

Statement of Greenhouse Gas Emissions

For the year ended

October 31, 2022



KPMG LLP Mission Towers I Suite 600 3975 Freedom Circle Santa Clara, CA 95054

## **Independent Accountants' Review Report**

The Board of Directors and Management Synopsys, Inc.:

We have reviewed the accompanying Statement of Greenhouse Gas Emissions and related notes (collectively, the Statement) of Synopsys, Inc. (the Company) for the year ended October 31, 2022. The Company's management is responsible for presenting the Statement in accordance with the World Resource Institute/World Business Council for Sustainable Development (WRI/WBCSD) Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised Edition for Scope 1 and 3, the WRI/WBCSD GHG Protocol Scope 2 Guidance: an amendment to the GHG Protocol Corporate Standard (collectively, the "GHG Protocol"). Our responsibility is to express a conclusion on the Statement based on our review.

Our review was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants in AT-C section 105, Concepts Common to All Attestation Engagements, and AT-C section 210, Review Engagements. Those standards require that we plan and perform our review to obtain limited assurance about whether any material modifications should be made to the Statement in order for it to be in accordance with the criteria. The procedures performed in a review vary in nature and timing from and are substantially less in extent than an examination, the objective of which is to obtain reasonable assurance about whether the Statement is in accordance with the criteria, in all material respects, in order to express an opinion. Accordingly, we do not express such an opinion. Because of the limited nature of the engagement, the level of assurance obtained in a review is substantially lower than the assurance that would have been obtained had an examination been performed. We believe that the review evidence obtained is sufficient and appropriate to provide a reasonable basis for our conclusion.

We are required to be independent and to meet our other ethical responsibilities in accordance with relevant ethical requirements related to the engagement.

The procedures we performed were based on our professional judgement and consisted primarily of inquiries of management to understand the key processes, systems and controls in place over the preparation of carbon emissions information, inquiries of management to gain an understanding of the reporting criteria and calculation methodology for the selected information, evaluation of the Company's application of the stated methodology for measuring greenhouse gas emissions, recalculation of a selection of greenhouse gas emissions, and performance of analytical review procedures comparing greenhouse gas emissions trends.

As described in Note 4, environmental and energy use data included in the Statement are subject to measurement uncertainties resulting from limitations inherent in the nature and methods used for determining such data. The selection of different but acceptable measurement techniques can result in materially different measurements. The precision of different measurement techniques may also vary.

Based on our review, we are not aware of any material modifications that should be made to the Statement for the year ended October 31, 2022, in order for it to be in accordance with the GHG Protocol.



Santa Clara, California July 18, 2023

Greenhouse Gas Emissions by Scope	Metric tonnes CO₂e
Scope 1	5,864
Scope 2: Location-based Method	36,438
Scope 2: Market-based Method	32,272
Total Scope 1 and 2 (Market-Based)	38,136
Scope 3: Category 4 – Upstream Transportation & Distribution	3,302
Scope 3: Category 6 – Business Travel	13,789
Renewable Energy: Total kilowatt hours of Renewable Energy Purchased – Offices and Data Centers	17,269,969

See accompanying notes to the Statement of Greenhouse Gas Emissions. Also, see Note 6 for detail on emissions by type for  $CO_2e$ .

# **Note 1: Description of Business**

Synopsys, Inc. (the Company, we, or our) provides products and services used across the entire silicon to software spectrum, from engineers creating advanced semiconductors to software developers seeking to ensure the security and quality of their code.

We are a global leader in electronic design automation software that engineers use to design and test integrated circuits, also known as chips. We provide software and hardware used to validate the electronic systems that incorporate chips and the software that runs on them. We also provide technical services and support to help our customers develop advanced chips and electronic systems. These products and services are part of our Design Automation segment. We also offer semiconductor intellectual property products, which are pre-designed circuits that engineers use as components of larger chip designs rather than designing those circuits themselves. These products and services are part of our Design IP segment. We are also a leading provider of software tools and services that improve the security, quality, and compliance of software in a wide variety of industries, including electronics, financial services, automotive, medicine, energy, and industrials. These tools and services are part of our Software Integrity segment.

