

# CDP Climate Change Response 2020 – AT&T

## C0. Introduction

### C0.1

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

As a modern media company, AT&T’s mission is to inspire human progress through the power of communication and entertainment. This starts with more than 170 million direct-to-consumer relationships across our wireless, pay-TV and broadband businesses in the United States, wireless in Mexico and DIRECTV in Latin America.

AT&T Inc. is comprised of 3 operating companies: AT&T Communications provides mobile, broadband, video and other communications services to U.S.-based consumers. It also serves more than 3 million companies worldwide – from the smallest businesses to nearly all the Fortune 1000 – with highly secure, smart solutions. AT&T Latin America provides mobile services to consumers and businesses in Mexico and pay-TV service across 11 countries in South America and the Caribbean. WarnerMedia’s Turner, Home Box Office and Warner Bros. business units and Otter Media operations are leaders in creating and delivering multiplatform content and services and collectively own a world-class library of entertainment content. WarnerMedia’s Xandr business provides marketers with advanced advertising solutions using customer insights from AT&T’s TV, mobile and broadband services and its extensive ad inventory.

**Important note: Information set forth in this report contains financial estimates and other forward-looking statements that are subject to risks and uncertainties, and actual results might differ materially. A discussion of factors that may affect future results is contained in AT&T’s filings with the U.S. Securities and Exchange Commission. AT&T disclaims any obligation to update and revise statements contained in this report based on new information, or otherwise.**

### C0.2

**(C0.2) State the start and end date of the year for which you are reporting data.**

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Reporting year	January 1, 2019	December 31, 2019	No

### C0.3

**(C0.3) Select the countries/areas for which you will be supplying data.**

- Argentina
- Australia

Austria  
Bahrain  
Belgium  
Brazil  
Bulgaria  
Canada  
Chile  
China  
China, Hong Kong Special Administrative Region  
Colombia  
Costa Rica  
Croatia  
Cyprus  
Czechia  
Denmark  
Ecuador  
El Salvador  
Finland  
France  
Germany  
Greece  
Guatemala  
Hungary  
India  
Indonesia  
Ireland  
Israel  
Italy  
Japan  
Malaysia  
Mexico  
Morocco  
Netherlands  
New Zealand  
Norway  
Pakistan  
Panama  
Peru  
Philippines  
Poland  
Portugal  
Republic of Korea  
Romania  
Russian Federation  
Singapore  
Slovakia  
Slovenia

- South Africa
- Spain
- Sweden
- Switzerland
- Taiwan, Greater China
- Thailand
- Turkey
- United Arab Emirates
- United Kingdom of Great Britain and Northern Ireland
- United States of America
- Venezuela (Bolivarian Republic of)
- Viet Nam

## C0.4

**(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

# 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(s)	Please explain
Board-level committee	The Public Policy and Corporate Reputation Committee (PPCRC) of the AT&T Board of Directors has the highest level of responsibility for climate change within AT&T and meets 3 times/year on sustainability matters. Our Chief Sustainability Officer (CSO) also meets intermittently with individual members of the PPCRC to discuss any sustainability topics of interest to that member. The PPCRC has 4

	<p>members, including a chairperson. The PPCRC is briefed by the SVP of CSR, who is also our CSO, on climate-related issues as they relate to overall strategy and provides input/guidance in the development of our strategy. The PPCRC’s Charter outlines the Committee’s responsibilities related to public policy and specifically cites its authority over corporate policies and practices in furtherance of our CSR activities, including environmental policies. Programmatic operations for climate change-related activities fall under CSR at AT&amp;T, therefore the PPCRC is ultimately responsible for our climate change strategy.</p> <p>An example of a climate related decision made by the PPCRC was to review and approve AT&amp;T’s development of our Climate Change Analysis Tool (CCAT). The CCAT combines mapping software with climate data and enables AT&amp;T to assess the long-term infrastructure and operational impacts of climate related severe weather events, such as flooding and high intensity winds.</p>
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## 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	Please explain
Scheduled – some meetings	Reviewing and guiding strategy	<p>The Public Policy and Corporate Reputation Committee (PPCRC) of the AT&amp;T Board of Directors has the highest level of responsibility for climate change within our organization and meets 3 times per year on sustainability matters. Our Chief Sustainability Officer also meets intermittently with individual members of the PPCRC, to discuss specific sustainability topics of interest to the individual committee member. This committee reviews the entirety of AT&amp;T’s climate-related strategy, including all public targets (such as those governing supply chain, energy intensity, water intensity, fleet, etc.). The PPCRC also provides input into our strategy related to energy policy, such as investing in renewable and alternative energy purchases. As climate-related issues arise, they are reviewed in regular fashion, much the same way as other topics are reviewed and discussed at the Board level. The SVP of Corporate Social Responsibility (CSR), who is also our Chief Sustainability Officer, briefs the PPCRC on our climate-related strategies and goals. The PPCRC reviews the goals and strategies and provides oversight into the climate related issues.</p>

## C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Sustainability Officer (CSO)	Both assessing and managing climate-related risks and opportunities	Half-yearly

### C1.2a

**(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).**

The SVP of Corporate Social Responsibility (CSR), who is also the Chief Sustainability Officer (CSO) for AT&T, facilitates discussions related to climate change at meetings of the Public Policy and Corporate Responsibility Committee (PPCRC) of the AT&T Board of Directors. The CSO oversees all work pertaining to climate-related risks and opportunities. The CSO plays a leading role in AT&T's climate-related strategy-setting process and receives regular input from those implementing the strategy.

The CSO is deeply involved in major climate-related strategy decisions, such as the planning and execution of major renewable energy procurement contracts and projects, including our agreements to invest in up to 1.5 GW of renewable energy and our Climate Change Analysis Tool, which AT&T developed after working with the U.S. Department of Energy's Argonne National Laboratory. The Climate Change Analysis Tool will help AT&T anticipate potential impacts of climate change on our network infrastructure and business operations up to 30 years into the future.

AT&T's CSO has designated specific members of her team—led by the Assistant Vice President of Global Environmental Sustainability—to oversee and implement AT&T's climate change-related strategy and receives weekly updates on climate-related activities and developments. As team members on the Global Environmental Sustainability team monitor and track climate-related policies and developments within and external to the company, they communicate relevant issues and solutions to the CSO. The AVP of Global Environmental Sustainability also chairs our Environment CSR Committee, which is comprised of senior business leaders from across the company.

## 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	

### 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	Type of incentive	Activity incentivized	Comment
Chief Sustainability Officer (CSO)	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Efficiency project Efficiency target Environmental criteria included in purchases Supply chain engagement	Demonstrated progress toward and achievement of the stated goals related to climate-related issues (such as our programs for renewable energy and our 10x carbon reduction goal) are part of the annual performance objectives for our Chief Sustainability Officer (CSO). Performance toward those goals is taken to account when the CSO's supervisor determines merit salary increases and bonus awards. For example, if demonstrated progress toward our public renewable energy commitments or toward our 10x carbon reduction goal are not achieved, such negative performance would be taken into account during performance evaluations and salary/bonus determinations for the CSO.
Energy manager	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target Efficiency project Efficiency target Environmental criteria included in purchases Supply chain engagement	Our VP of Global Infrastructure Optimization (who has responsibility for our energy management team) has financial energy-saving targets which support our sustainability efforts. Performance toward these targets is taken to account when determining the VP's annual merit salary increases and bonus awards.  Business unit managers within CSR and the Global Infrastructure Optimization organizations also use the annual performance appraisal process to highlight and reward superior performance on climate-related programs.  In addition to monetary awards, we provide incentives in the form of recognition. We have several employee recognition programs that are used by business unit managers to acknowledge outstanding performance with respect to the energy impacting programs.

## 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	These time horizons are specific to how AT&T looks at the impacts of climate change through our Climate Change Analysis Tool (CCAT), which enables us to analyze the long-term physical impacts of climate change up to 30 years into the future.
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?**

We engineer our network to be reliable and resilient. Any climate-related risk that has the potential to impact our network reliability or performance, or our ability to service customers is considered a substantive financial risk. A quantifiable indicator of a substantive impact would be a measurable disruption to our network's reliability. For 2019, our system average interruption frequency was 0.000710391; and our customer average interruption duration was 0.033198749. Any disruption to our network, regardless of scale or magnitude, is considered a negative impact.

### 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

**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

Long-term

**Description of process**

Description of process: To assess climate-related risk to our operations, we use the AT&T Climate Change Analysis Tool (CCAT). Developed with the U.S. Dept. of Energy's Argonne National Labs, CCAT allows us to visualize and identify the location of infrastructure at risk for physical climate-related impacts, including sea level rise. CCAT helps us anticipate potential impacts of climate change on our network infrastructure and business operations up to 30 years into the future by combining Argonne's regional climate modeling data with sophisticated mapping capabilities and allows us to visualize climate change risk on company infrastructure and make climate-informed decisions for the future. We use CCAT on an ongoing basis (more than once a year).

How process is applied to physical risk/opportunity: We use CCAT to cross-reference fiber cable locations with projected inland and coastal flooding up to 30 years in the future, which covers short, medium and long term timeframes, making for more informed decision-making. We can also visualize climate-related events such as projected sea-level rise on assets like copper lines, fiber cable locations, cell sites, and much more. We use this information to help us plan for maintenance, disaster recovery and future construction to best serve our customers and communities. We use this modelling to guide our capital investment spending, including deciding whether to elevate cell towers and other infrastructure in anticipation of sea level rise or to protect such assets with barriers. For example, we have thousands of cell towers, some of which have batteries at ground level that are susceptible to flooding. CCAT is one tool we use to help us determine which towers we should retrofit to elevate the batteries above the flood risk level.

How process is applied to transition risk/opportunity: As CCAT enables us to plan for network impacts up to 30 years out, should customer preferences change and we need to adjust our asset locations to meet demand, we can integrate climate resiliency into the planning process. For example, if there were a significant demographic shift and AT&T were to expand coverage to new locations previously unserved by our assets, we could use CCAT to help determine where to best locate new assets — both to keep pace with customer demands and to be optimally climate-resilient. As we plan to continue to serve geographies at risk for climate-related impacts, we will continue to protect our assets to provide a resilient network with minimal disruptions.



## 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	<p>AT&amp;T is a global company. As such, we are subject to regulation at multiple layers including local, state, national, and international jurisdictions. Our Public Policy, Legislative Affairs and Compliance teams monitor regulations and legislation we are subject to and help ensure we adhere to all applicable laws and regulations. Non-compliance with laws to which we are subject is a risk, and we work to ensure compliance. Our Public Policy and Compliance teams monitor climate-related regulations and our response to and compliance with them, as part of their regular duties and report any changes or policies that may impact our company to the appropriate channels including the Chief Sustainability Officer and applicable other officers. As signatories to the Voluntary Agreements on Energy Efficiency for both Set-Top Boxes and Small Network Equipment, we are subject to those voluntary energy efficiency guidelines for our products. We work to comply with these limitations.</p>
Emerging regulation	Relevant, always included	<p>Some jurisdictions in which we operate are considering implementing a carbon tax. The State of Washington, for example, previously proposed a ballot measure to tax carbon dioxide. AT&amp;T has a data center in Bothell, WA. As such, we might have been affected by such state-level legislation, had it passed. To understand the impact to AT&amp;T of this and other emerging or pending regulations and laws, our local and relevant jurisdictional public policy teams monitor public news channels and legislative media and conduct research into how proposed bills could impact our company. As the legislative landscape changes rapidly and at multiple levels, we include such risks in our regular risk assessments. Should risks rise to a level of significance such that we reasonably believe they would affect our ability to serve our customers, provide a reliable network or drive value for our shareholders, we would actively pursue solutions to mitigate the risks.</p> <p>In addition, carbon tax schemes, such as those proposed by the Climate Leadership Council and the Transportation and Climate Initiative (similar to the Regional Greenhouse Gas Initiative), would apply to AT&amp;T, should those programs become law. As those proposals continue to develop and move into legislative processes, we will monitor their potential effect on our business.</p>

