Greenhouse Gas (GHG) Protocol Disclosure Report

Dow Disclosures – GHG Protocol Disclosure Report

Reporting Policy and Scope for Greenhouse Gas Emissions

Scopes 1, 2, and 3 GHG emissions data is collected and accounted for in accordance with the World Resources Institute/World Business Council for Sustainable Development (WRI/WBCSD) GHG Protocol: A Corporate Accounting and Reporting Standard (Revised Edition). Management of Dow is responsible for the completeness, accuracy and validity of the disclosures referenced or included in the GHG Protocol Disclosure Report and asserts that the disclosures referenced or included in the GHG Protocol Disclosure Report for the year ended December 31, 2024, are presented in accordance with GHG Protocol: A Corporate Accounting and Reporting Standard (Revised Edition), published by the WRI/WBCSD.

Dow engaged Deloitte & Touche LLP to perform a review engagement on management's assertion related to the disclosures included in the greenhouse gas disclosures in the GHG Protocol Disclosure Report for the year ended December 31, 2024. Information outside of the disclosures referenced or included in the GHG Protocol Disclosure Report and the GRI Content Index including linked information, was not subject to Deloitte & Touche LLP's review and, accordingly, Deloitte & Touche LLP does not express a conclusion or any form of assurance on such information. See Deloitte's GRI and GHG Protocol assurance statements as linked.

The GHG emissions covered by this inventory are based on the calendar year January 1, 2024, to December 31, 2024. Dow reports GHG emissions under the operational control approach criteria described in this standard. In cases where asset ownership is shared, a company has operational control over an asset if it has the full authority to introduce and implement its operating policies at the facility. For operations where Dow does not have full authority to implement its policies, emissions are excluded from this inventory except in the case of Scope 3, indirect GHG emissions, where data is reported where indicated by the standard. The Company reports GHG emissions at approximately 91 sites globally, with approximately 25% of those sites accounting for over 95% of its total GHG emissions.

Current Global Emissions in CO_2e

The following accounting includes five of the seven GHG emissions covered by the United Nations Framework Convention on Climate Change/Kyoto Protocol: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs) and sulfur hexafluoride (SF_6). Dow does not have emissions of perfluorocarbons (PFCs) or nitrogen trifluoride (NF_3). GHG emissions are reported in millions of metric tons of carbon dioxide equivalents (CO_2e).

GHG Emissions (Millions of Metric Tons CO_2e)	2024	2023	2022	2020 (Base Year)[1]	Amount Change 2024/2020	% Change 2024/2020
Scope 1[2]	26.63	26.77	27.29	28.76	-2.13	-7.41%
Scope 1 Emissions Excluding Power and Steam Not Consumed[2]	21.93	21.73	21.84	23.05	-1.12	-4.86%
Scope 1 Emissions From Power Sold to Third-party/Grid[1]	4.70	5.04	5.45	5.74	-1.04	-18.12%
Scope 2 (Market)	3.11	3.20	4.19	6.22	-3.11	-50.00%
Scope 2 (Location)[2]	3.44	3.36	3.45	3.95	-0.51	-12.91%
Gross Scope 1 & 2 (Market)	29.74	29.97	31.48	34.98	-5.24	-14.98%
Scope 1 & 2 GHG Emissions Intensity[3]	0.51	0.52	0.53	0.55	N/A	N/A
Scope 3[4]	77.23	73.60	77.03	82.21	-4.98	-6.06%

[1] Base year applies to Scope 1 and Scope 2 only.
[2] For comparability, 2023 values were updated to reflect identified data error corrections that are immaterial to the INtersections Report as a whole.
[3] Intensity is calculated by taking the sum of the Scope 1 and 2 (Market) emissions data, excluding emissions associated with the generation of steam and power sold, divided by total value production volume, which includes byproducts and co-products. Units are metric tons of emissions in CO_2e/metric tons of production.

