

## Applied Materials FY2024 Environmental Data Methodology

The tables below describe the methodology employed by Applied Materials to calculate our environmental metrics, including greenhouse gas emissions (GHGs), water, and waste. GHG emissions are calculated following the GHG Protocol, covering all greenhouse gases included in the Kyoto Protocol: CO2, CH4, N2O, HFCs, PFCs, SF6 and NF3.

Applied continues to review its GHG methodology each year to continuously refine the calculations, emission factors, data, estimates and underlying assumptions. Updates to the methodology will be tracked and reported for subsequent years.

## Scope 1, 2, and 3 Greenhouse Gas Emissions

Scope 1 Category	Methodology Description
Scope 1 emissions follow an	operational control boundary across all global sites.
Stationary Combustion	<ul> <li>Natural Gas usage is based on invoices when available. When primary invoice data is limited or unavailable for leased sites, natural gas consumption is estimated using CBECS Natural Gas Intensity factor (cubic feet/square foot) by climate zone for office building type.</li> <li>Other fuel usage for stationary combustion equipment, such as emergency generators, is based on fuel purchase records.</li> <li>Emissions are calculated using factors from U.S. Environmental Protection Agency, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2022.</li> </ul>
Mobile Combustion	<ul> <li>Fuel usage from Applied-owned on-road vehicles such as cars, trucks and buses, and off-road forklifts, is based on fuel purchase records or estimated based on mileage.</li> <li>Emissions are calculated using factors from U.S. Environmental Protection Agency, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2022.</li> </ul>
Process Gases	<ul> <li>Process gas quantity is based on purchase records or engineering estimates.</li> <li>Process Gas GHG emissions are calculated using 2006 IPCC Guidelines for National Greenhouse Gas Inventories. Greenhouse gas (GHG) emissions are calculated following the GHG Protocol, covering all greenhouse gases included in the Kyoto Protocol: CO2, CH4, N2O, Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), SF6, and NF3.</li> <li>The US sites utilize the California Air Resources Board (CARB) Emissions Estimate Calculator for Semiconductor Operations that is based on 2006 IPCC Tier 2b methodology.</li> </ul>



	• Quantity of leaks of refrigerant from industrial chillers and HVAC units are based on service
	vendor reports.
Refrigerants	Emissions are calculated using IPCC Sixth Assessment Report (AR6) GWP values.
	California sites align with CARB Refrigerant Management Program requirements and report on
	leaks from refrigerant systems with more than 50 pounds of a high-GWP refrigerant.

Scope 2	Methodology Description
Scope 2 emissions follow an	operational control boundary across all global sites
Location-Based Emissions	<ul> <li>Electricity consumption is based on invoices. If primary invoice data is limited or unavailable, electricity is estimated using CBECS Electricity Energy Intensity factor by climate zone for office building type.</li> <li>Location-Based Emissions are calculated using Electricity CO2e emission factors from eGRID and IEA.</li> </ul>
Market-Based Emissions	<ul> <li>Electricity consumption is based on invoices. If primary invoice data is limited or unavailable, electricity is estimated using CBECS Electricity Energy Intensity factor by climate zone for office building type.</li> <li>Market-based Emissions are calculated using utility or site-specific electricity CO2e factors (if applicable) otherwise emission factors from eGRID, IEA, and AIB European Residual Mix are used. For VPPAs, the grid factor specific to the VPPA project location is used for market-based accounting.</li> <li>Market-based emissions incorporate any renewable energy that we procure through VPPAs, PPAs, Green Tariff (utility supplier specific emission factors), and unbundled RECs.</li> </ul>