Technology	Relevant, always included	<p>AT&amp;T has made the choice to invest in renewable energy, where appropriate. In 2019, we increased our investment to up to 1.5 GW of renewable energy capacity. In support of this effort, we closely evaluated available storage technologies to help ensure that the energy generated could be viably and reliably stored for future use. An example of a technology risk tied to our renewable strategy is the capacity of battery storage. If innovations in battery storage technology do not keep pace with our demands, and we are not able to reliably and cost-effectively store renewable energy, we may need to continue to use fossil fuel-based energy. As we continue to evaluate future energy deals, we will consider technological developments such as battery storage capabilities which may shape our decision-making processes.</p>
Legal	Not relevant, explanation provided	<p>AT&amp;T is not an energy company nor does our Scope 1 footprint account for the most significant portion of our total energy use (our 2019 Scope 1 was 990,955MT CO<sub>2</sub>e). To date, we have not been the subject of climate-related litigation. Based on past litigation trends, we have not considered material climate-related litigation in our climate-related risk assessments.</p>
Market	Relevant, sometimes included	<p>Customer demand is an example of a market risk that we consider in our risk assessments as part of our standard considerations when developing new product and service offerings. There is currently a market demand for technologies that enable carbon savings and help reduce customers' carbon footprints and climate impacts, and we believe that AT&amp;T solutions can address this demand. As such, we invest in providing customers with solutions that enable carbon reductions. Should customer demand and the market shift away from support for climate impact mitigating solutions, such action could negatively affect demand for our products and services. If future market analyses indicated that there was no longer a demand for low-carbon products or services or services that help customers reduce their own climate impacts, we would consider that fact as we determine the development and roll-out of such offerings.</p>
Reputation	Relevant, sometimes included	<p>Customers increasingly expect companies to be good corporate stewards and act responsibly. AT&amp;T strives to be a leader in climate action, and we believe that such leadership is beneficial for our reputation. If we did not act to build and communicate our corporate responsibility story—particularly as it relates to climate-related issues such as the management of GHG emissions and support for renewable energy—we could be at a reputational disadvantage to other companies in the technology sector. We communicate our climate-related actions through various channels, including an annual corporate responsibility report and website. We set public CSR goals and communicate our progress toward those targets. For example, our goal to enable customer carbon savings 10 times the footprint of</p>

		<p>our operations by 2025 requires that we make our network more efficient and deliver services that help AT&amp;T customers avoid carbon emissions. At the close of 2018, we calculated that our technology solutions enabled total customer GHG reductions of 17.1M MT CO<sub>2</sub>e, equivalent to over 1.9B gallons of gasoline. In 2018, our Scope 1 and 2 GHG footprint was approximately 7.7M MT CO<sub>2</sub>e, putting our current attainment toward our 10x carbon reduction goal at approximately 2.2x. We plan to again calculate progress toward our 10x goal at the close of 2020.</p>
Acute physical	Relevant, always included	<p>Acute physical risks such as extreme weather events can cause damage to physical assets and potentially disrupt our network infrastructure. Any climate-related risk that has the potential to impact our network reliability is considered a substantive risk and is therefore always included in our risk assessments. We conduct regular analysis to help ensure our cell sites can withstand wind, ice and other environmental factors. We also deploy high-capacity battery backup to our cell sites, helping them remain in service in the event of a commercial power loss. To prepare our network for natural disasters, we regularly test these batteries and take steps to help ensure fixed generators are fueled on a regular basis. We also proactively monitor potential nature-related threats to our network, employees and communities through our Weather Operations Center. Through our Network Disaster Recovery (NDR) organization, we have conducted 78 full-scale in-field recovery exercises, which are vital to testing our equipment and abilities. We conduct two exercises per year.</p>
Chronic physical	Relevant, always included	<p>Chronic physical risks, such as a rise in average temperatures, could increase our operating costs as AT&amp;T requires water to cool many of our buildings / facilities. An increase in average temperatures could impact operating costs by requiring more water to operate water-cooled air conditioning units or to irrigate landscaping. Our Corporate Real Estate team monitors and tracks historic water usage and rates and our Weather Operations Center tracks forecasts. Cross-checking such data enables us to understand the relationship between daily temperatures and our water costs. In 2019, AT&amp;T used 3.011 billion gallons of water. To mitigate the risk of increased operating costs associated with the purchase of water (to cool certain facilities or to provide irrigation) due to rising mean temperatures, AT&amp;T has active water management efforts in place. Our water conservation efforts include, among others, working with HydroPoint, a provider of smart water management solutions—to remotely monitor and manage irrigation systems in real-time.</p>

## 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.**

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**Identifier**

Risk 1

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

Direct operations

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

Chronic physical  
Rising mean temperatures

**Primary potential financial impact**

Increased indirect (operating) costs

**Company-specific description**

In 2019, AT&T used 3.011 billion gallons of water in our operations. The majority of our water use is in our facility cooling systems to cool our larger facilities. We also use water for irrigation. An increase average temperature could impact our operating costs by requiring more water to water-cool our facilities or to provide irrigation.

**Time horizon**

Long-term

**Likelihood**

About as likely as not

**Magnitude of impact**

Low

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

Yes, an estimated range

**Potential financial impact figure (currency)**

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

1,050,000

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

10,500,000

**Explanation of financial impact figure**

Financial impacts are difficult to calculate. An increase in average temperature could impact our operating costs and result in more energy and water consumption.

The 2019 cost of our water consumption was \$21M.

Depending upon temperature changes there could be a 5-50% water cost increase, commensurate increased water usage. We estimate that a 5% increase of \$21M is \$1,050,000; for a total of \$22,050,000; whereas a 50% increase would amount to \$10,500,000; for a total of \$31,500,000.

**Cost of response to risk**

1,000,000

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

We have active water management efforts to reduce our consumption, including a goal to reduce water consumption relative to data growth on our network by 60% by 2020 (2013 baseline). Since 2013 when we set our first water goals, we've seen cumulative water savings of 596 million gal. In addition, we realized 794M kWh of annualized electricity savings associated with the introduction of free-air cooling projects & the reduction of mechanical refrigeration. We work with HydroPoint—a provider of smart water management solutions—to remotely monitor & manage irrigation systems in real-time.

Since 2017, AT&T has launched 141 smart water facilities with HydroPoint. In 2019, we saved 145.6 million gallons of water through this program. In 2019, AT&T also deployed an Enterprise Building Management System (EBMS) to more than 160 additional sites, bringing the total to nearly 800 facilities. Leveraging the Internet of Things (IoT) and Big Data principles, our EBMS is designed to help property management personnel ensure facility equipment is operating optimally. This effort helps minimize mechanical cooling needs and reduces water consumption.

Since 2013, the project costs for water management projects, including smart irrigation, is over \$1 million. We track and calculate this metric using invoices and expense tracking systems for capital expenditures. More than half of this amount (>50%) is the cost of hardware (freeze and leak detection sensors and controllers; connectivity technology and dashboards to monitor water infrastructure and use), and the remaining balance (< 50%) is associated installation expenses.

**Comment****Identifier**

Risk 2

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

Direct operations

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

Emerging regulation  
Carbon pricing mechanisms

**Primary potential financial impact**

Increased indirect (operating) costs

**Company-specific description**

An increase in the price of GHG emissions, such as through a fuel or carbon tax or other pricing mechanism, may drive up the price of fossil fuel-based energy. AT&T relies in part on fossil fuel-based energy to power our network and fleet. (61.9% of our 2019 Scope 1 emissions are from our ground fleet) We also purchase a significant amount of electricity to power our operations (our 2019 global direct billed and leased electricity use was 14.1M MWh). While we are working to increase the amount of renewable electricity in our portfolio—and in 2019 committed to invest in up to 1.5 GW of renewable energy—we do still rely on the grid and non-renewable sources to ensure our energy supply. (77.7% of our total energy supplied in 2019 was from grid electricity). Any policy that increases the price of GHG emissions and that may drive up the cost of fossil fuel-based energy or power has the potential to increase our operating costs.

**Time horizon**

Medium-term

**Likelihood**

Likely

**Magnitude of impact**

Medium-high

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

20,000,000

**Potential financial impact figure – minimum (currency)**
**Potential financial impact figure – maximum (currency)**
**Explanation of financial impact figure**

We work to insulate ourselves from increasing energy prices, whether those prices increase due to taxes or other policies. It is difficult to estimate the exact increase in cost any GHG pricing policy may cause.

In 2019, our market-based emissions from electrical power were 5,517,501 MT CO<sub>2</sub>e. If

we use the guidance of the Regional Greenhouse Gas Initiative's 2019 allowance price of \$5.61 per ton of CO<sub>2</sub>, we estimate that annual operating costs could easily increase by over \$20 million if that allowance price were to apply nation-wide. (5,517,501 MT CO<sub>2</sub>e \* \$5.61 /ton = \$30.94 million); however, a portion of our purchased electricity is already subject to RGGI allowance prices and therefore would not incur a duplicated charge; hence a \$20 M estimate to apply to purchased electricity not currently subject to RGGI.

### **Cost of response to risk**

48,600,000

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

Reducing our energy usage helps us to mitigate risks associated with changes in energy prices. We have active energy management efforts to reduce our own energy use. We have a target to reduce emissions of our U.S. fleet 30% by the end of 2020 (2008 baseline). We aim to achieve this in part by reducing the size of our fleet and deploying hybrid vehicles. In 2019, we reduced the size of our domestic fleet by more than 8,200 vehicles, and since 2017, 100% of passenger sedans procured for our domestic fleet have been hybrids. As of YE 2019, our U.S. fleet emissions have decreased 31% from baseline and 6.3% from 2018.

To reduce emissions in our operations, AT&T implements a large number of energy projects; in 2019, we implemented appx. 26,700 projects. We invested more than \$48.6 million in these energy projects. The estimated cost of these projects is tracked using internal databases that manage project funding, approval and execution. As reported in C4.3b, nearly \$29 million of this investment pertained to real estate decommissioning projects (consolidating and eliminating facility square footage); nearly \$7.8 million was invested in network projects, including decommissioning, process optimization and smart controls initiatives; the remaining approx. \$11.8 million was spread across multiple project categories, including fleet replacement and HVAC projects, among others.

Furthermore, through our founding membership in the Climate Leadership Council (CLC), we support the CLC's plan that envisions a rising fee on carbon emissions, rebating revenues as dividends to all Americans, a border-adjustment mechanism and regulatory simplification. The CLC works to promote a carbon dividends plan as a bipartisan, market-based solution to help reduce U.S. emissions.

### **Comment**

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#### **Identifier**

Risk 3

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

Direct operations

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

Acute physical

Increased severity and frequency of extreme weather events such as cyclones and floods

**Primary potential financial impact**

Increased indirect (operating) costs

**Company-specific description**

Extreme weather events such as the wildfires experienced in the U.S. in 2019 have the potential to disrupt our ability to maintain portions of our network. Our network includes more than 1.3 million route miles of fiber globally and carries about 335 petabytes of data traffic across our network on an average business day. Any disruption to our fiber routes or other network infrastructure, including cell towers or other national infrastructure because of extreme weather events such as hurricanes in the Southeast U.S. or other natural disasters may impact network reliability and could lead to increased capital or operating costs for repairing any damage, proactively relocating equipment or additional network hardening requirements to prevent future disruptions.

**Time horizon**

Long-term

**Likelihood**

About as likely as not

**Magnitude of impact**

Medium

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

0

**Potential financial impact figure – minimum (currency)****Potential financial impact figure – maximum (currency)****Explanation of financial impact figure**

As reported in our 2019 corporate Annual Report, we did not experience increased operating costs due to major natural disaster items over the reporting year. However, this expense was \$181M in 2018, and \$626M in 2017, reflecting the major natural disasters experienced in those years. As extreme weather and natural disaster events vary year-to-year, so do our related operating costs in response to these events. We would anticipate that this number would change relative to the frequency and severity of natural disasters impacting our network.

**Cost of response to risk**



650,000,000

### Description of response and explanation of cost calculation

Our network team builds all cell sites to meet or exceed state structural standards—including those in disaster prone areas. We conduct regular analysis to help ensure cell sites can withstand wind, ice & other environmental factors. We also deploy high-capacity battery backup to these sites, allowing them to remain in service in the event of a power loss. To prepare for natural disasters, we regularly test these batteries & take steps to ensure fixed generators are fueled on a regular basis. We proactively monitor potential nature-related threats to our network, employees and communities through our Weather Operations Center. Through our Network Disaster Recovery (NDR) org., we have run 78 full-scale in-field recovery exercises (2 per year), which are vital to testing our equipment & abilities. We have invested >\$650M in our NDR programs since 1992. 90% of the investment is spent on domestic NDR programs, and the remaining 10% is spent on international NDR initiatives. The investments include capital expenditures (such as building new satellite cells on light trucks) as well as other expenditures such as field training exercises.

In 2018, we began work with the U.S. Department of Energy's Argonne National Lab on project that led us to develop a Climate Change Analysis Tool to help anticipate & visualize potential impacts of climate change on our network infrastructure & operations up to 30 years into the future. This information can be used to help plan for maintenance, disaster recovery and future construction.

### 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.**

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#### Identifier

Opp1

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

Downstream

#### Opportunity type

Products and services

**Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

**Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

**Company-specific description**

AT&T has set a goal to enable customer carbon savings 10 times the footprint of our operations by 2025 and we intend to meet this goal by making our network more efficient and delivering services that help AT&T customers avoid carbon emissions.

Through the sale of our products and services that enable emissions reductions, we see an opportunity to drive revenue increases.

We have long believed that connectivity can create increased visibility that allows businesses to run more efficiently. Using insights from the Smarter2030 report from the Global E-Sustainability Initiative (GeSI), we set this goal because we believe AT&T Technology Solutions such as Internet of Things connectivity and 5G have the power to reveal inefficiencies and reduce wasted electricity, fuel, water and/or raw materials, which can lead to reduced GHG emissions.

