



# 2024 Carbon Footprint Data Report

For the fiscal year ended December 31, 2023



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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 2023 for Comcast Corporation and its consolidated subsidiaries, referred to as "Comcast," "we," "us" and "our." Learn more about our environmental goals and impact on the [Environment](#) page of our website.

The emissions and energy data in this report is based on a combination of measured and estimated emissions and energy 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 have been recalculated in this report according to the Base Year Emissions Recalculation Policy outlined in Section 1.4 and Section 2.3.

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.

This report includes estimates, projections and statements regarding plans and goals that may constitute "forward-looking statements" within the meaning of the Private Securities Litigation Report Act of 1995, Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. For more information on these statements, please see the Disclaimer on page 20.

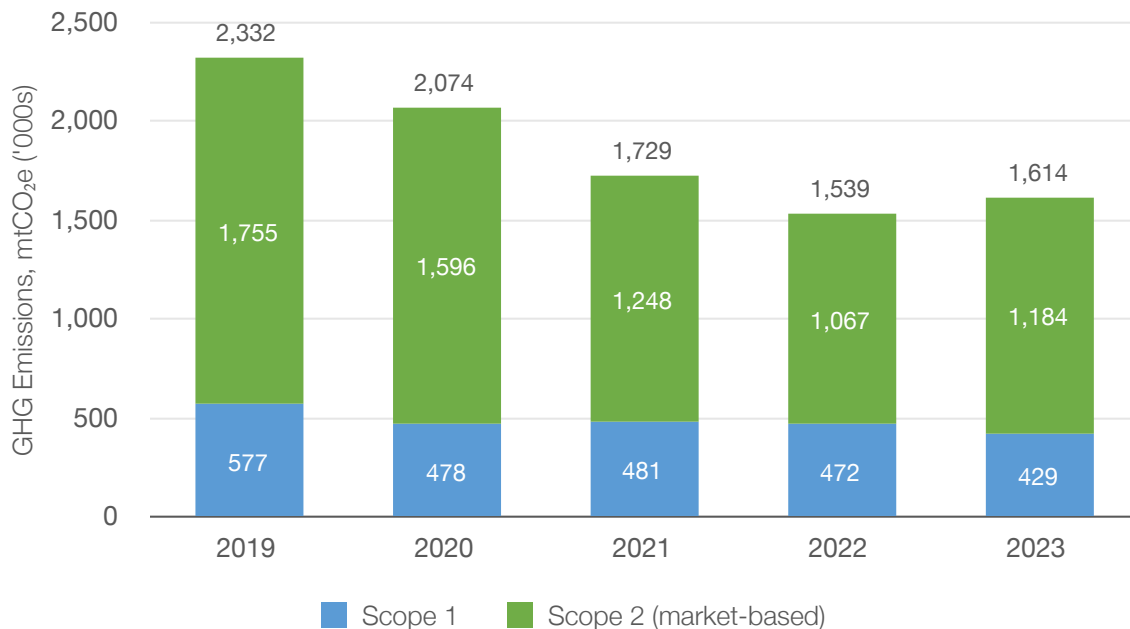
# Part 1 - Comcast Scope 1 and 2 GHG Emissions

## 1.1 Overview

Comcast has 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 31% from our 2019 base year through 2023.

In 2023, Comcast's Scope 1 and 2 (market-based) GHG emissions, reported in metric tonnes of CO<sub>2</sub> equivalents (mtCO<sub>2</sub>e), were 1.6 million. Our emissions increased 5% from 2022 to 2023, due to reductions in clean energy usage in the year and the overall browning of the U.S. electricity grid during the post-COVID-19 recovery period.

Many of our operational energy and emissions metrics decreased year-over-year, including total energy consumed, energy intensity per \$ million revenue, Scope 1 emissions from fugitive emissions and fuels burned in our operations, and electricity per consumed byte of data on our U.S. network, despite the overall emissions increase. Looking forward, we're continuing to make long-term investments in energy efficiency and clean and renewable energy contracts that we expect will help reduce our impact as we grow our network and business into the future.



