



2023 Carbon Footprint Data Report

Covering calendar years 2019 – 2022



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This Carbon Footprint Data Report contains environmental metrics for our enterprise greenhouse gas (GHG) emissions and energy usage. This report includes calendar-year data from our base year of 2019 through 2022 for Comcast Corporation and its consolidated subsidiaries, including Comcast Cable Communications, NBCUniversal Media and Sky (collectively, Comcast). Learn more about our environmental goals and impact on the [Environment](#) page of our website.

The emissions data in this report is based on a combination of measured and estimated emissions data using reasonably available information at the time, as described in additional detail in the sections below. As with any estimates, actual results or numbers may vary based upon factors such as variations in processes and operations, availability and quality of data, and assumptions and methodologies used for measurement and estimation. Historical GHG emissions and energy usage may be recalculated in future reports according to the Base Year Emissions Recalculation Policy outlined in Section 1.4.

Numerical information in this report is presented on a rounded basis using actual amounts. Minor differences in totals and percentage calculations may exist due to rounding.

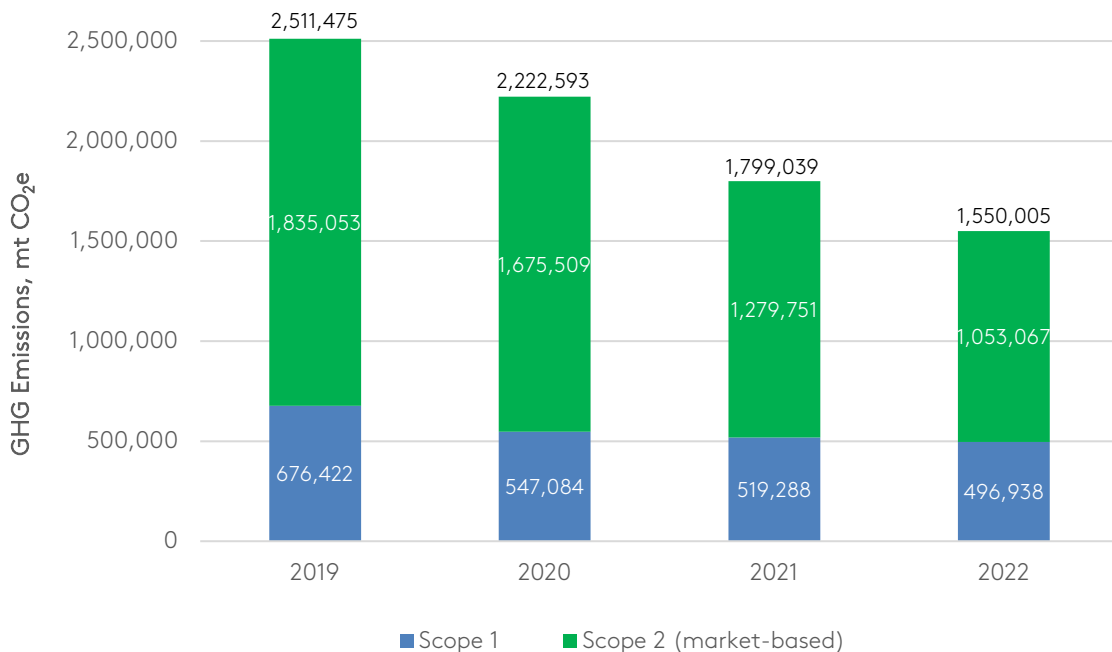
Inclusion of information in the materials in this report and on our website should not be construed as a characterization of the materiality or financial impact of that information with respect to our company.

Part 1 - Comcast Scope 1 and 2 GHG Emissions

1.1 Overview

During 2022, Comcast's Scope 1 and 2 GHG emissions, reported in metric tonnes of CO₂ equivalents (mtCO₂e), decreased by 14% primarily as a result of our increased use of clean energy, a reduction in global electricity grid emissions and our continued efforts to reduce energy usage.

We have a goal to be carbon neutral by 2035 for Scope 1 and 2 (market-based) GHG emissions. We're proud of the progress we've made so far, reducing our Scope 1 and 2 emissions by 38% from our 2019 base year through 2022.



Deloitte & Touche LLP performed a limited assurance review engagement on management's assertion related to certain information (the "specified information") for the year ended December 31, 2022 included in this Carbon Footprint Data Report. Management's assertion and details of the review engagement are included in Section 1.6. Deloitte & Touche LLP's review report is included in Section 1.7.