We were incorporated in 1986 in North Carolina and reincorporated in 1987 in Delaware. Our headquarters is in Sunnyvale, California. We have approximately 125 offices worldwide supporting operations in the US as well as 31 other countries. Geographies include North America, Europe, and Asia.

#### Note 2: Basis of Presentation

The Statement of Greenhouse Gas (GHG) Emissions has been prepared covering the period from November 1, 2021 to October 31, 2022.

Scope 1 and Scope 3 GHG emissions information has been prepared in accordance with the World Resources Institute/World Business Council for Sustainable Development (WRI/WBCSD) Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised Edition (the GHG Protocol Corporate Standard). Scope 2 and Renewable Energy GHG emissions information has been prepared in accordance with the WRI/WBCSD GHG Protocol Scope 2 Guidance: An amendment to the GHG Protocol Corporate Standard (collectively, the Greenhouse Gas Protocol).

The Company established the year ending December 31, 2018 as its base year for Scope 1, Scope 2, and Scope 3 (Categories 4 and 6), the first year the Company calculated GHG emissions, using the market-based method for Scope 2 emissions. The Company follows the guidelines in the GHG Protocol Corporate Standard for adjusting the base year GHG inventory. The Company set a 5% cumulative Scope 1, Scope 2, and Scope 3 significance threshold for determining whether to adjust and/or recalculate its base year based on error, omission, methodology change, and structural changes. For the year ended October 31, 2022, there are no significant changes that warrant a baseline recalculation.

# **Note 3: Organizational Boundaries and Operational Boundary**

Under the "operational control approach," organizations must report 100% of the emissions from sources that are under their operational control, including both wholly owned and partially owned sources. The Company is using the "operational control approach" to set organizational boundaries for its GHG inventory and is including all owned and leased facilities under operational control in all domestic and global regions within which the company operates. Consistent with this approach, the Company is responsible for GHG emissions from locations for which it has direct control over operations. The "operational control approach" is the most appropriate organizational boundary because it is most reflective of overall business operations where the Company can influence decisions that affect GHG emissions.

All Scope 1 and 2 and select Scope 3 emissions from the Company's operations globally were included in the inventory. There are no owned or leased facilities excluded from this boundary.

#### **Note 4: Estimation Uncertainties**

Environmental and energy use data included in the Statement of Greenhouse Gas Emissions are subject to measurement uncertainties resulting from limitations inherent in the nature and the methods used for determining such data. The selection of different but acceptable measurement techniques can result in materially different measurements. The precision of different measurement techniques may also vary. Consumption data is based on actual data when available. For Scope 1, 2 and 3, when actual data is unavailable, the Company estimates consumption based on actual annual utilities costs and average consumption of comparable facilities within the Company's direct consumption data.

# Note 5: Calculation methodology

The emission sources, methods, and inputs included within the statement are identified in the tables below. Refer to Note 8 for the sources' emissions factors.

## Scope 1:

Source	Source Method	
Stationary Combustion Emissions factors applied to primary data or average data when primary is unavailable		Metered consumption, fuel expenditure
Mobile Combustion Emissions factors applied to average data		Count of cars, US Department of Transportation average annual miles per vehicle
Fugitive Emissions  Emissions factors applied to average data		Sum of square feet with HVAC systems

# Scope 2:

Source	Method	Inputs
Durchased Electricity	Location-based	Utility and metered consumption, sum of square feet occupied
Purchased Electricity	Market-based	Utility and metered consumption, sum of square feet occupied, power purchase agreements, RECs
Purchased Diesel- Generated Electricity	Emissions factors applied to primary data	Metered consumption

### Scope 3:

Source	Method	Inputs
Business Travel	Activity data, spend-based	Hotel spend, reimbursed spend for miles driven, travel agent air miles by flight type (long, medium, short haul), ride share spend
Product Transport	Activity data, vendor-based, spend-based	Vendor activity reports, logistics spend, vendor emissions reports