Deloitte & Touche LLP performed a limited assurance review engagement on management's assertion related to certain information (the "specified information") for the years ended December 31, 2023 and 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	Units	2019* Base Year	2020*	2021*	2022	2023 Reporting Year
<b>Greenhouse gas emissions</b>						
Scope 1	mtCO <sub>2</sub> e ('000s)	577	478	481	472	429
Scope 2 (market-based)	mtCO <sub>2</sub> e ('000s)	1,755	1,596	1,248	1,067	1,184
Scope 2 (location-based)	mtCO <sub>2</sub> e ('000s)	1,831	1,710	1,556	1,502	1,536
Total Scope 1 and 2 market-based	mtCO <sub>2</sub> e ('000s)	2,332	2,074	1,729	1,539	1,614
Total Scope 1 and 2 location-based	mtCO <sub>2</sub> e ('000s)	2,408	2,188	2,037	1,973	1,966
Biogenic CO <sub>2</sub> (outside of scopes)	mtCO <sub>2</sub> e ('000s)	NR	NR	NR	3	3
<b>Carbon intensity</b>						
Revenue	\$ million	108,942	103,564	116,385	121,427	121,572
Carbon emissions per \$ million revenue	mtCO <sub>2</sub> e/ \$ million	21.4	20.0	14.9	12.7	13.3
<b>Energy</b>						
Total energy consumed	MWh ('000s)	6,942	6,331	6,135	6,219	5,968
Total electricity consumed	MWh ('000s)	4,689	4,385	4,233	4,323	4,244
Grid electricity	MWh ('000s)	4,646	4,340	4,182	4,280	4,224
Percent grid electricity	%	66.9	68.6	68.2	68.8	70.8
Energy intensity per \$ million revenue	MWh/\$ million	63.7	61.1	52.7	51.2	49.1
Electricity per consumed byte <sup>*</sup>	kWh/TB	18.4	15.6	13.5	12.3	11.0
<b>Renewable and clean energy</b>						
Total renewable energy	MWh ('000s)	238	345	679	575	422
Percent renewable energy	%	3.4	5.4	11.1	9.3	7.1
Percent renewable electricity	%	5.1	7.9	16.0	13.3	9.9
Total clean energy	MWh ('000s)	238	345	777	1,249	1,098
Percent clean electricity	%	5.1	7.9	18.4	28.9	25.9

Note: Data for 2019 - 2022 in this table has been recalculated according to the Base Year Emissions Recalculation Policy outlined in Section 1.4.

\* 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 2023 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) ('000s)			mtCO <sub>2</sub> e ('000s)		
CO <sub>2</sub>	370	1,178	1,528	370	1,178	1,528
CH <sub>4</sub>	0	0	0	0	2	3
N <sub>2</sub> O	0	0	0	1	4	5
HFCs	0	N/A	N/A	58	N/A	N/A
<b>Total</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>429</b>	<b>1,184</b>	<b>1,536</b>

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 2023.

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 (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and hydrofluorocarbons (HFCs). Perfluorocarbons (PFCs) and nitrogen trifluoride (NF<sub>3</sub>) are not present in Comcast's operations, and sulfur hexafluoride (SF<sub>6</sub>) is only present in negligible quantities.

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 is 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.

## Outside of Scopes

CO<sub>2</sub> 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 2023 GHG emissions inventory calculations include:

Scope	Emission factor source
Scope 1	<ul style="list-style-type: none"> <li>• U.S. EPA Climate Leaders, Emission Factors for Greenhouse Gas Inventories (April 2023)</li> <li>• UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting (June 2023)</li> <li>• Japan’s Ministry of Environment Combustion Factors (April 2022)</li> </ul>
Outside of Scopes	<ul style="list-style-type: none"> <li>• U.S. EPA Center for Corporate Climate Leadership, Emission Factors for Greenhouse Gas Inventories (April 2023)</li> <li>• UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting (June 2023)</li> </ul>