1.2 Scope 1 and 2 GHG Emissions and Energy Usage Data

GHG emissions and energy usage	Unit	2019* Base Year	2020*	2021*	2022 Reporting Year
Greenhouse gas emissions					
Scope 1	mtCO ₂ e	676,422	547,084	519,288	496,938
Scope 2 (market-based)	mtCO ₂ e	1,835,053	1,675,509	1,279,751	1,053,067
Scope 2 (location-based)	mtCO ₂ e	1,863,480	1,743,564	1,551,747	1,480,893
Total Scope 1 and 2 market-based	mtCO ₂ e	2,511,475	2,222,593	1,799,039	1,550,005
Total Scope 1 and 2 location-based	mtCO ₂ e	2,539,902	2,290,648	2,071,035	1,977,831
Biogenic CO ₂ (outside of scopes)*	mtCO ₂ e	NR	NR	NR	3,303
Carbon intensity					
Revenue	\$ million	108,942	103,564	116,385	121,427
Carbon emissions per \$ million revenue	mtCO ₂ e/ \$ million	23.1	21.5	15.5	12.8
Energy					
Total energy consumed	MWh	7,129,369	6,504,762	6,098,203	6,108,551
Total electricity consumed	MWh	4,747,393	4,442,368	4,190,632	4,254,842
Grid electricity	MWh	4,740,096	4,434,339	4,180,378	4,248,909
Percent grid electricity	%	66.5	68.2	68.6	69.6
Energy intensity per \$ million revenue	MWh/ \$ million	65.4	62.8	52.4	50.3
Renewable and clean energy					
Total renewable energy	MWh	146,824	254,858	662,544	569,756
Percent renewable energy	%	2.1	3.9	10.9	9.3
Percent renewable electricity	%	3.1	5.7	15.8	13.4
Total clean energy*	MWh	146,824	254,858	662,544	1,243,448
Percent clean electricity*	%	3.1	5.7	15.8	29.2

* This symbol indicates that the 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.

NR = Not Reported

1.3 2022 Scope 1 and 2 GHG Emissions by Gas Type

GHG type	Scope 1	Scope 2 (market-based)	Scope 2 (location-based)	Scope 1	Scope 2 (market-based)	Scope 2 (location-based)
Units	metric tonnes (mt)			mtCO ₂ e		
CO ₂	401,735	1,047,909	1,473,235	401,735	1,047,909	1,473,235
CH ₄	10	76	114	240	1,909	2,840
N ₂ O	4	11	16	1,254	3,249	4,818
HFCs	34	N/A	N/A	62,649	N/A	N/A
Other refrigerants (HCFCs, HFOs, CFCs)	16	N/A	N/A	31,062	N/A	N/A
Total	N/A	N/A	N/A	496,938	1,053,067	1,480,893

N/A = Not applicable

1.4 Scope 1 and 2 Reporting Information

Reporting Scope and Boundary

In this report, the energy and GHG reporting boundary for the information is for Comcast Corporation and its consolidated subsidiaries. This report includes calendar-year data from our base year of 2019 through 2022.

To establish the activities and relevant assets for purposes of its GHG emissions inventory, Comcast used the operational control approach, as defined by the GHG Protocol. Per the GHG Protocol, operational control over an operation exists where a company has full authority to introduce and implement operating policies at the operation. Included within this scope are less than wholly owned entities where we have operational control.

Scope 1 and 2 Methodologies

Per the GHG Protocol, Comcast's Scope 1 and 2 GHG emissions inventory includes carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs) and other refrigerants (HCFCs, HFOs and CFCs). Perfluorocarbons (PFCs), sulfur hexafluoride (SF₆) and nitrogen trifluoride (NF₃) are not present in Comcast's operations.

Scope 1 emissions include GHG emissions from:

- stationary combustion sources such as from heating, emergency generators and cooking operations,
- mobile combustion sources from fleet, and
- fugitive and refrigerant emissions.

For stationary combustion, fugitive and refrigerant emissions, actual data from invoices or similar records are used to calculate the respective GHG emissions. When actual data is not available for certain sources or locations, Comcast estimates usage using proxy data primarily

based on actual data from similar sites and assets or by utilizing industry standards such as the U.S. Energy Information Administration’s (EIA) Commercial Buildings Energy Consumption Survey (CBECS).

For mobile combustion, direct fuel consumption data obtained through various mechanisms (e.g., fuel cards, fuel logs) is used to calculate GHG emissions. For vehicles, when actual fuel usage data is not available, Comcast estimates usage using proxy data primarily based on actual data from similar fleet.

Scope 2 emissions include GHG emissions from:

- purchased electricity to power our operations, including our facilities, network and theme parks, and
- purchased heat, steam and cooling used in various facilities.

For purchased electricity and purchased heat, steam and cooling, Comcast leverages usage specified in invoices, when available, to calculate GHG emissions. Similar to Scope 1 emissions, when actual data is not available, Comcast estimates the usage using proxy data primarily based on actual data from similar sites and assets. Emissions from purchased electricity used to power the U.S. cable network’s power supplies are calculated or estimated based on real-time monitoring data.

