

## C0. Introduction

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### C0.1

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#### **(C0.1) Give a general description and introduction to your organization.**

Comcast Corporation (Nasdaq: CMCSA) is a global media and technology company. From the connectivity and platforms we provide, to the content and experiences we create, our businesses reach hundreds of millions of customers, viewers, and guests worldwide. We deliver world-class broadband, wireless, and video through Xfinity, Comcast Business, and Sky; produce, distribute, and stream leading entertainment, sports, and news through brands including NBC, Telemundo, Universal, Peacock, and Sky; and bring incredible theme parks and attractions to life through Universal Destinations & Experiences.

Unless otherwise specified, references to "Comcast," "our company," "we," "us," and "our" in the responses reflect information for Comcast Corporation and its consolidated subsidiaries. References to Comcast Cable, NBCUniversal and Sky refer to information that is applicable only to such business.

In addition, this report includes 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 that are "forward looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 and Section 21E of the Securities Exchange Act of 1934. 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. Forward-looking statements are based on current expectations and assumptions that are subject to risks and uncertainties that may cause actual results to differ materially. In evaluating these statements, you should consider various factors, including the risks and uncertainties we describe in our most recent Annual Report on Form 10-K, our most recent Quarterly report on Form 10-Q and other reports we file 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.

As it relates to meeting our carbon neutral goal, and the decarbonization goals of society at large, there are myriad challenges that will need to be overcome. These challenges include certain factors beyond our control, including political, economic, regulatory, scientific and geopolitical conditions, supply chain and labor issues, supplier emissions reductions, the evolution of carbon offset markets, and limited large-scale public- and private-sector investments and innovations in technology and infrastructure. For example, a widescale clean energy transition will require expanded policies and market mechanisms, enhanced grid resiliency, and greater energy innovation. In addition, most next-generation technologies beyond renewables are still too costly for large-scale deployment or are not yet available. Addressing these broader challenges will require increased collaboration with a range of business partners, industry peers, governments around the world, and other stakeholders.

Visit [www.comcastcorporation.com](http://www.comcastcorporation.com) for more information about our company.

### C0.2

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**(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.**

**Reporting year**

**Start date**

January 1 2022

**End date**

December 31 2022

**Indicate if you are providing emissions data for past reporting years**

No

**Select the number of past reporting years you will be providing Scope 1 emissions data for**

<Not Applicable>

**Select the number of past reporting years you will be providing Scope 2 emissions data for**

<Not Applicable>

**Select the number of past reporting years you will be providing Scope 3 emissions data for**

<Not Applicable>

### C0.3

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**(C0.3) Select the countries/areas in which you operate.**

Argentina  
Australia  
Austria  
Belgium  
Bermuda  
Brazil  
Canada  
Chile  
China  
Colombia  
Denmark  
Dominican Republic  
Egypt  
France  
Germany  
Guatemala  
Hong Kong SAR, China  
Hungary  
India  
Indonesia  
Ireland  
Israel  
Italy  
Japan  
Mexico  
Netherlands  
New Zealand  
Norway  
Panama  
Paraguay  
Philippines  
Poland  
Portugal  
Puerto Rico  
Republic of Korea  
Romania  
Russian Federation  
Singapore  
South Africa  
Spain  
Switzerland  
Taiwan, China  
United Arab Emirates  
United Kingdom of Great Britain and Northern Ireland  
United States of America

### C0.4

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**(C0.4) Select the currency used for all financial information disclosed throughout your response.**

USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, a Ticker symbol	CMCSA

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual or committee	Responsibilities for climate-related issues
Board-level committee	<p>While active risk management is primarily the responsibility of our management, our Board understands the significant risks facing our company, including those related to relevant ESG issues, and exercises, as a whole and through its committees, an appropriate degree of risk oversight. Our management, with involvement and input from our Board, performs an annual companywide enterprise risk management ("ERM") assessment to identify key risks and to manage and mitigate the significant strategic, operational, and legal risk areas for our company. Our executive management team has the overall responsibility for, and oversight of, this process, and an ERM steering committee composed of legal, financial, and business executives manages the process, with one or more senior business executives then monitoring and managing each of the identified risks. Regular business presentations and discussions throughout the year at the Board or its committees highlight significant relevant risks and exposures, including those listed below as core enterprise risks identified through our ERM process.</p> <p>Our Board and its committees review matters that may relate to climate change in a variety of ways, including:</p> <ul style="list-style-type: none"> <li>• The Governance and Corporate Responsibility Committee, as noted in its charter, periodically reviews and assesses the Company's annual Impact Report and the Company's significant environmental and social (E&amp;S) issues, risks and trends.</li> <li>• The Audit Committee, as noted in its charter, reviews the Company's policies, practices and assessments with respect to significant business risks relating to business continuity (such as those risks arising from severe weather events).</li> <li>• The Board oversees risks associated with the Company's reputation, which may include the Company's climate-related activities, and as appropriate reviews our climate-related strategies and initiatives.</li> </ul>

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Overseeing and guiding employee incentives Monitoring progress towards corporate targets Reviewing and guiding the risk management process	<Not Applicable>	<p>As noted earlier, our Board and its committees exercise their respective roles in strategy and risk oversight and oversight of ESG matters in a variety of ways, including the following that may relate to climate change:</p> <ul style="list-style-type: none"> <li>• The Governance and Corporate Responsibility Committee, as noted in its charter, periodically reviews and assesses the Company's annual Impact Report and the Company's significant environmental and social (E&amp;S) issues, risks and trends.</li> <li>• The Audit Committee, as noted in its charter, reviews the Company's policies, practices and assessments with respect to significant business risks relating to business continuity (such as those risks arising from severe weather events).</li> <li>• The Board oversees risks associated with the Company's reputation, which may include the Company's climate-related activities, and as appropriate reviews our climate-related strategies and initiatives.</li> </ul>

C1.1d

**(C1.1d) Does your organization have at least one board member with competence on climate-related issues?**

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	No, and we do not plan to address this within the next two years	<Not Applicable>	Other, please specify (See Explanation)	Our Board seeks, and each of our directors possesses, key attributes that we deem critical in being a director, including strong and effective decision-making, communication and leadership skills; high ethical standards, integrity and values; and a commitment to representing the long-term interests of our shareholders. In identifying and evaluating director candidates, the Governance and Corporate Responsibility Committee of our Board considers an individual's professional knowledge, business, financial and management expertise, industry knowledge, entrepreneurial background and experience, as well as applicable independence requirements. The Committee also gives significant consideration to the current composition and diversity of our Board, including with respect to skills, age, backgrounds, experiences, perspectives, viewpoints and gender and racial and ethnic representation. In evaluating director candidates and current directors for renomination to the Board or reappointment to Board committees, the Committee also assesses the current challenges and needs of the Board and each Board committee and the specific director qualifications and skills needed to oversee and address the current issues facing our company. In addition, as set forth in our Corporate Governance Guidelines and committee charters, the Board and its committees have access to management and have the authority to retain, obtain advice from, oversee and terminate outside advisors to assist them in fulfilling their duties, including accessing any resources on climate-related issues that they deem necessary. Furthermore, our Board understands the significant risks facing our company, including those related to material ESG issues, and significant relevant risks and exposures are highlighted both by management and external experts as appropriate. Our management team periodically reports to the Board or its committees on sustainability matters, including with respect to our 2035 carbon neutral goal, and progress toward our sustainability goals represents a portion of our management team's annual bonus.

C1.2

**(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.**

**Position or committee**

Sustainability committee

**Climate-related responsibilities of this position**

- Setting climate-related corporate targets
- Monitoring progress against climate-related corporate targets
- Assessing climate-related risks and opportunities
- Managing climate-related risks and opportunities

**Coverage of responsibilities**

<Not Applicable>

**Reporting line**

Other, please specify (Chief Financial Officer and Chief Legal Officer)

**Frequency of reporting to the board on climate-related issues via this reporting line**

Annually

**Please explain**

Comcast has two management committees that oversee governance of environmental sustainability for the enterprise – a senior executive level committee and an operational committee. The Executive Environmental Committee, chaired by Comcast's Chief Financial Officer and Chief Legal Officer, meets periodically with members of the Environment Operating and Governance Committee (EOGC) to assess and manage climate-related risks and opportunities and review and approve environmental sustainability strategy, targets, and results. The EOGC, chaired by Comcast's SVP of Environmental Sustainability, defines strategies across our businesses to address climate-related risks, realize climate-related opportunities, and prioritize activities from a financial planning perspective that will have the most significant impact to help us attain our 2035 carbon neutral goal. This committee is comprised of executives from each business unit and across multiple functions including procurement, strategy, finance, accounting, legal and other operational functions. In addition, each business (Comcast Cable, NBCUniversal and Sky) has developed their own tailored climate-related strategies and initiatives given the nature of their respective businesses, which are also reviewed and discussed at the EOGC.

**Position or committee**

Chief Sustainability Officer (CSO)

**Climate-related responsibilities of this position**

- Setting climate-related corporate targets
- Monitoring progress against climate-related corporate targets
- Assessing climate-related risks and opportunities
- Managing climate-related risks and opportunities

**Coverage of responsibilities**

<Not Applicable>

**Reporting line**

Finance - CFO reporting line

**Frequency of reporting to the board on climate-related issues via this reporting line**

Annually

**Please explain**

The SVP of Environmental Sustainability is responsible for shaping Comcast's corporate environmental sustainability strategy and working across the enterprise to ensure the businesses align, operationalize, and execute on that strategy. As Chair of the EOGC, the SVP of Environmental Sustainability manages governance for environmental sustainability topics at the enterprise level, including the identification and prioritization of climate-related risks and opportunities, and setting and monitoring progress against corporate sustainability targets. They work closely with other Corporate Finance leaders (including Accounting & Controllers, FP&A, Treasury, and Internal Audit) and the EOGC to track, monitor, and report on environmental data (e.g., GHG emissions) and significant sustainability initiatives.

## C1.3

### (C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	For the Corporate Executive Team and other corporate employees who receive an annual cash bonus, a portion of the annual cash bonus is dedicated to the Company's stakeholder and sustainability initiatives, which include environmental initiatives.

## C1.3a

### (C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

#### Entitled to incentive

Corporate executive team

#### Type of incentive

Monetary reward

#### Incentive(s)

Bonus - % of salary

#### Performance indicator(s)

Progress towards a climate-related target

#### Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

#### Further details of incentive(s)

For the Company's named executive officers (NEOs) for SEC reporting purposes, who receive annual cash bonuses, 15% of that bonus is dedicated to stakeholder and sustainability initiatives, which include environmental initiatives. The performance indicators listed here are among the factors considered as part of a broader qualitative evaluation by our Compensation and Human Capital ("CHC") Committee. Rather than reducing our stakeholder and sustainability goals to one metric or set of metrics, our CHC Committee makes an independent and holistic evaluation of the NEOs' efforts, collectively and individually.

#### Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

Comcast's primary sustainability commitment is our goal to be carbon neutral by 2035. Our sustainability initiatives, encouraged through this incentive, help us progress towards that goal.

#### Entitled to incentive

Other, please specify (Corporate Employees)

#### Type of incentive

Monetary reward

#### Incentive(s)

Bonus - % of salary

#### Performance indicator(s)

Progress towards a climate-related target

#### Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

#### Further details of incentive(s)

For all corporate employees who receive annual cash bonuses, including the Company's named executive officers for SEC reporting purposes, 15% of that bonus is dedicated to stakeholder and sustainability initiatives, which include environmental initiatives. The performance indicators listed here are among the factors considered as part of a broader qualitative, holistic evaluation by our CHC Committee, which we believe is more appropriate than reducing our stakeholder and sustainability goals to one metric or set of metrics.

#### Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

Comcast's primary sustainability commitment is our goal to be carbon neutral by 2035. Our sustainability initiatives, encouraged through this incentive, help us progress towards that goal.

## C2. Risks and opportunities

### C2.1

#### (C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

### C2.1a

**(C2.1a) How does your organization define short-, medium- and long-term time horizons?**

	From (years)	To (years)	Comment
Short-term	0	3	
Medium-term	3	10	
Long-term	10	30	

**C2.1b**

**(C2.1b) How does your organization define substantive financial or strategic impact on your business?**

Comcast defines substantive financial or strategic impact using a definition of financial materiality for purposes of federal securities laws – whether there is a substantial likelihood that a reasonable investor would consider the information important in deciding how to vote or make an investment decision or, put another way, if providing (or not providing) such information would significantly alter the total mix of information made available.

Through our annual Enterprise Risk Management assessment process, senior leaders evaluate the likelihood and impact of possible climate-related risks, such as severe weather events and their impact on our revenue, operations and business continuity, and other financial planning impacts. This process contextualizes substantive financial impact at our consolidated enterprise level, and such climate-related risks are analyzed based on the same criteria used to assess the materiality of other types of risks to our business.

At present, we do not expect that the financial impact of attaining our 2035 carbon neutral goal for Scope 1 and Scope 2 emissions would have a material impact on our business, results of operations or financial condition. We also believe that, as of the date hereof, climate change has not had a direct or indirect material effect on our overall business, results of operations or financial condition. We have nonetheless provided responses to certain questions below solely for purposes of additional transparency.

**C2.2**

**(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.**

**Value chain stage(s) covered**

Direct operations  
Upstream  
Downstream

**Risk management process**

Integrated into multi-disciplinary company-wide risk management process

**Frequency of assessment**

More than once a year

**Time horizon(s) covered**

Short-term  
Medium-term

**Description of process**

Climate-related risks are identified and assessed as part of the Company's Enterprise Risk Management (ERM) and Long-Range Planning (LRP) processes. The ERM process is driven by the Company's ERM Committee, comprised of executive leadership across Comcast's businesses and co-chaired by the Chief Financial Officer and Chief Legal Officer. This Committee is responsible for identifying those risks that are most impactful to the Company and ensuring that mitigation strategies are identified and operationalized. The Comcast Audit Committee has oversight for the Company's ERM process, and oversight for the resulting risks and mitigations is provided by the full Board of Directors.