Scope	Emission factor source
Scope 2 (market-based)	<ul style="list-style-type: none"> <li>• Association of Issuing Bodies: Version 1.0 2022 European Residual Mixes (June 2023)</li> <li>• The Climate Registry (June 2023)</li> <li>• Bloom Energy Fuel Cell Emission Rates (December 2023)</li> <li>• New York Power Authority (NYPA) Air &amp; Sustainability Program (August 2023)</li> <li>• Applicable factors used in the location-based method</li> </ul>
Scope 2 (location-based)	<ul style="list-style-type: none"> <li>• U.S. EPA's 2021 Emissions &amp; Generation Resource Integrated Database (eGRID2021) (January 2023)</li> <li>• U.S. EPA Center for Corporate Climate Leadership, Emission Factors for Greenhouse Gas Inventories (April 2023)</li> <li>• U.S. Energy Star Portfolio Manager Technical Reference (August 2023)</li> <li>• International Energy Agency (IEA): Emission Factors 2023 (September 2023)</li> <li>• UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting (June 2023)</li> <li>• Japan's Ministry of the Environment Emission Factors by Electric Supplier (January 2024)</li> </ul>

Many of the emission factor sources above provide emission factors in CO<sub>2</sub>e, which are used in the Scope 1 and 2 GHG emissions inventory. In cases where Comcast calculates CO<sub>2</sub>e 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 prior years' emissions calculations.

## Energy

Total energy consumed is the combination of energy from fuel consumption, purchased electricity from the grid and on-site 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, city gas, methanol, 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 3.1) 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 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 2023, Comcast’s consumption of clean and renewable energy was 78.7% from products backed by EACs, 20.8% from supplier-specific products 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.

Our 2023 emissions and energy metric reporting reflects recalculations to prior years, in accordance with our recalculation policy, to improve the comparability of these data points. These recalculations include structural changes, changes in calculation methodologies, improvements in data accuracy and the correction of errors, which impact Scope 1 and Scope 2 emissions, including their energy metrics. Fugitive emissions not covered by the Kyoto Protocol (e.g., CFCs, HCFCs, etc.) are no longer reported within Scope 1 to align with the GHG Protocol.

All references to the progress we’ve made in reducing our emissions and energy usage in relation to our base year and prior years has been updated to reflect these adjustments and corrections of errors.

## 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 <sup>†</sup> Scope 2 (market-based) <sup>†</sup> Scope 2 (location-based) <sup>†</sup> Biogenic CO2 (outside of scopes) <sup>†</sup>	“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 <sup>†</sup>	Comcast defined criteria. Calculated as total Scope 1 and 2 market-based GHG emissions divided by revenue (\$ million).
Energy	Total energy consumed <sup>†</sup> Total electricity consumed <sup>†</sup> Grid electricity <sup>†</sup> Percent grid electricity <sup>†</sup>	Comcast calculates these metrics in alignment with Sustainability Accounting Standards Board (SASB) metric TC-TL-130a.1. Total energy consumed converted to gigajoules (GJ) (rounded to the nearest '000) is 21,486,000 GJ in 2023, 22,388,000 GJ in 2022; 22,084,000 GJ in 2021*; 22,790,000 GJ in 2020*; and 24,992,000 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 <sup>†</sup>	Comcast defined criteria. Calculated as total energy consumed divided by revenue (\$ million).
	Electricity per consumed byte*	Comcast defined criteria. Electricity per Consumed Byte ("EPCB") is the amount of electricity consumed per customer consumed terabyte of data over our US network. Electricity consumed consists of all sources of electricity (grid and on-site renewable generation) that are interconnected to Comcast facilities (technical, non-technical, and data centers), backbone sites, or the outside plant (interconnected at the power supply). Customer consumed terabytes are bytes that are consumed or transmitted by residential and commercial customers.
Renewable and clean energy	Renewable energy <sup>†</sup> Percent renewable energy <sup>†</sup>	SASB metric TC-TL-130a.1 Renewable energy is the numerator in the equation for calculating Percentage renewable energy.
	Percent renewable electricity <sup>†</sup>	Percent renewable electricity is total renewable electricity divided by total electricity consumed.
	Clean energy <sup>†</sup> Percent clean electricity <sup>†</sup>	Comcast considers clean energy to be comprised of energy sources listed by the U.S. Department of Energy ( <a href="https://www.energy.gov/clean-energy">https://www.energy.gov/clean-energy</a> ), 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.

<sup>†</sup> Indicates the subject matter represents specified information. The specified information for the years ended December 31, 2023 and 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 2024 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 years ended December 31, 2023 and 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 years ended December 31, 2023 and 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 metric from Section 1.2 related to Electricity per consumed byte 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. These metrics and corresponding reporting criteria have been distinguished using the "\*" symbol.