For Scope 2 market-based GHG emissions, Comcast follows the hierarchy outlined in Table 6.3 of the WRI/WBSCD GHG Protocol Scope 2 Guidance for selecting appropriate emission factors. In countries where reliable residual mix factors are not available, Comcast uses the regional grid averages to calculate market-based emissions. The market-based method includes consideration of contractual arrangements under which Comcast procures power from specific suppliers or sources, such as clean and renewable energy, in both bundled (e.g., power purchase agreements and supplier-specific products) and unbundled (e.g., unbundled energy attribute certificates) arrangements.

For Scope 2 location-based GHG emissions, only regional and national grid mixes are utilized, and calculations do not reflect any renewable energy purchasing choices made by Comcast.

CO₂ emissions from biomass combustion are reported outside of Scope 1 according to the GHG Protocol. Biogenic emissions were not reported by Comcast prior to the 2022 reporting year.

Emission Factors and Global Warming Potentials (GWP)

Emission factors used in the 2022 GHG emissions inventory calculations include:

Scope and source	Emission factor source
Scope 1	<ul style="list-style-type: none"> • U.S. EPA Climate Leaders, Emission Factors for Greenhouse Gas Inventories (April 2022) • UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting (June 2022) • Japan’s Ministry of Environment Combustion Factors (April 2022) • Neste MY Renewable Diesel™ (March 2023) • California Air Resources Board (CARB), Low Carbon Fuel Standard (October 2022)

Scope and source	Emission factor source
Scope 2 (market-based)	<ul style="list-style-type: none"> • Association of Issuing Bodies: Version 1.0 2021 European Residual Mixes (May 2022) • The Climate Registry (May 2022) • Applicable factors used in the location-based method
Scope 2 (location-based)	<ul style="list-style-type: none"> • U.S. EPA's 2020 Emissions & Generation Resource Integrated Database (eGRID2020) (February 2022) • U.S. EPA Center for Corporate Climate Leadership, Emission Factors for Greenhouse Gas Inventories (April 2022) • U.S. Energy Star Portfolio Manager Technical Reference (August 2022) • IEA Statistics Data Service: 2020 Emission Factors (September 2022) • UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting (June 2022) • Bloom Energy Fuel Cell Emission Rates (October 2021) • Japan's Ministry of the Environment Emission Factors by Electric Supplier (April 2022)

Many of the emission factor sources above provide emission factors in CO₂e, which are used in the Scope 1 and 2 GHG emissions inventory. In cases where Comcast calculates CO₂e from emission factors for individual greenhouse gases, Comcast uses the GWPs from the IPCC Fourth Assessment Report (AR4).

See the [Carbon Footprint Data Report](#) for prior years for relevant emission factors used in 2019, 2020 and 2021 emissions calculations.

Energy

Total energy consumed is the combination of energy from fuel consumption, purchased electricity from the grid and on-site renewable electricity generated and consumed. Energy from fuel consumption includes energy use related to natural gas, propane, diesel, gasoline, fuel oil, biodiesel, kerosene, liquefied petroleum gas, liquefied natural gas, aviation gasoline, compressed natural gas, ethanol, jet fuel, heating, cooling and steam. Where applicable, fuel use is converted to Megawatt-hours (MWh).

Renewable and Clean Energy

Renewable energy is defined (per SASB metric TC-TL-130a.1, Section 3) as “energy from sources that are replenished at a rate greater than or equal to their rate of depletion, such as geothermal, wind, solar, hydro and biomass.” Renewable energy excludes the renewable portion of the electricity grid mix which is outside the control or influence of Comcast (per SASB metric TC-TL-130a.1, Section 3.3.3).

Clean energy, per the U.S. Department of Energy, includes all renewable sources as well as additional emissions-free sources which are not considered renewable, including large-scale hydro projects, nuclear and hydrogen and fuel cells.

Comcast’s clean and renewable energy comes from a variety of sources, including:

- **Onsite generation:** onsite generation where the renewable attributes are not sold,

- **Products backed by EACs:** contractual arrangements for clean and renewable electricity that convey energy attribute certificates (EACs), such as power purchase agreements, green tariffs and other retail energy products, or unbundled EAC purchases in the open market, and
- **Supplier-specific products:** contractual arrangements that do not convey EACs, such as supplier products with specified emission factors.

EACs are a category of contractual instruments that specify the environmental and/or emissions attributes of electricity generated. EACs, measured in MWh, include but are not limited to Renewable Energy Certificates (RECs), Guarantees of Origin (GOs) and Emission Free Energy Certificates (EFECs). EACs are only taken into account in Scope 2 market-based GHG emissions calculations.

For 2022, Comcast’s consumption of clean and renewable energy was 99.5% from products backed by EACs and 0.5% from onsite generation.

