

2025 Operational GHG Emissions and Electric Power Use

	2025	2024
GHG emissions (tCO₂e)		
Scope 1 GHG emissions	91,215ⁱ	100,024ⁱ
Natural gas	47,583	49,354
Propane	12	50
Fuel oil	532	422
Jet fuel	11,189	12,414
Fugitive emissions ⁱⁱⁱ	27,348	33,121
Diesel	2,781	2,384
Fleet	1,567	1,627
Other energy use ^{iv}	203	652
Scope 2 GHG emissions (location-based)	713,931ⁱ	773,852ⁱ
Purchased electricity	710,894	767,046
Purchased steam, district heat and chilled water	3,037	6,806
Scope 1 GHG emissions + Scope 2 GHG emissions (location-based)	805,146ⁱ	873,876
Scope 2 GHG emissions (market-based)	3,037ⁱ	6,806ⁱ
Purchased electricity ^v	-	-
Purchased steam, district heat and chilled water	3,037	6,806
Scope 1 GHG Emissions + Scope 2 GHG emissions (market-based)	94,252ⁱ	106,830ⁱ
<i>Verified Carbon credits^{vi}</i>	380,204 ⁱ	367,311 ⁱ
Electric Power (MWh)		
Electricity production (on-site solar)	68,303	57,420
Purchased electricity	1,942,065 ⁱ	2,041,374 ⁱ
Purchased renewable electricity ⁱⁱ	1,942,065 ⁱ	2,041,374 ⁱ

- i. We engaged an external third-party to perform a limited assurance engagement over these metrics.
- ii. Purchased renewable electricity from unbundled EACs, and contractual instruments which included power purchase agreements, virtual power purchase agreements and renewable electricity supply contracts.
- iii. In 2025, we refined the estimation methodology used for retail location fugitive emissions to better reflect operational characteristics. This methodology enhancement reduced 2025 reported Scope 1 emissions by approximately 6% versus the previous methodology.
- iv. Includes emissions from heavy fuel oils, anthracite coal, biofuels and waste.
- v. Market-based emissions for purchased electricity are reported as zero due to the purchase of renewable electricity through unbundled EACs and contractual instruments, including PPAs, virtual power purchase agreements and renewable electricity supply contracts.
- vi. Carbon credits and the market for them are evolving. Although we endeavor to source high-quality carbon credits verified by independent third parties, the use of carbon credits relies on certain assumptions and is subject to debate among experts.



Report of Independent Accountants

To the Management of JPMorgan Chase & Co.

We have reviewed the accompanying management assertion of JPMorgan Chase & Co. that the greenhouse gas ("GHG") emissions, verified carbon credits, purchased electricity, and purchased renewable electricity metrics ("metrics") for the year ended December 31, 2025 in management's assertion are presented in accordance with the assessment criteria set forth in management's assertion. JPMorgan Chase & Co.'s management is responsible for its assertion and for the selection of the criteria, which management believes provide an objective basis for measuring and reporting on the metrics. Our responsibility is to express a conclusion on management's assertion based on our review.

Our review was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants (AICPA) 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 the review to obtain limited assurance about whether any material modifications should be made to management's assertion in order for it to be fairly stated. 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 management's assertion is fairly stated, 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 firm applies the Statements on Quality Management Standards established by the AICPA.

The procedures we performed were based on our professional judgment. In performing our review, we performed inquiries, read relevant policies to understand terms related to relevant information about the metrics, performed tests of mathematical accuracy of computations on a sample basis, and reviewed supporting documentation in regard to the completeness and accuracy of the data in the metrics on a sample basis.

GHG emissions quantification is subject to significant inherent measurement uncertainty because of such things as GHG emissions factors that are used in mathematical models to calculate GHG emissions, and the inability of these models, due to incomplete scientific knowledge and other factors, to accurately measure under all circumstances the relationship between various inputs and the resultant GHG emissions.

Environmental and energy use data used in GHG emissions calculations are subject to inherent limitations, given the nature and the methods used for measuring such data. The selection by management of different

but acceptable measurement techniques could have resulted in materially different amounts or metrics being reported.

Management establishes the criteria, makes determinations as to the relevancy of information to be included, and makes assumptions that affect reported information related to the purchased electricity metric. The selection by management of different but acceptable measurement techniques could have resulted in materially different metrics being reported.

As discussed in management's assertion, JPMorgan Chase & Co. has estimated purchased electricity consumption for certain buildings and GHG emissions for certain emissions sources for which no primary data is available.

Based on our review, we are not aware of any material modifications that should be made to JPMorgan Chase & Co.'s management assertion in order for it to be fairly stated.

A handwritten signature in black ink that reads "PricewaterhouseCoopers LLP". The signature is written in a cursive, flowing style.