We develop case studies to highlight the role that AT&T IoT Connectivity products can play in supporting customers' emissions reductions. These case studies are used as marketing and engagement materials with Business customers to support sales —and therefore revenue — from our products and services that help customers reduce their emissions. For example, customers using our AT&T Connected IoT Sensors for pipeline companies reduced inspection travel time by an estimated 8,500 hours, saving approximately \$300,000 in fuel and labor costs, and shrinking gasoline usage by around 22,000 gallons.

Our case study on pipeline monitoring highlights how AT&T Internet of Things connectivity allows pipeline operators to monitor pipelines remotely, avoiding inspection-related travel and identifying leaks quickly, both of which reduce emissions.

Our 10x calculation methodology, progress report and all case studies are available at [www.att.com/10x](http://www.att.com/10x).

**Time horizon**

Short-term

**Likelihood**

Likely

**Magnitude of impact**

Medium

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

Yes, an estimated range

**Potential financial impact figure (currency)**

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

0

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

370,000,001

**Explanation of financial impact figure**

If we capture opportunities related to increased demand for services that help others reduce emissions, it could mean an increased revenue opportunity. It's impossible to predict demand, but if we assume demand for more efficient products and services drives a potential 1% increase in consolidated sales of services, we could estimate a potential annual revenue increase of more than \$370 million. We calculated this based on our 2019 Business Solutions revenue of approximately \$37 B. 1% of \$37 B is >\$370 M. ( $37,000,000,000 * 0.01 = 370,000,000$ ) If our expectations are wrong and none of our customers find value in AT&T technology solutions that also reduce their GHG emissions, then financial impact could be as low as \$0. However, given the rise of corporate interest in reducing emissions, we don't expect this minimum impact to occur.

**Cost to realize opportunity**

400,000

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

As we identify and measure the impact of new, AT&T-enabled solutions, we are developing case studies and highlighting the impacts for our customers. These case studies will be used as marketing materials and to engage more customers and technology collaborators to develop and sell more of these types of solutions. We integrate this emissions benefit messaging into our customer engagement and sales collateral. The 10x case studies quantify the GHG emissions reduction potential that AT&T technology enables in a wide range of impact areas, such as rice farming, smart buildings, and energy efficient network equipment and pipeline leak detection. Using these real-world examples allows us to turn the idea of tech-enabled GHG reductions into a relatable story for other customers. We expect that these concrete examples can help expand the conversations we have with our customers. Through the end of 2018, our technology solutions have enabled GHG reductions of 17.1M MT CO<sub>2</sub>e. Given our 2018 operational footprint of 7.7 M MT CO<sub>2</sub>e, our attainment toward our 10x carbon reduction goal is approximately 2.2x.

AT&T has 2 management employees who spend a large part of their time managing the 10x goal. We estimated costs for this work by using an average cost of \$200,000 for salary and benefits for the time spent on 10x and multiplying that by 2. We assume that other work done by AT&T employees to support the 10x goal are included in employees' regular work scope and are not incremental.

**Comment**

**Identifier**

Opp2

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

Downstream

**Opportunity type**

Markets

**Primary climate-related opportunity driver**

Access to new markets

**Primary potential financial impact**

Increased revenues through access to new and emerging markets

**Company-specific description**

AT&T has set a goal to enable customer carbon savings 10 times the footprint of our operations by 2025, and we have an opportunity to drive revenues through access to new and emerging markets with the products and services we highlight in our 10x program.

Our technology solutions such as Internet of Things connectivity have the power to reveal inefficiencies and reduce wasted electricity, fuel, water and/or raw materials, which can lead to reduced GHG emissions across multiple markets, including areas in which AT&T has an opportunity to introduce new technologies.

AT&T is uniquely positioned to deliver many of these benefits to our customers because of our scope and expertise: For example, as of July 2020, AT&T's 5G network is now live across the U.S., supporting our ability to bring connectivity technology to more areas and markets. In addition, we use many of these technology solutions in our own operations, so we bring practical experience to our customers. This unique goal was recognized with a 2017 Sustainability Initiative of the Year award from the Business Intelligence Group. We intend to meet this goal by making our network more efficient and delivering services that help AT&T customers avoid carbon emissions. As we make progress toward that goal, we are engaging customers and technology collaborators to integrate AT&T technology into business processes to drive energy and resource efficiency. Our IoT solutions, integrating AT&T connectivity, enable customers to track and manage energy use, collect data remotely and reduce water usage, among other impacts. We believe that collaborating with our customers on AT&T-integrated technology solutions can create new opportunities for AT&T to introduce technology into new industries and markets, such as Smart Cities; industrial; manufacturing; retail; and supply chain and transportation.

**Time horizon**

Medium-term

**Likelihood**

Likely

**Magnitude of impact**

Medium

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

Yes, an estimated range

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

0

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

370,000,001

**Explanation of financial impact figure**

If we capture opportunities related to introducing technology into industries and markets, it could mean an increased revenue opportunity. It's impossible to predict demand, but if we assume demand for more efficient products and services drives a potential 1% increase in consolidated sales of services, we could estimate a potential annual revenue increase of more than \$370 million. We calculated this based on our 2019 Business Solutions revenue of approximately \$37 B. 1% of \$37B is >\$370 M. ( $37,000,000,000 * 0.01 = 370,000,000$ ) If our expectations are wrong and none of our customers find value in AT&T technology solutions that also reduce their GHG emissions, then financial impact could be as low as \$0. However, given the rise of corporate interest in reducing emissions, we don't expect this minimum impact to occur.

**Cost to realize opportunity**

400,000

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

We have identified 8 key impact areas that have substantial climate impact and could benefit from enhanced operations enabled by our technology: Modern Workplace; Transportation; Healthcare; Consumer/Retail; Smart Cities & Buildings; Energy; Industrial; Food, Bev. & Agriculture. We work to identify potential customers and develop compelling product offerings that can help those industries drive cost and emissions from their business, such as our Internet of Things (IoT) solutions. To capitalize on opportunities in this space, we work with customers to create case studies showing how our technologies have enabled positive environmental impacts. We use these materials as marketing and promotional content to show the climate-related benefits of AT&T technologies and services. The 10x case studies quantify the GHG emissions reduction potential that AT&T technology enables in a wide range of impact areas. Using these examples allows us to turn the idea of tech-enabled GHG reductions into a relatable story for other customers. We expect these concrete examples can help expand the conversations we have with our customers. As of the end of 2018, our technology solutions enabled total customer GHG reductions of 17.1M MT CO<sub>2</sub>e. In one case study, we highlighted how a customer's use of pipeline monitoring technology, relying on AT&T Internet of Things connectivity, allows pipeline operators to monitor pipelines remotely, avoiding inspection-related travel and identifying leaks quickly, both

of which reduce emissions. Our case study showed AT&T IoT technology enabling savings of approximately \$300,000 in fuel and labor costs and shrinking gasoline usage by around 22,000 gallons.

AT&T has 2 management employees who spend a large part of their time managing the 10x goal. We estimated costs for this work by using an average cost of \$200,000 for salary and benefits for the time spent on 10x and multiplying that by 2. We assume that other work done by AT&T employees to support the 10x goal are included in employees' regular work scope and is not incremental.

## Comment

### Identifier

Opp3

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

Direct operations

### Opportunity type

Resource efficiency

### Primary climate-related opportunity driver

Reduced water usage and consumption

### Primary potential financial impact

Reduced direct costs

### Company-specific description

In 2019, AT&T used 3.011 billion gallons of water in our operations. Water is deeply important to the communities we serve and to our own operations. The network that forms the core of our business requires a controlled and cooled environment, and water is a critical input to the cooling equipment we use to create these conditions. We're working to manage our own water use, and at the same time, we're supporting the development of water management technology for customers and other organizations. Analysis of our water footprint has shown that our water use is concentrated in a small number of facilities. Our top 125 water-consuming facilities constitute almost 50% of our overall water consumption. One of the ways in which we address our water usage is to apply our own IoT solutions, including Smart Irrigation.

### Time horizon

Long-term

### Likelihood

Virtually certain

### Magnitude of impact

Medium

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

1,150,000

**Potential financial impact figure – minimum (currency)****Potential financial impact figure – maximum (currency)****Explanation of financial impact figure**

This figure represents the financial savings AT&T realized when we implemented Smart Irrigation solutions in our own buildings. Our Smart Irrigation solution allowed us to use near real-time weather data and the specific watering needs for the plants in each zone at each site so that we can provide the right amount of water at the right time. Based on the amount of water we saved on our own irrigation efforts, we were able to calculate the financial savings. Since implementing these solutions, we have saved more than \$1.15 M. The savings calculations are completed by analyzing current vs. prior year water consumption in gallons, and cost savings.

**Cost to realize opportunity**

314,400

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

We have active water management efforts to reduce our consumption, including a goal to reduce water consumption relative to data growth on our network by 60% by the end of 2020 (2013 baseline). Since 2013 when we set our first water goals, we have realized a cumulative water savings of 596 million gallons.

In 2017, we installed the AT&T Smart Irrigation solution on AT&T campuses and buildings in 9 states, from California to Florida. The solution allows us to use near real-time weather data and specific watering needs for the plants in each zone at each site, so we can provide the right amount of water at the right time. Smart Irrigation also monitors the flow of water, enabling us to detect leaks in pipes. If there is a leak, the system will then turn off that zone automatically and alert the property manager so the leak can be fixed. During the 12-month trial period, AT&T Smart Irrigation saved us 30.9 million gallons of water and more than \$123,800.

We invested more than \$314,000 in the pilot through capital investments and expenditures. More than half of this amount (>50%) includes capital costs such as hardware (freeze and leak detection sensors; controllers) connectivity technology and dashboards to track and monitor water use. The remaining costs (<50%) were tied to installation expenses.

Since 2017, AT&T has also launched smart water solutions at 141 of our facilities with HydroPoint. In 2019, we saved 145.6 million total gallons of water through this program.

**Comment**

## C3. Business Strategy

### C3.1

**(C3.1) Have climate-related risks and opportunities influenced your organization’s strategy and/or financial planning?**

Yes

#### C3.1a

**(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?**

Yes, qualitative and quantitative

#### C3.1b

**(C3.1b) Provide details of your organization’s use of climate-related scenario analysis.**

Climate-related scenarios and models applied	Details
RCP 4.5 RCP 8.5	<p>AT&amp;T’s Climate Change Analysis Tool (CCAT) uses climate data provided by Argonne National Labs (ANL). To develop high-resolution, regional climate model projections for North America, ANL dynamically downscaled existing global climate model simulations developed for the IPCC 5th Assessment Report (AR5). This global climate dataset is the CMIP5 repository. The CMIP5 data was regionally downscaled for a business-as-usual (BAU) carbon emission scenario, known as RCP 8.5, and a second case, known as RCP 4.5, closer to the Paris Agreement.</p> <p>ANL used 3 major regional-scale climate environment models for CCAT:</p> <ul style="list-style-type: none"> <li>- The Weather Research and Forecasting Model (WRF), developed by the National Center for Atmospheric Research and used to create the foundational dataset of dynamically downscaled historic and future climate information over North America.</li> <li>- The WRF-Hydro® (Version 5) Model, run at a spatial resolution of 200m using output generated from the WRF downscaled climate output to simulate historic and future inland hydrology and flooding.</li> <li>- The ADvanced Hydrodynamical CIRCulation Model (ADCIRC), used to perform coastal flooding simulations with input from the WRF downscaled climate projections and historical data for the recent major hurricane events to drive those simulations. This uses unstructured gridding and extremely high resolution (appx. 50m).</li> </ul>



	<p>CCAT looks at the mid-21st century timeframes (2045-2054). This approach provides more accurate projections of future climate and hydrologic impacts. Mid-century timeframes are relevant as we have various pieces of infrastructure that could still be in use at that time. We will also still be supporting customers in this timeframe, so we need to understand the impacts.</p> <p>CCAT currently assesses the SE region of the US. All parts of our operations are in scope, including network, real estate, retail stores and distribution and logistics. We plan to expand the tool to additional regions of the US and Mexico. As we expand into different regions, we will also look at the most relevant climate impacts for those areas.</p> <p>We use CCAT to run ongoing scenario analysis. The tool can analyze several parts of the business including, but not limited to, Network Operations, Corporate Real Estate, and Retail Stores. The tool will add incalculable risk identification and mitigation value. For example, we can now cross reference fiber cable locations with projected sea level rise in 2060, making for more informed financial decision-making by mapping risky and conservative areas for new build plans. Offering anywhere from 10- to 100-year return periods of climate change risk, CCAT will allow network planners to understand the range of possible impacts to assets such as copper wiring and align risk tolerance with the expected lifespan of those assets. The scenario analysis projected mid-century increased surface water accumulations &gt;5% in inland and coastal regions in the SE US under a BAU emission scenario during warmer seasons by mid-century.</p> <p>Case study: As AT&amp;T owns &gt;1.3M route miles of fiber cable and tens of thousands of other assets such as cell phone towers and stationary generators, it is important that we are best able to identify and plan for climate-related risk on our infrastructure, such as inland flooding. 2019 was the first year we began using CCAT. As we continue to use the tool we intend to share further examples of how we use it, though preliminary analysis has identified geographical areas and physical assets that are both at risk and as importantly, not at risk. The tool can help determine the siting of future network components and facilities by incorporating climate data into decision making. For example, we can use information from the tool to discern which cell towers to elevate in anticipation of sea level rise. Building resiliency measures into our asset location planning is in line with AT&amp;T's overall business objective and strategy to provide a reliable and resilient network.</p>
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### C3.1d