Base Year Emissions Recalculation Policy

Comcast set a 2019 base year to track progress toward our goal to be carbon neutral by 2035 in total Scope 1 and 2 market-based GHG emissions. For consistency when comparing base year emissions to current and future reporting periods, Comcast has a recalculation policy by which we will recalculate our base year emissions inventory to reflect significant individual or cumulative changes. The following types of changes will be tracked and may trigger recalculation of base year emissions when significant: structural changes (e.g., mergers, acquisitions, divestments, outsourcing and insourcing), changes in calculation methodologies, improvements in data accuracy and discovery of errors or omissions.

This 2023 Carbon Footprint Data Report does not reflect any recalculations to prior years’ reporting.

1.5 Scope 1 and 2 Reporting Criteria

The following summary table defines the criteria for the subject matter included in Part 1 of this report. Management is responsible for the selection of criteria or the development of criteria (“Comcast defined criteria”), which management believes provide an objective basis for measuring and reporting on the subject matter referenced in this table.

Area	Subject Matter	Criteria
Greenhouse gas emissions	Scope 1† Scope 2 (market-based)† Scope 2 (location-based)† Biogenic CO ₂ (outside of scopes)*	“The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)” including the “GHG Protocol Scope 2 Guidance (An amendment to the GHG Protocol Corporate Standard)” published by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD), collectively “The GHG Protocol.”

Area	Subject Matter	Criteria
Carbon intensity	Carbon emissions per \$ million revenue [†]	Comcast defined criteria. Calculated as total Scope 1 and 2 market-based GHG emissions divided by revenue (\$ million).
Energy	Total energy consumed [†] Total electricity consumed [†] Grid electricity [†] Percent grid electricity [†]	Comcast calculates these metrics in alignment with Sustainability Accounting Standards Board (SASB) metric TC-TL-130a.1. Total energy consumed converted to gigajoules (GJ) is 21,990,783 in 2022; 21,953,532 GJ in 2021*; 23,417,144 GJ in 2020*; and 25,665,729 GJ in 2019*. Total electricity consumed is the portion of Total energy consumed related to electricity. Grid electricity is the numerator in the equation for calculating Percentage grid electricity,
	Energy intensity per \$ million revenue [†]	Comcast defined criteria. Calculated as total energy consumed divided by revenue (\$ million).
Renewable and clean energy	Renewable energy [†] Percent renewable energy [†]	SASB metric TC-TL-130a.1 Renewable energy is the numerator in the equation for calculating Percentage renewable energy.
	Percent renewable electricity [†]	Percent renewable electricity is total renewable electricity divided by total electricity consumed.
	Clean energy* Percent clean electricity*	Comcast considers clean energy to be comprised of energy sources listed by the U.S. Department of Energy (https://www.energy.gov/clean-energy), including solar, wind, water, geothermal, bioenergy, nuclear and hydrogen and fuel cells. Clean energy is inclusive of renewable energy. Percent clean electricity is total clean energy divided by total electricity consumed.

[†] Indicates the subject matter represents specified information. The specified information for the year ended December 31, 2022 was subject to Deloitte & Touche LLP's review.

* Indicates the subject matter 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.

1.6 Management's Assertion and Limited Assurance

Management's Assertion

Management of Comcast Corporation is responsible for the completeness, accuracy and validity of the specified information included in this 2023 Carbon Footprint Data Report. Management is also responsible for the collection, quantification and presentation of the specified information and for the selection and development of the criteria and other reporting information, which management believes provide an objective basis for measuring and reporting on the specified information. For the purposes of limited assurance, management of Comcast Corporation asserts that the specified information for the fiscal year ended December 31, 2022 is presented in accordance with the criteria set forth in Section 1.5.

Limited Assurance

Deloitte & Touche LLP performed a review engagement on management's assertion above related to the specified information for the fiscal year ended December 31, 2022. Deloitte & Touche LLP's review report is included in Section 1.7.

Information relating to periods prior to the fiscal year ended December 31, 2022 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. Additionally, the metrics from Section 1.2 related to Biogenic CO₂ (outside of scopes), Clean energy and Percent clean electricity were 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. These metrics and corresponding reporting criteria have been distinguished using the "*" symbol.

1.7 Independent Accountant's Review Report



Deloitte & Touche LLP
1700 Market Street
Philadelphia, PA 19103
www.deloitte.com

To the Management of Comcast Corporation Philadelphia, Pennsylvania

We have reviewed management of Comcast Corporation's (the "Company") assertion that the specified information for the fiscal year ended December 31, 2022 is presented in accordance with the criteria set forth in Section 1.5 of the accompanying Carbon Footprint Data Report (the "Carbon Report"). The Company's management is responsible for its assertion. 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 of the Company 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.

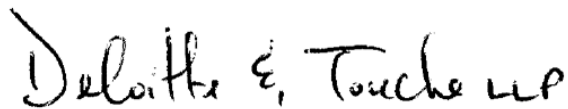
The procedures we performed were based on our professional judgment. In performing our review, we performed analytical procedures and inquiries. For a selection of the specified information, we performed tests of mathematical accuracy of computations, compared amounts to underlying records, and reviewed supporting documentation.