Risk identification and mitigation is iterative, including the scenarios that are modelled and considered for strategic investment as part of the Company's LRP cycle each year. The LRP process, which occurs over the course of several months, is used to model, plan and budget all aspects of the company in detail over a 5-year (short-term and medium-term) horizon.

The combination of the ERM and LRP processes determine which mitigation activities for the Company's most impactful long-term risks are prioritized for short-term and medium-term funding. As mitigation strategies are planned and funded as part of the LRP and budget processes at multiple points in the year, the results feed into the plans of the Company's Internal Audit function, who independently validates progress in the general course of its audit work.

Within the Company's ERM process, environmental risks are not stand-alone ERM risks given the overall nature of our business. Instead, environmental-related risks are reflected within some of the Company's top risks. For example, the Company's Business Continuity Risk includes crisis planning, preparedness/testing and response across a variety of events, including weather events (hurricanes, floods, wildfires), natural disasters (earthquakes and tsunamis), pandemics, wide-spread power outages, supply chain disruption and cyber-attacks. Because risk management is considered an integral part of Company operations, environmental aspects of top ERM risks are managed by the same operational owners responsible for mitigating the specific ERM risks. This approach allows environmental issues to be considered alongside other operational factors when determining mitigation strategies and prioritization.

**C2.2a**

**(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?**

	Relevance & Inclusion	Please explain
Current regulation	Relevant, always included	We consider relevant regulations based on operational realities such as industry opportunities and challenges, technological advancements, potential reputational impacts, severe weather, energy issues, and policy considerations year-round as they arise. We have a government affairs team that tracks relevant regulations. For example, in 2022, California adopted the Advanced Clean Cars II rule which requires by 2035 all new passenger vehicles sold in the state must be zero-emission vehicles.
Emerging regulation	Relevant, always included	We consider relevant regulations based on operational realities such as industry opportunities and challenges, technological advancements, potential reputational impacts, severe weather, energy issues, and policy considerations year-round as they arise. We have a government affairs team that tracks relevant emerging regulations. For example, we monitor the potential for other states to implement regulations relating to electric vehicle mandates.
Technology	Relevant, sometimes included	Comcast operates its business in numerous geographies around the world and is dependent on the existing energy infrastructure in those markets to support its operations. This reliance exposes us to several technology-related risks. For example, as we transition our energy portfolio to rely more heavily on renewable energy technology, that technology must A) be available in the quantities we require, and B) be dependable enough to support our significant load in order for us to achieve our climate-related aspirations. In addition, the development timeline for new renewable energy projects, even once contracted, has uncertainty and may be affected by challenges from permitting, interconnects, supply chain, labor, or the financial viability of projects or their developers.
Legal	Relevant, always included	Our legal and regulatory teams monitor potential risks related to our business, including government regulation and litigation, including any that may arise related to climate. For example, an extreme weather event could lead to litigation and fines if we inadvertently contributed to damages suffered by others.
Market	Relevant, sometimes included	We require a significant amount of electricity to operate our cable network, theme parks, data centers, facilities, and other global operations, as well as fuel for our vehicle fleets. Increased energy costs, either through overall market dynamics or a shift to lower carbon sources of energy, could have an impact on the cost of operations. In 2022, overall energy costs made up about 1% of our total operating expenses, so overall impact to our financials has been limited so far. However, we monitor this as a potential risk and continue to pursue energy efficiency and reduction initiatives that reduce our risk of increased energy costs.
Reputation	Relevant, sometimes included	We closely monitor risks to our brand and reputation. For example, we could have unfavorable customer perception due to our approach to climate or energy.
Acute physical	Relevant, always included	Acute-physical impacts, such as extreme weather events, can cause disruption to our theme park operations, our cable distribution network or our broadcasting infrastructure and network and may result in reduced or lost services for our customers. For example, our team monitors sites vulnerable to environmental risks assessed with the National Risk Index and tracks costs to address the risk, such as costs to repair storm-damaged plants.
Chronic physical	Relevant, always included	Chronic physical impacts may be considered based on operational realities such as industry opportunities and challenges, technological advancements, severe weather, and energy issues. For example, as California has historically seen an increase in severe weather events, such as drought and wildfires, we typically build new plant underground and are following state regulations requiring 72-hours of standby power runtime.

**C2.3**

**(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?**

Yes

**C2.3a**

**(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.**

**Identifier**

Risk 1

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Acute physical	Other, please specify (Extreme weather events including hurricanes, cyclones, typhoons, floods, heavy precipitation, storms, tornados, straight-line high winds, heat waves, wildfires, and freeze events.)
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**Primary potential financial impact**

Increased direct costs

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

As of the end of 2022, Comcast Cable's cable network covered over 61 million homes and businesses throughout many designed market areas (DMAs) in the United States, including markets in the mid-Atlantic and Northeast (including Washington, DC, Philadelphia, New York, and Boston), the Southeast (including Miami and Atlanta), the Midwest (including Chicago, Detroit, Indianapolis, and Minneapolis/St. Paul), the Mountain West (including Denver and Salt Lake City), California (including San Francisco and Sacramento), the South West (including Houston) and the Northwest (including Portland and Seattle). Our advanced network carried an average of 680 petabytes of customer traffic per day in 2022. The telecommunications services provided to our residential and business customers depend on this network that is vulnerable to acute physical risks. The distributed nature of our network over a wide geographic area in the United States reduces the risk of any individual event. However, an increase in frequency and severity of extreme weather events, such as storms, flooding, and wildfires, may have a negative impact on our operations by impacting critical infrastructure that provides service to customers, causing a degradation or disruption of our network and associated products and services. These events may result in lost revenue and expenditures to repair or replace damaged properties, products and services and could lead to litigation and fines, including if we inadvertently contributed to damages suffered by others.

**Time horizon**

Short-term

**Likelihood**

Very unlikely

**Magnitude of impact**

Unknown

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

Extreme weather events may result in lost revenue and expenditures to repair or replace damaged properties, products and services and could lead to litigation and fines, including if we inadvertently contributed to damages suffered by others. Example expenditure costs include temporary backup power to affected facilities to repair or maintain services, facilities repair costs when physical damage occurs, equipment repair or replacement in the case of damage, plant repairs required on our network, and the labor cost associated with these various types of repairs.

While we have incurred costs and lost revenue for extreme weather events in the past, severe weather events to date have not had a material adverse effect (or had a "substantive" impact according to our response to C2.1b above) on the Company's results of operations or financial condition. For example, in 2022, Hurricane Ian impacted our Theme Parks and Cable Communications segment operations in Florida. The financial impact of theme park closures from this event was primarily lost revenue opportunity, along with some cost for repairs, offset by lower variable costs from the park closures. In Cable Communications, we incurred expenses to repair our network and restore operations. In addition, we estimate that in the fourth quarter of 2022, excluding the hurricane impacts, we would have (1) added approximately 4,000 broadband customers versus the 26,000 loss we reported and (2) lost approximately 36,000 customer relationships versus the 71,000 we reported during the fourth quarter of 2022. While this was the largest hurricane impact in the United States in 2022 and even though this event did have a limited impact our operations, overall, the number of broadband customers affected by this event represented less than 1% of our overall Cable Communications segment customer base.

We have included this climate-related risk only as having the potential to have substantive financial or strategic impact should more frequent or more severe events occur, or if we were subject to litigation or fines related to such events.

**Cost of response to risk**

0

**Description of response and explanation of cost calculation**

In order to increase the reliability of our network and services through extreme weather events and electricity grid outages often caused by these events, Comcast invests in back-up equipment such as generators, batteries, and power supplies that enable the network to keep running, even in the absence of commercial power. We are continuing to invest in hardening our critical infrastructure as climate change increases the risk of extreme weather events. The size of this investment is confidential; therefore, we have reported 0 as the cost to respond.

In 2022, we did not experience any acute physical events with substantive impact. However, an example of an extreme weather event is captured in the following case study:

(Situation) In September 2022, Southwest Florida faced Hurricane Ian, an acute physical event that caused widespread destruction and power outages. The storm hit our systems directly and resulted in the loss or severe damage to many homes we serve in this market. (Task) In addition to ongoing investments in network resiliency (e.g., back-up equipment as described above) across our operational footprint and an active program of planning, training, and conducting exercises to maintain business operations throughout disruptions, Comcast took a number of proactive steps to minimize the negative impact to our customers when Hurricane Ian was forecast. (Actions) To prepare for this event, Comcast made extensive efforts to set up critical equipment in secure locations before the storm hit, including portable generators, fuel trucks, and repair materials. In addition, restoration crews were put on standby near where the storm was expected to make landfall so they would be ready and available to maintain and restore services to impacted customers as quickly as possible. Following the storm, local crews were joined by response teams including technicians, network maintenance and engineering specialists from 12 states to assist with rapid restoration efforts, repairing damaged lines and setting up generators to power our critical infrastructure and the equipment necessary to run our network. (Results) As a result of the ongoing investments in network resiliency and business continuity programs, and the pre-planning and rapid response of our repair teams before and after the storm, we were able to reconnect entire neighborhoods to our network and restore services to individual homes and businesses faster.

**Comment**

**C2.4**

**(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes

**C2.4a**

**(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.**

**Identifier**

Opp1

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Resilience

**Primary climate-related opportunity driver**

Participation in renewable energy programs and adoption of energy-efficiency measures

**Primary potential financial impact**

Reduced indirect (operating) costs

**Company-specific description**

Comcast's fiber optic/coax network in the United States provided broadband and cable services to more than 34 million residential and business customers at the end of 2022. Powering this network and cooling the critical equipment drives a significant portion of our electricity consumption and therefore our carbon footprint. (It should be noted, however, that our overall energy costs are small relative to our overall operating costs and expenses, representing about 1% of such costs and expenses.) To support continued business growth, we must increase capacity to support increasing consumer usage and extend the network to serve new geographies. Both require additional capital and operating costs and increase our electricity consumption and emissions footprint.

To more efficiently grow our network, Comcast has been developing and deploying class-leading network digitization and virtualization technologies to make the network smarter, faster and more reliable. Virtualization allows us to make our network substantially more energy efficient by removing many analog physical components from the network and replacing them with more efficient, smaller, higher capacity digital technologies, orchestrated by a fully virtualized platform. This enables us to grow the capacity of the network to serve more customers with higher bandwidth, more reliability, and more flexibility, while minimizing increases in electricity consumption, capital investment, facility space, and cooling requirements that otherwise would stem from other types of network expansion. Specifically, we have developed software for our network headends and hubs that is more efficient and more flexible than the proprietary software historically used, and can operate on commodity hardware, eliminating the need for proprietary hardware that takes up more space, uses more electricity per byte, and is more costly.

Enabled by the transformation described above, in 2022, Comcast announced plans to double network energy efficiency by 2030, cutting the electricity per consumed byte of data in half. Comcast's multi-year nationwide network transformation to virtual, cloud-based technologies will drive long-term gains for energy efficiency. Once fully deployed, the new virtualized platform will offer faster broadband speeds, greater reliability, and improved energy efficiency.

**Time horizon**

Short-term

**Likelihood**

Very likely

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

The estimated financial impact of this opportunity is confidential; therefore, we have not reported the financial impact. However, we have estimated this figure for internal purposes. More specifically, we assess the potential impact of this opportunity by estimating the avoided costs of increasing the capacity and expanding the geography of our network to accommodate growth projections over the next five years, as well as the energy cost savings to run the network with increasing data traffic. Savings come from avoided software licenses that would have been required if we had not developed our own software solution, avoiding costs for new capital equipment, new physical space leases, and additional electricity that would have been required. In addition to the financial opportunity, because of the ~50% space intensity savings, the increased power density serving more customers associated with the virtualized solution, and the lower electricity per consumed byte, there will be a reduction of emissions intensity through this effort.

**Cost to realize opportunity**

0

**Strategy to realize opportunity and explanation of cost calculation**

The size of this investment is confidential; therefore, we have reported 0 as the cost to realize. However, we have estimated this figure for internal purposes.

Case study: Connectivity is at the center of our customers' lives. That's why Comcast Cable continues to make strategic investments in our network. SITUATION: In order to support continued business growth and deliver products and services that meet customers' evolving expectations, we must increase capacity to support increasing consumer usage as well as extend the network to serve new geographies. Increasing capacity and expanding geography both require additional capital and operating costs and increase our electricity consumption and our emissions footprint. TASK: Use new technology to enable increasing capacity and network expansion with lower relative impact on our physical footprint, electricity consumption, and emissions footprint, and therefore lower capital and operating costs than would have been incurred using traditional network technology. ACTION: We have been actively rolling out network virtualization across our U.S. network, with a targeted rollout plan over the next few years aligned with our growth projections. As we virtualize our network, we remove a significant number of analog physical components from the network and replace them with more efficient, smaller, higher capacity digital technologies, orchestrated by a fully virtualized platform. We use new internally developed software for our network headends and hubs that is more efficient and flexible than the propriety software historically used. The new software can operate on commodity hardware, eliminating the need for proprietary hardware that took up more space, used more electricity, and was more costly. Altogether, this enables us to grow the capacity of the network at relatively lower electricity per byte, to serve more customers with higher bandwidth, more reliability and more flexibility, while minimizing increases in electricity consumption, capital investment, facility space, and cooling requirements. RESULT: In order to realize this opportunity, we will continue our multiyear effort (started in 2020) to execute the virtualization of our U.S. network during the next few years with a targeted rollout plan aligned with our growth projections. The cost to realize this opportunity includes the capital cost to procure new commodity hardware and the investment in software development for our own software solutions.