Scope 3 Category	Methodology Description
Category 1: Purchased Goods and Services	Spend-based analysis of total FY24 direct and indirect spend using the 2024 U.S. EPA v1.3 supply chain emission factor dataset by NAICS. Deflators are applied to get equivalent 2024 dollars <sup>1</sup> . EEIO factors incorporate margins which include both direct and indirect emissions associated with production of commodity or industry from cradle to the point of sale. Applied also considered application of our Scope 3 consultant's adjusted spend-based emissions factors, the results of which are shown in the table below in this document. At this time Applied continues to report Scope 3 results using the published U.S. EPA factors.
Category 2: Capital Goods	Spend-based analysis of total FY24 capital spend using 2024 U.S. EPA v1.3 supply chain emission factor dataset by NAICS. Deflators are applied to get equivalent 2024 dollars <sup>1</sup> .
Category 3: Fuel- and Energy- Related Activities	Site-level electricity data was converted using IEA 2022 (2024 edition), EPA e-grid 2023, Statistics Canada, Electric power generation data released in 2025 and Environment and Climate Change Canada, National Inventory Report 1990-2022: Greenhouse Gas Sources and Sinks in Canada (via Ecoinvent 3.11). Site-level fuel consumption by source converted using Ecoinvent 3.11 factors
Category 4: Upstream Transportation and Distribution	Spend-based analysis of total FY24 transportation and distribution spend by mode (air, ocean, ground) using 2024 U.S. EPA v1.3 supply chain emission factor dataset by NAICS. Deflators are applied to get equivalent 2024 dollars <sup>1</sup> .
Category 5: Waste Generated in Operations	Site-level waste data by disposal method was calculated using a combination of 2024 DEFRA factors, EPA WARM V16 and Ecoinvent 3.11.
Category 6: Business Travel	<ul> <li>Emissions from global air, hotel, rail, and majority of car rentals booked through Applied's travel platform are calculated using 3<sup>rd</sup> party, <u>Advito's</u>, detailed analytics methodology</li> <li>Remaining travel-related emissions from sources <i>not</i> booked in Applied's travel platform (e.g., additional car rentals, taxi/ride-share, fuel reimbursement) are calculated using 2024 U.S. EPA v1.3 supply chain emission factor dataset by NAICS. Deflators are applied to get equivalent 2024 dollars<sup>1</sup>.</li> </ul>
Category 7: Employee Commuting	Employee home city and primary office location are used to calculate round-trip commute distances



	<ul> <li>In cases where home or office location is missing, assumptions are set on average commute distance based on location</li> <li>Where available, badge data is used to calculate frequency of commutes to the office         <ul> <li>Where badge data is unavailable assumptions are made on frequency of commutes based on worker type and location</li> </ul> </li> <li>Assumptions are made on the modes of transportation used for commuting by country based on external research on transportation trends by country</li> <li>2024 DEFRA transportation emission factors are used to convert distances traveled by mode of transport to emissions, including WTT and tank-to-wheels (TTW) emissions.</li> <li>Employee home-working emissions are not included</li> </ul>
Category 8: Upstream Leased Assets	<ul> <li>Includes leased vehicles and equipment with total FY24 fuel consumption or mileage using 2024 DEFRA factors. Where fuel consumption or distance is not available, estimates are used based on number and type of vehicles.</li> <li>The calculation includes WTT emissions for vehicles</li> </ul>
Category 9: Downstream Transportation and Distribution	<ul> <li>Estimated using total shipped units for FY24 with an average weight per unit and a breakdown of global receiving regions</li> <li>The average distance per unit was estimated using the most frequent shipping locations</li> <li>The mode of transport breakdown was based on available outbound data</li> <li>Calculated using the relevant 2025 U.S. EPA ton-mile factors</li> </ul>
Category 10: Processing of Sold Products	Not applicable - Applied's products are not processed by customers
Category 11: Use of Sold Products	<ul> <li>Calculated based on FY24 shipped units using the SEMI S23 standard to model Applied semiconductor tools' annual energy consumption across product categories</li> <li>Emissions in this category also include the estimated chemicals and gases used by semiconductor tools as well as the emissions associated with the ancillary equipment required to power the tools (sub-fab).</li> <li>An average 10-year product lifespan is assumed.</li> <li>2024 published country-specific IEA electricity factors are applied based on the country tools were shipped to; IPCC AR6 semiconductor emission factors are used to calculate process gas-related emissions</li> </ul>