The preparation of the specified information 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 certain amounts includes estimates and assumptions that are subject to substantial inherent measurement uncertainty, resulting, for example, from accuracy and precision of greenhouse gas emission 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 disclosures. The selection by management of different but acceptable measurement methods, input data, or assumptions, may have resulted in materially different amounts or specified information being reported.

Information outside of the specified information included in Part I of the Carbon 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 fiscal year ended December 31, 2022, metrics from Section 1.2 related to Biogenic CO₂ (outside of scopes), Clean energy and Percent clean electricity or information relating to forward looking statements, goals and progress against goals, were not subject to our review and, accordingly, we do not express a conclusion or any form of assurance on such information.

Based on our review, we are not aware of any material modifications that should be made to management of Comcast Corporation's assertion that the specified information for the fiscal year ended December 31, 2022 is presented in accordance with the criteria set forth in Section 1.5 of the Carbon Report, in order for it to be fairly stated.

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

May 25, 2023

Part 2 - Comcast Scope 3 GHG Emissions

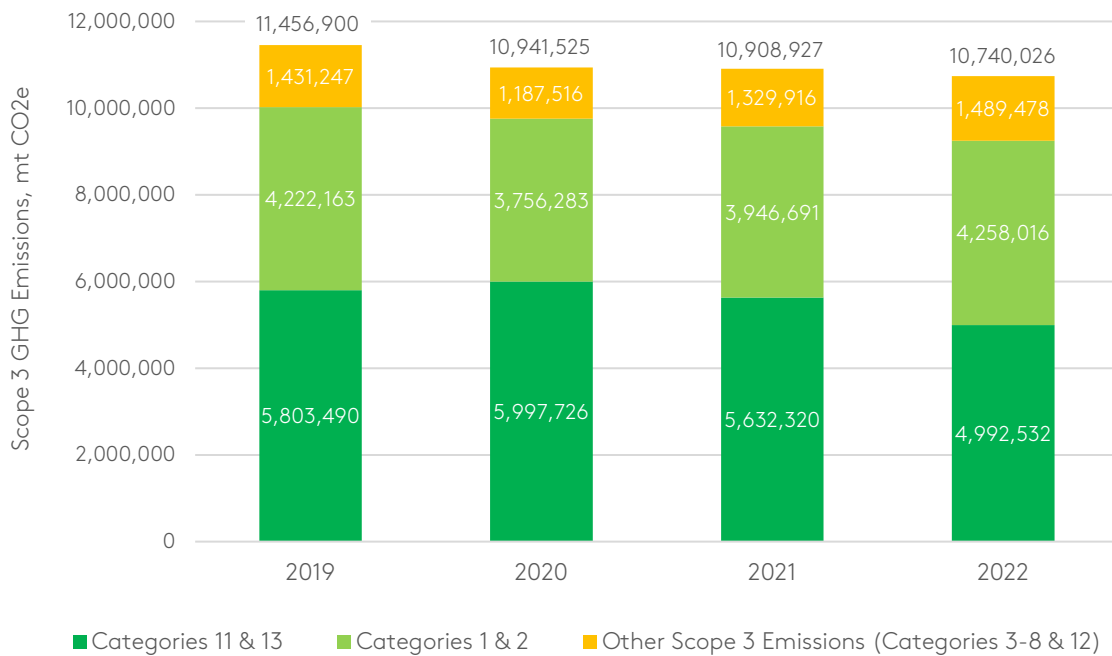
2.1 Overview

Information in Part 2 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.

Part 2 of this report provides Comcast's estimate of emissions associated with our value chain (Scope 3) from our 2019 baseline through 2022. Scope 3 GHG emissions occur from sources up and down the value chain that are not controlled by Comcast, and, in certain cases, two or more companies may account for the same emissions within the GHG inventories they calculate.

From 2019 to 2022, Comcast's estimated Scope 3 GHG emissions, reported in metric tonnes of CO₂ equivalents (mtCO₂e), decreased by 6%, primarily driven by decreases in product use phase emissions (Categories 11 and 13), slightly offset by increases in other Scope 3 categories.

Estimating and reporting on our Scope 3 GHG emissions was an important step for us in joining the Science Based Targets initiative (SBTi) on climate action. In 2022, we committed to set near-term GHG emissions reduction goals in line with pathways designed to limit global warming. These goals, once set, would include goals related to our Scope 3 GHG emissions.



2.2 Scope 3 GHG Emissions Data

Scope 3 emissions are calculated based on a significant number of estimations and management assumptions due to the inherent limitations of available data. The selection of different but acceptable estimation techniques can result in materially different calculations. Given these inherent data limitations and inconsistent estimation techniques among companies for Scope 3 GHG emissions estimates in particular, readers are cautioned to not place any undue reliance on our estimated Scope 3 emissions.