**(C3.1d) Describe where and how climate-related risks and opportunities have influenced your strategy.**

Have climate-related risks and	Description of influence
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	opportunities influenced your strategy in this area?	
Products and services	Yes	<p>The risks and opportunities identified in C2.3a and C2.4a have impacted how we engage customers about the benefits of AT&amp;T's products and services.</p> <p>AT&amp;T has set a goal to enable customer carbon savings 10 times the footprint of our operations by 2025. As we make progress toward that goal, we engage customers and technology collaborators to integrate AT&amp;T technology into business processes to drive energy and resource efficiency. As we talk to customers, we learn that many are committed to reducing their emissions and have set public goals to do so. As a result, when we engage these customers, we are able to discuss with them how AT&amp;T's products and services can help them reduce their emissions or create products that help their customers reduce their emissions.</p> <p>We continued to actively engage customers in this discussion in 2019 and we expect to continue for years to come. We have developed 10x case studies that quantify the GHG emissions reduction potential that AT&amp;T technology enables in a wide range of impact areas, such as rice farming, smart buildings, energy efficient network equipment and pipeline leak detection. These case studies can be found on <a href="http://www.att.com/10x">www.att.com/10x</a>. As of the end of 2018, our technology solutions enabled total customer GHG reductions of 17.1M MT CO<sub>2</sub>e. Using these real-world examples allows us to turn the idea of tech-enabled GHG reductions into a relatable story for other customers. We expect that these concrete examples can help expand the conversations we have with our customers and drive demand for our products and services that enable emissions reductions. We view the climate-related aspects of our products and services as an opportunity rather than a risk. As such, we have made the substantial and strategic decision to invest in 5G and Internet of Things technologies that are key enablers of efficiency for our customers. We anticipate that these opportunities will continue to increase over the next several decades. While our 10x goal has a target date of 2025, we expect that we will continue to engage customers on the ability of AT&amp;T technology to enable carbon emissions reductions through 2025 and beyond (long term time horizon).</p>

<p>Supply chain and/or value chain</p>	<p>Yes</p>	<p>Extreme weather events (such as the risks identified in C2.3a) could disrupt our suppliers' ability to provide us with the products and services we require to provide a reliable network to our customers. Our strategy has been influenced in that we build redundancies into our supply chain and sourcing strategies so that we are not overly reliant on individual suppliers. If any given supplier were impacted by extreme weather events and unable to fulfill its obligation to AT&amp;T, redundancies we have built into our sourcing strategies would help ensure our ability to maintain operations. The time horizon covered by this strategy is long-term, as is our overall sourcing strategy. AT&amp;T made the substantive and strategic decision to use the supply chain TIA-QuEST Assessor Tool and to participate in the CDP Supply Chain Survey, both of which assess suppliers' GHG emissions and related climate risk and resiliency. With the data we receive from these tools, we can understand how our suppliers are improving their resiliency against climate risk, including extreme weather events.</p>
<p>Investment in R&amp;D</p>	<p>Yes</p>	<p>The identified risks and opportunities have impacted how we engage customers around the benefits of AT&amp;T's products and services. AT&amp;T has set a goal to enable customer carbon savings 10 times the footprint of our operations by 2025 (<a href="http://www.att.com/10x">www.att.com/10x</a>). As we make progress toward that goal, we are engaging customers and technology collaborators to integrate AT&amp;T technology into business processes to drive energy and resource efficiency; these innovations and products require investment in R&amp;D to meet the demands of our customers and meet our 10x goal.</p> <p>The demand for lower emissions products and services could impact our investment in R&amp;D related to these products by driving an increase in R&amp;D to develop and bring to market those products and services.</p> <p>We continued to actively engage customers in this discussion in 2019 and we expect to continue for years to come, even beyond the 10x target date of 2025 (long-term time horizon).</p> <p>As we talk to customers, we are getting feedback that many of them are committed to reducing their emissions and have set public goals to show their commitment, presenting an opportunity for AT&amp;T technology to enable those reductions. When we have identified opportunities for AT&amp;T technology to help enable emissions reductions, we have invited</p>

		<p>customers to one of several AT&amp;T Foundry locations that provide a space for customers to collaborate directly with AT&amp;T engineers on technology integration projects.</p> <p>Our decision to build the AT&amp;T Foundry was the most substantial strategic decision related to investing in R&amp;D to support technologies that enable customers' emissions reductions. The Foundry is a network of innovation centers where engineers, designers, business leaders and developers test and build prototypes for products and services that meet business needs. As part of our 10x program, we are inviting customers with climate-focused goals to collaborate with AT&amp;T on products like IoT and 5G—products that can help them or their customers reduce their environmental impacts. In general, we see ongoing demand for our products and services that have the potential to help reduce emissions. As such, we have made the substantial and strategic decision to invest in 5G and Internet of Things technology that are key enablers of efficiency for our customers.</p>
Operations	Yes	<p>The identified risks and opportunities have impacted our operations in many ways, including our approach to resource conservation to manage our operating costs. Our strategy to address the risk to our operations is to set goals to make our operations more efficient, thereby lowering our consumption of resources such as fuel and water. We set long-term goals to address these risks, commensurate with AT&amp;T's greenhouse gas reduction and climate change strategy. For example, rising mean temperatures could increase our operating costs, especially in water-stressed areas, as we require water to cool some facilities. Any increase in price of the resources we consume to power our operations could lead to an increase in our operating costs. This applies to water and fossil fuel-based energies.</p> <p>We work to reduce our consumption where possible, but we do rely in part on natural resources to power our network and fleet. We have a goal to reduce water consumption relative to data growth on our network by 60% by the end of 2020. Since 2013, when we set our first water goal, we have reduced the water consumption of our company, realizing a cumulative water savings of 596 million gallons. We also have a Scope 1 goal to reduce domestic emissions of our fleet 30% by 2020 (from a 2008 baseline). We have reduced our fleet GHG emissions 31% from this baseline. The most</p>

		<p>strategic decision AT&amp;T made in this area was to engage in long-term strategic renewable energy contracts, which will ultimately reduce dependence on fossil fuel-based electricity generation and potentially help mitigate global temperature increases. We also set a Science Based Target, which was verified by the SBTi. The time horizon for this strategy is long-term, as are our goals and renewable energy contracts.</p>
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### C3.1e

**(C3.1e) 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	Assets	<p>Our Climate Change Analysis Tool (CCAT) allows AT&amp;T to identify both climate related risks and opportunities. Our climate adaptation strategy includes both our current assets as well as the siting of future assets such as network equipment, central offices, and retail stores. Making current and future assets more climate resilient has significant potential cost savings opportunities, as it helps to ensure we maintain service in the face of future climate change impacts.</p> <p>Case study and Time horizon: We use CCAT to cross-reference fiber cable locations with projected inland and coastal flooding up to 30 years in the future, which covers short, medium and long term time frames, making for more informed decision-making. We can also now visualize climate-related events such as projected sea-level rise on assets like copper lines, fiber cable locations, cell sites, and much more. We use this information to help us plan for maintenance, disaster recovery and future construction to best serve our customers and the communities. We use this modelling to guide our evaluation of asset siting and maintenance processes, including deciding whether to elevate cell towers and other infrastructure in anticipation of sea level rise or to protect such assets with physical barriers.</p>

### C3.1f

**(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).**

## C4. Targets and performance

### C4.1

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

Both absolute and intensity targets

#### C4.1a

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

---

**Target reference number**

Abs 1

**Year target was set**

2011

**Target coverage**

Company-wide

**Scope(s) (or Scope 3 category)**

Scope 1

**Base year**

2008

**Covered emissions in base year (metric tons CO<sub>2</sub>e)**

1,354,054

**Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)**

100

**Target year**

2020

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

20

**Covered emissions in target year (metric tons CO<sub>2</sub>e) [auto-calculated]**

1,083,243.2

**Covered emissions in reporting year (metric tons CO<sub>2</sub>e)**

990,955

**% of target achieved [auto-calculated]**

134.0784784063

**Target status in reporting year**

Achieved

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

No, but we are reporting another target that is science-based

**Please explain (including target coverage)**

We have set an absolute Scope 1 GHG emissions reduction goal to reduce our emissions by 20% by EOY 2020, using an adjusted 2008 Scope 1 baseline of 1,354,054. The adjusted baseline accounts for DIRECTV historical baseline Scope 1 emissions, and estimates for previously missing refrigerant emissions data. We surpassed this goal, realizing a 26.8% reduction. AT&T now has an SBTi-approved goal for Scope 1 emissions. See below.

**Target reference number**

Abs 2

**Year target was set**

2009

**Target coverage**

Country/region

**Scope(s) (or Scope 3 category)**

Scope 1

**Base year**

2008

**Covered emissions in base year (metric tons CO<sub>2</sub>e)**

865,777

**Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)**

64

**Target year**

2020

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

30

**Covered emissions in target year (metric tons CO<sub>2</sub>e) [auto-calculated]**

606,043.9

**Covered emissions in reporting year (metric tons CO<sub>2</sub>e)**

597,179

**% of target achieved [auto-calculated]**

103.4130805816

**Target status in reporting year**

Achieved

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

No, but we are reporting another target that is science-based

**Please explain (including target coverage)**

AT&T originally set a target to increase its Alternative Fuel Vehicle fleet. As time passed our traditional vehicle fleet became more efficient making our AFV goal less relevant in regards to emissions. AT&T has set a new goal that is technology agnostic but focused on the end goal of reduced emissions. AT&T has established a goal of a 30% emissions reduction for Domestic Fleet by the end of 2020. We surpassed this goal, realizing a 31% reduction.

**Target reference number**

Abs 3

**Year target was set**

2019

**Target coverage**

Company-wide

**Scope(s) (or Scope 3 category)**

Scope 1+2 (market-based)

**Base year**

2015

**Covered emissions in base year (metric tons CO<sub>2</sub>e)**

8,766,803

**Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)**

100

**Target year**

2030

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

26

**Covered emissions in target year (metric tons CO<sub>2</sub>e) [auto-calculated]**

6,487,434.22

**Covered emissions in reporting year (metric tons CO<sub>2</sub>e)**

6,525,042

**% of target achieved [auto-calculated]**

98.3500791829



**Target status in reporting year**

New

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

Yes, this target has been approved as science-based by the Science-Based Targets initiative

**Please explain (including target coverage)**

Approved by SBTi in 2020

## C4.1b

**(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).**

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**Target reference number**

Int 1

**Year target was set**

2015

**Target coverage**

Company-wide

**Scope(s) (or Scope 3 category)**

Other, please specify

Other: Estimated customer-related carbon emissions reductions as a result of AT&T connectivity

**Intensity metric**

Other, please specify

Other: Estimated customer-related carbon emissions reductions as a result of AT&T connectivity / total combined AT&T Scope 1 + Scope 2 emissions

**Base year**

**Intensity figure in base year (metric tons CO<sub>2</sub>e per unit of activity)**

**% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure**

**Target year**

2025

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

**Intensity figure in target year (metric tons CO<sub>2</sub>e per unit of activity) [auto-calculated]**

**% change anticipated in absolute Scope 1+2 emissions**

**% change anticipated in absolute Scope 3 emissions**

0

**Intensity figure in reporting year (metric tons CO<sub>2</sub>e per unit of activity)**

**% of target achieved [auto-calculated]**

**Target status in reporting year**

Underway

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

No, but we are reporting another target that is science-based

**Please explain (including target coverage)**

We have set a goal to enable customer carbon savings 10x the carbon footprint of our operations. This goal demonstrates our commitment to addressing climate change. It combines our efforts to reduce our operational emissions (Scopes 1 and 2) with our efforts to develop technology solutions that can help our customers reduce their emissions. This goal compares our scope 1 & 2 GHG inventory to the technology-enabled GHG reductions realized by our customers each year. This goal was set in 2015 and we compare these emissions numbers each year as we progress toward the target year of 2025. We reported progress in 2018 and plan to do so again in 2020.

## 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.**

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**Target reference number**

Oth 1

**Year target was set**

2019

**Target coverage**

Company-wide

**Target type: absolute or intensity**

Absolute

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

Engagement with suppliers

Percentage of suppliers with a science-based target

**Target denominator (intensity targets only)**

**Base year**

2015

**Figure or percentage in base year**

**Target year**

2024

**Figure or percentage in target year**

50

**Figure or percentage in reporting year**

8

**% of target achieved [auto-calculated]**

**Target status in reporting year**

New

**Is this target part of an emissions target?**

no

**Is this target part of an overarching initiative?**

Science Based Targets initiative

**Please explain (including target coverage)**

As part of AT&T's SBTs, AT&T will work to ensure that 50% of our suppliers (covering purchased goods and services, capital goods and downstream leased assets as a portion of spend) will set their own science-based Scope 1 and Scope 2 targets by 2024.