[4] For comparability, historical values from 2020-2023 have been updated to reflect improvements in Dow's Scope 3 accounting techniques and data management. For additional details regarding Scope 3 changes, see the Scope 3 Emissions by Activity section of this report.

Overall, Scope 1 emissions remained flat in 2024 relative to 2023. For information on Dow's emissions and energy reduction projects, see GRI 302-4 Reduction of energy consumption and GRI 305-5 Reduction of GHG emissions. Scope 2 market-based emissions remained flat in 2024 relative to 2023. Dow continues to maintain its renewable energy capacity and continues to pursue opportunities to procure cleaner energy. See GRI 305-5 Reduction of GHG emissions for more information. In 2024, Scope 3 emissions increased by 5% compared with 2023 due to changes in purchased materials. However, Scope 3 emissions have been reduced by 6% since 2020, primarily due to macroeconomic conditions and changes in Dow's commercial activities, with decarbonization in the value chain playing a secondary role.

For more information on Dow's climate strategy, see Climate Protection starting on page 9.

Other GHG Emissions

Other GHG Emission (Millions of Metric Tons CO_2e)	2024	2023	2022	2020 (Base Year)	Amount Change 2024/2020	% Change 2024/2020
Biomass CO_2	0.40	0.47	0.46	0.45	-0.05	-11.11%
Other GHG Emissions	0.03	0.03	0.03	0.09	-0.06	-66.67%

Other GHG emissions include carbon monoxide, carbon tetrachloride and chlorodifluoromethane.

Calculation Methodologies

When calculating Scope 1 GHG emissions, source data is collected within multiple systems following internal processes. Calculation methodologies vary based on a hierarchical approach. Permit-specific or regulatory-required emissions factors are prioritized and, where these do not exist, other published emissions factors and calculation methodologies are used. Some sources for these factors include Intergovernmental Panel on Climate Control (IPCC) Guidelines for National Greenhouse Gas Inventories; U.S. Resources (U.S. EPA State Inventory and Projection Tools; U.S. Emission Factor Resources; or AP-42); and German Environmental Authority (12/2016).

For tracking against its targets to reduce GHG emissions, Dow utilizes the market-based methodology for Scope 2 accounting. Emissions are calculated by multiplying the amount of Company-purchased steam and electricity consumed by supplier or utility-specific emissions factors or factors denoted through energy attribute certificates, when available. For U.S. sites, where supplier or utility factors are not available, Green-e® Residual Mix factors are used, as these are readily available. In all other cases, Dow utilizes location-based emissions factors. The impacted portion of electricity purchases is insignificant to overall Scope 2 emissions. Dow also reports Scope 2 emissions using the location-based method in which quantities of Company-purchased steam and electricity are multiplied by the appropriate emissions factors for that geographic area, rather than supplier-specific factors. For U.S.-based locations, Dow used the location-based emissions factors from the EPA EGrid (published 2025) and for non-U.S. locations, Dow used the International Energy Agency (IEA) (published 2024).

Scope 3 emissions are calculated using internal and external data on Dow's activities, such as purchases, sales, energy use, travel, and shipments. Activity data is converted into GHG emissions through modeled estimates, direct measurements, and reported data from the value chain. Sources for this data include Ecoinvent v3.11, CDP 2024 sectoral revenue intensity factors, Global Logistics Emissions Council (GLEC) Framework v3, suppliers and joint ventures emissions disclosures, and Dow subject matter experts. Wherever possible, value chain data was used, including supplier product carbon footprints and revenue intensity factors in categories 1 and 2, supplier transport carbon footprints in Category 4, travel agency booking data in Category 6, and investment emissions in Category 15.

Dow Scope 3 accounting follows leading methodologies, including the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard and sector-specific guidelines like the TfS Guidelines for the chemical sector and the GLEC Framework for transportation. Supplier-reported product and transport carbon footprint data is verified using the GHG Protocol Product Standard, ISO 14067, TfS Guidelines/Catena-X, WBCSD Pathfinder Method, and other relevant methods. Further information on Dow's accounting approach, including changes to methods and data that necessitate restatement of Dow's Scope 3 prior years, is further described in the Scope 3 by Category section below.