## 1.7 Independent Accountant's Report



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### **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 years ended December 31, 2023 and 2022 is presented in accordance with the criteria set forth in Section 1.5 of the accompanying 2024 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 Electricity per consumed byte 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 years ended December 31, 2023 and 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.

*Deloitte & Touche LLP*

May 23, 2024

# Part 2 - Comcast Scope 3 GHG Emissions

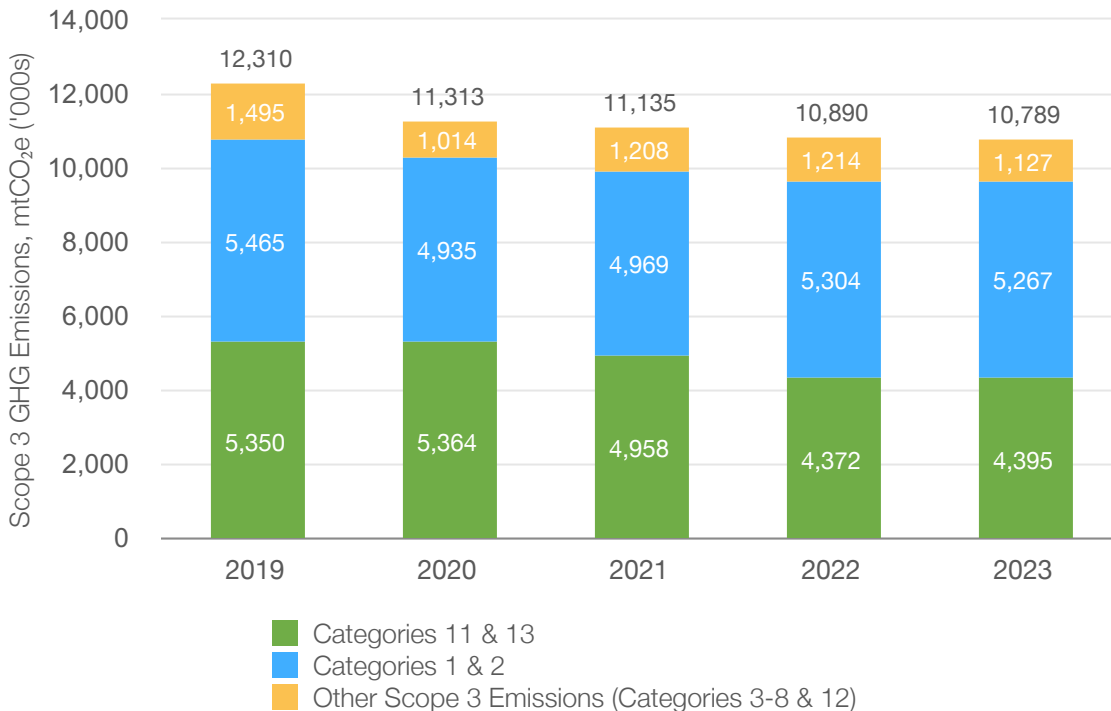
**Information in Part 2 was not subject to Deloitte & Touche LLP's review and, accordingly, Deloitte & Touche LLP does not express a conclusion or any form of assurance on such information.**

## 2.1 Overview

Part 2 of this report provides Comcast's estimate of emissions associated with our value chain (Scope 3) from our 2019 baseline through 2023. Scope 3 GHG emissions occur from sources up and down the value chain that are not directly controlled by Comcast, and, in certain cases, two or more companies may account for the same emissions within the GHG inventories they calculate.

In 2023, Comcast's estimated Scope 3 GHG emissions were 10.8 million mtCO<sub>2</sub>e, down slightly from 2022. From 2019 to 2023, Comcast's estimated Scope 3 GHG emissions decreased by 12%. This reduction was primarily driven by decreases in the use-phase emissions of leased devices (Category 13), mainly due to lower device volumes as well as greening energy grids since 2019 in the regions where we operate. Comcast's estimated emissions are reported in thousands of metric tons of CO<sub>2</sub> equivalent (000s mtCO<sub>2</sub>e).

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. We have 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 weight or reliance on our estimated Scope 3 emissions.