## 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 CO<sub>2</sub>e savings.**

	Number of initiatives	Total estimated annual CO <sub>2</sub> e savings in metric tonnes CO <sub>2</sub> e (only for rows marked *)
Under investigation	6,680	
To be implemented*	4,118	168,205
Implementation commenced*	38	643
Implemented*	26,691	1,167,691
Not to be implemented	2,657	

### C4.3b

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

#### Initiative category & Initiative type

Transportation  
Company fleet vehicle replacement

#### Estimated annual CO<sub>2</sub>e savings (metric tonnes CO<sub>2</sub>e)

7,877

#### Scope(s)

Scope 1

#### Voluntary/Mandatory

Voluntary

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

2,400,000

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

0

#### Payback period

No payback

**Estimated lifetime of the initiative**

6-10 years

**Comment**

---

**Initiative category & Initiative type**

Energy efficiency in buildings

Lighting

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

1,944

**Scope(s)**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

116,300

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

775,333

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

Ongoing

**Comment**

---

**Initiative category & Initiative type**

Energy efficiency in buildings

Maintenance program

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

17,008

**Scope(s)**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

991,484

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

6,630,601

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

Ongoing

**Comment**

---

**Initiative category & Initiative type**

Energy efficiency in production processes  
Process optimization

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

158,492

**Scope(s)**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

18,205,361

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

7,773,786

**Payback period**

<1 year

**Estimated lifetime of the initiative**

Ongoing

**Comment**

---

**Initiative category & Initiative type**

Other, please specify  
Other, please specify  
Real Estate Decommissioning

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

53,392

**Scope(s)**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

7,888,634

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

28,984,590

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

Ongoing

**Comment**

---

**Initiative category & Initiative type**

Energy efficiency in buildings  
Heating, Ventilation and Air Conditioning (HVAC)

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

35,791

**Scope(s)**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

4,759,312

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

4,462,030

**Payback period**

<1 year

**Estimated lifetime of the initiative**

Ongoing

**Comment**

**Initiative category & Initiative type**

Energy efficiency in production processes  
 Other, please specify  
 Smart Control Systems

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

41,133

**Scope(s)**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

5,393,824

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

17,280

**Payback period**

<1 year

**Estimated lifetime of the initiative**

Ongoing

**Comment**

Projects in this category include deployment of sleeping cells: using machine learning to optimize radio resources to offered traffic.

**Initiative category & Initiative type**

Low-carbon energy generation  
 Wind

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

852,055

**Scope(s)**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

0



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

0

**Payback period**

No payback

**Estimated lifetime of the initiative**

11-15 years

**Comment**

**C4.3c**

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

Method	Comment
Dedicated budget for energy efficiency	The AT&T Global Infrastructure Optimization and Implementation organization has a dedicated Assistant Vice President (AVP) and team implementing, governing and monitoring energy efficiency and conservation projects.
Employee engagement	Employee engagement is important to our success, and there are several ways we engage our employees on environmental issues and energy savings in particular. GIOIdea, (from the AT&T Global Infrastructure Optimization and Implementation (GIOI) organization) is a new one-stop innovation and collaboration space for exchange of ideas and innovations with peers across the GIOI organization. Employees are encouraged to share their own ideas, as well as to evaluate and improve those of their peers. Much of the great content on GIOIdea intranet portal has been related to innovation ultimately impacting our energy footprint. Do One Thing (DOT) is another voluntary company-wide effort that encourages employees to commit to regular, measurable actions (DOTs) that are good for themselves, their communities and/or the company. One category that they can and do focus on is environmental initiatives – which could include emissions savings efforts. In addition, AT&T has assigned specific areas of responsibility to our CSR Team, members of the Energy Team and others to focus on both renewable energy opportunities as well as energy reduction initiatives. Both areas of focus solicit industry input in addition to internal input on ideas for expanding renewable energy and reducing energy consumption.
Internal incentives/recognition programs	Progress toward and achievement of the stated goals is part of the annual performance objectives and rating process for executives and employees in the business units collaborating toward these goals. Consideration is given to performance against annual objectives when assigning merit-based salary and annual bonus awards. In addition to monetary awards, we provide incentives in form of internal recognition.

<p>Other</p> <p>Energy Industry Leadership and Collaboration</p>	<p>We collaborate with others in the industry and across our supply chain to develop more efficient products and practices. AT&amp;T was a founding member in The Green Grid, a global consortium dedicated to advancing energy efficiency in data centers and business computing ecosystems, and GreenTouch, an industry consortium whose mission is to deliver the architecture, specifications and roadmap to increase network energy efficiency by a factor of 1,000 compared to 2010 levels. We are also a member (and our representative is currently Board Chair) of the Alliance for Telecommunication Industry Solutions (ATIS), the North American telecommunications standards development organization, and we also initiated and now vice-chair the Telecommunications Energy Efficiency (TEE) committee, which developed a methodology for measuring and reporting the energy efficiency of telecommunications equipment. AT&amp;T is involved with the US Green Building Council (USGBC) and its Leadership in Energy and Environmental Design (LEED) program, a third-party verification program for green building. AT&amp;T currently has several of its facilities with prestigious and coveted LEED Platinum or Gold certifications. Finally, AT&amp;T participates at the individual level in industry peer organizations such as Edison Electric Institute (EEI) and the Association of Energy Engineers (AEE). We are also flagship members of the Corporate Electric Vehicles Alliance (convened by Ceres) and founding members of the Net Positive Project.</p>
<p>Other</p> <p>Network transformation</p>	<p>In our network organizations, programs and structures are in place to engineer the transformation from our legacy hardware-based network architecture toward AT&amp;T's Software Defined Network (SDN) through Network Functions Virtualization, and to evaluate our capacity needs across every platform and layer. SDN eliminates many physical devices that fulfilled a single network function in favor of new devices that can fulfill multiple functions. Through this transformation, we eliminate network capacity and physical device components that are not required for the longer vision of our network (subject to any applicable regulatory obligations and customer needs). The removed components represent incremental reduction in our electrical and environmental (cooling) load, as well as our space requirements.</p>
<p>Other</p> <p>Dynamic Network capacity</p>	<p>Because the cell sites that support our wireless coverage are significant contributors to AT&amp;T's energy footprint, we are also creating industry-leading innovations to reduce cell-site energy consumption. We leverage our ONAP-based Open Network Automation Platform—together with industry-leading, patented machine learning-based analytics—to make decisions that safely allow a subset of a cell site's capacity to temporarily go into a sleep mode, maintaining activation of capacity only to the level needed to satisfy demand at a given time and location. Our network intelligence will determine the timing and duration of the sleep mode, enabling us to reduce our energy footprint while maintaining a premium customer experience.</p>

<p>Other Low carbon purchase strategy</p>	<p>In 2019 AT&amp;T continued to demonstrate its commitment to renewable energy. Building on its position as one of the largest corporate purchase of renewable energy in the U.S., AT&amp;T announced that its renewable energy purchases will surpass 1.5 gigawatts (GW). AT&amp;T's renewable energy purchases to date are expected to reduce greenhouse gas (GHG) emissions by an amount equivalent to providing electricity for more than 560,000 homes or taking 690,000 cars off the road for 1 year (Source: EPA Greenhouse Gas Equivalencies Calculator). The total annual energy produced is also enough to power New York City for approximately 1 month. (Based on estimates from "2018 Power Trends" by The New York Independent System Operator (NYISO)).</p>
---	---

## C4.5

**(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?**

Yes

## C4.5a

**(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.**

### Level of aggregation

Product

### Description of product/Group of products

MODERN WORKPLACE: When we evaluated our carbon reduction impact at the end of 2018, we found technology solutions that have changed the way we work have the largest GHG reduction impact. The solutions included in this impact area are web or Video Conferencing (both TelePresence and desk-based), Cloud Connectivity, and Telecommuting/Remote Working. The details of the research and case studies that we used to estimate the carbon reduction potential of these solutions can be found in our 2018 10x Progress Update at [www.att.com/10x](http://www.att.com/10x).

### Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product and avoided emissions

### Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Evaluating the carbon-reducing impacts of ICT

### % revenue from low carbon product(s) in the reporting year

20

### Comment

As reported in our 2019 corporate Annual Report, revenues from AT&T Business Solutions were nearly \$37B, representing approximately 20% of our 2019 total operating revenues of approximately \$181B. The entire 20% is not necessarily generated from “climate change products”. We do not disclose specific service offering revenues, as they are proprietary.

### Level of aggregation

Product

### Description of product/Group of products

**TRANSPORTATION:** When we evaluated our carbon reduction impact at the end of 2018, we found that technology solutions that change how we move people or things have the second largest GHG reduction impact. The solutions included in this impact area are Connected Shipping Pallet, Electric Vehicle Charging, and Fleet Management. AT&T is one of the largest U.S. wireless providers of fleet management solutions for commercial truck and van fleets. AT&T’s technician vehicles are equipped with similar solutions, and optimizing our fleet operations is a crucial component to making real changes. We use best practices to efficiently manage our fleet every day, and we continue to explore new ways to reduce fuel use and drive fewer miles. These efficiencies can lead to reduced energy waste and GHG emissions. The details of the research and case studies that we used to estimate the carbon reduction potential of these solutions can be found in our 2018 10x Progress Update at [www.att.com/10x](http://www.att.com/10x).

### Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product and avoided emissions

### Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Evaluating the carbon-reducing impacts of ICT

### % revenue from low carbon product(s) in the reporting year

20

### Comment

As reported in our 2019 corporate Annual Report, revenues from AT&T Business Solutions were nearly \$37B, representing approximately 20% of our 2019 total operating revenues of approximately \$181B. The entire 20% is not necessarily generated from “climate change products”. We do not disclose specific service offering revenues, as they are proprietary.

### Level of aggregation

Product

### Description of product/Group of products

**10X CASE STUDIES:** As we collaborate with customers to develop innovative Internet of Things solutions, we are developing case studies to estimate the greenhouse impact

of those solutions. These case studies quantify the GHG emissions reduction potential that AT&T technology enables in a wide range of impact areas, such as rice farming, smart buildings, energy efficient network equipment and pipeline leak detection. These case studies can be found on our 10x goal website: [www.att.com/10x](http://www.att.com/10x). In all of these examples, AT&T connectivity enabled an operational or business model that reduced emissions. While modern workplace and transportation solutions represent the majority of our carbon-reducing solutions at this time, we also evaluated technology solutions in the following areas: Consumer/Retail; Energy; Food, Beverage & Agriculture; Healthcare; Industrial; Smart Cities and Buildings. The details of the research and case studies that we used to estimate the carbon reduction potential of these solutions can be found in our 2018 10x Progress Update at [www.att.com/10x](http://www.att.com/10x).

**Are these low-carbon product(s) or do they enable avoided emissions?**

Low-carbon product and avoided emissions

**Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions**

Evaluating the carbon-reducing impacts of ICT

**% revenue from low carbon product(s) in the reporting year**

20

**Comment**

As reported in our 2019 corporate Annual Report, revenues from AT&T Business Solutions were nearly \$37B, representing approximately 20% of our 2019 total operating revenues of approximately \$181B. The entire 20% is not necessarily generated from “climate change products”. We do not disclose specific service offering revenues, as they are proprietary.

## C5. Emissions methodology

### C5.1

**(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).**

**Scope 1**

---

**Base year start**

January 1, 2008

**Base year end**

December 31, 2008

**Base year emissions (metric tons CO<sub>2</sub>e)**

1,354,054

**Comment**

### Scope 2 (location-based)

---

**Base year start**

January 1, 2013

**Base year end**

December 31, 2013

**Base year emissions (metric tons CO<sub>2</sub>e)**

8,013,246

**Comment**

### Scope 2 (market-based)

---

**Base year start**

January 1, 2017

**Base year end**

December 31, 2017

**Base year emissions (metric tons CO<sub>2</sub>e)**

6,753,298

**Comment**

2017 was the first year that AT&T's market-based emissions were regarded as complete, as assured by a third party.

## C5.2

**(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.**

Energy Information Administration 1605B

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

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

The Greenhouse Gas Protocol: Scope 2 Guidance

US EPA Center for Corporate Climate Leadership: Direct Fugitive Emissions from Refrigeration, Air Conditioning, Fire Suppression, and Industrial Gases

US EPA Center for Corporate Climate Leadership: Indirect Emissions From Purchased Electricity

US EPA Center for Corporate Climate Leadership: Direct Emissions from Stationary Combustion Sources

US EPA Center for Corporate Climate Leadership: Direct Emissions from Mobile Combustion Sources

US EPA Mandatory Greenhouse Gas Reporting Rule

US EPA Emissions & Generation Resource Integrated Database (eGRID)

Other, please specify

Defra Voluntary Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance, 2019

## C5.2a

**(C5.2a) Provide details of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.**

Defra Voluntary Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance, 2019

## C6. Emissions data

### C6.1

**(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)**

990,955

**Comment**

### C6.2

**(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

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

**Reporting year**

---

**Scope 2, location-based**

6,015,122

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

5,534,088

## Comment

### C6.4

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

Yes

### C6.4a

**(C6.4a) Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.**

---

#### Source

Refrigerant for Mobility Operations

#### Relevance of Scope 1 emissions from this source

Emissions are not relevant

#### Relevance of location-based Scope 2 emissions from this source

No emissions from this source

#### Relevance of market-based Scope 2 emissions from this source (if applicable)

No emissions from this source

#### Explain why this source is excluded

Refrigerant and associated emissions are not available. Compared to the rest of our portfolio this is considered de minimis and not relevant.