Scope 3 Categories	Unit	2019 Base Year	2020	2021	2022 Reporting Year
Greenhouse gas emissions					
Category 1: Purchased goods and services*	mtCO ₂ e	4,222,163	3,756,283	3,946,691	2,848,571
Category 2: Capital goods	mtCO ₂ e				1,409,445
Category 3: Fuel- and energy-related activities	mtCO ₂ e	564,710	498,581	669,777	529,522
Category 4: Upstream transportation and distribution	mtCO ₂ e	307,484	330,003	388,871	407,123
Category 5: Waste generated in operations	mtCO ₂ e	28,862	23,128	17,277	19,214
Category 6: Business travel	mtCO ₂ e	202,470	50,739	46,651	132,862
Category 7: Employee commuting	mtCO ₂ e	305,359	65,032	42,844	111,459
Category 8: Upstream leased assets*	mtCO ₂ e	14,711	216,617	158,049	278,517
Category 11: Use of sold products*	mtCO ₂ e	1,540,692	1,688,780	1,479,007	186,533
Category 12: End-of-life treatment of sold products	mtCO ₂ e	7,651	3,416	6,447	10,781
Category 13: Downstream leased assets*	mtCO ₂ e	4,262,798	4,308,946	4,153,313	4,805,999
Scope 3 Total	mtCO₂e	11,456,900	10,941,525	10,908,927	10,740,026

*Select GHG emissions reported in Category 1 in 2019 were recategorized to Category 8 starting in 2020; select GHG emissions reported in Category 11 in 2021 and prior were recategorized to Category 13 starting in 2022. See the Methodologies table in Section 2.3 for more information.

2.3 Scope 3 Reporting Information

Reporting Scope and Boundary

In this report, the GHG reporting boundary for the information is for Comcast Corporation and its consolidated subsidiaries. This report includes calendar-year data from our base year of 2019 through 2022.

To establish the relevant entities for purposes of its Scope 3 GHG emissions inventory, Comcast used the operational control approach, as defined by the GHG Protocol and Section 1.4 above. Included within Scope 3 are emissions arising from the value chain of the entities within our organizational boundary.

Scope 3 Methodologies and Emission Factors

Comcast’s estimated Scope 3 GHG emissions were prepared in accordance with “The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)” (GHGP Corporate Standard) and the “Technical Guidance for Calculating Scope 3 Emissions” (GHGP Scope 3 Technical Guidance) published by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD), using a variety of methodologies as described in the table below.

Emission factor sources used in our 2022 estimated Scope 3 GHG emissions are provided in the table below. Many of the emission factor sources provide emission factors in CO₂e, which are used in the Scope 3 GHG emissions inventory. In cases where Comcast calculated CO₂e from emission factors for individual greenhouse gases, Comcast used the GWPs from the AR4.

See the [Carbon Footprint Data Report](#) for prior years for relevant emission factors used in 2019, 2020 and 2021 GHG emissions calculations.

Categories	Primary Methods	2022 Emission Factors
Category 1: Purchased goods and services	<p>Supplier-specific spend-based method: Multiplies the spend in dollars by the relevant supplier-specific emission factor per unit of economic value (i.e., mtCO₂e/\$)</p> <p>Spend-based method: Multiplies the spend in dollars by the relevant secondary emission factors per unit of economic value (i.e., mtCO₂e/\$)</p> <p>Spend related to programming contracts, licensed content, and sports rights were excluded</p> <p><i>Note: In 2019 reporting, this category also included emissions from certain upstream leased assets; starting in 2020, emissions from these assets are captured in Category 8</i></p>	<ul style="list-style-type: none"> Supplier-specific emission factors from the most recently available CDP Supplier submissions, vendor surveys or supplemental research. The supplier Scope 1 emissions, Scope 2 emissions, upstream Scope 3 emissions and revenue were utilized to create a supplier-specific spend-based emission factor U.S. EPA Supply Chain GHG Emission Factors for US Commodities and Industries v1.1.1 (March 2022) <p><i>Approximately 15% of emissions in this category comes from supplier-specific direct allocations, supplier-specific emission factors or data directly provided by our suppliers</i></p>

Scope 3 Methodologies and Emission Factors (continued)