Scope 3 Categories	Units	2019 Base Year	2020	2021	2022	2023 Reporting Year
<b>Greenhouse gas emissions</b>						
Category 1: Purchased goods and services*	mtCO <sub>2</sub> e ('000s)	3,825	3,499	3,637	3,757	3,466
Category 2: Capital goods	mtCO <sub>2</sub> e ('000s)	1,641	1,437	1,332	1,547	1,802
Category 3: Fuel- and energy-related activities	mtCO <sub>2</sub> e ('000s)	565	499	670	530	386
Category 4: Upstream transportation and distribution	mtCO <sub>2</sub> e ('000s)	247	289	341	319	273
Category 5: Waste generated in operations	mtCO <sub>2</sub> e ('000s)	29	23	17	19	21
Category 6: Business travel	mtCO <sub>2</sub> e ('000s)	264	66	68	158	173
Category 7: Employee commuting	mtCO <sub>2</sub> e ('000s)	305	65	43	111	198
Category 8: Upstream leased assets	mtCO <sub>2</sub> e ('000s)	65	61	55	57	58
Category 11: Use of sold products	mtCO <sub>2</sub> e ('000s)	207	224	285	175	177
Category 12: End-of-life treatment of sold products	mtCO <sub>2</sub> e ('000s)	20	11	14	20	17
Category 13: Downstream leased assets	mtCO <sub>2</sub> e ('000s)	5,143	5,140	4,673	4,197	4,218
<b>Scope 3 Total</b>	<b>mtCO<sub>2</sub>e ('000s)</b>	<b>12,310</b>	<b>11,313</b>	<b>11,135</b>	<b>10,890</b>	<b>10,789</b>

## 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 2023.

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 GHG Protocol 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 2023 estimated Scope 3 GHG emissions are provided in the table below. Many of the emission factor sources provide emission factors in CO<sub>2</sub>e, which are used in the Scope 3 GHG emissions inventory. In cases where Comcast calculated CO<sub>2</sub>e from emission factors for individual greenhouse gases, Comcast used the GWPs from the AR4.