**Comment**

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**C3. Business Strategy**

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**C3.1**

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**(C3.1) Does your organization’s strategy include a climate transition plan that aligns with a 1.5°C world?**

**Row 1**

**Climate transition plan**

No, but our strategy has been influenced by climate-related risks and opportunities, and we are developing a climate transition plan within two years

**Publicly available climate transition plan**

<Not Applicable>

**Mechanism by which feedback is collected from shareholders on your climate transition plan**

<Not Applicable>

**Description of feedback mechanism**

<Not Applicable>

**Frequency of feedback collection**

<Not Applicable>

**Attach any relevant documents which detail your climate transition plan (optional)**

<Not Applicable>

**Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world and any plans to develop one in the future**

Comcast has set a goal to be carbon neutral in our Scope 1 and 2 emissions by 2035, has integrated this goal into our strategy and developed an internal plan to achieve this goal, and already is and will continue to work towards this goal. In addition, we are working to develop science-based targets across our Scope 1, 2, and 3 emissions in the future.

We consider the work above to be consistent with a transition plan for our carbon neutral goal, aligned with a 1.5° C world. However, our plan does not meet all of the specific criteria laid out by CDP in its definition of a transition plan.

**Explain why climate-related risks and opportunities have not influenced your strategy**

<Not Applicable>

**C3.2**

**(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?**

	<b>Use of climate-related scenario analysis to inform strategy</b>	<b>Primary reason why your organization does not use climate-related scenario analysis to inform its strategy</b>	<b>Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future</b>
Row 1	No, and we do not anticipate doing so in the next two years	Other, please specify (See explanation)	Various climate-related risks are components of several of the Company’s enterprise risks (such as severe weather events impacting business continuity risk). As such, climate-related risks have been managed by the operational owners of those risks so that mitigation is considered within the broader risk mitigation plan. At this time, Comcast has not identified climate-related risk as a stand-alone risk for the enterprise fully independent of operations, and therefore, has not performed a stand-alone qualitative or quantitative climate-related scenario analysis.

**C3.3**

**(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.**

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Many of Comcast's products and services rely on power supplies and electrical infrastructure that contribute to our scope 2 and 3 emissions and may be susceptible to climate-related transition risks. Therefore, when considering the development of energy-consuming hardware for our cable and broadband services, producing entertainment, or building infrastructure to provide products and services to our customers, climate-related risks and opportunities have an influence on strategy in order to ensure resiliency and customer experience as well as reduce costs for our business and our customers. These influence our products and services strategy over the short and medium-term time horizons. Examples of strategic decisions related to products and services include (1) our ongoing participation in the industry-wide Set Top Box and Small Networking Equipment Voluntary Agreements which aim to improve energy efficiency of these products over time, and (2) the development of Xfinity Storm-Ready WiFi, providing unlimited cellular data backup to customers in the event of a connectivity outage, plus 4-hours of battery backup to keep them connected when the power is out.
Supply chain and/or value chain	Yes	Our supply chain could be affected by climate change, which could increase the costs of providing our products and services to our customers.  With increasing climate-related risks such as fires, floods, and droughts that could impact our network and customers, Comcast Cable tracks potential extreme weather events and drives mitigation plans to build resiliency into our supply chain in partnership with our key vendors. This work is supported by a procurement risk management team that identifies long-term risks to Comcast's supply chain, including the effects of climate change, using internal and external intelligence sources. The team engages with stakeholders and vendors to ensure mitigation plans are in place to minimize disruption. Comcast strategically focuses on three core tenets: designing best-in-class products (e.g., rugged outdoor equipment), building appropriate redundancies into our supplier base (e.g., multiple component and manufacturing sources, contractual protections, etc.), and diversifying our warehouse and factory locations across North America and Asia. The time horizon for our approach is focused on long-term risk mitigation, backed by short- and medium-term actions.  In addition, Comcast maintains a Code of Conduct for Suppliers and Business Partners, which includes key provisions around business continuity and sustainable practices.
Investment in R&D	Yes	Many of the technologies, tools, materials, and processes to address climate-related risks and opportunities still need to be developed. Comcast invests in R&D projects that may eventually support lower emissions operations, products, or supply chain. The time horizon for these projects is typically short- to medium-term.  Examples of such projects include: (1) the Universal Studios Lot serving as a demonstration site for a high-efficiency air-source heat pumps and providing data to the California Energy Commission for further applications, (2) our ongoing participation in the Set Top Box and Small Networking Equipment Voluntary Agreements to improve the energy efficiency of the consumer devices that run our services, and (3) the development of sustainable packaging initiatives.
Operations	Yes	Comcast's largest source of Scope 1 and 2 emissions comes from the purchased electricity to run our network, theme parks, offices, and other operations. Aligned with our goal to become carbon neutral in our Scope 1 and 2 global operations by 2035, we are taking actions to improve energy efficiency and transition to lower and zero-carbon sources of electricity, including renewable electricity, over time. For example, in 2022, Comcast announced plans to double network energy efficiency by 2030, cutting electricity per consumed byte of data in half. Additionally, in 2022, we signed new renewable energy agreements expected to provide more than 183,000 megawatt-hours (MWh) per year when the associated projects come online.

**C3.4**

**(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.**

	Financial planning elements that have been influenced	Description of influence
Row 1	Indirect costs	Part of Comcast's short-term strategy is to reduce the acute physical risk on our operations from extreme weather events such as hurricanes, wildfires, and floods which can affect our cable network in the United States, with the potential to negatively impact some portion of our 34 million residential and business customers. To reduce this risk of service interruption, we continually invest in backup power supplies such as batteries, uninterruptable power supplies (UPS), and generators, and maintain inventory of critical components to increase response times for restoration. We have assessed the frequency and severity of extreme weather events that occur in a typical year, as well as our cost to respond to such events and options to reduce the risk in the future. The cost to respond to damage from extreme weather, as well as the ongoing work to improve resiliency of our network during extreme weather events, impacts our Indirect Costs and are incorporated into our annual budget planning process and our annual LRP process which covers financial planning over the next 5 years.

**C3.5**

**(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?**

	Identification of spending/revenue that is aligned with your organization's climate transition	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
Row 1	No, and we do not plan to in the next two years	<Not Applicable>

**C4. Targets and performance**

**C4.1**

**(C4.1) Did you have an emissions target that was active in the reporting year?**

Absolute target

**C4.1a**

**(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.**

**Target reference number**

Abs 1

**Is this a science-based target?**

No, but we anticipate setting one in the next two years

**Target ambition**

<Not Applicable>

**Year target was set**

2021

**Target coverage**

Company-wide

**Scope(s)**

Scope 1

Scope 2

**Scope 2 accounting method**

Market-based

**Scope 3 category(ies)**

<Not Applicable>

**Base year**

2019

**Base year Scope 1 emissions covered by target (metric tons CO2e)**

676422

**Base year Scope 2 emissions covered by target (metric tons CO2e)**

1835053

**Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year total Scope 3 emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Total base year emissions covered by target in all selected Scopes (metric tons CO2e)**

2511475

**Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1**

100

**Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2**

100

**Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)**

<Not Applicable>

**Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)**

<Not Applicable>

**Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes**

100

**Target year**

2035

**Targeted reduction from base year (%)**

100

**Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]**

0

**Scope 1 emissions in reporting year covered by target (metric tons CO2e)**

496938

**Scope 2 emissions in reporting year covered by target (metric tons CO2e)**

1053067

**Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)**

1550005

**Does this target cover any land-related emissions?**

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

**% of target achieved relative to base year [auto-calculated]**

38.2830806597716

**Target status in reporting year**

Underway

**Please explain target coverage and identify any exclusions**

This target is our goal to become Carbon Neutral for Scope 1 and Scope 2 market-based emissions by 2035. The target is company-wide and covers 100% of our known Scope 1 and Scope 2 emissions. We have not set an explicit reduction goal; however, our priority is to reduce emissions first and then offset any remaining emissions.

**Plan for achieving target, and progress made to the end of the reporting year**

We have set the goal to be carbon neutral by 2035 for Scope 1 and Scope 2 market-based emissions across our entire global operations. To meet our goal, we are first focused on reducing our emissions primarily by:

- 1) Sourcing renewable and clean energy - We will shift to more zero carbon and renewable electricity by partnering with local utilities and investing in new renewable energy through power purchase agreements and securing renewable energy credits.
- 2) Improving our energy efficiency - Across our buildings, network, vehicle fleets, production studios, and theme parks, we will continue to develop and implement projects to improve energy efficiency.

Through year-end 2022, we have reduced our company-wide Scope 1 and Scope 2 market-based emissions by 38% compared to our 2019 baseline. Increasing use of clean and renewable energy, reducing overall energy use, and the greening of the U.S. electricity grid have been the primary contributors to our reduction so far.

**List the emissions reduction initiatives which contributed most to achieving this target**

&lt;Not Applicable&gt;

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Other climate-related target(s)

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number

Oth 1

Year target was set

2022

Target coverage

Business activity

Target type: absolute or intensity

Intensity

Target type: category & Metric (target numerator if reporting an intensity target)

Energy consumption or efficiency	kWh
----------------------------------	-----

Target denominator (intensity targets only)

unit of service provided

Base year

2019

Figure or percentage in base year

18.9

Target year

2030

Figure or percentage in target year

9.45

Figure or percentage in reporting year

12.1

% of target achieved relative to base year [auto-calculated]

71.957671957672

Target status in reporting year

New

Is this target part of an emissions target?

Comcast has set a goal to be carbon neutral by 2035 for Scope 1 and 2 emissions. To help achieve that goal, while also growing our business, we are focused on newer, more energy-efficient technologies and facilities to deliver more data with less energy per consumed byte. To underscore this focus, in 2022, Comcast announced a goal to double network energy efficiency by 2030, cutting the electricity per consumed byte of data in half. Comcast's multi-year nationwide network transformation to virtual, cloud-based technologies, as well as strategic investments in HVAC economization, cloud computing, and decommissioning of less efficient network equipment will drive long-term gains for energy efficiency.

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain target coverage and identify any exclusions

This target is comprised of the total electricity consumed by our US network and operations in Comcast Cable and the Comcast HQ campus, divided by all customer-delivered network traffic on the US network.

Network traffic supporting Comcast's internal business operations is excluded from the denominator.

Plan for achieving target, and progress made to the end of the reporting year

Comcast decreased the electricity per consumed byte from 18.9 kilowatt-hours (kWh) per terabyte (TB) in 2019 to 12.1 kWh/TB in 2022. These efficiency gains are driven by ongoing investments in innovation, software, AI, and other virtual and physical critical infrastructure that require less hardware, less space, and less energy per byte than previous technologies. This results in a reduction of total energy use across network, facilities, and operations while at the same time delivering more data, faster broadband speeds, and greater reliability to our customers.

List the actions which contributed most to achieving this target

<Not Applicable>

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	31	
To be implemented*	12	5620
Implementation commenced*	6	711
Implemented*	16	24024
Not to be implemented	0	

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

**Initiative category & Initiative type**

Energy efficiency in buildings	Other, please specify (Combination of lighting, HVAC, and other facility projects)
--------------------------------	--

**Estimated annual CO2e savings (metric tonnes CO2e)**

388

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

- Scope 1
- Scope 2 (location-based)
- Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

**Investment required (unit currency – as specified in C0.4)**

**Payback period**

Please select

**Estimated lifetime of the initiative**

21-30 years

**Comment**

Efficiency improvements through the installation of LED lighting, controls & sensors on HVAC system, and electrification of natural gas equipment.

**Initiative category & Initiative type**

Transportation	Other, please specify (Combination of company fleet vehicle efficiency and replacements)
----------------	--

**Estimated annual CO2e savings (metric tonnes CO2e)**

14575

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

- Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

**Investment required (unit currency – as specified in C0.4)**

**Payback period**

Please select

**Estimated lifetime of the initiative**

21-30 years

**Comment**

Decommissioning vehicles, fleet efficiency, and vehicle replacement with EV's across Comcast Cable, Sky, and NBCUniversal.

**Initiative category & Initiative type**

Low-carbon energy consumption	Other, please specify (Combination of Low-carbon electricity mix, biofuels, and solar PV.)
-------------------------------	--

**Estimated annual CO2e savings (metric tonnes CO2e)**

620

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 1  
Scope 2 (location-based)  
Scope 2 (market-based)  
Scope 3 category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

**Investment required (unit currency – as specified in C0.4)**

**Payback period**

Please select

**Estimated lifetime of the initiative**

3-5 years

**Comment**

Conventional energy sources replaced by lower carbon energy sources in select applications.

---

**Initiative category & Initiative type**

Low-carbon energy generation	Other, please specify (Solar PV through onsite solar)
------------------------------	---

**Estimated annual CO2e savings (metric tonnes CO2e)**

508

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 2 (location-based)  
Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

**Investment required (unit currency – as specified in C0.4)**

**Payback period**

Please select

**Estimated lifetime of the initiative**

21-30 years

**Comment**

Implementation of onsite solar.

---

**Initiative category & Initiative type**

Energy efficiency in production processes	Other, please specify (Energy efficiency initiatives)
---	---

**Estimated annual CO2e savings (metric tonnes CO2e)**

7933

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 2 (location-based)  
Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

**Investment required (unit currency – as specified in C0.4)**

**Payback period**

Please select

**Estimated lifetime of the initiative**

21-30 years

**Comment**

Decommissioning of older equipment as part of energy efficiency initiatives.