---

#### Source

Refrigerant for international operations

#### Relevance of Scope 1 emissions from this source

Emissions are not relevant

#### Relevance of location-based Scope 2 emissions from this source

No emissions from this source

#### Relevance of market-based Scope 2 emissions from this source (if applicable)

No emissions from this source

#### Explain why this source is excluded

Refrigerant and associated emissions are not available. Compared to the rest of our portfolio this is considered de minimis and not relevant.



**Source**

Natural gas for leased spaces

**Relevance of Scope 1 emissions from this source**

Emissions are not relevant

**Relevance of location-based Scope 2 emissions from this source**

No emissions from this source

**Relevance of market-based Scope 2 emissions from this source (if applicable)**

No emissions from this source

**Explain why this source is excluded**

Natural gas (leased spaces) and associated emissions are not available. However similar buildings in our portfolio use very little natural gas, and therefore emissions associated with the use of natural gas for leased space are considered to be de minimis.

**C6.5****(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

**Metric tonnes CO<sub>2</sub>e**

2,166,116

**Emissions calculation methodology**

Economic Allocation Model referencing the WRI/WBCSD GHG Protocol Corporate Standard <http://www.ghgprotocol.org/standards/corporate-standard> Emissions calculated are based on the supplier specific economic allocation from 2018. Data for this Scope 3 emission source is for the previous year and not available for the current reporting year.

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

100

**Please explain**

Numbers are extrapolated from representative sample suppliers to apply to total spend. Spend reflects AT&T Communications suppliers not including content & entertainment companies, and not including suppliers' own upstream Scope 3 emissions. Calculations are based on economic allocation of 2018 data submitted by suppliers in 2019, noting that supplier self-reporting of emissions and revenue is beyond our operational control. Errors originating from suppliers' entries to CDP have been identified and corrected as

much as possible; other sources of error include currency conversions. Some revenue data, especially from private companies, is not verifiable.

## Capital goods

---

### Evaluation status

Relevant, calculated

### Metric tonnes CO<sub>2</sub>e

167,125

### Emissions calculation methodology

Economic Allocation Model referencing the WRI/WBCSD GHG Protocol Corporate Standard <http://www.ghgprotocol.org/standards/corporate-standard> Emissions calculated are based on the supplier specific economic allocation from 2018. Data for this Scope 3 emission source is for the previous year and not available for the current reporting year.

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

100

### Please explain

Numbers are extrapolated from representative sample suppliers to apply to total spend. Spend reflects AT&T Communications suppliers not including content & entertainment companies, and not including suppliers' own upstream Scope 3 emissions. Calculations are based on economic allocation of 2018 data submitted by suppliers in 2019, noting that supplier self-reporting of emissions and revenue is beyond our operational control. Errors originating from suppliers' entries to CDP have been identified and corrected as much as possible; other sources of error include currency conversions. Some revenue data, especially from private companies, is not verifiable.

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

---

### Evaluation status

Not relevant, explanation provided

### Please explain

All relevant fuel-and-energy-related activities are calculated and included in Scopes 1 and 2.

## Upstream transportation and distribution

---

### Evaluation status

Relevant, calculated

### Metric tonnes CO<sub>2</sub>e

64,038

### Emissions calculation methodology

Economic Allocation Model referencing the WRI/WBCSD GHG Protocol Corporate Standard <http://www.ghgprotocol.org/standards/corporate-standard> Emissions calculated are based on the supplier specific economic allocation from 2018. Data for this Scope 3 emission source is for the previous year and not available for the current reporting year.

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

100

**Please explain**

Numbers are extrapolated from representative sample suppliers to apply to total spend. Spend reflects AT&T Communications suppliers not including content & entertainment companies, and not including suppliers' own upstream Scope 3 emissions. Calculations are based on economic allocation of 2018 data submitted by suppliers in 2019, noting that supplier self-reporting of emissions and revenue is beyond our operational control. Errors originating from suppliers' entries to CDP have been identified and corrected as much as possible; other sources of error include currency conversions. Some revenue data, especially from private companies, is not verifiable.

**Waste generated in operations**

---

**Evaluation status**

Relevant, calculated

**Metric tonnes CO<sub>2</sub>e**

34,267

**Emissions calculation methodology**

AT&T utilized the EPA's Waste Reduction Model (WARM) to report emissions from several different waste management practices.

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

100

**Please explain**

AT&T waste generated includes corrugated containers, office paper, dimensional lumber, yard trimmings, mixed paper, mixed metals, mixed plastics, mixed recyclables, food waste, mixed organics and mixed municipal solid waste. AT&T utilized the EPA's Waste Reduction Model (WARM) to report emissions from several different waste management practices.

**Business travel**

---

**Evaluation status**

Relevant, calculated

**Metric tonnes CO<sub>2</sub>e**

154,670

### **Emissions calculation methodology**

EPA Climate Leaders: Optional Emissions from Commuting, Business Travel, and Product Transport methodology with more updated DEFRA (2018) emissions factors for air travel and rail. EPA factors for rail travel. The Climate Registry (2019) was used for rental cars.

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

100

#### **Please explain**

Given the emergence of alternatives to rental cars for local business transportation (Uber, Lyft, etc.), we know that there is now a segment of business travel that is essentially unaccounted for. We believe that, with some development effort, we may be able to at least partially close this gap in future reports.

### **Employee commuting**

---

#### **Evaluation status**

Not evaluated

#### **Please explain**

### **Upstream leased assets**

---

#### **Evaluation status**

Not relevant, explanation provided

#### **Please explain**

All upstream leased assets are included in Scope 1 or Scope 2.

### **Downstream transportation and distribution**

---

#### **Evaluation status**

Relevant, not yet calculated

#### **Please explain**

### **Processing of sold products**

---

#### **Evaluation status**

Not relevant, explanation provided

#### **Please explain**

Not applicable to AT&T — we do not sell products that are processed by other companies.

### **Use of sold products**

---

**Evaluation status**

Relevant, not yet calculated

**Please explain****End of life treatment of sold products**

---

**Evaluation status**

Relevant, not yet calculated

**Please explain****Downstream leased assets**

---

**Evaluation status**

Relevant, calculated

**Metric tonnes CO<sub>2</sub>e**

3,705,329

**Emissions calculation methodology**

The average estimated electricity usage per set-top box (STB) and per remote Gateway (RG) were multiplied by the number of STB/RG in circulation in 2019. Based on this kWh value, the eGRID 2018 emission factors (by state) were applied to calculate the estimated greenhouse gas emissions total for downstream leased assets. Non-US STBs/RGs were also calculated for Mexico and Latin America using IEA 2018 emissions factors.

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

0

**Please explain**

AT&T completed the calculations using its own inventory data from our Global Supply Chain and Marketing organizations, and using electrical test data for the subject components.

**Franchises**

---

**Evaluation status**

Not relevant, explanation provided

**Please explain**

Not applicable to AT&amp;T — we don't franchise.

**Investments**

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**Evaluation status**

Not relevant, explanation provided

**Please explain**

Not applicable to AT&T — we are not a financial institution.

**Other (upstream)**

---

**Evaluation status**

**Please explain**

**Other (downstream)**

---

**Evaluation status**

**Please explain**

## C6.7

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

No

## C6.10

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

---

**Intensity figure**

0.00003601

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO<sub>2</sub>e)**

6,525,042

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

181,193,000,000

**Scope 2 figure used**

Market-based

**% change from previous year**

19.23

**Direction of change**

Decreased

**Reason for change**

Last year, we compared location-based numbers. Beginning with this report, we are employing a new strategy of comparing 2019 market-based emissions to 2018 market-based emissions, due to our updated renewable energy strategy.

Scope 1&amp;2 Emissions: -14.3% (decrease)

Revenue: +6.11% (Increase)

6,525,042 mt CO<sub>2</sub>e/\$181.193 Billion dollars

Emissions reduction activities, for example as reported in C4.3b (e.g., energy efficiency in buildings: maintenance programs and real estate decommissioning), as well as our first significant purchase of RECs for Large Scale Renewable energy drove the numerator (emissions) changes.

**Intensity figure**

21.15

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO<sub>2</sub>e)**

6,525,042

**Metric denominator**

Other, please specify  
Petabyte

**Metric denominator: Unit total**

308,554

**Scope 2 figure used**

Market-based

**% change from previous year**

20.65

**Direction of change**

Decreased

**Reason for change**

Last year, we compared location-based numbers. Beginning with this report, we are employing a new strategy of comparing 2019 market-based emissions to 2018 market-based emissions, due to our updated renewable energy strategy. Scope 1&2 Emissions: -14.3% (decrease) Total Traffic Petabyte: Increased by 8.0% to 308,554 PB  
6,525,042 mt CO<sub>2</sub>e/308,554 Petabytes  
Emissions reduction activities and Large Scale Renewable energy drove the numerator changes.

## 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 CO <sub>2</sub> e)	GWP Reference
CO <sub>2</sub>	822,550	IPCC Fifth Assessment Report (AR5 – 100 year)
CH <sub>4</sub>	769	IPCC Fifth Assessment Report (AR5 – 100 year)
N <sub>2</sub> O	7,392	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	160,244	IPCC Fifth Assessment Report (AR5 – 100 year)

### C7.2

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

Country/Region	Scope 1 emissions (metric tons CO <sub>2</sub> e)
United States of America	970,137
Other, please specify Rest of world	20,818

### C7.3

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

By activity

### C7.3c

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

Activity	Scope 1 emissions (metric tons CO <sub>2</sub> e)
Ground fleet	613,146
Refrigerant	160,244



Stationary Generators	103,544
Fuel	98,942
Flight Ops	9,042
Portable Generators	6,038

## C7.5

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

Country/Region	Scope 2, location-based (metric tons CO <sub>2</sub> e)	Scope 2, market-based (metric tons CO <sub>2</sub> e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
United States of America	5,756,353	5,275,782	13,500,008	2,000,803
Other, please specify Rest of world	258,769	258,306	628,923	0

## C7.6

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

By activity

### C7.6c

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

Activity	Scope 2, location-based (metric tons CO <sub>2</sub> e)	Scope 2, market-based (metric tons CO <sub>2</sub> e)
Electric power	5,998,535	5,517,501
Steam	14,076	14,076
Chilled water	2,511	2,511

## C7.9

**(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

**(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	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	852,055	Decreased	11	In alignment with the company's renewable energy goal, AT&T completed our first significant Large Scale Renewable Energy purchase. The company will continue to increase the number of RECs purchased each year. The Renewable energy purchases resulted in a decrease of 852,055 MT CO2e. Compared to total Scope 1 and 2 market-based emissions from 2018, 7,749,373 MT CO2e, this comprises 11% of the overall change in emissions. $852,055/7,749,373*100=11\%$
Other emissions reduction activities	315,636	Decreased	4.1	Emissions reductions activities, including lighting retrofits, building optimization, equipment modification and other efficiency improvements, reduced our Scope 1 and 2 emissions by approximately 315,636 MTCO2e. When compared to the CY 2018's market-based total of 7,749,373 MT CO2e, this results in a 4.1% decrease. $315,636/7,749,373*100 = 4.1\%$ .
Divestment				
Acquisitions	145,500	Increased	1.9	WarnerMedia and Xandr, both acquired by AT&T in 2018 and included in CDP data in 2019, represent a combined total of 145,500 MT CO2e. $145,500/7,749,373*100 = 1.88\%$ .
Mergers				
Change in output				

Change in methodology	124,354	Decreased	1.6	Methodologies for calculating the following have been updated: electricity modeling for leased spaces, fuel use from engines, and residual mix emission factors applied as part of Scope 2 market-based accounting. The net impact is a decrease of 1.6% ( $124,354/7,749,373 * 100$ MT CO2e).
Change in boundary				
Change in physical operating conditions				
Unidentified				
Other	77,191	Decreased	1	The EPA released new eGRID summary tables in 2020 (eGRID 2018) and these emission factors have been applied based on subregion. Additionally, AT&T updated global warming potential values to AR5 from AR4. The estimated change in emissions is 1% ( $77,191/7,749,373 * 100 = 0.996\%$ ).