Categories	Primary Methods	2023 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., mtCO<sub>2</sub>e/\$)</p> <p>Spend-based method: Multiplies the spend in dollars by the relevant secondary emission factors per unit of economic value (i.e., mtCO<sub>2</sub>e/\$)</p> <p>Life Cycle Assessment method: Multiplies LCA-based emissions by the volume of products purchased (i.e., LCA stage emission factor * annual product volume)</p> <p>Spend related to video distribution programming contracts was excluded</p>	<ul style="list-style-type: none"> <li>Supplier-specific emission factors from the most recently available CDP Supplier submissions, vendor surveys or supplemental research. The supplier Scope 1 emissions, Scope 2 market-based emissions, upstream Scope 3 emissions and revenue were utilized to create a supplier-specific spend-based emission factor</li> <li>U.S. EPA Supply Chain GHG Emission Factors for US Commodities and Industries v1.2 (April 2023)</li> <li>Product-specific Life Cycle Assessments (LCA)</li> </ul> <p><i>Approximately 31% 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 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., mtCO<sub>2</sub>e/\$)</p> <p>Spend-based method: Multiplies the spend in dollars by the relevant secondary emission factors per unit of economic value (i.e., mtCO<sub>2</sub>e/\$)</p>	<ul style="list-style-type: none"> <li>Supplier-specific emission factors from the most recently available CDP Supplier submissions, vendor surveys or supplemental research. The supplier Scope 1 emissions, Scope 2 market-based emissions, upstream Scope 3 emissions and revenue were utilized to create a supplier-specific spend-based emission factor</li> <li>U.S. EPA Supply Chain GHG Emission Factors for US Commodities and Industries v1.2 (April 2023)</li> </ul> <p><i>Approximately 13% 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	2023 Emission Factors
Category 3: Fuel-and-energy related activities (not included in Scope 1 or 2)	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	<ul style="list-style-type: none"> <li>U.S. EPA 2021 Emissions &amp; Generation Resource Integrated Database (eGRID2021) (January 2023)</li> <li>IEA 2023 Life Cycle Upstream Emission Factors (Pilot Edition)</li> <li>IEA Emissions Factors 2023 (September 2023)</li> <li>UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting (June 2023)</li> </ul>
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., mtCO<sub>2</sub>e/\$)</p> <p>Spend-based method: Multiplies the spend in dollars by the relevant secondary emission factors per unit of economic value (i.e., mtCO<sub>2</sub>e/\$)</p> <p>Life Cycle Assessment method: Multiplies LCA-based emissions by the volume of products purchased (i.e., LCA stage emission factor * annual product volume)</p>	<ul style="list-style-type: none"> <li>Supplier-specific emission factors from the most recently available CDP Supplier submissions, vendor surveys or supplemental research. The supplier Scope 1 emissions, Scope 2 market-based emissions, upstream Scope 3 emissions and revenue were utilized to create a supplier-specific spend-based emission factor</li> <li>U.S. EPA Supply Chain GHG Emission Factors for US Commodities and Industries v1.2 (April 2023)</li> <li>Product-specific Life Cycle Assessments (LCA)</li> </ul> <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>
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., mtCO<sub>2</sub>e/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., mtCO<sub>2</sub>e/\$)</p>	<ul style="list-style-type: none"> <li>U.S. EPA Supply Chain GHG Emission Factors for US Commodities and Industries v1.2 (April 2023)</li> <li>U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 9 (September 2023)</li> <li>UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting (June 2023)</li> </ul> <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 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., mtCO<sub>2</sub>e/gallon)</p> <p>Distance-based method: Multiplies the travel reported in miles by the relevant emission factor (i.e., mtCO<sub>2</sub>e/mile)</p> <p>Spend-based method: Multiplies the spend in dollars by the relevant secondary emission factors per unit of economic value (i.e., mtCO<sub>2</sub>e/\$)</p>	<ul style="list-style-type: none"> <li>U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 2, Table 5, and Table 10 (September 2023)</li> <li>UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting (June 2023)</li> <li>U.S. EPA Supply Chain GHG Emission Factors for US Commodities and Industries v1.2 (April 2023)</li> </ul> <p><i>Approximately 78% 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	2023 Emission Factors
Category 7: Employee commuting	<p>Average-data method: Multiplies headcount by return to office data, then by relevant emission factor (i.e., mtCO<sub>2</sub>e/FTE)</p> <p>Average-data method: Multiplies headcount by average annual commute distance, then by relevant emission factor for mode of transport (i.e., mtCO<sub>2</sub>e/mode of transport)</p>	<ul style="list-style-type: none"> <li>UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting 2023 (June 2023)</li> <li>Greenhouse Gas Protocol Scope 3 Evaluator Quantis Tool</li> </ul>
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., mtCO<sub>2</sub>e/\$)</p> <p>Spend-based method: Multiplies the spend in dollars by the relevant secondary emission factors per unit of economic value (i.e., mtCO<sub>2</sub>e/\$)</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 * mtCO<sub>2</sub>e/kWh)</p>	<ul style="list-style-type: none"> <li>Supplier-specific emission factors from the most recently available CDP Supplier submissions, vendor surveys or supplemental research. The supplier Scope 1 and Scope 2 market-based emissions and revenue were utilized to create a supplier-specific spend-based emission factor</li> <li>IEA Statistics Data Service: 2020 Emission Factors (September 2022)</li> <li>U.S. EPA 2021 Emissions &amp; Generation Resource Integrated Database (eGRID2021) (January 2023)</li> <li>U.S. EPA Supply Chain GHG Emission Factors for US Commodities and Industries v1.2 (April 2023)</li> <li>U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 1, Table 11, Table 12 (April 2022)</li> <li>U.S. Energy Information Administration, Commercial Buildings Energy Consumption Survey (CBECS) (December 2022)</li> <li>UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting (June 2023)</li> </ul> <p><i>Approximately 38% 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 9: Downstream transportation and distribution	Not applicable	
Category 10: Processing of sold products	Not applicable	