---

C4.3c

**(C4.3c) What methods do you use to drive investment in emissions reduction activities?**

Method	Comment
Internal finance mechanisms	With purchased electricity accounting for the largest portion of our Scope 1 and 2 emissions, we are taking action to invest in clean and renewable energy. In 2022, we sourced more than 1.2 million megawatt-hours of clean and renewable energy and additionally we signed new renewable energy agreements expected to provide more than 183,000 megawatt-hours (MWh) per year when the associated projects come online. We prioritize these types of investments through internal finance mechanisms because they not only address our largest source of emissions but also are impactful actions we can take at scale.
Financial optimization calculations	As part of our standard financial investment decision making processes, we factor in the cost savings and other financial benefits (e.g., tax incentives) associated with investing in more fuel/energy efficient technologies in our operations. We prioritize projects that meet our internal financial expectations, deliver the greatest marginal carbon reductions, and achieve optimum performance.
Employee engagement	Comcast Cable's operational fleet includes nearly 25,000 Xfinity vans, trucks, SUVs, and sedans. Every Minute Matters, an employee engagement campaign launched in 2020, guides and encourages Comcast Cable fulfillment technicians, supervisors, and managers to reduce idle time in their vehicles, reducing fuel consumption and emissions by turning off the engine when finishing job tasks or loading equipment.

**C4.5**

**(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?**

No

**C5. Emissions methodology**

**C5.1**

**(C5.1) Is this your first year of reporting emissions data to CDP?**

No

**C5.1a**

**(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?**

**Row 1**

**Has there been a structural change?**

No

**Name of organization(s) acquired, divested from, or merged with**

<Not Applicable>

**Details of structural change(s), including completion dates**

<Not Applicable>

**C5.1b**

**(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?**

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	No	<Not Applicable>

**C5.2**

**(C5.2) Provide your base year and base year emissions.**

**Scope 1**

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

676422

**Comment**

### Scope 2 (location-based)

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

1863480

**Comment**

### Scope 2 (market-based)

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

1835053

**Comment**

### Scope 3 category 1: Purchased goods and services

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

4222163

**Comment**

During 2021, Comcast undertook meaningful efforts to calculate its Scope 3 emissions starting from a 2019 base year for the full enterprise. However, given inherent data limitations and inconsistent estimation techniques employed among various companies, readers are cautioned to not place any undue reliance on our estimated Scope 3 emissions. Comcast used a spend-based method, using expenditure data for all company divisions, to calculate emissions from purchased goods, services, and capital goods. A mix of approaches were utilized to determine the emission factors to map to spend. For select suppliers, supplier-specific emission factors were calculated using the most recently available CDP Supplier submissions, vendors surveys, or supplemental research. The supplier's Scope 1 emissions, Scope 2 emissions, upstream Scope 3 emissions, and revenue were utilized to create a supplier-specific emission factor. Otherwise, spend was multiplied by a cradle-to-gate emission factor from the U.S. EPA Supply Chain GHG Emission Factors for US Commodities and Industries v1.1 (Revised January 2022), or the OpenLCA lifecycle assessment software, with emission factors mapped to spend via the supplier's sector or the category of the purchased good or services. Emission factors were also updated per the latest inflation rates. Spend on emissions covered in Scope 1, Scope 2 or other Scope 3 categories were excluded from the analysis (e.g., transportation and energy spend). Spend related to Programming, Licensed Content, and Sports Rights are also excluded from the analysis. This category includes emissions associated with Category 2: Capital Goods.

### Scope 3 category 2: Capital goods

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

0

**Comment**

During 2021, Comcast undertook meaningful effort to calculate its Scope 3 emissions starting from a 2019 base year for the full enterprise. Comcast combines emissions from Category 2: Capital Goods with Category 1: Purchased Goods and Services into a single category and reports all emissions in Category 1: Purchased Goods and Services.

### Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

564710

**Comment**

During 2021, Comcast undertook meaningful efforts to calculate its Scope 3 emissions starting from a 2019 base year for the full enterprise. However, given inherent data limitations and inconsistent estimation techniques among companies, readers are cautioned to not place any undue reliance on our estimated Scope 3 emissions. Comcast used an average-data method to calculate upstream emissions from fuels and energy consumed in its operations. Activity data was sourced from the fuel and energy quantities reported in Comcast's Scope 1 and 2 market-based emissions footprint. Emissions for Well-to-Tank (WTT) Generation for fuels, electricity, and heat and steam were calculated using the UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting 2019 (Revised July 2020) emission factors. Emissions for Transportation and Distribution (T&D) Losses and Well-to-Tank (WTT) T&D Losses for electricity, heat and steam were calculated using the IEA Statistics Data Service: 2018 Emission Factors (September 2020), the UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting 2019 (Revised July 2020), and the U.S. EPA 2018 Emissions & Generation Resource Integrated Database ("eGRID2018") (March 2020).

#### Scope 3 category 4: Upstream transportation and distribution

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

307484

**Comment**

During 2021, Comcast undertook meaningful efforts to calculate its Scope 3 emissions starting from a 2019 base year for the full enterprise. However, given inherent data limitations and inconsistent estimation techniques among companies, readers are cautioned to not place any undue reliance on our estimated Scope 3 emissions. Comcast used a spend-based calculation method, using expenditure data for all company divisions to calculate emissions from upstream transportation and distribution. A mix of approaches were utilized to determine the emission factors to map to spend. For select suppliers, supplier-specific emission factors were calculated using the most recently available CDP Supplier submissions, vendors surveys, or supplemental research. The supplier's Scope 1 emissions, Scope 2 emissions, upstream Scope 3 emissions, and revenue were utilized to create a supplier-specific emission factor. Otherwise, spend was multiplied by a cradle-to-gate emission factor from the U.S. EPA Supply Chain GHG Emission Factors for US Commodities and Industries v1.1 (Revised January 2022) or the OpenCL lifecycle assessment software, with emission factors mapped to spend via the category of the purchased services. Emission factors were also updated per the latest inflation rates. Spend that was categorized as transportation and distribution spend was included in Category 4: Upstream Transportation & Distribution and excluded from Category 1: Purchased Goods and Services.

#### Scope 3 category 5: Waste generated in operations

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

28862

**Comment**

During 2021, Comcast undertook meaningful efforts to calculate its Scope 3 emissions starting from a 2019 base year for the full enterprise. However, given inherent data limitations and inconsistent estimation techniques among companies, readers are cautioned to not place any undue reliance on our estimated Scope 3 emissions. Comcast used a mix of methods to calculate emissions from waste generated in operations. Where possible, a waste type-specific method was used, otherwise a spend-based method was used. For the waste type-specific method, emissions were calculated using the U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 9 (April 2021) or the UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting 2019 (Revised July 2020). For the spend-based method, emissions were calculated using the Greenhouse Gas Protocol Scope 3 Evaluator Quantis Tool. Spend on waste that was included in Category 5: Waste Generated in Operations, was excluded from Category 1: Purchased Goods and Services. In instances where the related spend cannot be identified and excluded from the analysis for Category 1: Purchased Goods and Services, emissions included in Category 5: Waste Generated in Operations were removed from the emissions estimated in Category 1: Purchased Goods and Services. Waste from offices, retail locations, as well as Comcast's various recycling programs were included in this category.

#### Scope 3 category 6: Business travel

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

202470

**Comment**

During 2021, Comcast undertook meaningful efforts to calculate its Scope 3 emissions starting from a 2019 base year for the full enterprise. However, given inherent data limitations and inconsistent estimation techniques among companies, readers are cautioned to not place any undue reliance on our estimated Scope 3 emissions. Comcast used a mix of methods to calculate emissions from business travel. A distance-based, fuel-based, hotel nights-based, or spend-based method was used dependent on the data available. Emissions from commercial air travel, rail travel, car rentals, and mileage reimbursements were calculated using mileage-based activity data aggregated by Comcast and its travel service providers, using emission factors from the U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 10 (April 2021) and the UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting 2019 (Revised July 2020). Private flight emissions were calculated using flight hours, a gallon per hour rate from the FAA to estimate fuel usage, and the appropriate emission factor from the UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting 2019 (Revised July 2020) and U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 5 and Table 10 (April 2021). Hotel emissions were calculated using the number of room nights and emission factors from the UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting 2019 (Revised July 2020), where applicable, or the GreenView Hotel Footprinting Tool - Heat Map of Carbon Emissions per Room Night (November 2020). Otherwise, spend was multiplied by a cradle-to-gate emission factor from the U.S. EPA Supply Chain GHG Emission Factors for US Commodities and Industries v1.1 (Revised January 2022) or the OpenLCA lifecycle assessment software, with emission factors mapped to spend via the category of the purchased services. Emission factors were also updated per the latest inflation rates. Spend that was categorized as business travel spend was included in Category 6: Business Travel and excluded from Category 1: Purchased Goods and Services.

### Scope 3 category 7: Employee commuting

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

305359

**Comment**

During 2021, Comcast undertook meaningful efforts to calculate its Scope 3 emissions starting from a 2019 base year for the full enterprise. However, given inherent data limitations and inconsistent estimation techniques among companies, readers are cautioned to not place any undue reliance on our estimated Scope 3 emissions. Comcast used an average-data method to estimate emissions from employee commuting. Survey data collected from employees was utilized for the UK & Ireland employees of the Sky division. For other Sky employees, distances and modes of travel were estimated using national travel surveys. Emission factors from the UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting 2019 (Revised July 2020) were utilized. For all other Comcast divisions, employee commuting emission estimates were derived from the Greenhouse Gas Protocol Scope 3 Evaluator Quantis Tool.

### Scope 3 category 8: Upstream leased assets

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

14711

**Comment**

During 2021, Comcast undertook meaningful efforts to calculate its Scope 3 emissions starting from a 2019 base year for the full enterprise. However, given inherent data limitations and inconsistent estimation techniques among companies, readers are cautioned to not place any undue reliance on our estimated Scope 3 emissions. Comcast used an average-data method and spend-based method to calculate emissions in this category which includes emissions from leased real estate where Comcast does not have operational control. For the average-data method, emissions from electricity, natural gas, refrigerants, and blended refrigerants were determined by multiplying the leased asset's square footage by a usage intensity factor based on facilities in Comcast's Scope 1 and 2 emissions. Comcast also used emission factors from the IEA Statistics Data Service: 2018 Emission Factors (September 2020) and the U.S. EPA 2018 Emissions & Generation Resource Integrated Database ("eGRID2018") (Mar 2020) to estimate emissions from electricity, emissions factors from the U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 1 (Apr 2021) and the U.S. EIA Commercial Buildings Energy Consumption Survey (May 2016) to estimate emissions from natural gas, and emissions factors from the U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 11 & Table 12 (Apr 2021) to estimate emissions from refrigerants. For the spend-based method, a mix of approaches are utilized to determine the emission factors to map to spend. For select suppliers, supplier-specific emission factors (based on Scope 1, Scope 2, and upstream Scope 3) were calculated using the most recently available CDP Supplier submissions, vendors surveys, or supplemental research. Otherwise, spend was multiplied by a cradle-to-gate emission factor from the U.S. EPA Supply Chain GHG Emission Factors for US Commodities and Industries v1.1 (Revised January 2022), or the OpenLCA lifecycle assessment software, with emission factors mapped to spend via the category of the purchased services. Emission factors were also updated per the latest inflation rates. Spend that was categorized as upstream leased assets was included in Category 8: Upstream Leased Assets and excluded from Category 1: Purchased Goods and Services.

### Scope 3 category 9: Downstream transportation and distribution

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

0

**Comment**

During 2021, Comcast undertook meaningful efforts to calculate its Scope 3 emissions starting from a 2019 base year for the full enterprise. This category is not applicable, as Comcast directly or indirectly paid for all transportation and distribution of sold products, so emissions from such transportation and distribution is already captured in Category 1: Purchased Goods and Services or Category 4: Upstream Transportation & Distribution.

### Scope 3 category 10: Processing of sold products

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

0

**Comment**

During 2021, Comcast undertook meaningful efforts to calculate its Scope 3 emissions starting from a 2019 base year for the full enterprise. This category is not applicable for Comcast. Comcast does not produce intermediate goods.

### Scope 3 category 11: Use of sold products

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

1540692

**Comment**

During 2021, Comcast undertook meaningful efforts to calculate its Scope 3 emissions starting from a 2019 base year for the full enterprise. However, given inherent data limitations and inconsistent estimation techniques among companies, readers are cautioned to not place any undue reliance on our estimated Scope 3 emissions. Comcast used the product-specific method for direct use phase emissions to calculate emissions from the use of sold products. Included in this category were the estimated lifetime of emissions from products sold directly by Comcast entities, as well as in-year emissions of devices leased or sold via a subscription-based service model by the Sky division. For sold devices, the total volume of devices sold in the reporting year was multiplied by either a model-specific or average annual energy usage, an estimated lifetime, and an emission factor from the U.S. EPA 2018 Emissions & Generation Resource Integrated Database ("eGRID2018") (March 2020), the IEA Statistics Data Service: 2018 Emission Factors (September 2020), or the UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting 2019 (Revised July 2020) depending on the country of sale. For leased devices, the average volume of active devices across the year was multiplied by either a model-specific or average annual energy usage and an emission factor referenced above, depending on the country where the device resided.

### Scope 3 category 12: End of life treatment of sold products

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

7651

**Comment**

During 2021, Comcast undertook meaningful efforts to calculate its Scope 3 emissions starting from a 2019 base year for the full enterprise. However, given inherent data limitations and inconsistent estimation techniques among companies, readers are cautioned to not place any undue reliance on our estimated Scope 3 emissions. Comcast used a waste type-specific method on all sold products, as well as leased devices that were never returned to Comcast. Waste type-specific emissions were taken from LCAs specific to the device where applicable or calculated using an estimated device weight and an emission factor from the U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 9 (April 2021) or the Green Story Inc: "Comparative Life Cycle Assessment (LCA) of second-hand vs new clothing" (May 2019).