Base Year

In 2020, Dow launched new climate goals as part of its strategy and set 2020 as the baseline year for the new emissions reduction targets. Dow measures its progress for Scope 1

and Scope 2 emissions toward its current reduction target by this baseline year. Dow is actively working to identify a Scope 3 base year. If changes occur in the configuration of Dow assets or if significant emissions changes are found that make a material impact to its global footprint, the base year will be recalculated to include the new configuration. Dow's internally recognized threshold for significant changes is 5% of the previous year's global total. These changes include, but are not limited to, transfer of ownership, improvement of calculation methodologies or the accuracy of emissions factors, and discovery of significant errors, individually or collectively. Dow continues to improve its calculation methodologies for GHG emissions accounting globally as part of an effort to align with the GHG Protocol standard.

Targets

By 2030, Dow will reduce its net annual carbon emissions by 5 million metric tons. This represents a 15% reduction from Dow's 2020 baseline. By 2050, Dow intends to be carbon neutral (Scopes 1+2+3 plus product benefits). Dow plans to achieve its decarbonization commitments by reducing Scope 1 and 2 GHG emissions through a phaseout of lower-efficiency assets, decarbonizing remaining assets and building best-in-class, net-zero assets for growth. Dow will deploy known technology in the near term and innovate for the future. Dow is committed to using only high-integrity carbon offsets to compensate for residual, hard-to-abate emissions.

Global Warming Potential (GWP)

To compare the global warming impacts of different GHGs, a universal unit of measurement is needed. GWP factors were developed to measure the amount of energy the emissions of one ton of gas will absorb relative to one ton of carbon dioxide. For Scope 1 emissions, in accordance with the GHG Protocol, Dow uses the most recent IPCC assessment report (AR6) 100-year GWP values for all data, including the baseline, to maintain consistency across time. For Scope 2 emissions, Dow requests, but does not verify, the factors used when data is received from its suppliers. Dow will continue to improve its understanding of the factors used by its suppliers to represent the information as accurately as possible in the future.

Scope 1 Emissions by GHG

GHG Emissions Scope 1 Totals	2024 (Metric Tons)	2024 (Metric Tons CO_2e)	2023[1] (Metric Tons CO_2e)	2022 (Metric Tons CO_2e)	2020 Base Year (Metric Tons CO_2e)
Carbon Dioxide	25,990,000	25,990,000	26,140,000	26,540,000	28,015,000
Methane[2]	15,000	447,000	440,000	530,000	520,000
Nitrous Oxide	540	147,000	154,000	158,000	145,000
HFCs	30	42,000	38,000	62,000	74,000
Sulfur Hexafluoride	0.03	772	0	0	0

[1] For comparability, 2023 was updated to reflect identified data error corrections that are immaterial to the INtersections Report as a whole.

[2] Assumes all methane emissions are "fossil" and uses associated emissions factors provided in the IPCC AR6 report. Conservative method as non-fossil methane emissions have a lower GWP factor.

Dow does not have emissions of PFCs or NF_3. Dow generally does not have emissions of sulfur hexafluoride (SF_6), except in the case of 2024, when 0.03 metric tons were released as a result of an unplanned event, adding 772 metric tons of CO_2e emissions to the Scope 1 inventory.

Scope 2 Emissions by GHG

Speciated emissions data is not available for Scope 2 accounting as suppliers provide the data to Dow in carbon dioxide equivalents.

Scope 3 Emissions by Activity

Scope 3 emissions are driven by both upstream and downstream activities within Dow's value chain. The majority of Dow's Scope 3 emissions (61%) originate from upstream activities, particularly from the production of feedstocks and fuels (Categories 1 and 3), the manufacturing of raw materials and industrial gases (Category 1), and purchased transportation, specifically shipping and trucking (Category 4). Downstream activities account for 39% of Scope 3 emissions and predominantly come from the incineration of sold products, such as fuel markers, during their use phase (Category 11) or at their end of life (Category 12), as well as from Dow's investments (Category 15).