	• Calculations do not include emissions from partial or incomplete Semiconductor systems, Applied's Display business (which represent 5% of total net sales in FY24), or from refurbished tools
Category 12: End- of- Life Treatment of Sold Products	<ul> <li>Based on total estimated weight of FY24 shipped units</li> <li>Uses an assumption on primary material composition of products</li> <li>Calculated using relevant 2024 DEFRA and EPA WARM v16 factors</li> </ul>
Category 13: Downstream Leased Assets	<ul> <li>Estimated based on the square footage of leased-out assets by building type, converted using EIA CBECS (2022)</li> <li>Emissions are calculated using 2022 IEA (2024 edition), EPA E-grid 2023 (via Ecoinvent 3.11) and 2024 DEFRA factors</li> <li>Includes WTT and T&amp;D emissions from leased facilities</li> </ul>
Category 14: Franchises	Not applicable – Applied does not have any franchises
Category 15: Investments	<ul> <li>Based on FY24 annual investment value (\$) of holding within investee companies</li> <li>2024 U.S. EPA v1.3 supply chain emission factor dataset by NAICS. Deflators are applied to get equivalent 2024 dollars<sup>1</sup>.</li> <li>The calculation excludes project finance and debt investments; managed investments and client services are not applicable</li> </ul>

<sup>1</sup> The deflator is estimated using the average 2023 annual consumer price index value. At the time of analysis 2024 CPI data was not available so it was assumed that CPI for year 2024 is twice the 2023 average CPI.

## FY24 Scope 3 Spend-Based Categories – Alternate Analysis

In addition to applying the updated 2024 U.S. EPA v1.3 supply chain emission factors to spend-based Scope 3 categories, Applied also conducted an analysis of these categories using our Scope 3 consultant's adjusted factors which are based on the same underlying dataset and model as the EPAs, but modifies the emission factor calculation to improve accuracy. We continue to report using the published EPA v1.3 data set but may consider updating the factors in future years.

Scope 3 Category	2024 U.S. EPA v1.3 result (published in report) MTCO $_2$ e	Consultant-adjusted emission factors MTCO2e
Category 1 – Purchased Goods and Services	1,750,330	769,207
Category 2 – Capital goods	110,376	47,373
Category 4 – Transportation and Distribution	453,540	391,499



Category 6 – Business Travel*	16,530	13,504
Category 15 - Investments	150,202	67,601

\*Only showing the spend-based portion of the business travel emissions, excluding the Advito-calculated emissions which are not spend-based

## Water and Waste

The tables below describe the methodology employed by Applied Materials to estimate water and waste from our direct operations.

Water	Methodology Description
Water Withdrawal	<ul> <li>Total water withdrawal is reported following GRI 303. Total water withdrawal includes water from Third-party, surface water (collected rainwater), and groundwater.</li> <li>Applied Materials tracks the total water withdrawals from Third-Party through invoices received from the city, municipality or utility provider. Water withdrawal from other sources may be tracked using local meters.</li> <li>If primary invoice data is limited or unavailable, water withdrawal is estimated using a m3 per square foot factor based on historical averages of water withdrawal across all our sites by building type.</li> <li>Water Stress Regions are identified using the World Resources Institute (WRI) Aqueduct tool. Water withdrawal in Stressed Areas includes sites located in areas with High or Extremely-High Water stress.</li> </ul>

Waste	Methodology Description
Waste	<ul> <li>Total weight of waste generated (hazardous and non-hazardous), amount diverted from disposal (recycle, reuse, other recovery), and waste directed to disposal (landfill, incineration, other disposal) are reported following GRI 306.</li> <li>Waste quantities and disposal destination are tracked in compliance with local applicable laws and regulations.</li> </ul>