### 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	No
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)	24,819	3,562,494	3,587,313
Consumption of purchased or acquired electricity		1,999,732	12,052,025	14,051,757
Consumption of purchased or acquired steam		0	62,130	62,130
Consumption of purchased or acquired cooling		0	13,973	13,973
Consumption of self-generated non-fuel renewable energy		1,071		1,071
Total energy consumption		2,025,622	15,690,622	17,716,244

## 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.**

### Fuels (excluding feedstocks)

Natural Gas

### Heating value

HHV (higher heating value)

### Total fuel MWh consumed by the organization

458,475

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

0

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

458,475

### Emission factor

1.2

### Unit

lb CO2 per 1000 cubic ft<sup>3</sup>

### Emissions factor source

2019 Climate Registry Default Emission Factors (May 2019)

### Comment

Emission factors for the U.S. are listed since most usage is domestic. Note that some emission factors will vary based on country.

**Fuels (excluding feedstocks)**

Natural Gasoline

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

8,467

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

8,467

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

0

**Emission factor**

16.33

**Unit**

lb CO<sub>2</sub>e per gallon

**Emissions factor source**

2019 Climate Registry Default Emission Factors (May 2019)

**Comment**

Emission factors for the U.S. are listed since most usage is domestic. Note that some emission factors will vary based on country.

**Fuels (excluding feedstocks)**

Diesel

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

608,887

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

398,575

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

210,312

**Emission factor**

22.55

**Unit**

lb CO<sub>2</sub>e per gallon

**Emissions factor source**

2019 Climate Registry Default Emission Factors (May 2019)

**Comment**

Emission factors for the U.S. are listed since most usage is domestic. Note that some emission factors will vary based on country.

---

**Fuels (excluding feedstocks)**

Other, please specify  
Distillate fuel oil No. 2

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

3,205

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

0

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

3,205

**Emission factor**

22.64

**Unit**

lb CO<sub>2</sub>e per gallon

**Emissions factor source**

2019 Climate Registry Default Emission Factors (May 2019)

**Comment**

Emission factors for the U.S. are listed since most usage is domestic. Note that some emission factors will vary based on country.

---

**Fuels (excluding feedstocks)**

Liquefied Petroleum Gas (LPG)

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

56,649

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

29,790

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

26,860

**Emission factor**

12.7

**Unit**

lb CO2e per gallon

**Emissions factor source**

2019 Climate Registry Default Emission Factors (May 2019)

**Comment**

Emission factors for the U.S. are listed since most usage is domestic. Note that some emission factors will vary based on country.

**Fuels (excluding feedstocks)**

Motor Gasoline

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

2,296,241

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

981

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

2,295,260

**Emission factor**

19.48

**Unit**

lb CO2e per gallon

**Emissions factor source**

2019 Climate Registry Default Emission Factors (May 2019)

**Comment**

Emission factors for the U.S. are listed since most usage is domestic. Note that some emission factors will vary based on country.

**Fuels (excluding feedstocks)**

Compressed Natural Gas (CNG)

**Heating value**



HHV (higher heating value)

**Total fuel MWh consumed by the organization**

80,208

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

0

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

80,208

**Emission factor**

15.02

**Unit**

lb CO<sub>2</sub>e per gallon

**Emissions factor source**

2019 Climate Registry Default Emission Factors (May 2019)

**Comment**

Emission factors for the U.S. are listed since most usage is domestic. Note that some emission factors will vary based on country.

**Fuels (excluding feedstocks)**

Kerosene

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

3,619

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

3,619

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

0

**Emission factor**

22.38

**Unit**

lb CO<sub>2</sub>e per gallon

**Emissions factor source**

2019 Climate Registry Default Emission Factors (May 2019)

**Comment**

Emission factors for the U.S. are listed since most usage is domestic. Note that some emission factors will vary based on country.

---

**Fuels (excluding feedstocks)**

Other, please specify  
Renewable natural gas

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

24,819

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

24,819

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

0

**Emission factor**

12.99

**Unit**

lb CO<sub>2</sub>e per gallon

**Emissions factor source**

2019 Climate Registry Default Emission Factors (May 2019)

**Comment**

Emission factors for the U.S. are listed since most usage is domestic. Note that some emission factors will vary based on country.

---

**Fuels (excluding feedstocks)**

Other, please specify  
Jet Fuel

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

36,395

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

36,395

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

0

**Emission factor**

21.67

**Unit**

lb CO2e per gallon

**Emissions factor source**

2019 Climate Registry Default Emission Factors (May 2019)

**Comment**

Emission factors for the U.S. are listed since most usage is domestic. Note that some emission factors will vary based on country.

**Fuels (excluding feedstocks)**

Other, please specify

B20

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

522

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

522

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

0

**Emission factor**

2.66

**Unit**

kg CO2e per liter

**Emissions factor source**

2019 Clean Energy Fuels Carbon Intensity (supplier)

**Comment**

Emission factors for the U.S. are listed since most usage is domestic. Note that some emission factors will vary based on country.

**Fuels (excluding feedstocks)**

Other, please specify

E85

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

9,826

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

9,826

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

0

**Emission factor**

4.73

**Unit**

kg CO2e per liter

**Emissions factor source**

GHG Protocol Emission factors from Cross-Sector Tools (Version 1.3)

**Comment**

## C8.2d

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

	<b>Total Gross generation (MWh)</b>	<b>Generation that is consumed by the organization (MWh)</b>	<b>Gross generation from renewable sources (MWh)</b>	<b>Generation from renewable sources that is consumed by the organization (MWh)</b>
Electricity	292,423	288,186	5,309	1,071
Heat	0	0	0	0
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 emission factor in the market-based Scope 2 figure reported in C6.3.**

**Sourcing method**

Power purchase agreement (PPA) with on-site/off-site generator owned by a third party with no grid transfers (direct line)

**Low-carbon technology type**

Solar

**Country/region of consumption of low-carbon electricity, heat, steam or cooling**

North America

**MWh consumed accounted for at a zero emission factor**

1,071

**Comment**

On-site solar with RECs retained

---

**Sourcing method**

Unbundled energy attribute certificates, Renewable Energy Certificates (RECs)

**Low-carbon technology type**

Wind

**Country/region of consumption of low-carbon electricity, heat, steam or cooling**

North America

**MWh consumed accounted for at a zero emission factor**

7,500

**Comment**

Austin Energy Green Choice RECs retired on behalf of AT&T  
Power Purchase Agreement (PPA) without energy attribute certificates

---

**Sourcing method**

Power purchase agreement (PPA) with a grid-connected generator with energy attribute certificates

**Low-carbon technology type**

Wind

**Country/region of consumption of low-carbon electricity, heat, steam or cooling**

North America

**MWh consumed accounted for at a zero emission factor**

1,992,232

**Comment**

LSRE with RECs purchased from ERCOT and NextEra

## C9. Additional metrics

### C9.1

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

**Description**

Energy usage

**Metric value**

26.33

**Metric numerator**

Total Scope 1+2 emissions

**Metric denominator (intensity metric only)**

AT&T Employees

**% change from previous year**

7.2

**Direction of change**

Decreased

**Please explain**

Emissions (Scope 1 + market-based 2: -14.3% decrease

Employees: -7.6% decrease

## C10. Verification

### C10.1

**(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	Third-party verification or assurance process in place

## C10.1a

**(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**

Moderate assurance

**Attach the statement**

 2019\_ATT\_Assurance\_Statement.pdf

**Page/ section reference**

1-5

**Relevant standard**

AA1000AS

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

100

## C10.1b

**(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**

Moderate assurance

**Attach the statement**

 2019\_ATT\_Assurance\_Statement.pdf

**Page/ section reference**

1-5

**Relevant standard**

AA1000AS

**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**

Moderate assurance

**Attach the statement**

 2019\_ATT\_Assurance\_Statement.pdf

**Page/ section reference**

1-5

**Relevant standard**

AA1000AS

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

100

## C10.1c

**(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.**

---

**Scope 3 category**

Scope 3: Waste generated in operations

**Verification or assurance cycle in place**

Annual process



**Status in the current reporting year**

Complete

**Type of verification or assurance**

Moderate assurance

**Attach the statement**

 2019\_ATT\_Assurance\_Statement.pdf

**Page/section reference**

1-5

**Relevant standard**

AA1000AS

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

100

---

**Scope 3 category**

Scope 3: Business travel

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Moderate assurance

**Attach the statement**

 2019\_ATT\_Assurance\_Statement.pdf

**Page/section reference**

1-5

**Relevant standard**

AA1000AS

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

100

---

**Scope 3 category**

Scope 3: Downstream leased assets

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Moderate assurance

**Attach the statement**

 2019\_ATT\_Assurance\_Statement.pdf

**Page/section reference**

1-5

**Relevant standard**

AA1000AS

**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?**

 2019\_ATT\_Assurance\_Statement.pdf

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C8. Energy	Energy consumption	AA1000AS	Purchased and modeled electricity; Natural gas (consumed by fuel cells), and renewable energy (with and without RECs)

## 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

**(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?**

No

## C11.3

**(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

### C12.1

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

Yes, our suppliers

Yes, our customers

### C12.1a

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

---

#### **Type of engagement**

Compliance & onboarding

#### **Details of engagement**

Included climate change in supplier selection / management mechanism

Code of conduct featuring climate change KPIs

Climate change is integrated into supplier evaluation processes

#### **% of suppliers by number**

100

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

100

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

100

#### **Rationale for the coverage of your engagement**

For a company to fully understand its economic, environmental and social impact, it needs to understand its supply chain.

Collaboration with suppliers is crucial for both addressing major issues facing society and realizing opportunities for advancing a clean-energy economy, reducing

greenhouse gas (GHG) emissions, reducing water usage and improving labor practices.

We believe it is important to understand more about the social, economic and environmental performance of our suppliers, and we expect our suppliers to share our commitment to citizenship and sustainability.

Given its reach, we believe our supply chain is an area where we have an extraordinary opportunity to streamline operations and reduce long-term costs, while simultaneously limiting our environmental impact and positively influencing social equality. AT&T has established several 2020 and 2025 goals to guide our efforts.

We outline our Citizenship & Sustainability expectations in our Principles of Conduct for suppliers, which all suppliers are required to acknowledge as part of our annual supplier sustainability assessment.

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

In 2019, AT&T Global Connections and Supply Chain continued to require suppliers to adhere to our Principles of Conduct and participated in assessments and audits. AT&T continues to make progress with efforts including: incorporating sustainability clauses into agreements and RFPs, training our sourcing managers on the principles of sustainability and providing updates to sourcing managers on supplier sustainability performance. AT&T will continue to expand incorporation of sustainability-oriented standards and analyses into sourcing decisions. These efforts are part of our company goal to incorporate sustainability-oriented standards or analyses into our sourcing decisions with strategic suppliers. In addition to including climate change-related KPIs in our supplier Principles for Conduct, we are a member of the Joint Audit Cooperation (JAC), which facilitates collaboration among peer telecom companies and ICT suppliers to verify and audit supply chains on areas such as labor practices, human rights, health and safety, ethics and the environment. We engage JAC to conduct on-site CSR Audits by recognized independent third-party auditors at suppliers' manufacturing facilities using a common audit framework. If we become aware of suppliers at risk of non-compliance with social standards, we engage through the JAC with on-site CSR audits and corrective action plans. In 2019, JAC identified 567 corrective actions and closed 82% of all identified corrective actions -- including 2% rated as unacceptable, 18% rated as critical and 80% flagged for noncompliance.

### **Comment**

Supplier awareness on reporting emissions is gradually improving year over year.

---

### **Type of engagement**

Information collection (understanding supplier behavior)

### **Details of engagement**

Collect climate change and carbon information at least annually from suppliers

**% of suppliers by number**

1

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

80

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

100

**Rationale for the coverage of your engagement**

We focus on this group of suppliers because they represent roughly 80% of our spend, in line with our public goal to, by 2020, lead our supply chain to improve its social and environmental impacts by integrating sustainability performance metrics into our sourcing decisions for 80% of our spend.

Working with the CDP Supply Chain program, more than 200 of our suppliers reported GHG emissions in 2019. Through the engagement with CDP Supply Chain, we collect climate change and carbon information from our suppliers.

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

Working with the CDP Supply Chain program, more than 200 of our suppliers reported GHG emissions in 2019.

We focus on our top 80% of spend as a way to enable our leadership in supplier engagement and track progress toward our public supply chain goals. AT&T continues to make progress with efforts including: incorporating sustainability clauses into agreements and RFPs, training our sourcing managers on the principles of sustainability and providing updates to sourcing managers on supplier sustainability performance. AT&T will continue to expand incorporation of sustainability-oriented standards and analyses into sourcing decisions.

We measure success in this engagement by being able to report Scope 3 emissions. As a result of our engagement with CDP Supply Chain, we were able to report a reduction of estimated supplier emissions in our GHG reporting, down 2.38% from prior year.

**Comment**

The % of Scope 3 emissions reflects those emissions that report reliable emissions data, not all suppliers approached.

This goal is focused on network, consumer equipment and corporate services spend, and does not include video content and entertainment companies.