### Scope 3 category 13: Downstream leased assets

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

4262798

**Comment**

During 2021, Comcast undertook meaningful efforts to calculate its Scope 3 emissions starting from a 2019 base year for the full enterprise. However, given inherent data limitations and inconsistent estimation techniques among companies, readers are cautioned to not place any undue reliance on our estimated Scope 3 emissions. Comcast used the product-specific method for direct use phase emissions to calculate downstream leased assets emissions for the Comcast Cable division's customer premise equipment (CPE) (e.g., gateways and set-top boxes). The average volume of active devices in the reporting year was multiplied by either a model-specific or average annual energy usage and an emission factor from the U.S. EPA 2018 Emissions & Generation Resource Integrated Database ("eGRID2018") (March 2020). Emissions from leased facilities and subleased vehicles were also included in this category. Leased facilities emissions were calculated using the same average-data method as leased buildings from Category 8: Upstream Leased Assets. Subleased vehicle emissions were calculated using a distance-based method by estimating the total number of miles driven based on the number of days each vehicle type was rented during the reporting year. This mileage was then multiplied by the appropriate emission from the U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 2 (April 2021).

### Scope 3 category 14: Franchises

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)****Comment**

This category has not been evaluated by Comcast.

### Scope 3 category 15: Investments

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)****Comment**

This category has not been evaluated by Comcast.

**Scope 3: Other (upstream)**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3: Other (downstream)**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

C5.3

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**(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.**

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

The Greenhouse Gas Protocol: Scope 2 Guidance

The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Standard

C6. Emissions data

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C6.1

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**(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?**

**Reporting year**

**Gross global Scope 1 emissions (metric tons CO2e)**

496938

**Start date**

<Not Applicable>

**End date**

<Not Applicable>

**Comment**

C6.2

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**(C6.2) Describe your organization's approach to reporting Scope 2 emissions.**

**Row 1**

**Scope 2, location-based**

We are reporting a Scope 2, location-based figure

**Scope 2, market-based**

We are reporting a Scope 2, market-based figure

**Comment**

C6.3

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**(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?**

**Reporting year**

**Scope 2, location-based**

1480893

**Scope 2, market-based (if applicable)**

1053067

**Start date**

<Not Applicable>

**End date**

<Not Applicable>

**Comment**

**C6.4**

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**(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?**

No

**C6.5**

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**(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.**

**Purchased goods and services**

**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO2e)**

2848571

**Emissions calculation methodology**

Supplier-specific method  
Spend-based method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

15

**Please explain**

Comcast used a spend-based method and a supplier-specific method, using expenditure data for all company divisions, to calculate emissions from purchased goods and services. However, given inherent data limitations and inconsistent estimation techniques among companies, readers are cautioned to not place any undue reliance on our estimated Scope 3 emissions. A mix of approaches were utilized to determine the emission factors to map to spend. For select suppliers, supplier-specific emission factors were calculated using the most recently available CDP Supplier submissions, vendors 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 emission factor. Otherwise, spend was multiplied by a cradle-to-gate emission factor from the U.S. EPA Supply Chain GHG Emission Factors for US Commodities and Industries v1.1.1 (March 2022) with emission factors mapped to spend via the supplier's sector or the category of the purchased goods or services. Emission factors were also updated per the latest inflation rates. Spend on emissions covered in Scope 1, Scope 2, or other Scope 3 categories were excluded from the analysis (e.g., transportation and energy spend). Spend related to Programming, Licensed Content, and Sports Rights were also excluded from the analysis. Spend, and corresponding emissions, from capital goods had been included in this category in prior years but are now reported in Category 2: Capital Goods and excluded from Category 1: Purchased Goods and Services.

**Capital goods**

**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO2e)**

1409445

**Emissions calculation methodology**

Supplier-specific method  
Spend-based method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

2

**Please explain**

Comcast used a spend-based method and a supplier-specific method, using expenditure data for all company divisions, to calculate emissions from capital goods. However, given inherent data limitations and inconsistent estimation techniques among companies, readers are cautioned to not place any undue reliance on our estimated Scope 3 emissions. A mix of approaches were utilized to determine the emission factors to map to spend. For select suppliers, supplier-specific emission factors were calculated using the most recently available CDP Supplier submissions, vendors 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 emission factor. Otherwise, spend was multiplied by a cradle-to-gate emission factor from the U.S. EPA Supply Chain GHG Emission Factors for US Commodities and Industries v1.1.1 (March 2022) with emission factors mapped to spend via the supplier's sector or the category of the purchased goods. Emission factors were also updated per the latest inflation rates. Spend that was categorized as capital goods spend was included in Category 2: Capital Goods and excluded from Category 1: Purchased Goods and Services.

## Fuel-and-energy-related activities (not included in Scope 1 or 2)

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

529522

### Emissions calculation methodology

Average data method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

Comcast used an average-data method to calculate upstream emissions from fuels and energy consumed in its operations. However, given inherent data limitations and inconsistent estimation techniques among companies, readers are cautioned to not place any undue reliance on our estimated Scope 3 emissions. Activity data was sourced from the fuel and energy quantities reported in Comcast's Scope 1 and 2 market-based emissions footprint. Emissions for Well-to-Tank (WTT), Generation for fuels, electricity, heat and steam were calculated using the UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting 2022 (September 2022) emission factors. Emissions for Transportation and Distribution (T&D) Losses and WTT T&D Losses for electricity, heat and steam were calculated using the IEA Statistics Data Service: 2022 Emission Factors ("T&D losses adjustment") (September 2022), the UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting 2022 (September 2022), and the U.S. EPA 2020 Emissions & Generation Resource Integrated Database ("eGRID2020") (January 2022).

## Upstream transportation and distribution

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

407123

### Emissions calculation methodology

Supplier-specific method  
Spend-based method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

9

### Please explain

Comcast used a spend-based method and a supplier-specific method, using expenditure data for all company divisions, to calculate emissions from upstream transportation and distribution. However, given inherent data limitations and inconsistent estimation techniques among companies, readers are cautioned to not place any undue reliance on our estimated Scope 3 emissions. A mix of approaches were utilized to determine the emission factors to map to spend. For select suppliers, supplier-specific emission factors were calculated using the most recently available CDP Supplier submissions, vendors surveys, or supplemental research. The supplier's Scope 1 emissions, Scope 2 emissions, upstream Scope 3 emissions, and revenue were utilized to create a supplier-specific emission factor. Otherwise, spend is multiplied by a cradle-to-gate emission factor from the U.S. EPA Supply Chain GHG Emission Factors for US Commodities and Industries v1.1.1 (March 2022), with emission factors mapped to spend via the supplier's sector or the category of the purchased service. Emission factors were also updated per the latest inflation rates. Spend that was categorized as transportation and distribution spend was included in Category 4: Upstream Transportation & Distribution and excluded from Category 1: Purchased Goods and Services.

## Waste generated in operations

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

19214

### Emissions calculation methodology

Supplier-specific method  
Average data method  
Spend-based method  
Waste-type-specific method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

77

### Please explain

Comcast used a mix of methods to calculate emissions from waste generated in operations. However, given inherent data limitations and inconsistent estimation techniques among companies, readers are cautioned to not place any undue reliance on our estimated Scope 3 emissions. Where possible, supplier allocated emissions were collected from specific suppliers, with each suppliers' calculation and allocation methodology verified by Comcast. Otherwise, a waste type-specific method is used. In instances where waste data was unavailable, an average data method or spend-based method was used. For the waste type-specific method, emissions were calculated using the U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 9 (April 2022) or the UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting 2022 (September 2022). For the average-data method an internal benchmark was created per square meter of floor space using the waste generation from the previous reporting year. For the spend-based method, emissions were calculated using the Greenhouse Gas Protocol Scope 3 Evaluator Quantis Tool. Spend on waste that was included in Category 5: Waste Generated in Operations, was excluded from Category 1: Purchased Goods and Services. In instances where the related spend cannot be identified and excluded from the analysis for Category 1: Purchased Goods and Services, emissions included in Category 5: Waste Generated in Operations were removed from the emissions estimated in Category 1: Purchased Goods and Services. Waste from offices, retail locations, as well as Comcast's various recycling programs were included in this category.

## Business travel

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO<sub>2</sub>e)

132862

### Emissions calculation methodology

Supplier-specific method  
Spend-based method  
Fuel-based method  
Distance-based method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

86

### Please explain

Comcast used a mix of methods to calculate emissions from business travel. However, given inherent data limitations and inconsistent estimation techniques among companies, readers are cautioned to not place any undue reliance on our estimated Scope 3 emissions. Where possible, supplier allocated emissions were collected from specific suppliers, with each suppliers' calculation and allocation methodology verified by Comcast. Otherwise, a distance-based, fuel-based, or spend-based method was used dependent on the data available. Emissions from commercial air travel, rail travel, car rentals, and mileage reimbursements were calculated using mileage-based activity data aggregated by Comcast and its travel service providers, using emission factors from the U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 2 (April 2022) and the UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting 2022 (September 2022). Chartered flight emissions were calculated using flight hours, a gallon per hour rate from the FAA to estimate fuel usage, and the appropriate emission factor from the UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting 2022 (September 2022) and the U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 5 and Table 10 (April 2022). In instances where the supplier allocations, distance, or fuel data were not available, the spend method was used. Spend was multiplied by a cradle-to-gate emission factor from the U.S. EPA Supply Chain GHG Emission Factors for US Commodities and Industries v1.1.1 (March 2022) with emission factors mapped to spend via the category of the purchased services. Emission factors were also updated per the latest inflation rates. Spend that was categorized as business travel spend was included in Category 6: Business Travel and excluded from Category 1: Purchased Goods and Services.

## Employee commuting

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO<sub>2</sub>e)

111459

### Emissions calculation methodology

Average data method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

Comcast used an average-data method to estimate emissions from employee commuting. However, given inherent data limitations and inconsistent estimation techniques among companies, readers are cautioned to not place any undue reliance on our estimated Scope 3 emissions. Survey data collected from employees was utilized for the UK & Ireland employees of the Sky division. For other Sky employees, distances and modes of travel were estimated using national travel surveys. Emission factors from the UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting 2022 (September 2022) were then utilized. For all other Comcast divisions, employee commuting emission estimates were derived from the Greenhouse Gas Protocol Scope 3 Evaluator Quantis Tool.

## Upstream leased assets

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO<sub>2</sub>e)

278517

### Emissions calculation methodology

Supplier-specific method  
Average data method  
Spend-based method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

89

### Please explain

Comcast used a mix of methods to calculate emissions from upstream leased assets, including an average-data method, a spend-based method, and a supplier-specific method. However, given inherent data limitations and inconsistent estimation techniques among companies, readers are cautioned to not place any undue reliance on our estimated Scope 3 emissions. Included in this category were emissions from leased real estate where Comcast does not have operational control and other leased equipment. For the average-data method, emissions from electricity, natural gas, refrigerants, and blended refrigerants were determined by multiplying the leased asset's square footage by a usage intensity factor calculated using data from facilities in Comcast's Scope 1 and 2 emissions footprint. Comcast then used emission factors from the IEA Statistics Data Service: 2020 Emission Factors (September 2022) and the U.S. EPA 2020 Emissions & Generation Resource Integrated Database ("eGRID2020") (January 2022) to estimate emissions from electricity, emissions factors from the U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 1 (April 2022) and the U.S. EIA Commercial Buildings Energy Consumption Survey (May 2016) to estimate emissions from natural gas, and emissions factors from the U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 11 & Table 12 (April 2022) to estimate emission from refrigerants and blended refrigerants. For the spend-based method, a mix of approaches were utilized to determine the emission factors to map to spend. For select suppliers, supplier-specific emission factors (based on Scope 1, Scope 2, and upstream Scope 3) were calculated using the most recently available CDP Supplier submissions, vendors surveys, or supplemental research. Otherwise, spend was multiplied by a cradle-to-gate emission factor from the U.S. EPA Supply Chain GHG Emission Factors for US Commodities and Industries v1.1.1 (March 2022) with emission factors mapped to spend via the category of the purchased services. Emission factors were also updated per the latest inflation rates. Spend that was categorized as upstream leased assets spend was included in Category 8: Upstream Leased Assets and excluded from Category 1: Purchased Goods and Services.

## Downstream transportation and distribution

### Evaluation status

Not relevant, calculated

### Emissions in reporting year (metric tons CO2e)

0

### Emissions calculation methodology

Other, please specify (No downstream T&D to calculate.)

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

Not applicable, Comcast directly or indirectly paid for all transportation and distribution of sold products, so emissions from such transportation and distribution is already captured in Category 1: Purchased Goods and Services or Category 4: Upstream Transportation & Distribution.

## Processing of sold products

### Evaluation status

Not relevant, calculated

### Emissions in reporting year (metric tons CO2e)

0

### Emissions calculation methodology

Other, please specify (No intermediate products produced. )

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

Not applicable, Comcast did not produce intermediate goods.

## Use of sold products

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

186533

### Emissions calculation methodology

Methodology for direct use phase emissions, please specify (Total volume of devices sold multiplied by either a model-specific or average annual energy usage, estimated lifetime, and an average grid emission factor for the specific country)

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

Comcast used the product specific method for direct use phase emissions to calculate emissions from the use of sold products. However, given inherent data limitations and inconsistent estimation techniques among companies, readers are cautioned to not place any undue reliance on our estimated Scope 3 emissions. Included in this category were the estimated lifetime of emissions from products that draw electricity and are sold directly by Comcast entities. The total volume of devices sold in the reporting year was multiplied by either a model-specific or average annual energy usage, an estimated lifetime, and an emission factor from the U.S. EPA 2020 Emissions & Generation Resource Integrated Database ("eGRID2020") (January 2022), IEA Statistics Data Service: 2020 Emission Factors (September 2022), or the UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting 2022 (September 2022) depending on the country of sale. In prior reporting years, this category also included emissions from products sold via a subscription-based service model and leased devices from the Sky division; emissions from these devices are now captured in Category 13: Downstream Leased Assets.