Dow continues to enhance its accounting practices for upstream Scope 3 emissions by improving internal activity data and tracking purchases, sales and transportation on an invoice-by-invoice and shipment-by-shipment basis. In 2024, Dow adopted Ecoinvent v3.11 across all reporting years, incorporating the latest database updates to all secondary emissions factors. Other improvements include moving leased asset emissions, previously reported in error in Scope 3.8, to Scope 2, in line with GHG Protocol guidance. To better monitor progress towards Dow's climate goals, modeled emission factors for several key materials were used to establish a more accurate representation of supplier decarbonization efforts. This is important when shifting to supplier-reported data as it can inaccurately represent emissions reductions compared with the historical years. Dow has integrated GHG reductions into Categories 1, 2 and 4 related to value chain interventions, where Dow's direct suppliers have taken action to decarbonize their activities. These interventions include supplier carbon footprints that embed mass-balanced inputs, supplier revenue intensity factors that include Scope 2 market-based values, and supplier book and claim certificates related to low-carbon transportation fuels. Dow expects in-value-chain market instruments to play a critical role in Scope 3 decarbonization and thus these should be monitored, tracked and accounted for transparently.

Given Dow's involvement across numerous downstream value chains, estimating downstream emissions of sold products remains complex and uncertain. To further improve estimates, Dow applied more detailed models to track emissions from sold products with a use phase in Scope 3.11, and continued to apply the circular cut-off approach for Scope 3.12, which allows for the exclusion of the GHG burden of the recycling process since it is included in the next life cycle. Dow improved the data and methods in 2024 by further aligning with metrics for tracking Dow's Transform the Waste goals. This reduces uncertainty and positions Scope 3.12 as an additional mechanism to monitor circularity. The accurate quantification of Categories 9 and 10 remains challenging due to the complexity of the chemical sector downstream value chain, limited data and lack of standardized accounting methodologies. Dow is committed to continually enhancing its efforts by incorporating new data sources and methodologies as they become available.

The improvements to upstream and downstream accounting triggered a restatement of prior year emissions in certain categories, in accordance with GHG Protocol and TfS Guidelines, and these changes and the years impacted are detailed in the table below. For more information on Dow's Scope 3 strategy and trends, please see GRI 3-3 Management Approach – Energy and Emissions Management.

Scope 3 Emissions by Category (Million Metric Tons CO_2e)	2024	2023	2022	2020[1]	Amt Change 2024 / 2020	% Change 2024 / 2020
Category 1: Purchased Goods & Services[2]	40.04	35.65	37.42	39.85	0.19	0.48%
Category 2: Capital Goods[2]	0.20	0.14	0.12	0.08	0.12	150.00%
Category 3: Fuel & Energy Related Activities	4.22	4.49	4.42	4.75	-0.53	-11.16%
Category 4: Upstream Transportation & Distribution	2.64	2.80	3.37	3.82	-1.18	-30.89%
Category 5: Waste Generated in Operations[3]	0.26	0.23	0.28	0.27	-0.01	-3.70%
Category 6: Business Travel	0.04	0.03	0.02	0.01	0.03	463.38%
Category 7: Employee Commuting	0.06	0.06	0.06	0.05	0.01	30.43%
Category 8: Upstream Leased Assets[4]	0	0	0	0	0	—%
Category 9: Downstream Transportation & Distribution						
Category 10: Processing of Sold Products						
Category 11: Use of Sold Products[2]	4.72	5.18	5.54	6.06	-1.34	-22.11%
Category 12: End-of-Life Treatment of Sold Products[2]	20.83	21.02	21.63	23.3	-2.47	-10.60%
Category 13: Downstream Leased Assets	0	0	0	0	0	—%
Category 14: Franchises	0	0	0	0	0	—%
Category 15: Investments	4.22	4.00	4.17	4.03	0.19	4.71%
Total	**77.23**	**73.60**	**77.03**	**82.21**	**-4.98**	**-11.22%**

