimated natural gas and electricity consumption of remote workers. Residential natural gas consumption figures are multiplied with the most recent EPA emission factor. Residential electricity consumption figures are multiplied with the residual mix emission factors for US sites and grid-average emission factors for non-US sites.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain

Upstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Upstream leased assets are included in our scope 2 emissions calculations.

Downstream transportation and distribution

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Unable to calculate at this time

Processing of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
We do not sell products that are processed.

Use of sold products

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Unable to calculate at this time

End of life treatment of sold products

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Unable to calculate at this time

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Synopsys does not own assets that are leased to other parties.

Franchises

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Synopsys does not have any franchises.

Investments

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Synopsys does not have any investments.

Other (upstream)

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
No other categories identified.

Other (downstream)

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
No other categories identified.

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
0.0000068

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
24993.38

Metric denominator
unit total revenue

Metric denominator: Unit total
3685281000

Scope 2 figure used
Market-based

% change from previous year
35.67

Direction of change
Decreased

Reason for change
Revenue increased, while emissions decreased. The decrease in emissions was driven by energy efficiency projects (emissions reduction initiatives) and by office closures due to the COVID-19 pandemic.

Intensity figure
0.0082633

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
24993.38

Metric denominator
square foot

Metric denominator: Unit total
3024606.63

Scope 2 figure used
Market-based

% change from previous year
27.69

Direction of change
Decreased

Reason for change
Square footage and emissions decreased. The decrease in emissions was driven by energy efficiency projects (emissions reduction initiatives) and by office closures due to the COVID-19 pandemic.

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	1639.59	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	0.82	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	1.1	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	1107.71	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
United States of America	1155.31
India	397.01
China	106.22
Armenia	106.19
Canada	79.52
Taiwan, Greater China	74.43
United Kingdom of Great Britain and Northern Ireland	60.06
Germany	47.15
France	44.4
Portugal	35.32
Poland	29.32
Israel	26.16
Republic of Korea	17.83
Sri Lanka	17.73
Ireland	17.49
Netherlands	15.75
Finland	15.18
Japan	14.89
Viet Nam	12.47
Sweden	11.78
Russian Federation	11.47
Singapore	10.56
Chile	10.03
Belgium	9.87
Switzerland	8.91
Italy	8.1
Denmark	3.21
Malaysia	2.62
China, Macao Special Administrative Region	2
Romania	1.85
Hungary	0.33
China, Hong Kong Special Administrative Region	0.15
Other, please specify (Vehicles not allocable to a specific country or region)	395.93

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)
Offices	2353.3
Colocated Data Centers	0
Vehicles	395.93

C7.5

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
United States of America	15547.12	9897.71	72662.11	28346.43
India	6436.86	6436.86	8492.5	0
Taiwan, Greater China	1938.02	1938.02	3468.17	0
China	1655.29	1655.29	2688.4	0
Japan	643.53	643.53	1281.78	0
Republic of Korea	381.67	381.67	713.78	0
Germany	2379.03	305.17	6104.2	5603.4
Poland	101.11	121.12	149.35	0
United Kingdom of Great Britain and Northern Ireland	70.12	107.46	309.24	0
Viet Nam	104.45	104.45	229.76	0
Armenia	90.3	90.3	474	0
Israel	70.77	70.77	143.03	0
Canada	58.54	58.54	427.56	0
Portugal	66.51	58.02	226.63	0
China, Macao Special Administrative Region	55.08	55.08	84.57	0
Sri Lanka	52.88	52.88	100.14	0
Netherlands	34.44	47.68	85.88	0
Ireland	30.22	45.87	92.64	0
Finland	12.36	29.69	95.73	0
Singapore	24.37	24.37	62.64	0
Russian Federation	24.16	24.16	67.71	0
Italy	11.42	19.24	41.31	0
Chile	18.18	18.18	45.27	0
Belgium	15.49	13.91	74.1	0
Malaysia	13.14	13.14	19.85	0
Denmark	3.77	10.63	22.84	0
France	13.82	10.19	235.82	0
Sweden	1.73	4.76	94.76	0
Romania	3.42	3.18	10.22	0
Switzerland	6.39	1.16	62.44	0
China, Hong Kong Special Administrative Region	1.14	1.14	1.55	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)
Offices	15035.76	12101.18
Colocated Data Centers	14829.57	10142.98

C7.9

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

Decreased

C7.9a

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

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	1340.03	Decreased	4.06	In 2019, the company purchased 72,641 MWh from utility providers with renewable mixes. The renewable portion is estimated to be 33,499 MWh, with a total emissions reduction of 7,926 tCO2e. In 2020, the company purchased 73,122 MWh was purchased by the company from the same utility providers. The renewable portion is estimated to be 33,950 MWh, with a total emissions savings of 9,266 tCO2e. This constitutes a total reduction of 1,340 tCO2e (9,266 - 7,926) or 4.06% reduction in emissions. The percentage change in emissions are calculated as: (-1,340/33,000 [2019 S12 emissions])*100% = -4.06%
Other emissions reduction activities	603.5	Decreased	1.83	There is a total decrease of 603.50 tCO2e attributed to the emissions reductions activities implemented by the company. This represents a 1.83% reduction in emissions. The percentage change in emissions is calculated as: (-603.50/33,000 [2019 S12 emissions])*100% = -1.83%
Divestment	0	No change	0	No change due to divestments.
Acquisitions	0	No change	0	No change due to acquisitions.
Mergers	0	No change	0	No change due to mergers.
Change in output	6063.1	Decreased	18.37	There is a total decrease of 6,063 tCO2e attributed to the impact of the pandemic which lead to a decreased energy usage in most of the company's facilities. This represents an overall 17.83% reduction in emissions. The percentage change in emissions are calculated as: (-6,063/33,000 [2019 S12 emissions])*100% = -18.37%
Change in methodology	0	No change	0	No change due to methodology.
Change in boundary	0	No change	0	No change due to boundary.
Change in physical operating conditions	0	No change	0	No change due to physical operating.
Unidentified	0	No change	0	None.
Other	0	No change	0	None.

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	8500.84	8500.84
Consumption of purchased or acquired electricity	<Not Applicable>	33949.84	64618.12	98567.96
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>	0	<Not Applicable>	0
Total energy consumption	<Not Applicable>	33949.84	73118.96	107068.79

C8.2b

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

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

C8.2c

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

Fuels (excluding feedstocks)
Diesel

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
53.79

MWh fuel consumed for self-generation of electricity
53.79

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
10.21

Unit
kg CO2e per gallon

Emissions factor source
EPA, "Emission Factors for Greenhouse Gas Inventories", March 26, 2020 (https://www.epa.gov/sites/production/files/2020-04/ghg-emission-factors-hub.xlsx)

Comment

Fuels (excluding feedstocks)
Motor Gasoline

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
1649.42

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
1649.42

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
8.78

Unit
kg CO2e per gallon

Emissions factor source
EPA, "Emission Factors for Greenhouse Gas Inventories", March 26, 2020 (https://www.epa.gov/sites/production/files/2020-04/ghg-emission-factors-hub.xlsx)

Comment

Fuels (excluding feedstocks)
Natural Gas

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
6797.63

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
6797.63

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
53.11

Unit
kg CO2e per million Btu

Emissions factor source
EPA, "Emission Factors for Greenhouse Gas Inventories", March 26, 2020 (https://www.epa.gov/sites/production/files/2020-04/ghg-emission-factors-hub.xlsx)

Comment

C8.2d

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

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	53.79	53.79	0	0
Heat	6797.63	6797.63	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 emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method
Other, please specify (The Munich colocation data center provider provides energy from 100% renewable sources as certified by Mainova AG.)

Low-carbon technology type
Other, please specify (Solar and wind)

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

MWh consumed accounted for at a zero emission factor
5603.4

Comment
The MWHs included are from the colocation data center we utilize in Munich Germany that is operated by our vendor on 100% renewable energy.

Sourcing method
Standard product offering by an energy supplier supported by energy attribute certificates

Low-carbon technology type
Low-carbon energy mix

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

MWh consumed accounted for at a zero emission factor
28346.43

Comment
Renewable energy MWHs associated with Silicon Valley Clean Power (50% renewable) and Silicon Valley Power (39.3% renewable)

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
Synopsys CY20 Assurance Statement.pdf

Page/ section reference
Page 2

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
Synopsys CY20 Assurance Statement.pdf

Page/ section reference
Page 2

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
Synopsys CY20 Assurance Statement.pdf

Page/ section reference
Page 2

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: Business travel

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
Synopsys CY20 Assurance Statement.pdf

Page/section reference
Page 2

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	Energy consumption	ISO 14064 - Part 32	Total MWhs from purchased electricity is included in the scope of 3rd party assurance

Synopsys CY20 Assurance Statement.pdf

C11. Carbon pricing

C11.1

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

C11.2

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

C11.2a

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

Credit origination or credit purchase
Credit purchase

Project type
Other, please specify (Bioenergy)

Project identification
This Gold Standard CDM project distributes small-scale biogas plants to low-income rural households with livestock across the Sichuan Province of China. To support rural development and environmental protection, the biogas plants digest manure and recover the methane by-product through the process of anaerobic digestion. This offers clean and affordable energy to homes and fertilizer for agriculture. In addition to reducing greenhouse gas (GHG) emissions, the project improves indoor air quality and sanitation for rural communities. Carbon finance is used to provide financial support, totaling roughly 40% of the cost of the 395,000 biodigesters already distributed.

Verified to which standard
Gold Standard

Number of credits (metric tonnes CO2e)
12240

Number of credits (metric tonnes CO2e): Risk adjusted volume
12240

Credits cancelled
Yes

Purpose, e.g. compliance
Voluntary Offsetting

Credit origination or credit purchase
Credit purchase

Project type
Solar

Project identification
In India, rural, low income populations continue to be underserved by access to renewable energy, despite its growth at the national level. The aim of the SELCO Solar Energy Access project - a joint initiative with SELCO Solar Pvt (SELCO) and Natural Capital Partners – is to enhance energy access, primarily for bottom-of-the-pyramid households, by distributing an array of solar products including solar lighting, solar water heating, and solar PV. With the support of carbon finance, the project aims to empower users by providing a complete solution package; including products, servicing and financing.

Verified to which standard
VCS (Verified Carbon Standard)

Number of credits (metric tonnes CO2e)
12239

Number of credits (metric tonnes CO2e): Risk adjusted volume
12239

Credits cancelled
Yes

Purpose, e.g. compliance
Voluntary Offsetting

C11.3

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

C11.3a

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

Objective for implementing an internal carbon price
Drive low-carbon investment

GHG Scope
Scope 1
Scope 2
Scope 3

Application
Through our commitment to purchase renewable energy certificates and carbon offsets to compensate for our scope 1, scope 2 and selected scope 3 sources (as prescribed by the Carbon Neutral Protocol), we have acted to create a company-wide internal price on carbon.

Actual price(s) used (Currency /metric ton)
10

Variance of price(s) used
The price varies based on the cost to compensate our GHG emissions.

Type of internal carbon price
Implicit price

Impact & implication
The annual cost to deliver our carbon neutrality commitment is being factored into the evaluation of opportunities to procure renewable energy and in so doing is incentivizing and enabling our transition to a lower-carbon business.

C12. Engagement

C12.1

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

C12.1b

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

Type of engagement
Education/information sharing

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

% of customers by number
15

% of customer - related Scope 3 emissions as reported in C6.5
0

Portfolio coverage (total or outstanding)
<Not Applicable>

Please explain the rationale for selecting this group of customers and scope of engagement
We target our engagement with customers who show a direct interest in our climate related programs and commitments. These customers demonstrate their interest in various ways, including through the CDP Supply Chain survey, RFP questionnaires, supplier audits and reviews, and direct communications. We aim to be responsive to all customer inquiries regarding our climate-related programs. We engage with customers by providing information directly, for example in meetings or via email, through participation in the CDP Supply Chain survey and by responding to RFP questionnaires. We also direct customers to published information about our programs on our website, in press releases, and in our CSR Report. We have reported % of customers in revenue terms as we feel this is a more meaningful indicator of the relevancy of these customers to our business than the number of customers.

Impact of engagement, including measures of success
We measure success based on the number and type of positive engagements we have with customers regarding our climate programs. Climate considerations have also been important to our status in certain customers' preferred supplier programs. We have received positive feedback from customers who are themselves leaders on climate action and who have communicated expectations that we develop and deliver on strong climate commitments. This is an important measure of success for us and indicates that our engagement is effective.

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?
Trade associations

C12.3b

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

C12.3c

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

Trade association
The Information Technology Industry Association (ITI)

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
ITI has published a Statement on Climate Change. In this statement, the ITI sets out its position that there is strong scientific evidence that climate change – accelerated by human activity – is occurring, and that the resulting environmental, economic and social challenges warrant coordinated and timely response from governments and the private sector. The statement also states that ITI and its member companies are responding through three strategic commitments: (1) reducing the carbon footprint of our operations; (2) reducing the carbon footprint of our products over their lifecycle; and (3) delivering the ongoing innovations needed to transition the world to a vibrant, sustainable low-carbon global economy. ITI supports these efforts by sharing best practices and by supporting government policies that increase relevant public and private sector collaboration, on the basis that accelerating the transition to a sustainable low-carbon economy will produce multiple benefits for economic growth, public health, resilience to natural disasters, and the health of the global environment.

How have you influenced, or are you attempting to influence their position?
We are not attempting to influence the position of ITI on climate change related matters. However, we are engaging at the committee level on disclosure of climate-related matters.

C12.3f

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

Synopsys' engagement with policy makers via trade associations is overseen by our Corporate Affairs group, the same group that drives corporate climate action. In this way, we are able to ensure consistency between policymaker engagement and company climate strategy.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication
In mainstream reports

Status
Complete

Attach the document
proxy-statement-2021-final (1).pdf

Page/Section reference
Page 1 Page 19 Page 21

Content elements
Governance
Strategy
Emission targets

Comment

Publication
In mainstream reports

Status
Complete

Attach the document
form10k-2020.pdf

Page/Section reference
Page 11-12

Content elements
Strategy
Emission targets
Other, please specify (Low power products)

Comment

Publication
In voluntary communications

Status
Complete

Attach the document
Synopsys-2020-CSR-Report.pdf

Page/Section reference
Page 2 Pages 19-24

Content elements
Governance
Strategy
Emissions figures
Emission targets

Comment

C15. Signoff

C-FI

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

C15.1

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

	Job title	Corresponding job category
Row 1	General Counsel & Corporate Secretary	Other C-Suite Officer

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?

	Annual Revenue
Row 1	

SC0.2

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

SC1.1

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

SC1.2

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

SC1.3

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

Allocation challenges	Please explain what would help you overcome these challenges

SC1.4

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

SC2.1

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

SC2.2

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

SC4.1

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

Submit your response

In which language are you submitting your response?
English

Please confirm how your response should be handled by CDP

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

Please confirm below

I have read and accept the applicable Terms