Categories	Primary Methods	2022 Emission Factors
Category 2: Capital goods	<p>Supplier-specific spend-based method: Multiplies the spend in dollars by the relevant supplier-specific emission factor per unit of economic value (i.e., mtCO₂e/\$)</p> <p>Spend-based method: Multiplies the spend in dollars by the relevant secondary emission factors per unit of economic value (i.e., mtCO₂e/\$)</p>	<ul style="list-style-type: none"> Supplier-specific emission factors from the most recently available CDP Supplier submissions, vendor surveys or supplemental research. The supplier Scope 1 emissions, Scope 2 emissions, upstream Scope 3 emissions and revenue were utilized to create a supplier-specific spend-based emission factor U.S. EPA Supply Chain GHG Emission Factors for US Commodities and Industries v1.1.1 (March 2022) <p><i>Approximately 2% of emissions in this category comes from supplier-specific direct allocations, supplier-specific emission factors or data directly provided by our suppliers</i></p>
Category 3: Fuel-and-energy related activities (not included in Scope 1 or 2)	<p>Average-data method: Utilizes average emissions per unit of consumption, multiplying by the well-to-tank (WTT), transportation and distribution (T&D), and well-to-tank transportation and distribution (WTT T&D) factors when relevant</p>	<ul style="list-style-type: none"> U.S. EPA 2020 Emissions & Generation Resource Integrated Database (eGRID2020) (February 2022) IEA Statistics Data Service: 2022 Emission Factors: T&D losses adjustment (September 2022) UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting 2022 (September 2022)
Category 4: Upstream transportation and distribution	<p>Supplier-specific spend-based method: Multiplies the spend in dollars by the relevant supplier-specific emission factor per unit of economic value (i.e., mtCO₂e/\$)</p> <p>Spend-based method: Multiplies the spend in dollars by the relevant secondary emission factors per unit of economic value (i.e., mtCO₂e/\$)</p>	<ul style="list-style-type: none"> Supplier-specific emission factors from the most recently available CDP Supplier submissions, vendor surveys or supplemental research. The supplier Scope 1 emissions, Scope 2 emissions, upstream Scope 3 emissions and revenue were utilized to create a supplier-specific spend-based emission factor U.S. EPA Supply Chain GHG Emission Factors for US Commodities and Industries v1.1.1 (March 2022) <p><i>Approximately 9% of emissions in this category comes from supplier-specific direct allocations, supplier-specific emission factors or data directly provided by our suppliers</i></p>
Category 5: Waste generated in operations	<p>Supplier-specific direct allocation method: Direct allocation of emissions from suppliers</p> <p>Waste-type-specific method: Multiplies the weight in short tons by relevant secondary emission factors per unit of weight (i.e., mtCO₂e/short ton)</p> <p>Average-data method: Multiplies leased asset square footage by the appropriate usage intensity factor then by the relevant emission factor (i.e., sq ft * short ton /sq ft * mtCO₂e/short ton)</p> <p>Spend-based method: Multiplies the spend in dollars by the relevant secondary emission factors per unit of economic value (i.e., mtCO₂e/\$)</p>	<ul style="list-style-type: none"> Greenhouse Gas Protocol Scope 3 Evaluator Quantis Tool U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 9 (April 2022) UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting 2022 (September 2022) <p><i>Approximately 77% of emissions in this category comes from supplier-specific direct allocations, supplier-specific emission factors or data directly provided by our suppliers</i></p>

Scope 3 Methodologies and Emission Factors (continued)

Categories	Primary Methods	2022 Emission Factors
Category 6: Business travel	<p>Supplier-specific direct allocation method: Direct allocation of emissions from suppliers</p> <p>Fuel-based method: Multiplies fuel consumption in gallons by relevant emission factor (i.e., mtCO₂e/gallon)</p> <p>Distance-based method: Multiplies the travel reported in miles by the relevant emission factor (i.e., mtCO₂e/mile)</p> <p>Spend-based method: Multiplies the spend in dollars by the relevant secondary emission factors per unit of economic value (i.e., mtCO₂e/\$)</p>	<ul style="list-style-type: none"> U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 2 (April 2022) UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting 2022 (September 2022) U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 5 and Table 10 (April 2022) U.S. EPA Supply Chain GHG Emission Factors for US Commodities and Industries v1.1.1 (March 2022) <p><i>Approximately 86% of emissions in this category comes from supplier-specific direct allocations, supplier-specific emission factors or data directly provided by our suppliers</i></p>
Category 7: Employee commuting	<p>Average-data method: Multiplies headcount by return to office data, then by relevant emission factor (i.e., mtCO₂e/FTE)</p>	<ul style="list-style-type: none"> UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting 2022 (September 2022) Greenhouse Gas Protocol Scope 3 Evaluator Quantis Tool
Category 8: Upstream leased assets	<p>Supplier-specific spend-based method: Multiplies the spend in dollars by the relevant supplier-specific emission factor per unit of economic value (i.e., mtCO₂e/\$)</p> <p>Spend-based method: Multiplies the spend in dollars by the relevant secondary emission factors per unit of economic value (i.e., mtCO₂e/\$)</p> <p>Average-data method: Multiplies leased asset square footage by the appropriate usage intensity factor then by the relevant emission factor (i.e., sq ft * kWh/sq ft * mtCO₂e/kWh)</p> <p><i>Note: In 2019 reporting, emissions from certain upstream leased assets were included in Category 1; starting in 2020, emissions from these assets are captured in Category 8</i></p>	<ul style="list-style-type: none"> Supplier-specific emission factors from the most recently available CDP Supplier submissions, vendor surveys or supplemental research. The supplier Scope 1 emissions, Scope 2 emissions, upstream Scope 3 emissions and revenue were utilized to create a supplier-specific spend-based emission factor IEA Statistics Data Service: 2020 Emission Factors (September 2022) U.S. EPA 2020 Emissions & Generation Resource Integrated Database (eGRID2020) (February 2022) U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 1 (April 2022) U.S. EIA Commercial Buildings Energy Consumption Survey (December 2022) U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 11 & Table 12 (April 2022) U.S. EPA Supply Chain GHG Emission Factors for US Commodities and Industries v1.1.1 (March 2022) <p><i>Approximately 89% of emissions in this category comes from supplier-specific direct allocations, supplier-specific emission factors or data directly provided by our suppliers</i></p>