New York, New York

8/7/2026

Management Assertion

Overview

With respect to the greenhouse gas ("GHG") emissions, verified carbon credits, purchased electricity, and purchased renewable electricity metrics ("metrics") presented in the table below for the year ended December 31, 2025, management of JPMorgan Chase & Co. ("JPMorganChase", "the company", "we" or "our") asserts that these metrics are presented in accordance with the assessment criteria set forth below. Management is responsible for the selection of the criteria, which management believes provide an objective basis for measuring and reporting on the metrics, and for the completeness, accuracy, and validity of the metrics.

We use the operational control approach to establish the organizational boundary for our metrics. The boundary includes: company-owned or leased commercial offices, warehouses, residential buildings, ATMs, data centers, disaster recovery centers, non-JPMorganChase facilities, parking, and miscellaneous facility types for which we control the energy usage (collectively, referred to as "buildings"); company-owned or leased vehicles (collectively, referred to as "vehicles"); and company-owned, leased or chartered aircraft (collectively, referred to as "aircraft"). Companies acquired in the reporting year (>50% ownership) are included at the time of acquisition.

Metric	Metric Quantity	Definition of Metric
Scope 1 GHG Emissions ^{1,2,3,4,5}	91,215 mtCO ₂ e	Direct emissions from combustion of fossil fuels and fugitive emissions from refrigerants used in buildings, as well as direct emissions from combustion of fossil fuels from vehicles and aircrafts.
Scope 2 GHG Emissions (Location-Based) ^{1,2,3,4,6}	713,931 mtCO ₂ e	Indirect emissions from purchased electricity used in buildings and electric vehicles, as well as from steam, chilled water cooling, and district heat used in buildings using location-based emission factor(s).
Scope 1 GHG Emissions + Scope 2 GHG Emissions (Location-Based) ^{1,2,3,4,5,6}	805,146 mtCO ₂ e	Sum of Scope 1 GHG Emissions and Scope 2 GHG Emissions (location-based).
Scope 2 GHG Emissions (Market-Based) ^{1,2,3,4,6}	3,037 mtCO ₂ e	Indirect emissions from purchased electricity used in buildings and electric vehicles, as well as from steam, chilled water cooling, and district heat used in buildings using market-based emission factor(s).
Scope 1 GHG Emissions + Scope 2 GHG Emissions (Market-Based) ^{1,2,3,4,5,6}	94,252 mtCO ₂ e	Sum of Scope 1 GHG Emissions and Scope 2 GHG Emissions (market-based).
Verified Carbon Credits ^{1,2,3,4,7}	380,204 mtCO ₂ e	Purchased verified carbon credits from nature-based, hybrid and engineered removal projects which included improved forest management (IFM), afforestation, blue carbon, biochar, and bio-oil sequestration.

Purchased Electricity ^{1,4,8}	1,942,065 MWh	Electricity consumed from purchased electricity used in buildings and electric vehicles.
Purchased Renewable Electricity ^{1,4,8}	1,942,065 MWh	Purchased renewable electricity from unbundled energy attribute certificates ("EACs"), contractual instruments including long-term power purchase agreements ("PPAs"), virtual power purchase agreements ("vPPAs") and renewable energy supply contracts.

Metric Footnotes

1. JPMorganChase considers the principles and guidance of the World Resources Institute (WRI) and the World Business Council for Sustainable Development's (WBCSD) *The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised Edition*; *GHG Protocol Scope 2 Guidance: An amendment to the GHG Protocol Corporate Standard (together, the "GHG Protocol")* to guide the criteria to assess, calculate, and report direct and indirect GHG emissions, purchased electricity, and purchased renewable electricity. JPMorganChase additionally considers the principles and guidance of RE100 to guide the criteria for purchased renewable electricity, and the Integrity Council for the Voluntary Carbon Market's (IC-VCM) *Core Carbon Principles*, and the Voluntary Carbon Market Integrity Initiative (VCMI) to guide the criteria for purchasing EACs and verified carbon credits.
2. GHG emissions quantification is subject to significant inherent measurement uncertainty because of such things as GHG emission factors that are used in mathematical models to calculate GHG emissions, and the inability of these models, due to incomplete scientific knowledge and other factors, to accurately measure under all circumstances the relationship between various inputs and the resultant GHG emissions. Environmental and energy use data used in GHG emissions calculations are subject to inherent limitations, given the nature and the methods used for measuring such data. The selection by management of different but acceptable measurement techniques could have resulted in materially different amounts or metrics being reported.
3. Carbon dioxide equivalent ("CO₂e") emissions are inclusive of carbon dioxide ("CO₂"), methane ("CH₄"), nitrous oxide ("N₂O"), hydrofluorocarbons ("HFCs"), perfluorocarbons ("PFCs"), sulfur hexafluoride ("SF₆"), and nitrogen trifluoride ("NF₃"). Emissions data by individual gas is not disclosed as a majority of CO₂e relates to CO₂. CO₂e emissions calculations utilize Global Warming Potentials ("GWPs") as follows: (i) where the GWP is not embedded in the emission factor, GWPs defined by the Intergovernmental Panel on Climate Change's ("IPCC") Sixth Assessment Report ("AR 6", 100-year horizon) utilize the non-fossil origin value for CH₄, (ii) where the GWP is embedded in the emission factor but the emission factor by individual gas is not disclosed, the embedded GWP is applied, or (iii) where the GWP is embedded in the emission factor and the emission factor by individual gas is disclosed, the embedded GWP is converted to AR6.
4. The following units of measure were used: mtCO₂e = metric tons of carbon dioxide equivalent; and MWh = megawatt hour.
5. Scope 1 GHG emissions include the emission sources listed below. Approximately 43% of reported Scope 1 GHG emissions were estimated.