## Scope 3 Methodologies and Emission Factors (continued)

Categories	Primary Methods	2023 Emission Factors
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 * mtCO<sub>2</sub>e/kWh)</p> <p>Life Cycle Assessment method: Multiplies LCA-based emissions by the volume of products sold (i.e., LCA stage emission factor * annual product volume)</p>	<ul style="list-style-type: none"> <li>U.S. EPA 2021 Emissions &amp; Generation Resource Integrated Database (eGRID2021) (January 2023)</li> <li>Product-specific Life Cycle Assessments (LCA)</li> </ul> <p><i>Approximately 25% of emissions in this category comes from product-specific LCAs or lab measurements of product energy usage</i></p>
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 * mtCO<sub>2</sub>e/pound)</p> <p>Life Cycle Assessment method: Multiplies LCA-based emissions by the volume of products sold (i.e., LCA stage emission factor * annual product volume)</p>	<ul style="list-style-type: none"> <li>U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 9 (April 2022)</li> <li>Product-specific Life Cycle Assessments (LCA)</li> <li>Green Story Inc: "Comparative Life Cycle Assessment (LCA) of Second-Hand vs New Clothing" (May 2019)</li> </ul> <p><i>Approximately 35% of emissions in this category comes from product-specific LCAs or lab measurements of product energy usage</i></p>
Category 13: Downstream leased assets	<p>Product-specific method: Multiplies 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 devices * kWh/year * mtCO<sub>2</sub>e/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 * mtCO<sub>2</sub>e/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 * mtCO<sub>2</sub>e/mile)</p> <p>Life Cycle Assessment method: Multiplies LCA-based emissions by the volume of products leased (i.e., LCA stage emission factor * annual product volume)</p>	<ul style="list-style-type: none"> <li>U.S. EPA 2021 Emissions &amp; Generation Resource Integrated Database (eGRID2021) (January 2023)</li> <li>UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting (June 2023)</li> <li>U.S. Energy Information Administration, Residential Energy Consumption Survey (RECS) (March 2023)</li> <li>U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 2 (September 2023)</li> <li>Product-specific Life Cycle Assessments (LCA)</li> </ul> <p><i>For leased facilities in Category 13, please refer to emission factors utilized in Category 8: Upstream Leased Assets.</i></p> <p><i>Approximately 82% of emissions in this category comes from product-specific LCAs or lab measurements of product energy usage</i></p>
Category 14: Franchises	Not reported as these categories are not significant	
Category 15: Investments		

## 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.

Our 2023 emissions reporting reflects recalculations to prior years, in accordance with our recalculation policy, to improve the comparability of these data points. These recalculations include structural changes, changes in calculation methodologies, improvements in data accuracy and the correction of errors.

All references to the progress we've made in reducing our emissions in relation to our base year and prior years has been updated to reflect these adjustments and corrections of errors.

## 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 GHG Protocol. 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.*



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## **DISCLAIMER**

This report includes statements that may constitute “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements are not historical facts or statements of current conditions, but instead represent only our beliefs regarding future events, many of which, by their nature, are inherently uncertain and outside of our control. These may include estimates, projections and statements relating to our business plans, objectives and expected operating results and statements regarding environmental, social and governance-related plans and goals, which are based on current expectations and assumptions that are subject to risks and uncertainties that may cause actual results to differ materially. These forward-looking statements generally are identified by the words “believe,” “project,” “expect,” “anticipate,” “estimate,” “intend,” “potential,” “strategy,” “future,” “opportunity,” “commit,” “plan,” “goal,” “may,” “should,” “could,” “will,” “would,” “will be,” “will continue,” “will likely result” and similar expressions. There are also certain risks and challenges we may face in meeting our environmental goals that are beyond our control, including political, economic, regulatory and geopolitical conditions, supply chain and labor issues, supplier emissions reductions, the evolution of carbon offset markets and innovations in technology and infrastructure.

In evaluating these statements, you should consider various factors, including the risks and uncertainties we describe in the “Risk Factors” sections of our most recent Annual Report on Form 10-K, our most recent Quarterly Report on Form 10-Q and other reports filed with the Securities and Exchange Commission (“SEC”). The inclusion of forward-looking and other statements in this report that may address our corporate responsibility initiatives, progress, plans and goals is not an indication that they are necessarily material to investors or required to be disclosed in our filings with the SEC. Such statements may contain estimates, make assumptions based on developing standards that may change and provide aspirational goals and commitments that are not intended to be promises or guarantees. Readers are cautioned not to place undue reliance on forward-looking statements or such other statements, which speak only as of the date they are made. We undertake no obligation to update or revise publicly any forward-looking or such other statements, whether because of new information, future events or otherwise.