## End of life treatment of sold products

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

10781

### Emissions calculation methodology

Waste-type-specific method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

Comcast used a waste type-specific method, on all sold products as well as leased devices that were never returned to Comcast. However, given inherent data limitations and inconsistent estimation techniques among companies, readers are cautioned to not place any undue reliance on our estimated Scope 3 emissions. Waste type-specific emissions were taken from LCAs specific to the device where applicable or calculated using an estimated device weight and an emission factor from the U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 9 (April 2022) or the Green Story Inc: "Comparative Life Cycle Assessment (LCA) of second-hand vs new clothing" (May 2019).

## Downstream leased assets

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO<sub>2</sub>e)

4805999

### Emissions calculation methodology

Average data method

Distance-based method

Methodology for direct use phase emissions, please specify (For equipment on customer premises (CPE), average volume of active devices multiplied by either a model-specific or average annual energy usage, and a grid emission factor for the specific country.)

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

Comcast used the product-specific method for direct use phase emissions to calculate emission from downstream leased assets for the Comcast Cable and Sky division's customer premise equipment (CPE) (e.g., gateways and set-top boxes) as well as products sold via a subscription-based service model from the Sky division. However, given inherent data limitations and inconsistent estimation techniques among companies, readers are cautioned to not place any undue reliance on our estimated Scope 3 emissions. The average volume of active devices in the reporting year was multiplied by either a model-specific or average annual energy usage and an emission factor from the U.S. EPA 2020 Emissions & Generation Resource Integrated Database ("eGRID2020") (January 2022), IEA Statistics Data Service: 2020 Emission Factors (September 2022), or the UK Government (DEFRA/BEIS) Greenhouse Gas Conversion Factors for Company Reporting 2022 (September 2022) depending on the country of the lease. Emissions from leased facilities and subleased vehicles were also included in this category. Leased facilities emissions were calculated using the same average-data method as leased buildings from Category 8: Upstream Leased Assets, using the same emission factors or emission factors from the U.S. Energy Information Administration, Residential Energy Consumption Survey (RECS) (March 2023) for residential leases. Subleased vehicle emissions were calculated using a distance-based method by estimating the total number of miles driven based on the number of days each vehicle type was rented during the reporting year. This mileage was then multiplied by the appropriate emission from the U.S. EPA Climate Leaders, Emissions Factors for Greenhouse Gas Inventories: Table 2 (April 2022).

## Franchises

### Evaluation status

Not evaluated

### Emissions in reporting year (metric tons CO<sub>2</sub>e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

This category has not been evaluated by Comcast.

## Investments

### Evaluation status

Not evaluated

### Emissions in reporting year (metric tons CO<sub>2</sub>e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

This category has not been evaluated by Comcast.

## Other (upstream)

### Evaluation status

### Emissions in reporting year (metric tons CO<sub>2</sub>e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

**Other (downstream)**

**Evaluation status**

**Emissions in reporting year (metric tons CO2e)**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

**Please explain**

C6.7

**(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?**

Yes

C6.7a

**(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.**

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	3303	

C6.10

**(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.**

**Intensity figure**

0.0000128

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)**

1550005

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

121427000000

**Scope 2 figure used**

Market-based

**% change from previous year**

17

**Direction of change**

Decreased

**Reason(s) for change**

Change in renewable energy consumption  
Other emissions reduction activities  
Other, please specify (Increase in clean energy consumption.)

**Please explain**

During 2022, our efforts to reduce our greenhouse gas emissions, increase operational energy efficiency, and increase our use of clean energy, along with the overall greening of the U.S. electricity grid caused our global emissions in 2022 to decrease compared to 2021.

C7. Emissions breakdowns

C7.1

**(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?**

Yes

C7.1a

**(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).**

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	401735	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	240	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	1254	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	62649	IPCC Fourth Assessment Report (AR4 - 100 year)
Other, please specify (Refrigerants - Other)	31062	IPCC Fourth Assessment Report (AR4 - 100 year)

## C7.2

**(C7.2) Break down your total gross global Scope 1 emissions by country/area/region.**

Country/area/region	Scope 1 emissions (metric tons CO2e)
Asia Pacific (or JAPA)	13838
Europe, Middle East and Africa (EMEA)	38487
Americas	444613

## C7.3

**(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.**

By business division

By activity

## C7.3a

**(C7.3a) Break down your total gross global Scope 1 emissions by business division.**

Business division	Scope 1 emissions (metric ton CO2e)
Comcast Corporate & Cable Communications	357907
NBCUniversal	109657
Sky	29374

## C7.3c

**(C7.3c) Break down your total gross global Scope 1 emissions by business activity.**

Activity	Scope 1 emissions (metric tons CO2e)
Stationary combustion	88115
Mobile combustion	315074
Fugitive Emissions	93710
On Site Generation	39

## C7.5

**(C7.5) Break down your total gross global Scope 2 emissions by country/area/region.**

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Asia Pacific (or JAPA)	64056	55085
Europe, Middle East and Africa (EMEA)	54077	8528
Americas	1362760	989455

## C7.6

**(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.**

By business division

By activity

### C7.6a

---

**(C7.6a) Break down your total gross global Scope 2 emissions by business division.**

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Comcast Corporate & Cable Communications	1112427	749927
NBCUniversal Media	317226	300176
Sky	51239	2965

### C7.6c

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**(C7.6c) Break down your total gross global Scope 2 emissions by business activity.**

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Electricity	1466198	1038879
Purchased cooling	9831	9831
Purchased steam	2203	2203
Purchased heat	2661	2155

### C7.7

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**(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?**

No

### C7.9

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**(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?**

Decreased

### C7.9a

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**(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.**

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	57114	Increased	3.2	In 2022, our usage of renewable energy decreased slightly due to contract timing, as some contracts expired before new contracted sources come online. Specifically, renewable energy decreased by 92,788 MWh in 2022, compared to in 2021, resulting in an effective increase of 57,114 mtCO2e. The emissions value change (percentage) = 57,114 mtCO2e [increase in emissions from less renewable energy] / 1,799,039 mtCO2e [Total 2021 Scope 1 and 2 market-based emissions] x 100 = 3.2 %  However, even with lower renewable energy supplies, in 2022, we increased our total use of clean energy, as noted below.
Other emissions reduction activities	77774	Decreased	4.3	During 2022, Comcast implemented multiple emissions-reducing initiatives, including fleet reduction, efficiency initiatives and building energy efficiency improvements, and also benefited from the greening of the US grid. Overall, this decreased our Scope 1 and Scope 2 market-based method emissions compared to 2021. This resulted in an effective decrease of 77,774 mtCO2e. The emissions value change (percentage) = 77,774 mtCO2e [decrease in emissions from initiatives] / 1,799,039 mtCO2e [Total of 2021 Scope 1 and Scope 2 market-based method emissions] x 100 = 4.3%
Divestment		<Not Applicable >		
Acquisitions		<Not Applicable >		
Mergers		<Not Applicable >		
Change in output		<Not Applicable >		
Change in methodology		<Not Applicable >		
Change in boundary		<Not Applicable >		
Change in physical operating conditions		<Not Applicable >		
Unidentified		<Not Applicable >		
Other	228374	Decreased	12.7	In 2022, while our use of renewable energy decreased slightly due to contract timing, we increased our use of emissions-free clean energy. Specifically, clean energy increased by 580,904 MWh in 2022, compared to in 2021, resulting in an effective decrease of 228,374 mtCO2e. The emissions value change (percentage) = 228,374 mtCO2e [decrease in emissions from increased clean energy] / 1,799,039 mtCO2e [Total 2021 Scope 1 and 2 market-based emissions] x 100 = 12.7%

**C7.9b**

**(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?**

Market-based

**C8. Energy**

**C8.1**

**(C8.1) What percentage of your total operational spend in the reporting year was on energy?**

More than 0% but less than or equal to 5%

**C8.2**

**(C8.2) Select which energy-related activities your organization has undertaken.**

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	Yes
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

**(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.**

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	3683	1776110	1779793
Consumption of purchased or acquired electricity	<Not Applicable>	563822	3685087	4248909
Consumption of purchased or acquired heat	<Not Applicable>	0	12372	12372
Consumption of purchased or acquired steam	<Not Applicable>	0	9726	9726
Consumption of purchased or acquired cooling	<Not Applicable>	0	55501	55501
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	2250	<Not Applicable>	2250
Total energy consumption	<Not Applicable>	569756	5538795	6108551

C8.2b

**(C8.2b) Select the applications of your organization's consumption of fuel.**

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

**(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.**

**Sustainable biomass**

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

3683

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

3683

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

Sustainable biomass from fuels certified and listed on the Biomass Supplier List (BSL) or Sustainable Fuel Register (SFR) per UK standards. In addition, wood chip biomass consumption meets specification with CEN/TS 14961 standards or ONORM standards.

**Other biomass**

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

8192

**MWh fuel consumed for self-generation of electricity**

162

**MWh fuel consumed for self-generation of heat**

8031

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

Ethanol & Liquid Biofuel - Biodiesel

**Other renewable fuels (e.g. renewable hydrogen)**

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

No "other renewable fuels" were consumed by Comcast in 2022.

**Coal**

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

No coal is consumed by Comcast.

**Oil****Heating value**

HHV

**Total fuel MWh consumed by the organization**

1355627

**MWh fuel consumed for self-generation of electricity**

53273

**MWh fuel consumed for self-generation of heat**

1302355

**MWh fuel consumed for self-generation of steam**

&lt;Not Applicable&gt;

**MWh fuel consumed for self-generation of cooling**

&lt;Not Applicable&gt;

**MWh fuel consumed for self- cogeneration or self-trigeneration**

&lt;Not Applicable&gt;

**Comment**

Includes oil-based fuels such as gasoline, diesel, jet/aviation fuel, kerosene, and fuel oil.

**Gas****Heating value**

HHV

**Total fuel MWh consumed by the organization**

412290

**MWh fuel consumed for self-generation of electricity**

5061

**MWh fuel consumed for self-generation of heat**

407229

**MWh fuel consumed for self-generation of steam**

&lt;Not Applicable&gt;

**MWh fuel consumed for self-generation of cooling**

&lt;Not Applicable&gt;

**MWh fuel consumed for self- cogeneration or self-trigeneration**

&lt;Not Applicable&gt;

**Comment**

Includes gas-based fuels such as natural gas and propane, as well as gas for vehicles (mobile transportation).

**Other non-renewable fuels (e.g. non-renewable hydrogen)****Heating value**

HHV

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

&lt;Not Applicable&gt;

**MWh fuel consumed for self-generation of cooling**

&lt;Not Applicable&gt;

**MWh fuel consumed for self- cogeneration or self-trigeneration**

&lt;Not Applicable&gt;

**Comment**

No other fuels are consumed by Comcast.

**Total fuel****Heating value**

HHV

**Total fuel MWh consumed by the organization**

1779793

**MWh fuel consumed for self-generation of electricity**

58495

**MWh fuel consumed for self-generation of heat**

1721297

**MWh fuel consumed for self-generation of steam**

&lt;Not Applicable&gt;

**MWh fuel consumed for self-generation of cooling**

&lt;Not Applicable&gt;

**MWh fuel consumed for self- cogeneration or self-trigeneration**

&lt;Not Applicable&gt;

**Comment****C8.2d****(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.**

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	5169	2250	5169	2250
Heat	3683	3683	3683	3683
Steam	0	0	0	0
Cooling	0	0	0	0

**C8.2e****(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in C6.3.****Country/area of low-carbon energy consumption**

Austria

**Sourcing method**

Retail supply contract with an electricity supplier (retail green electricity)

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify (Wind, Solar, Hydro)

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

379

**Tracking instrument used**

GO

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Austria

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

&lt;Not Applicable&gt;

**Comment****Country/area of low-carbon energy consumption**

Belgium

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify (Renewable mix)

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

48

**Tracking instrument used**

GO

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Bulgaria

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

<Not Applicable>

**Comment**

---

**Country/area of low-carbon energy consumption**

China

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify (Renewable mix)

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

67

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

China

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

<Not Applicable>

**Comment**

---

**Country/area of low-carbon energy consumption**

Denmark

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify (Renewable mix)

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

209

**Tracking instrument used**

GO

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Bulgaria

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

<Not Applicable>

**Comment**

---

**Country/area of low-carbon energy consumption**

Germany

**Sourcing method**

Retail supply contract with an electricity supplier (retail green electricity)

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify (Wind, Solar, Hydro)

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

8421

**Tracking instrument used**

GO

---

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Germany

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

<Not Applicable>

**Comment**

---

**Country/area of low-carbon energy consumption**

Germany

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify (Renewable mix)

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

397

**Tracking instrument used**

GO

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Bulgaria

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

<Not Applicable>

**Comment**

---

**Country/area of low-carbon energy consumption**

India

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify (Renewable mix)

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

9

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

India

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

<Not Applicable>

**Comment**

---

**Country/area of low-carbon energy consumption**

Ireland

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify (Renewable mix)

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

187

**Tracking instrument used**

GO

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Bulgaria

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

<Not Applicable>

**Comment**

---

**Country/area of low-carbon energy consumption**

Israel

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify (Renewable mix)

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

4

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Israel

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

<Not Applicable>

**Comment**

---

**Country/area of low-carbon energy consumption**

Italy

**Sourcing method**

Retail supply contract with an electricity supplier (retail green electricity)

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify (Solar, Wind, Hydroelectric, Biomass)

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

26152

**Tracking instrument used**

GO

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Italy

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

<Not Applicable>

**Comment**

---

**Country/area of low-carbon energy consumption**

Italy

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify (Renewable mix)