[1] 2020 data is provided for comparison purposes only.
[2] For comparability, historical values were updated to reflect significant advancements in Dow's Scope 3 accounting techniques and data management. See Scope 3 Greenhouse Gas Protocol for detailed information.
[3] For comparability, historical values were updated to reflect identified data error corrections that are immaterial to the INtersections Report as a whole.
[4] Emissions from upstream leased assets, previously reported in error in 3.8, are now reported in Scope 2. Upstream energy related emissions for leased assets remain in 3.3.

Category	Status	Method	Activity Data	Emissions Factor Source(s) for Average Data	Emissions Factor Source(s) for Supplier Data	Description of Any Excluded Activities	% GHGs Covered by Supplier Data	Data Quality Rating[1]
3.1	Relevant, calculated	Hybrid	Dow internal invoice records for goods and services purchased in 2024	Ecoinvent v3.11, Dow LCA models, 2024 CDP sectoral revenue intensity factors	Supplier product carbon footprints and revenue intensity factors reported via CDP, SiGREEN, or directly to Dow	Purchases not relevant per GHG Protocol; purchases accounted for in another category	1.0%	Good
3.2	Relevant, calculated	Hybrid	Dow internal invoice records for capital goods purchased in 2024	2024 CDP sectoral revenue intensity factors	Supplier revenue intensity factors reported via CDP	Purchases not relevant per GHG Protocol; purchases accounted for in another category	21.0%	Good
3.3	Relevant, calculated	Hybrid	Dow internal records for fuel and energy purchased for Dow operations in 2024	Ecoinvent v3.11	N/A	Emissions related to the production of renewable energy due to lack of secondary data	N/A	Good
3.4	Relevant, calculated	Hybrid	Dow shipment and invoice records for transportation services purchased in 2024	GLEC Framework v3, 2024 CDP sectoral revenue intensity factors	Supplier emissions factors reported via CDP, Sea Cargo Charter, or directly to Dow	Site logistics emissions, reverse logistics, and transport of feedstock purchases outside of Europe	26.0%	Very good
3.5	Relevant, calculated	Hybrid	Dow's internal records on the weight and type of waste generated in Dow's operations	Ecoinvent v3.11	N/A	Emissions from waste that is recycled; emissions from waste incinerated in waste-to-energy facilities	N/A	Good
3.6	Relevant, calculated	Average data	Travel agency records; AAA Foundation	Ecoinvent v3.11; UK Department of Environmental Food and Rural Affairs GHG 2023 conversion factors	N/A	Travel booked outside Dow's travel agency	83.0%	Good
3.7	Relevant, calculated	Average data	Dow employee records; AAA Foundation	Ecoinvent v3.11	N/A	Employee commuting by modes other than personal car	N/A	Fair
3.8	Dow includes all emissions related to leased assets in Scope 2, thus this category is not relevant in Scope 3.							
3.9	Relevant, not calculated							
3.10	Not relevant, not calculated							

Category	Status	Method	Activity Data	Emissions Factor Source(s) for Average Data	Emissions Factor Source(s) for Supplier Data	Description of Any Excluded Activities	% GHGs Covered by Supplier Data	Data Quality Rating[1]
3.11	Relevant, calculated	Direct use phase emissions	Weight, type and sold-to industry of sold products with use phase emissions	Dow subject matter experts	N/A	N/A	N/A	Good
3.12	Relevant, calculated	Average data	Weight and type of sold products not included in 3.11	SystemIQ Planet Positive Chemicals; Dow subject matter experts	N/A	N/A	N/A	Fair
3.13	Dow does not currently have any downstream leased assets or franchises, therefore these categories are not relevant for Scope 3 accounting.							
3.14								
3.15	Relevant, calculated	Investment-specific approach	Scope 1 and 2 emissions of principle nonconsolidated affiliates listed in Dow's 10-K~↗	N/A	N/A	Joint ventures not listed on Dow's 10-K~↗	100.0%	Very good

[1] Data quality was assessed by Dow's subject matter experts based on the GHG Protocol's indicators of completeness, reliability, and geographical, temporal, and technological representativeness. Each Scope 3 category was assigned a 1-10 rating for each indicator, which was then averaged to determine the overall score for the category, with 9-10 as very good, 6-8 as good, 4-5 as fair, and <4 as poor.