---

**Type of engagement**

Engagement & incentivization (changing supplier behavior)

**Details of engagement**

Climate change performance is featured in supplier awards scheme

**% of suppliers by number**

1

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

80

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

100

**Rationale for the coverage of your engagement**

In 2019, working with our TL 9000 industry group, TIA-QuEST Forum, we helped to advance an industry sustainability measurement tool, the TIA Sustainability Assessor. This tool provides actionable best practices for organizations that help accelerate their sustainability programs. AT&T suppliers are currently using CDP Supply Chain and TIA Sustainability Assessor metrics to measure and report their GHG emissions and sustainability progress. This provides our company and the other participating companies the necessary means to benchmark supplier emissions and work with suppliers on making improvements.

We recognize suppliers based on their continued focus on delivering sustainable products, efforts towards reducing greenhouse gas emissions and outstanding performance on the TIA Sustainability Assessor aligning on TL 9000 quality standards across 10 areas of sustainability.

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

Working with the CDP Supply Chain program, more than 200 of our suppliers reported GHG emissions in 2019.

We focus on our top 80% of spend as a way to enable our leadership in supplier engagement and track progress toward our public supply chain goals. In alignment with our 2020/2025 goals of leading our supply chain to improve its social and environmental impacts by integrating sustainability metrics into our sourcing decisions, we are focusing more than ever on standardized industry metrics. Through our work with CDP Supply Chain, the Joint Audit Cooperation and TIA-QuEST Forum, we work to move our suppliers along an industry roadmap to continuously improve measurements benchmarking and results in sustainable supplier performance. Since 2017, 320 AT&T suppliers have completed the QuEST Sustainability Assessor.

As more suppliers provide us with robust emissions and other climate-related data and we are better able to track and assess progress, we measure success of this engagement with an increase in the percent of suppliers providing reliable emissions data through CDP and other sustainability metrics through the TIA -QuEST Sustainability Assessor.

**Comment**

## C12.1b

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

---

### **Type of engagement**

Education/information sharing

### **Details of engagement**

Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services

### **% of customers by number**

20

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

0

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

AT&T has a goal to enable customer carbon savings 10 times the footprint of our operations by 2025. To achieve this goal, we will enhance the efficiency of our own operations and deliver services that enable our customers to avoid carbon emissions. We collaborated with BSR and the Carbon Trust to develop a methodology which allows us to measure progress toward this goal. As part of this goal, we actively engage with our Business customers to develop case studies highlighting how AT&T products enable emissions reductions and environmental efficiencies. We work with our sales and marketing teams as well as through organizations in which we are members to identify potential customers with which we could develop potential new services that reduce carbon emissions or quantify and promote the carbon benefits of a service we've already developed and implemented. We focus on those customers that have indicated a commitment to sustainability and carbon reduction and then collaborate with them to develop case studies. These case studies quantify the GHG emissions reduction potential that AT&T technology enables in a wide range of impact areas, such as rice farming, smart buildings, energy efficient network equipment and pipeline leak detection. As of the end of 2018, our current attainment toward our 10x Carbon Reduction Goal was approximately 2.2x. These case studies can be found at [www.att.com/10x](http://www.att.com/10x). Using these real-world examples allows us to turn the idea of tech-enabled GHG reductions into a relatable story for other customers. We expect that these concrete examples can help expand the conversations we have with our customers. We plan to release additional case studies in the future. As reported in our 2019 annual report, revenues from Business Solutions accounted for nearly \$37B in operating revenue, representing approximately 20% of our 2019 total operating revenues of approximately \$181B. The entire 20% is not necessarily generated from "climate change products". For proprietary reasons, we do not disclose specific service offering revenues.

### Impact of engagement, including measures of success

We measure success of our 10x program using the methodology outlined on our website, [www.att.com/10x](http://www.att.com/10x). The methodology, developed in collaboration with BSR and the Carbon Trust, defines how we'll estimate the carbon abatement potential of our services. In order to meet our goal, the annual customer carbon abatement we identify from our solutions from 2015-2025 will be at least 10 times our Scope 1+2 emissions in 2025. The case studies we publish as part of our 10x goal highlight examples of how we enable customers to reduce their own emissions and provide the carbon abatement factors for various solutions we sell to customers, thereby allowing AT&T to track progress toward our 10x goal. At the close of 2018, we calculated that our technology solutions enabled GHG reductions of 17.1M MT of CO<sub>2</sub>e, which is equivalent to more than 1.9 B gallons of gasoline. In 2018, our scope 1 and 2 GHG footprint was approximately 7.7 M MT of CO<sub>2</sub>e, putting our current 10x factor at approximately 2.2x. An overview of this calculation can be found at [www.att.com/10x](http://www.att.com/10x).

## C12.3

### (C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

- Direct engagement with policy makers
- Trade associations

## C12.3a

### (C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Energy efficiency	Support	AT&T is a signatory to the Set-Top Box (STB) Voluntary Agreement (VA) for Ongoing Improvements in the Energy Efficiency of Set-Top Boxes. The VA was adopted to drive improvements in the energy efficiency of STBs while encouraging innovation and competition.	The VA aims to continue improvements in the energy efficiency of STBs used in the delivery of services by Service Providers, thereby further reducing potential environmental impact and increasing benefits to customers. The Agreement is expected to avoid 9.3 million mtons of CO <sub>2</sub> each year once the benefits of the commitments are fully realized. The Agreement requires new reporting on the availability and use of apps that offer consumers an alternative to using STBs for every screen, and includes a commitment to achieve rigorous third-tier energy performance levels by 2020.



Carbon tax	Support	AT&T is a founding member of the Climate Leadership Council (CLC), we support the CLC’s plan that envisions a rising fee on carbon emissions, rebating revenues as dividends to all Americans, a border-adjustment mechanism and regulatory simplification.	The CLC works to promote a carbon dividends plan as a bipartisan, market-based solution to help reduce U.S. emissions. The plan envisions a rising fee on carbon emissions, rebating revenues as dividends to all Americans, a border-adjustment mechanism and regulatory simplification.
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## C12.3b

**(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?**

Yes

## C12.3c

**(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.**

### Trade association

Global eSustainability Initiative (GeSI)

### Is your position on climate change consistent with theirs?

Consistent

### Please explain the trade association’s position

The Global eSustainability Initiative (GeSI) fosters open cooperation across international boundaries and the promotion of technologies that foster sustainable development. GeSI brings together leading ICT companies — including telecommunications service providers and manufacturers as well as industry associations — and nongovernmental organizations committed to achieving sustainability objectives through innovative technology. Through the GeSI organization, AT&T is represented in projects and activities centered in the three primary focus areas of GeSI. Those focus areas are Climate Change (i.e., energy efficiency, SMART 2020, ICT KPIs), Supply Chain (i.e., conflict minerals) and Human Rights. In 2015, Accenture conducted a study (SMARTer 2030) on behalf of the Global eSustainability Initiative (GeSI) and its member companies including AT&T. The SMARTer 2030 report showed that the information and communications technology (ICT) industry can enable a low-carbon society and help respond to the climate change challenge by 2030. ICT-enabled solutions offer the potential to reduce GHG emissions by 9.7 times the amount of carbon emitted.

### How have you influenced, or are you attempting to influence their position?

We support the group’s position that communications technology (ICT) industry can enable a low-carbon society and help respond to the climate challenge.

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**Trade association**

Business Roundtable

**Is your position on climate change consistent with theirs?**

Mixed

**Please explain the trade association's position**

BRT's Statement on Climate Change: "Because the consequences of global warming for society and ecosystems are potentially serious and far-reaching, steps to address the risks of such warming are prudent even now, while the science continues to evolve. The Business Roundtable supports collective actions that will lead to the reduction of greenhouse gas (GHG) emissions on a global basis with the goal of slowing increases in GHG concentrations in the atmosphere and ultimately stabilizing them at levels that will address the risks of climate change. These actions need to be coordinated with efforts to address other urgent world priorities, such as reducing poverty, improving public health, reducing environmental degradation and raising living standards. Reliable and affordable world supplies of energy are essential for meeting these challenges. Although Business Roundtable supports actions to address global warming, our members have a range of views and preferences about the policy tools that will best achieve that objective. Some companies support mandatory approaches; others do not. Recognizing that legislation and regulation are under consideration, Business Roundtable supports an open and constructive dialogue about the principles that should shape climate policy and the pros and cons of various options.

**How have you influenced, or are you attempting to influence their position?**

We believe that technology is an important component to this transition, which is in line with BRT's statement that: "The development and global deployment of new, efficient low-GHG technologies is vital to an effective long-term response to concerns about global climate change." In the latest BRT sustainability report, AT&T's Executive Chairman and former CEO states that "over the past decade, innovation has sparked a profound technology revolution, giving us more tools than ever to address the world's challenges. And AT&T has been engaged every step of the way."

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**Trade association**

U.S. Chamber of Commerce

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

According to the U.S. Chamber of Commerce website: "The climate is changing and humans are contributing to these changes. We believe that there is much common ground on which all sides of this discussion could come together to address climate change with policies that are practical, flexible, predictable and durable. We believe in a policy approach that acknowledges the costs of action and inaction and the

competitiveness of the U.S. economy."

### **How have you influenced, or are you attempting to influence their position?**

AT&T recognizes the importance of transitioning to a world that is more resource efficient. We believe that the ability to increase resource efficiency and reduce greenhouse gas emissions will be a primary determinant of success in the 21st century world economy. We also believe that technology is an important component to this transition.

### **Trade association**

Consumer Technology Association (CTA)

### **Is your position on climate change consistent with theirs?**

Consistent

### **Please explain the trade association's position**

According to CTA's website: "Industry initiatives are helping to make recycling our old electronics as easy as buying new ones. Today's consumers have more access and resources for recycling devices at the end of their life. Manufacturers across the country are committed to reducing e-waste and adverse environmental effects. However, state proposals to regulate recycling requirements with arbitrary burdens and costs threaten to stifle the industry's success. We support smart, collaborative approaches to improving electronics recycling and increasing sustainability. Through industry-led programs and initiatives, we have already made significant progress." And: "Through innovation and robust competition, today's tech devices are faster, smarter and more efficient than ever before. Each year, the industry's progress toward greater energy efficiency saves consumers millions of dollars while reducing greenhouse gas emissions. Although many policymakers share the industry's goal of improving energy efficiency, proposals seeking to regulate energy consumption are counter. For the greatest success, the government should track energy efficiency rather than regulate it. Through voluntary agreements, we proactively help improve energy efficiency standards and practices."

### **How have you influenced, or are you attempting to influence their position?**

We work collaboratively with CTA on limiting the energy consumption of our devices and through our participation as a signatory to the Set-Top Box and Small Network Equipment Voluntary Agreements (VAs) for Ongoing Improvements in the Energy Efficiency of Set-Top Boxes and Small Network Equipment. The VAs provide a non-regulatory structure to encourage industry to continuously pursue energy efficiency, while protecting innovation and competition.

## **C12.3f**

**(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?**

One of our Assistant Vice Presidents for Public Policy oversees issues related to sustainability and acts as a liaison between our internal policy and sustainability teams. That designee meets several times per month with our sustainability operations team on topics including climate change issues. Additionally, AT&T's Senior Vice President for Global Public Policy sits on our internal officer-level CSR Governance Council, providing guidance from a policy perspective on issues such as climate change that come before the committee. Ensuring further alignment, both our Chief Sustainability Officer and our SVP of Global Public Policy reported in 2019 to the same officer (from 1/1/19 – 9/15/19 to our Senior Executive Vice President and General Counsel, and from 9/16/19+ to our Senior Executive Vice President for External & Legislative Affairs).

## C12.4

**(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).**

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### Publication

In mainstream reports

### Status

Complete

### Attach the document

 ATT 2020 Proxy Statement.pdf

### Page/Section reference

30-31

### Content elements

Governance  
Strategy  
Emissions figures  
Emission targets

### Comment

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### Publication

In voluntary sustainability report

### Status

Complete

### Attach the document

 AT&T Index Sustainability Accounting Standards Board

**Page/Section reference**

1

**Content elements**

Other metrics

**Comment**

AT&T SASB Table

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**Publication**

In voluntary sustainability report

**Status**

Complete

**Attach the document**

 2019-2020-ATT\_CorporateResponsibilitySummary.pdf

**Page/Section reference**

12, 19-34

**Content elements**

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

**Comment**

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**Publication**

In voluntary sustainability report

**Status**

Complete

**Attach the document**

 AT&T Issue Brief Climate Change

**Page/Section reference**

1

**Content elements**

Governance  
Strategy  
Risks & opportunities

**Comment**

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**Publication**

In voluntary sustainability report

**Status**

Complete

**Attach the document**

 AT&T Index Task Force on Climate-related Financial Disclosures

**Page/Section reference**

1

**Content elements**

Governance  
Strategy  
Risks & opportunities  
Emissions figures  
Emission targets

**Comment**

## C15. Signoff

### C15.1

**(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.**

	<b>Job title</b>	<b>Corresponding job category</b>
Row 1	Senior Executive Vice President and Chief Financial Officer, AT&T Inc.	Chief Financial Officer (CFO)