- **Buildings (Stationary Combustion):** Emissions are calculated using monthly fuel consumption from invoices or internal records. If consumption data is not available, emissions are estimated using building square footage and median fuel energy use intensity (EUI), applying country-specific fuel mix assumptions. In the U.S. and countries without publicly available fuel mixes, natural gas is assumed for building heat. Where only spend data is available for diesel fuel used in generators, spend is converted to estimated fuel volume using externally published monthly price data. Biogenic CO₂ from biofuel combustion is excluded per the GHG Protocol.
- **Refrigerants (Fugitive Emissions):** Emissions are determined from internal tracking of refrigerant leaks or, if unavailable, estimated using the EPA (Environmental Protection Agency) HFC Emissions Accounting Tool.
- **Vehicles (Mobile Combustion):** Emissions are based on monthly fuel consumption or, if unavailable, estimated from distance traveled, vehicle type, and location using fuel economy factors. For acquisitions lacking consumption and distance data spend-based estimation is used. Biogenic CO₂ from ethanol is excluded per the GHG Protocol.
- **Aircraft (Mobile Combustion):** Emissions are calculated from fuel consumption (gallons or pounds) or, if unavailable, estimated using flight hours and vendor fuel economy.

6. Scope 2 GHG emissions include the emission sources listed below. Approximately 13% of reported Scope 2 GHG emissions were estimated.

- **Purchased Electricity in Buildings:** Emissions are calculated using monthly electricity consumption from invoices. For data centers where energy consumption data is unavailable, rated capacity or monthly peak load and hours of operation are used; for ATMs where energy consumption data is unavailable, ATM count and average kilowatt-hour (“kWh”) per ATM; for other buildings, square footage and median electricity EUI. Where JPMorganChase obtains actuals via sub-metered invoices, landlord overhead is not estimated. Emissions from device locations (JPMorganChase’s owned devices at non-JPMorganChase’s facilities) were excluded from the footprint due to limited availability of electricity consumption data.
 - For market-based Scope 2 accounting, JPMorganChase follows and applies the data hierarchy outlined in the GHG Protocol Scope 2 Guidance (Table 6.3) (from highest to lowest precision): (1) unbundled and bundled EACs purchased and retired by the company, (2) contractual instruments such as PPAs and vPPAs, (3) renewable supply contracts including green tariffs, and (4) supplier-specific or residual mix emission factors. If EACs cannot be sourced within the same market boundary as consumption, this is disclosed in the appendix in accordance with reporting guidance.
 - The EACs applied to the 2025 reporting year have been contracted for and will be retired before November 30, 2026.
- **Electric Vehicles:** Emissions are based on distance traveled, converted to electricity consumption using kWh-per-mile efficiency.
- **Steam, Chilled Water, and District Heat:** Emissions are calculated from consumption data or, if unavailable, estimated using square footage, fuel mix, and median fuel EUI. In the U.S. and countries without publicly available fuel mixes, natural gas is assumed for building heat. Steam, chilled water, and district heat are not estimated.

7. Verified Carbon Credits

- Carbon credits are sourced directly through carbon suppliers through purchase agreements.

- The purchased credits were verified by a third-party validation and verification body (VVB) and issued by one of the following registries: American Carbon Registry, Verra - Verified Carbon Standard, Isometric, Climate Action Reserve, and Puro. Once verified and validated, suppliers retired credits in JPMorganChase's name and provided the retirement certificates to evidence that the carbon credits purchased had been retired.

8. Purchased electricity and purchased renewable electricity

- **Purchased Electricity**
 - Calculated based on the actual and estimated consumption data from purchased electricity used in buildings and electric vehicles as described in Footnote 6.
 - Approximately 13% of reported purchased electricity was estimated.
- **Purchased Renewable Electricity**
 - Calculated based on the (1) renewable electricity purchased through renewable supply contracts and (2) application of unbundled EACs and contractual instruments which included PPAs and vPPAs.