Deloitte.

Independent Accountant's Review Report

Management of
Dow Inc. and The Dow Chemical Company
Midland, MI

We have reviewed management of Dow Inc.'s and its consolidated subsidiaries, including The Dow Chemical Company (collectively, "Dow" or the "Company"), assertion that the GHG Protocol Disclosure Report (the "GHG Disclosures") referenced or included within the accompanying Dow 2024 INtersections Progress Report (the "2024 INtersections Progress Report") for the year ended December 31, 2024 is presented in accordance with the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition), published by the World Resources Institute/World Business Council for Sustainable Development (the "GHG Protocol"). The Company's management is responsible for its assertion. Our responsibility is to express a conclusion on the GHG Disclosures 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 the GHG Disclosures in order for them to be presented in accordance with GHG Protocol. 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 GHG Disclosures are presented in accordance with GHG Protocol, 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 the Code of Professional Conduct issued by the AICPA. We applied the Statements on Quality Control Standards established by the AICPA and, accordingly, maintain a comprehensive system of quality control.

The procedures we performed were based on our professional judgment. In performing our review, we conducted inquiries and performed analytical procedures. For a selection of GHG Disclosures, we performed tests of mathematical accuracy of computations, compared the amounts to underlying records, or observed the data collection process in regard to the accuracy of the data in the GHG Disclosures.

The preparation of the GHG Disclosures in the GHG Protocol Disclosure Report included within the 2024 INtersections Progress Report requires management to interpret the criteria, make determinations as to the relevancy of information to be included, and make estimates and assumptions that affect the reported information. Measurement of Scope 1, 2 and 3 GHG emissions includes estimates and assumptions that are subject to substantial inherent measurement uncertainty resulting, for example, from the accuracy and precision of greenhouse gas emission conversion factors or estimation methodologies used by management. Obtaining sufficient, appropriate review evidence to support our conclusion does not reduce the inherent uncertainty in the amounts and GHG Disclosures. The selection by management of different but acceptable measurement methods, input data, or assumptions may have resulted in materially different amounts or GHG Disclosures being reported.

Information outside of the disclosures referenced or included in the GHG Protocol Disclosure Report included in the 2024 Intersections Progress Report, including linked information, the TCFD Disclosure Report, SASB Disclosures Report, the Analyst Data Summary, United Nations Sustainable Development Goals and Non-GAAP Financial Measures, was not subject to our review and, accordingly, we do not express a conclusion or any form of assurance on such information. Any information relating to forward looking statements, targets, goals and progress against goals, and revised comparative period disclosures included in the 2024 INtersections Progress Report, was not subject to our review and, accordingly, we do not express a conclusion or any form of assurance on such information. Further, any information relating to periods prior to the year ended December 31, 2021 or any information relating to Scope 3 GHG emissions prior to the year ended December 31, 2022 was not subject to our review; and accordingly, we do not express a conclusion or any form of assurance on such information.

The Company changed the data and methodology used to calculate Scope 1, Scope 2, and certain categories of Scope 3 emissions for the year ended December 31, 2024. The data and methodology for these calculations was revised in the comparative prior periods presented. Our conclusion is not modified with respect to these matters.

Based on our review, we are not aware of any material modifications that should be made to the GHG Disclosures for the year ended December 31, 2024 in order for them be presented in accordance with the GHG Protocol.

Deloitte & Touche LLP

Midland, Michigan

June 18, 2025

Dow Inc.
Midland, MI 48674 U.S.A.
FESGRPT@dow.com
corporate.dow.com

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