Scope 3 Methodologies and Emission Factors (continued)

Categories	Primary Methods	2022 Emission Factors
Category 9: Downstream transportation and distribution	Not applicable	
Category 10: Processing of sold products	Not applicable	
Category 11: Use of sold products	<p>Product-specific method: Multiplies total volume of devices by a model-specific or weighted average annual energy usage per device, then by an estimated lifetime and relevant secondary emission factor (i.e., number of devices * kWh/year * lifetime in years * mtCO₂e/kWh)</p> <p><i>Note: In 2019-2021 reporting years, this category also included emissions from certain products sold via a subscription-based service model and certain leased devices; emissions from these devices are now captured in Category 13</i></p>	<ul style="list-style-type: none"> U.S. EPA 2020 Emissions & Generation Resource Integrated Database (eGRID2020) (February 2022) IEA Statistics Data Service: 2020 Emission Factors (September 2022) UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting 2022 (September 2022)
Category 12: End-of-life treatment of sold products	<p>Waste-type-specific method: Multiplies the number of products sold by the product weight and the appropriate end-of-life emission factor matching the type of material being disposed (i.e., number of products sold * pound/product * mtCO₂e/pound)</p>	<ul style="list-style-type: none"> Device-specific Life Cycle Assessments (LCA) U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 9 (April 2022) Green Story Inc: "Comparative Life Cycle Assessment (LCA) of Second-Hand vs New Clothing" (May 2019)
Category 13: Downstream leased assets	<p>Product-specific method: Multiplies the total volume of active devices by a model-specific or weighted average annual energy usage per device, then by the relevant secondary emission factor (i.e., active leased products * kWh/year * mtCO₂e/kWh)</p> <p>Average-data method: Multiplies leased asset square footage by the appropriate usage intensity factor then by the relevant emission factor (i.e., sq ft * kWh/sq ft * mtCO₂e/kWh)</p> <p>Distance-based method: Multiplies total miles driven (based on number of days rented) by the relevant emission factor (i.e., days * miles/day * mtCO₂e/mile)</p> <p><i>Note: In 2019-2021 reporting years, emissions from certain products sold via a subscription-based service model and certain leased devices were included in Category 11; starting in 2022, emissions from these devices are now captured in Category 13</i></p>	<ul style="list-style-type: none"> U.S. EPA 2020 Emissions & Generation Resource Integrated Database (eGRID2020) (February 2022) IEA Statistics Data Service: 2020 Emission Factors (September 2022) UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting 2022 (September 2022) U.S. Energy Information Administration, Residential Energy Consumption Survey (RECS) (March 2023) U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 2 (April 2022) <p><i>For leased facilities in Category 13, please refer to emission factors utilized in Category 8: Upstream Leased Assets.</i></p>

Scope 3 Methodologies and Emission Factors (continued)

Categories	Primary Methods	2022 Emission Factors
Category 14: Franchises	This category has not been evaluated by Comcast	
Category 15: Investments	This category has not been evaluated by Comcast	

Scope 3 Recalculation Policy

Comcast set a 2019 base year for Scope 3 GHG emissions, aligned with the 2019 base year for Scope 1 and Scope 2 GHG emissions. For consistency when comparing base year emissions to current and future reporting periods, Comcast has a recalculation policy by which we will recalculate our base year Scope 3 GHG emissions inventory to reflect significant individual or cumulative changes. The following types of changes will be tracked and may trigger recalculation of base year emissions when significant: structural changes (e.g., mergers, acquisitions, divestments, outsourcing and insourcing), changes in calculation methodologies, improvements in data accuracy and discovery of errors or omissions.

This 2023 Carbon Footprint Data Report does not reflect any recalculations to prior years' Scope 3 reporting.

2.4 Scope 3 Reporting Criteria

The following summary table defines the criteria used in Part 2 of this report.

Area	Subject Matter	Criteria
Greenhouse gas emissions	Scope 3*	The GHGP Corporate Standard. Reported Scope 3 emissions were calculated in accordance with the methodologies in the GHGP Scope 3 Technical Guidance.

* Indicates the subject matter 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.