## **Note 6: GHG Emissions Reporting**

The GHG Emissions data presented are in metric tonnes of carbon dioxide equivalents ( $CO_2e$ ). Included greenhouse gases are carbon dioxide ( $CO_2$ ), methane ( $CH_4$ ), nitrous oxide ( $N_2O$ ), and hydrofluorocarbons (HFCs). Perfluorocarbons (PFCs), sulfur hexafluoride ( $SF_6$ ), and nitrogen trifluoride ( $NF_3$ ) have been omitted as they are not material sources of greenhouse gases for the Company, nor are they applicable sources to the Company's operations. The Company does not have emissions from a biologically sequestered source.

Global warming potential (GWP) factors were sourced from Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5).

The table below lists out certain emissions data in metrics tonnes of CO<sub>2</sub>e.

In metric tonnes of CO₂e				
CO <sub>2</sub> CH <sub>4</sub> N <sub>2</sub> O HFCs				HFCs
Scope 1	4,488	5	3	1,368
Scope 2 Location-based	36,283	49	106	-

Market-based Scope 2 emissions by gas type is not included in this statement due to a lack of market-based factors. Scope 3 emissions by data type is also not included in this statement as the  $CO_2e$  is calculated either using spend-based emissions factors or  $CO_2e$  information was directly provided by the vendor.

## Scope 1:

Scope 1 GHG emissions represent direct emissions arising from owned, leased or directly controlled stationary sources that use fossil fuels and/or sources that emit fugitive emissions (e.g., refrigerant gases) and direct mobile emissions from leased cars.

### Scope 2:

Scope 2 GHG emissions are from the generation of purchased electricity, heat, steam, and cooling. This includes purchased electricity consumed at all owned and leased Company office sites, colocation data centers (DCs) with operational control and diesel-generated electricity at Company office sites in India requiring back-up power. Market based emissions are calculated using the residual mix method.

#### Scope 3:

#### Excluded Categories

The Company has excluded emissions from Categories 1, 2, 3, 5, 7, 8, 9, 11, 12, 13, and 15 from this statement. The Company is finalizing the process to report certain currently excluded figures for future

reporting periods. Categories 10 and 14 are not applicable to operations and have also been excluded from the inventory.

## Category 4 – Upstream Transportation & Distribution

Calculations for upstream transportation and distribution follow activity-based and spend-based methods of the Greenhouse Gas Protocol. Transportation emissions for products are calculated based on both air and truck transit. Activity data is sourced from the Company's top six transportation vendors. Both the freight weight and freight distances are calculated from all the transport vendor data and then applied to the emissions factors. Transportation and distribution emissions that are not based on vendor data are calculated based on procurement data. Expenditures are classified by type and mapped to the EPA commodity emissions factors. Supplier data accounts for 76% of emissions.

### Category 6 - Business Travel

Calculations for business travel follow the activity-based and spend-based methods of the Greenhouse Gas Protocol. Business travel includes all transportation by air and global vehicle miles claimed through employee reimbursement.

Business travel air miles by haul were provided by the travel agent, Travel Leaders Corporate. Employee car miles claimed for reimbursement are totaled from the provided expensed miles report. Figures are multiplied by the relevant emissions factors including radiative forcing. Travel emissions not based on Travel Leaders Corporate or expensed miles report are calculated based on procurement data. Expenditures are classified by type and mapped to EPA commodity emission factors. Supplier data accounts for 59% of emissions.

### **Note 7: Renewable Energy**

The Company purchases renewable energy globally in areas which the Company has significant presence and which the market conditions present the opportunity. The Company purchases renewable energy in the form of Power Purchase Agreements. The Company does not count the purchase of unbundled renewable energy certificates against the stated emissions data or to support GHG reduction efforts.

All renewable energy contracts meet the Greenhouse Gas Protocol Scope 2 Quality Criteria, and the energy generated is by wind turbine.