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

19752

**Tracking instrument used**

GO

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Bulgaria

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

<Not Applicable>

**Comment**

---

**Country/area of low-carbon energy consumption**

Portugal

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify (Renewable mix)

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

638

**Tracking instrument used**

GO

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Bulgaria

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

<Not Applicable>

**Comment**

---

**Country/area of low-carbon energy consumption**

Russian Federation

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify (Renewable mix)

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

12

**Tracking instrument used**

GO

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Russian Federation

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

<Not Applicable>

**Comment**

---

**Country/area of low-carbon energy consumption**

South Africa

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify (Renewable mix)

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

14

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

South Africa

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

<Not Applicable>

**Comment**

---

**Country/area of low-carbon energy consumption**

Switzerland

**Sourcing method**

Retail supply contract with an electricity supplier (retail green electricity)

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify (Wind, Solar, Hydro)

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

78

**Tracking instrument used**

GO

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

Switzerland

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or re-powering)**

<Not Applicable>

**Comment**

---

**Country/area of low-carbon energy consumption**

United Kingdom of Great Britain and Northern Ireland

**Sourcing method**

Retail supply contract with an electricity supplier (retail green electricity)

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify (Renewable mix)

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

159612

**Tracking instrument used**

GO

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

United Kingdom of Great Britain and Northern Ireland

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or re-powering)**

<Not Applicable>

**Comment**

---

**Country/area of low-carbon energy consumption**

United Kingdom of Great Britain and Northern Ireland

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify (Renewable mix)

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

7168

**Tracking instrument used**

REGO

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

United Kingdom of Great Britain and Northern Ireland

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or re-powering)**

<Not Applicable>

**Comment**

---

**Country/area of low-carbon energy consumption**

---

United States of America

**Sourcing method**

Project-specific contract with an electricity supplier

**Energy carrier**

Electricity

**Low-carbon technology type**

Solar

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

1089

**Tracking instrument used**

US-REC

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

United States of America

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2019

**Comment**

---

**Country/area of low-carbon energy consumption**

United States of America

**Sourcing method**

Project-specific contract with an electricity supplier

**Energy carrier**

Electricity

**Low-carbon technology type**

Wind

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

93751

**Tracking instrument used**

US-REC

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

United States of America

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2019

**Comment**

---

**Country/area of low-carbon energy consumption**

United States of America

**Sourcing method**

Retail supply contract with an electricity supplier (retail green electricity)

**Energy carrier**

Electricity

**Low-carbon technology type**

Nuclear

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

673693

**Tracking instrument used**

Other, please specify (EFEC)

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

United States of America

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

1990

**Comment**

Sourcing clean energy tracked with Emissions Free Energy Certificates (EFECs) from nuclear generation.

---

**Country/area of low-carbon energy consumption**

United States of America

**Sourcing method**

Retail supply contract with an electricity supplier (retail green electricity)

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify (Renewable mix)

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

459

**Tracking instrument used**

Contract

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

United States of America

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or re-powering)**

<Not Applicable>

**Comment**

---

**Country/area of low-carbon energy consumption**

United States of America

**Sourcing method**

Retail supply contract with an electricity supplier (retail green electricity)

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify (Wind / Solar)

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

13000

**Tracking instrument used**

US-REC

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

United States of America

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or re-powering)**

<Not Applicable>

**Comment**

---

**Country/area of low-carbon energy consumption**

United States of America

**Sourcing method**

Retail supply contract with an electricity supplier (retail green electricity)

**Energy carrier**

Electricity

**Low-carbon technology type**

Solar

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

403

**Tracking instrument used**

US-REC

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

United States of America

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or re-powering)**

<Not Applicable>

**Comment**

---

**Country/area of low-carbon energy consumption**

United States of America

**Sourcing method**

Retail supply contract with an electricity supplier (retail green electricity)

**Energy carrier**

Electricity

**Low-carbon technology type**

Wind

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

43812

**Tracking instrument used**

US-REC

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

United States of America

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

<Not Applicable>

**Comment**

---

**Country/area of low-carbon energy consumption**

United States of America

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Renewable energy mix, please specify (Renewable mix)

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

750

**Tracking instrument used**

US-REC

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

United States of America

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

<Not Applicable>

**Comment**

---

**Country/area of low-carbon energy consumption**

United States of America

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Sustainable biomass

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

1190

**Tracking instrument used**

US-REC

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

United States of America

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

<Not Applicable>

**Comment**

Sustainable black liquor from an FSC and FSI facility.

---

**Country/area of low-carbon energy consumption**

United States of America

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

---

**Low-carbon technology type**

Wind

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

185000

**Tracking instrument used**

US-REC

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

United States of America

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2014

**Comment****Country/area of low-carbon energy consumption**

United States of America

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Wind

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

1218

**Tracking instrument used**

US-REC

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

United States of America

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2018

**Comment****Country/area of low-carbon energy consumption**

United Kingdom of Great Britain and Northern Ireland

**Sourcing method**

Heat/steam/cooling supply agreement

**Energy carrier**

Heat

**Low-carbon technology type**

Sustainable biomass

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

3683

**Tracking instrument used**

Contract

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

United Kingdom of Great Britain and Northern Ireland

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

&lt;Not Applicable&gt;

**Comment**

Sustainable wood chip biomass from fuels certified and listed on the Biomass Supplier List (BSL) or Sustainable Fuel Register (SFR) per UK standards, which meets specification with CEN/TS 14961 standards or ONORM standards.

**C8.2g****(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.****Country/area**

Argentina

**Consumption of purchased electricity (MWh)**

435

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

<Not Applicable>

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

435

---

**Country/area**

Australia

**Consumption of purchased electricity (MWh)**

4099

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

<Not Applicable>

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

4099

---

**Country/area**

Austria

**Consumption of purchased electricity (MWh)**

475

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

<Not Applicable>

**Consumption of purchased heat, steam, and cooling (MWh)**

436

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

911

---

**Country/area**

Belgium

**Consumption of purchased electricity (MWh)**

48

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

<Not Applicable>

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

48

---

**Country/area**

Brazil

**Consumption of purchased electricity (MWh)**

557

**Consumption of self-generated electricity (MWh)**

0

---

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

557

---

Country/area

Canada

Consumption of purchased electricity (MWh)

2988

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

2988

---

Country/area

Colombia

Consumption of purchased electricity (MWh)

125

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

125

---

Country/area

Denmark

Consumption of purchased electricity (MWh)

209

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

209

---

Country/area

France

Consumption of purchased electricity (MWh)

205

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

0

---

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

205

---

Country/area

Germany

Consumption of purchased electricity (MWh)

10339

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

4342

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

14681

---

Country/area

Guatemala

Consumption of purchased electricity (MWh)

125

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

125

---

Country/area

Hungary

Consumption of purchased electricity (MWh)

361

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

361

---

Country/area

India

Consumption of purchased electricity (MWh)

3475

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

3475

---

---

**Country/area**

Ireland

**Consumption of purchased electricity (MWh)**

684

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

&lt;Not Applicable&gt;

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

684

---

**Country/area**

Israel

**Consumption of purchased electricity (MWh)**

4

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

&lt;Not Applicable&gt;

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

4

---

**Country/area**

Italy

**Consumption of purchased electricity (MWh)**

45998

**Consumption of self-generated electricity (MWh)**

47

**Is this electricity consumption excluded from your RE100 commitment?**

&lt;Not Applicable&gt;

**Consumption of purchased heat, steam, and cooling (MWh)**

13873

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

59918

---

**Country/area**

Japan

**Consumption of purchased electricity (MWh)**

111899

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

&lt;Not Applicable&gt;

**Consumption of purchased heat, steam, and cooling (MWh)**

49216

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

161115

---

**Country/area**

Mexico

**Consumption of purchased electricity (MWh)**

908

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

<Not Applicable>

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

908

---

**Country/area**

Netherlands

**Consumption of purchased electricity (MWh)**

527

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

<Not Applicable>

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

527

---

**Country/area**

New Zealand

**Consumption of purchased electricity (MWh)**

540

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

<Not Applicable>

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

540

---

**Country/area**

Panama

**Consumption of purchased electricity (MWh)**

125

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

<Not Applicable>

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

125

---

**Country/area**

China

**Consumption of purchased electricity (MWh)**

1046

**Consumption of self-generated electricity (MWh)**

0

---

**Is this electricity consumption excluded from your RE100 commitment?**

<Not Applicable>

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

1046

---

**Country/area**

Portugal

**Consumption of purchased electricity (MWh)**

638

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

<Not Applicable>

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

638

---

**Country/area**

Russian Federation

**Consumption of purchased electricity (MWh)**

12

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

<Not Applicable>

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

12

---

**Country/area**

Singapore

**Consumption of purchased electricity (MWh)**

845

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

<Not Applicable>

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

845

---

**Country/area**

South Africa

**Consumption of purchased electricity (MWh)**

50

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

<Not Applicable>

**Consumption of purchased heat, steam, and cooling (MWh)**

0

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Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

50

---

Country/area

Spain

Consumption of purchased electricity (MWh)

782

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

782

---

Country/area

Switzerland

Consumption of purchased electricity (MWh)

189

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

6

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

195

---

Country/area

United Kingdom of Great Britain and Northern Ireland

Consumption of purchased electricity (MWh)

177241

Consumption of self-generated electricity (MWh)

337

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

177578

---

Country/area

United States of America

Consumption of purchased electricity (MWh)

3883753

Consumption of self-generated electricity (MWh)

1866

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

9726

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

3895345

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**Country/area**

Indonesia

**Consumption of purchased electricity (MWh)**

55

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

&lt;Not Applicable&gt;

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

55

---

**Country/area**

Republic of Korea

**Consumption of purchased electricity (MWh)**

6

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

&lt;Not Applicable&gt;

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

6

---

**Country/area**

Philippines

**Consumption of purchased electricity (MWh)**

77

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

&lt;Not Applicable&gt;

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

77

---

**Country/area**

Romania

**Consumption of purchased electricity (MWh)**

90

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

&lt;Not Applicable&gt;

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

90

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**C9. Additional metrics**

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## C9.1

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### (C9.1) Provide any additional climate-related metrics relevant to your business.

**Description**

Energy usage

**Metric value**

12.1

**Metric numerator**

Electricity consumed (kWh) as described below

**Metric denominator (intensity metric only)**

Customer-delivered network traffic (terabytes)

**% change from previous year**

9.7

**Direction of change**

Decreased

**Please explain**

Comcast decreased the electricity per consumed byte from 18.9 kWh/TB in 2019 to 12.1 kWh/TB in 2022. Ongoing investments in innovation, software, AI, and other virtual and physical critical infrastructure require less hardware, less space, and less energy per byte than previous technologies all contributed to our progress on this target.

The metric numerator is annual electricity consumed (kWh) by our US network and operations in Comcast Cable and the Comcast HQ Campus. The denominator is the annual terabytes (TB) of customer-delivered network traffic on the US network.

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## C10. Verification

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### C10.1

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#### (C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	No third-party verification or assurance

### C10.1a

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#### (C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

2023-Comcast-Carbon-Footprint-Data-Report.pdf

**Page/ section reference**

Pages 8-12. Pages 8-9 of the attached 2023 Carbon Footprint Data Report lay out the subject matter that represents specified information and was subject to Deloitte & Touche LLP's review (limited assurance). Deloitte & Touche LLP's review report can be found on pages 11-12.

**Relevant standard**

Attestation standards established by AICPA (AT105)

**Proportion of reported emissions verified (%)**

100

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### C10.1b

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**(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.**

**Scope 2 approach**

Scope 2 location-based

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

2023-Comcast-Carbon-Footprint-Data-Report.pdf

**Page/ section reference**

Pages 8-12. Pages 8-9 of the attached 2023 Carbon Footprint Data Report lay out the subject matter that represents specified information and was subject to Deloitte & Touche LLP's review (limited assurance). Deloitte & Touche LLP's review report can be found on pages 11-12.

**Relevant standard**

Attestation standards established by AICPA (AT105)

**Proportion of reported emissions verified (%)**

100

**Scope 2 approach**

Scope 2 market-based

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

2023-Comcast-Carbon-Footprint-Data-Report.pdf

**Page/ section reference**

Pages 8-12. Pages 8-9 of the attached 2023 Carbon Footprint Data Report lay out the subject matter that represents specified information and was subject to Deloitte & Touche LLP's review (limited assurance). Deloitte & Touche LLP's review report can be found on pages 11-12.

**Relevant standard**

Attestation standards established by AICPA (AT105)

**Proportion of reported emissions verified (%)**

100

**C10.2**

**(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?**

Yes

**C10.2a**

**(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?**

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C8. Energy	Energy consumption	Attestation standards established by AICPA AT-C 105 and AT-C 210 for Review Engagements	Comcast calculated energy consumption in alignment with Sustainability Accounting Standards Board (SASB) metric TC-TL-130a.1. Refer to the Comcast 2023 Carbon Footprint Data Report previously provided for further details. 2023-Comcast-Carbon-Footprint-Data-Report.pdf

**C11. Carbon pricing**

**C11.1**

**(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?**

No, and we do not anticipate being regulated in the next three years

## C11.2

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### (C11.2) Has your organization canceled any project-based carbon credits within the reporting year?

Yes

## C11.2a

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### (C11.2a) Provide details of the project-based carbon credits canceled by your organization in the reporting year.

#### Project type

Wind

#### Type of mitigation activity

Emissions reduction

#### Project description

Our Sky business participates in voluntary carbon offsetting of unavoidable Scope 1, 2 and selected Scope 3 emissions to claim CarbonNeutral® Business and CarbonNeutral® Production certification.

In 2022, these offsets were purchased and cancelled from 1 wind project in China.