Appendix

Scope	Emissions Category	Emissions Source(s)	Emissions factor (source, year & GWP)	Assumption notes
Scope 1	Stationary	Buildings - Fossil Fuels	• Australian National Greenhouse Accounts Factors (2024, 2025) — IPCC AR6	Square foot proxies used: Department of Energy (DOE) Building Performance Dashboard BPD (2023), International Energy Agency (IEA) Energy Efficiency Indicators (2025)
			• Ministry for the Environment (New Zealand) (2025) — IPCC AR6	
			• US EPA Emission Factors Hub (2025) — IPCC AR6	
Scope 1	Stationary	Buildings - Biofuel	• Australian National Greenhouse Accounts Factors (2024, 2025) — IPCC AR6	
			• Department for Energy Security and Net Zero (DESNZ) United Kingdom (UK) GHG Conversion Factors (2025) — IPCC AR5	
Scope 1	Stationary	Buildings - Diesel (Spend)	• US Energy Information Agency (EIA)/ US EPA Emission Factors Hub (2025) — IPCC AR6	
			• Watershed Comprehensive Environmental Data Archive ("CEDA") 7 (2025) — IPCC AR6	
Scope 1	Fugitive Emissions	Buildings - Refrigerants	• US EPA Compositions of Refrigerant Blends (2025) — IPCC AR6	Square foot proxies used: EPA HFC Accounting Tool (2016)
Scope 1	Mobile	Vehicles	• DESNZ UK GHG Conversion Factors (2025) — IPCC AR6 • DESNZ UK GHG Conversion Factors (2025) — IPCC AR6	Distance proxies: Department for Environment Food and Rural Affairs (DEFRA) (2025), DOE Alternative Fuels Data Center (AFDC); Argonne National Laboratory Alternative Fuel Life-Cycle Environmental and Economic Transportation ("AFLEET") Tool 2024
			• US EPA Emission Factors Hub (2025) — IPCC AR6	
Scope 1	Mobile	Vehicles (Spend)	• Watershed CEDA 7 (2025) — IPCC AR6	
Scope 1	Mobile	Aircraft	• US EPA Emission Factors Hub (2025) — IPCC AR6	
Scope 2	Purchased Electricity	Buildings, Data Centers, ATMs, Electric Vehicles	• Australian National Greenhouse Accounts Factors (2024, 2025) — IPCC AR5	Square foot proxies used: Department of Energy (DOE) Building Performance Dashboard BPD (2024), International Energy Agency (IEA) Energy Efficiency Indicators (2025)
			• DESNZ UK GHG Conversion Factors (2025) — IPCC AR6	
			• Ecoinvent (3.11) — IPCC AR6	

			• Environment and Climate Change Canada (2025) — IPCC AR6 • IEA Emission Factors (1990–2023) — IPCC AR6 • Ministry for the Environment (NZ) (2025) — IPCC AR6 • US EPA eGRID (2023 data) — IPCC AR6	Includes electric vehicles (EV). EV kWh-per-mile efficiency proxies used: AFLEET Tool 2024
Scope 2	Purchased Electricity (Market-Based)	Buildings, Data Centers, ATMs, Electric Vehicles	• Australian National Greenhouse Accounts Factors (2024, 2025) — IPCC AR6 • Ecoinvent (3.11) — IPCC AR6 • Environment and Climate Change Canada (2025) — IPCC AR6 • European Residual Mixes 2025 (data for 2024)— IPCC AR6 • Green-e Residuals 2024 (2022 data) — IPCC AR6 • IEA Emission Factors (1990–2023) — IPCC AR6 • Ministry for the Environment (NZ) (2025) — IPCC AR6	JPMorganChase was unable to source certain EACs from within the same market boundary where the electricity consumption occurred due to limited availability of EACs within those market boundaries. These EACs make up 44,509 MWh of purchased renewable electricity. The exclusion of the use of these EACs would result in Scope 2 market-based GHG emissions of 17,163 mtCO₂e. Location-based emissions factor notes also apply.
Scope 2	District Heat (Steam)	Steam	• NYC Local Law 77, 2023— IPCC AR6 • US EPA Emission Factors Hub (2025) — IPCC AR6	
Scope 2	Chilled Water	Chilled Water	• Johansen & Werner (2017, 2022) — IPCC AR6 • US EPA Emission Factors Hub (2025) — IPCC AR6	
Scope 2	District Heat	District Heat	• DESNZ UK GHG Conversion Factors (2025) — IPCC AR6 • Johansen & Werner (2017, 2022) — IPCC AR6	