#### **Note 8: Emissions Factors**

### Scope 1

<b>Emission Source</b>	Description	Source
Scope 1 Stationary	Natural Gas	EPA, "Emission Factors for Greenhouse Gas Inventories,"
Scope 1 Stationary	Distillate Fuel Oil No. 2 / Diesel Fuel	Table 1 Stationary Combustion Emission Factors, April 1, 2022
Scope 1 Stationary	Fugitive emissions R-410A	Intergovernmental Panel on Climate Change (IPCC), "Climate Change 2013: IPCC Fifth Assessment Report (AR5)." 2013
Scope 1 Mobile	Gasoline CO <sub>2</sub> , N <sub>2</sub> O, CH <sub>4</sub>	UK Government GHG Conversion Factors for Company, Reporting 2021

# Scope 2 - Location-based

Emission Source	Description	Source
Scope 2 Purchased Electricity	Location- based emissions US	EPA eGRID 2020, January 27, 2022
Scope 2 Purchased Electricity	Location- based emissions all other	CO <sub>2</sub> Emissions from Fuel Combustion: International Energy Agency (IEA), "Emissions Factors," 2021 Edition, Year 2019 Data
Scope 2 Purchased Electricity	Diesel-generated electricity at office locations in India requiring back-up power	IEA 2020 - CO <sub>2</sub> emissions per kWh from electricity and heat generation using oil – India

# Scope 2 - Market-based Utility Specific

<b>Emission Source</b>	Description	Source
Scope 2 Purchased	Market-based emissions - HQ:	Silicon Valley Clean Energy, SV Clean Energy Delivers on Bold
Electricity	Silicon Valley Clean Energy	Renewable Energy, Jun 27, 2018
Scope 2 Purchased	Market-based emissions -	Portland General Electric's 2022 Sustainability Report: Key
Electricity	Hillsboro: Portland General	Metrics (pg. 12)
Scope 2 Purchased Electricity	Market-based emissions: Silicon Valley Power	Silicon Valley Power, 2021 Power Content Label. Silicon Valley Joint Venture, News Release, Silicon Valley customers have access to cleaner power than CA or the US Average, July 9, 2019

# Scope 2 - Market-based All Other

<b>Emission Source</b>	Description	Source
Scope 2 Purchased Electricity	Market-based other US	Green-e, "2021 Green-e® Residual Mix Emissions Rates (2019 Data)," April 14, 2021 (2021 Green-e® Residual Mix Emissions Rates (2019 Data)   Green-e)
Scope 2 Purchased Electricity	Market-based other International	AIB, European Residual Mixes 2021 v1.0, May 31, 2021

# **Scope 3 - Business Travel**

<b>Emission Source</b>	Description	Source
Business Travel	Air Travel Miles Actuals provided by Travel Provider	UK Government GHG Conversion Factors for Company, Reporting 2021
Business Travel	Passenger Car Miles	EPA, "Emission Factors for Greenhouse Gas Inventories," Table 10 Scope 3 Category 6: Business Travel and Category 7: Employee Commuting Emission Factors, April 1, 2022
Business Travel	Procurement Spend	Ingwersen, W. AND M. Li. Supply Chain Greenhouse Gas Emission Factors for US Industries and Commodities. U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-20/001, 2022
Business Travel	GWP Factors	Intergovernmental Panel on Climate Change (IPCC), "Climate Change 2013: IPCC Fifth Assessment Report (AR5)." 2013

# **Scope 3 - Product Transport**

<b>Emission Source</b>	Description	Source
Product Transport	Medium- and Heavy-duty Truck	EPA, "Emission Factors for Greenhouse Gas Inventories," Table 8 Scope 3 Category 4: Upstream Transportation and
Product Transport	Aircraft	Distribution and Category 9: Downstream Transportation and Distribution Emission Factors, April 1, 2022
Product Transport	Procurement Spend	Ingwersen, W. AND M. Li. Supply Chain Greenhouse Gas Emission Factors for US Industries and Commodities. U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-20/001, 2022

# **Renewable Energy**

<b>Emission Source</b>	Description	Source
Renewable Energy	Renewable Energy used within the boundary of Scope 2	Greenhouse Gas Protocol Scope 2 Quality Criteria