Since 2018, in addition to the offset portfolio, Sky supports further sustainable development such as improving local environments for nature and people, and supporting the planting of future natural carbon sinks.

#### Credits canceled by your organization from this project in the reporting year (metric tons CO2e)

101660

#### Purpose of cancellation

Voluntary offsetting

#### Are you able to report the vintage of the credits at cancellation?

Yes

#### Vintage of credits at cancellation

2015

#### Were these credits issued to or purchased by your organization?

Purchased

#### Credits issued by which carbon-crediting program

CDM (Clean Development Mechanism)

#### Method(s) the program uses to assess additionality for this project

Other, please specify (Benchmark analysis )

#### Approach(es) by which the selected program requires this project to address reversal risk

No risk of reversal

#### Potential sources of leakage the selected program requires this project to have assessed

Ecological leakage

#### Provide details of other issues the selected program requires projects to address

The program requires an Environmental Impact Assessment (EIA) which was approved by the Environmental Protection Bureau of Jiangmen City. The EIA analyzed the following impacts:

- Waste Water
- Dust and exhaust gas
- Noise
- Solid waste
- Ecological impact

The project was deemed to cause no negative harm.

#### Comment

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## C11.3

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### (C11.3) Does your organization use an internal price on carbon?

No, and we do not currently anticipate doing so in the next two years

## C12. Engagement

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### C12.1

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**(C12.1) Do you engage with your value chain on climate-related issues?**

- Yes, our suppliers
- Yes, our customers/clients
- Yes, other partners in the value chain

**C12.1a**

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**(C12.1a) Provide details of your climate-related supplier engagement strategy.**

**Type of engagement**

Innovation & collaboration (changing markets)

**Details of engagement**

Run a campaign to encourage innovation to reduce climate impacts on products and services

**% of suppliers by number**

0

**% total procurement spend (direct and indirect)**

**% of supplier-related Scope 3 emissions as reported in C6.5**

27

**Rationale for the coverage of your engagement**

A portion of the environmental impact at Comcast Cable is related to Residential Customer Premise Equipment (CPE) which requires electricity for power in customers' homes. Comcast Cable has participated with our CPE suppliers in two Voluntary Agreements since their inception: The Set-top Box Voluntary Agreement and Small Network Equipment Voluntary Agreement. The mission of the Voluntary Agreements is to improve the energy efficiency of set-top boxes and small network equipment. Comcast Cable works with these suppliers to implement best practices, procure sustainable goods, and ultimately create products that decrease the energy consumption of customer equipment. The rationale for the coverage of this engagement is that it includes all residential CPE suppliers for Comcast Cable, which are the suppliers eligible for this engagement. While this represents < 1% of all Comcast suppliers based on the size of our total operations, the downstream emissions from Comcast Cable residential CPE make up 27% of our Total Scope 3 emissions reported in C6.5, making these collaborative supplier initiatives important for emissions reduction.

**Impact of engagement, including measures of success**

Energy consumed as a result of our residential customers using our products are sources of our Scope 3 carbon emissions. To improve the energy efficiency of our CPE, Comcast Cable's technology team has collaborated with the CPE suppliers to create new models that meet the standards set in both the Set-Top Box Voluntary Agreement (STB VA) and the Small Networking Equipment Voluntary Agreement (SNE VA). As a signatory of the two VAs, Comcast Cable pledged that  $\geq 90\%$  of set-top boxes purchased in 2022 would meet the Tier 3 efficiency levels outlined in the STB VA and that  $\geq 90\%$  of small networking equipment purchased in 2022 would meet the Tier 2 efficiency levels outlined in the SNE VA. The measure of success for this engagement is our ability to meet those pledge goals, which requires suppliers to successfully produce devices meeting the energy efficiency targets. For 2022, we were able to exceed our pledge goal, with 100% of our purchases meeting the target efficiency levels of both VAs. We also annually measure the amount of energy savings we enable through our customers' use of our CPE as a measure of impact. According to the latest (2021) report published by the independent administrator of the STB VA\*, the results have already saved consumers across all STB VA signatories nearly \$12 billion in energy costs and avoided almost 64 million metric tons of CO2 emissions since 2012 -- enough to power every home in California for nearly a year. According to the latest (2021) report published by the independent administrator of the SNB VA\*\*, that initiative has improved the energy efficiency (average weighted power relative to broadband speed) of the small-networking equipment categories every year, with declines of 76% to 83% from 2015 to 2021. The VA reports for 2022 are expected to be published in 2H 2023.

\* <https://www.energy-efficiency.us/library/pdf/STB2021AnnualReport.pdf>

\*\* <https://www.energy-efficiency.us/library/pdf/SNE-AnnualReport-2021.pdf>

**Comment**

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**C12.1b**

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**(C12.1b) Give details of your climate-related engagement strategy with your customers.**

**Type of engagement & Details of engagement**

Collaboration & innovation	Run a campaign to encourage innovation to reduce climate change impacts
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**% of customers by number**

47

**% of customer - related Scope 3 emissions as reported in C6.5**

**Please explain the rationale for selecting this group of customers and scope of engagement**

Residential customers have the option to reduce their carbon footprint by opting to do a self-installation to initiate service. We offer this opportunity to new customers or current customers upgrading services to eliminate the need for a professional technician to drive to their home to install their new services - reducing the emissions from mobile combustion and saving money. Customers who opt for self-installation are not charged the pro-installation fees, giving them a financial incentive to choose this more convenient, and environmentally friendly, option. This opportunity is made available to residential customers setting up new services where it is technically possible for them to do a self-install. This includes the majority of new customers across our national footprint, including markets in the mid-Atlantic and Northeast (including Washington, DC, Philadelphia, New York, and Boston), Southeast (including Miami and Atlanta), Midwest (including Chicago, Detroit, Indianapolis, and Minneapolis/St. Paul), Mountain West (including Denver and Salt Lake City), California (including San Francisco and Sacramento), South West (including Houston) and Northwest (including Portland and Seattle). The % of customers engaged is calculated as the total number of customers opting to do self-installation in the given year divided by the total number of residential customer relationships at year end.

**Impact of engagement, including measures of success**

The impact of engagement is measured by tracking the percentage of new residential customers or current customers adding a new service that opt to self-install their equipment by opting to either self-pick-up or have the equipment shipped directly to themselves. Self-installation is offered to residential customers setting up new services across Comcast Cable's network footprint where it is technically possible for them to do a self-install. By opting for self-installation to initiate service, customers eliminate the need for a professional technician to drive to their home to install their new services - reducing the emissions from mobile combustion and saving money. Through our digital technology and customer support tools, including self-installation, we estimate that we've saved nearly 9.5 million gallons of fuel since 2019, avoiding 81,000 metric tons of greenhouse gas emissions. The measure of success is for the self-install opt-in rate to meet or beat the budget target for the year. While the specific opt-in rate for self-installations is confidential, we measure and set targets for this rate, including as part of our annual budget and LRP process. The adoption rate of self-installation increased in 2022 compared to 2021.

**C12.1d**

**(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.**

Each year, we continue to work towards improving the energy efficiency of Comcast Cable products. In addition to our participation in the Voluntary Agreement for Set-Top Boxes with direct (tier 1) suppliers, we also partner with manufacturers in our value chain to improve efficiency for important components within our products.

Example of engagement with other partners in the value chain: As a signatory of the set-top box voluntary agreement (VA), Comcast Cable pledged that ≥ 90% of set-top boxes purchased in 2022 would meet the Tier 3 efficiency levels outlined in the VA. In order to accomplish this goal, we collaborated with other partners in the value chain, including Broadcom and Realtek, to meet this quota. We leveraged the expertise of leaders from Comcast Cable, Broadcom, and Realtek, among others, to create a solution to meet the Tier 3 efficiency levels. As a result of this collaborative effort, two innovative system-on-chip (SOC) devices were developed for use in our set-top boxes. Both set-top boxes are models of the XiOne, one using Broadcom SoC and the other using Realtek SoC, and both models use less power than previous Xi6 model. These important developments allow us to deploy set-top boxes that meet the rigorous energy efficiency levels outlined in the VA. These devices are deployed universally across our networks, and carbon emission savings will be tracked and reported annually. Additionally, these solutions increase the efficiency of existing infrastructure without the need for massive construction projects and accompanying incremental emissions.

**C12.2**

**(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?**

No, but we plan to introduce climate-related requirements within the next two years

**C12.3**

**(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?**

Row 1

**External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate**

Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

**Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?**

No, and we do not plan to have one in the next two years

**Attach commitment or position statement(s)**

<Not Applicable>

**Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan**

The activities of our Government Affairs organization, which operates throughout our US footprint, include development and advocacy of public policy positions, lobbying, membership in a range of trade associations (TAs), participation in several intergovernmental associations and partnerships with other companies in the cable, broadcast and film industries and third-party organizations regarding public policy issues of concern to our business. The TAs we are members of are principally composed of companies in the cable, broadcast and film industries and are operated for the purpose of advancing the common business goals and interests of the member companies and their customers. Participation in these TAs is subject to our Chief Legal Officer's approval.

Our lobbying activity, undertaken directly or through participation in TAs, is intended to favorably influence public policy on the wide range of issues that impact our businesses, including legislation and regulation relating to video distribution services; Internet and high speed data services; telephony services; local and state cable franchising; broadcast and cable television programming and distribution; the motion picture industry; privacy; piracy; copyright; the Internet; certain international regulations; and a variety of other matters that affect Comcast more generally as a business, including tax, labor, antitrust, cybersecurity and workplace safety.

Our participation in TAs, particularly those representing a range of industry sectors, comes with the understanding that we might not agree with every position held by the TA or its other members and that some misalignment is an unavoidable consequence of any collective endeavor. We respect the independence and agency of TAs and third parties to shape their own policy agendas, events and advocacy positions, and our participation does not mean that we endorse all such agendas, events or advocacy positions, or the views of TA leaders or members. We believe TAs take positions and address issues in a collective industry manner and often advance positions consistent with our interests that will help enhance long-term shareholder value. However, we regularly monitor the positions of TAs to assess alignment with our own, including when determining whether to continue our annual membership, and, if there is a significant inconsistency on a core priority of ours, we will convey our concerns to the TA or otherwise engage with them to address the matter.

**Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate**

<Not Applicable>

**Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate**

<Not Applicable>

C12.3b

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**(C12.3b) Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.**

C12.4

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**(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**

**Publication**

In voluntary sustainability report

**Status**

Complete

**Attach the document**

2023-Comcast-Carbon-Footprint-Data-Report.pdf

**Page/Section reference**

Pages 1-10

**Content elements**

Emissions figures

Emission targets

Other metrics

**Comment**

Comcast 2023 Carbon Footprint Data Report

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**Publication**

In voluntary sustainability report

**Status**

Complete

**Attach the document**

Compressed Impact Report 2022.pdf

**Page/Section reference**

Report in entirety reflects Comcast's ESG Impact, and pages 43-58 are specific to Climate and Environment.

**Content elements**

Strategy

Risks & opportunities

Emissions figures

Emission targets

Other metrics

**Comment**

Comcast 2023 Impact Report.

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**Publication**

In voluntary sustainability report

**Status**

Underway – previous year attached

**Attach the document**

2022 TCFD.pdf

**Page/Section reference**

Report in entirety reflects Comcast's TCFD report.

**Content elements**

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

**Comment**

Comcast 2022 TCFD Report, published in November 2022.

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**C12.5**

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**(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.**

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	Other, please specify (1) Cable Voluntary Agreements, 2) Sustainable Production Alliance, 3) Clean Energy Buyers Associations, 4) Society of Cable Television Engineers (SCTE))	<p>(1) Cable Voluntary Agreements: Comcast Cable has been a signatory in two industry Voluntary Agreements since their inception: The Set-Top Box Voluntary Agreement and Small Network Equipment Voluntary Agreement. The mission of the Voluntary Agreements is to improve the energy efficiency of set-top boxes and small network equipment. Through these initiatives, Comcast Cable works with their suppliers to implement best practices, procure sustainable goods, and ultimately create products that decrease the energy consumption of customer equipment.</p> <p>(2) Sustainable Production Alliance: NBCUniversal is a member of the Sustainable Production Alliance, a consortium of the world's leading film, television and streaming companies dedicated to advancing sustainability initiatives through advocacy, education, and innovation while reducing the entertainment industry's overall environmental impact.</p> <p>(3) Clean Energy Buyers Association (CEBA): Comcast is a member of CEBA. CEBA is a membership association for energy customers seeking to procure clean energy across the U.S.</p> <p>(4) Society of Cable Television Engineers (SCTE): Comcast is a member of SCTE and leads the Energy 20/20 Subcommittee. Energy 20/20 aims to provide cable system operators with energy management standards, technology innovation, organizational solutions and training that look to help advance the cable industry.</p>

**C15. Biodiversity**

**C15.1**

**(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?**

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	Please select	<Not Applicable>	<Not Applicable>

**C15.2**

**(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?**

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	Please select	<Not Applicable>	<Not Applicable>

**C15.3**

**(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?**

**Impacts on biodiversity**

Indicate whether your organization undertakes this type of assessment

Value chain stage(s) covered

<Not Applicable>

Portfolio activity

<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity

<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)

<Not Applicable>

**Dependencies on biodiversity**

Indicate whether your organization undertakes this type of assessment

Value chain stage(s) covered

<Not Applicable>

Portfolio activity

<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity

<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)

<Not Applicable>

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?

Please select

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	Please select	<Not Applicable>

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	Please select	Please select

C15.7

(C15.7) Have you published information about your organization’s response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
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C16. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	SVP Corporate Environmental Sustainability	Chief Sustainability Officer (CSO)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

SC0.1

(SC0.1) What is your company’s annual revenue for the stated reporting period?

	Annual Revenue
Row 1	121427000000

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
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SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

Please select

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

No, I am not providing data

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms