



# Climate Strategy & Transition

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PLAN

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# Overview

Climate change is one of the world's most **pressing challenges** and poses significant risks to companies.

Physical risks — such as intense storms, droughts and wildfires — threaten infrastructure, supply chains and communities. Transition risks — such as policy changes, regulatory and legal shifts, and market expectations — can add business costs and uncertainty.

Climate change also presents an opportunity for those who will be **part of the solution.**

According to the [Sixth Assessment Report](#) from the Intergovernmental Panel on Climate Change (IPCC), released in August 2021, the window for averting catastrophic climate impacts is rapidly closing. Science tells us that society must transition to a net-zero economy by 2050 or sooner, and many countries around the world have started to make that transition. In the United States, the Biden Administration has begun executing an aggressive agenda to address climate change, aiming to reduce greenhouse gas (GHG) emissions to 50% below 2005 levels by 2030, achieve net-zero emissions from the grid by 2035 and reach economy-wide net-zero emissions by 2050 or sooner.

Achieving these goals — in the U.S. and around the world — will require large-scale public- and private-sector investments in technology and infrastructure to reshape the way we live and work. While sharply cutting emissions, society must also build resilience to the impacts that are already unfolding. How companies navigate these changes will be a factor in their success in the 21<sup>st</sup> century.

**This document explains AT&T's approach to a world being reshaped by climate change.**

As a connectivity provider, AT&T is well positioned to connect the technology that will enable the global transition to a net-zero economy. The more widely 5G and other broadband technologies are available, the greater their impact will be on that transition. Specifically, our efforts to bridge the digital divide help support climate resiliency and climate justice. In a world with more frequent and severe climate-related weather events, broadband is crucial for the services that safeguard people before, during and after natural disasters. Many people who lack reliable [connectivity](#) today are disproportionately impacted by the effects of [climate change](#).



# Our Strategy

Climate change impacts AT&T's customers, people, communities and operations. We're acting to address this challenge and prepare for its impacts.

AT&T's climate strategy and transition plan focuses on three areas:

## Mitigating impacts

We have set a goal for our operations (Scope 1 and 2 emissions) to be carbon neutral by 2035, guided by a science-based target (SBT) aligned with keeping global temperature rise to 1.5 degrees Celsius.

We are also engaging our suppliers and have set an SBT to ensure that 50% of our suppliers<sup>1</sup> set their own Scope 1 and Scope 2 science-based targets.

## Seizing opportunities

Universal connectivity — nationwide broadband, including 5G — can play a meaningful role in reducing emissions by scaling efficiencies and enabling low-carbon technologies. This presents a business opportunity that also benefits society.

We have set a goal to deliver connectivity solutions that enable our business customers to reduce 1 gigaton (one billion metric tons) of greenhouse gas emissions by 2035.

## Managing climate-related risks

We're working to understand the threats we face from climate change and take steps to prepare our infrastructure to withstand more frequent and severe extreme weather events. Fortifying our network is critical for the millions of people who rely on the connectivity we provide.



# Mitigating Impacts

As part of our effort to support the transition to a net-zero economy, AT&T has [committed to be carbon neutral](#) across our entire global operations by 2035.

We will achieve this by eliminating Scope 1 and 2 emissions through improved energy efficiency efforts, moving to a low-emissions fleet, scaling renewable energy capacity and technology transition away from traditional fossil fuel-based energy production.

Targets approved by the Science Based Targets initiative guide our progress. We will reduce absolute Scope 1 and Scope 2 GHG emissions by 63% by 2030 from a 2015 base year. This is in alignment with limiting the global average temperature increase to no more than 1.5°C. We are also working to ensure 50% of our suppliers (covering purchased goods and services, capital goods and downstream leased assets as a portion of spend) set their own science-based Scope 1 and Scope 2 targets by 2024.

GOAL: TARGET 2035

**Carbon  
neutral**

across our entire  
operations by 2035

GOAL: TARGET 2030

**63%  
GHG reduction**

Science-based target:  
reduce absolute Scope 1  
and Scope 2 GHG emissions  
by 63% by 2030 from a  
2015 base year

GOAL: TARGET 2024

**50%  
of our suppliers**

to set their own  
science-based Scope 1 and  
Scope 2 targets by 2024

# Scope 2

Most of AT&T's in-scope emissions are associated with our Scope 2 emissions from purchased electricity. And most of our purchased electricity goes toward powering our network.

With purchased electricity representing our greatest opportunity for emissions savings, we have multi-year transition plans in place to 1) reduce electricity consumption wherever possible and 2) accelerate our efforts around energy efficiency. For the remaining energy, we will continue to purchase renewable energy to cover associated emissions.

## Energy Reduction and Efficiency

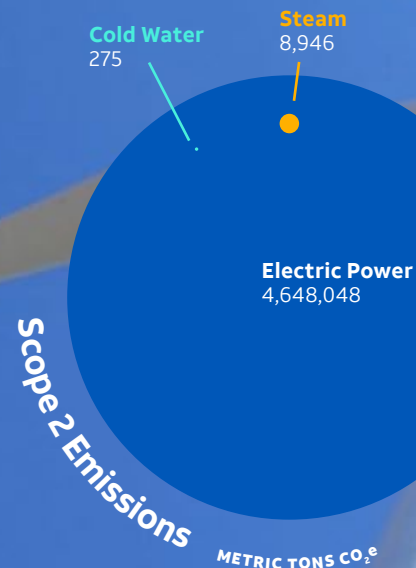
AT&T has both a financial and an environmental incentive to reduce our energy consumption. As we drive kilowatts out of the business, we also remove energy-related costs and GHG emissions. Each year, AT&T implements thousands of energy efficiency projects across our network and operations, bringing down electricity use and reducing costs. For example, in 2020, we implemented approximately 8,800 projects that amounted to gross annualized savings of \$39.7 million. Since 2010, we have implemented nearly 147,000 energy efficiency projects, resulting in annualized energy savings of nearly 7.6 billion kWh and cost savings of \$694 million. AT&T will continue to identify similar and new opportunities to drive down energy consumption in support of our carbon neutrality goal.

**\$39.7M**  
**annualized savings**

We implemented approximately **8,800 projects** that amounted to gross annualized savings of \$39.7 million

## Supporting the Renewable Energy Marketplace

Over the past few years, AT&T has transitioned from a few megawatts of renewable energy to making purchases totaling 1.5 gigawatts, making our company one of the largest corporate purchasers of renewable energy in the United States. By entering into power purchase agreements with renewable energy developers, AT&T reduces our emissions footprint, hedges against rising energy costs and helps to add more clean electricity to the U.S. power grid. AT&T is committed to expanding our efforts in this area and will continue to look for opportunities to grow our renewable energy portfolio. We not only use our internal expertise but also are members of industry-leading renewable energy organizations such as the Renewable Energy Buyers Alliance.





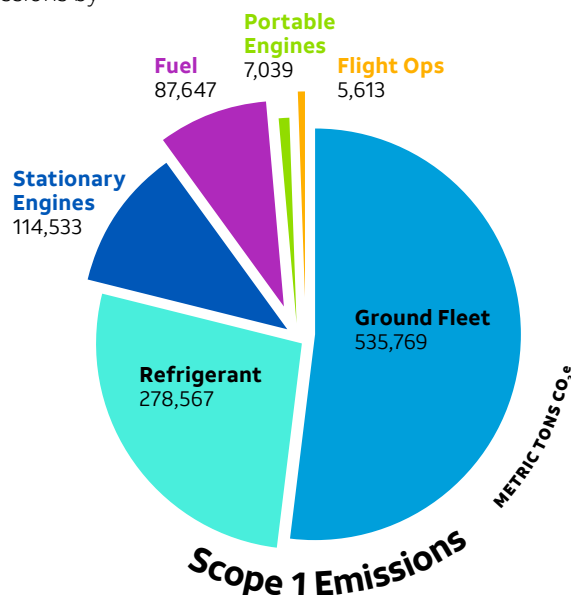
# Scope 1

Most of our Scope 1 emissions come from our global fleet, which is largely powered by conventional fuel sources. AT&T has already exceeded the public goal to reduce our Scope 1 GHG emissions by 20% by 2020. We have also exceeded our fleet-specific goal to reduce those emissions by 30% by 2020.

## Reducing Fleet Emissions

In support of our carbon neutrality goal, AT&T has committed to continue to bring down emissions from our operational fleet. We will accomplish this by optimizing routes, switching to hybrid and electric vehicles, and reducing the overall size of the fleet. We also have a multi-year plan for the decarbonization of our fleet. As a demonstration of our commitment, AT&T has joined the Corporate Electric Vehicle Alliance (CEVA). The stated goals of this group are to help member companies set and achieve bold

commitments for fleet electrification as well as to boost the electric vehicle market by signaling the breadth and scale of corporate demand for electric vehicles — expanding the business case for the production of a more diverse array of electric vehicle models. CEVA will also provide a platform to coordinate support for policies that enable fleet electrification.



## Other Sources of Emissions

The remainder of our emissions largely come from our use of refrigerants and stationary / mobile generators. The reliability of our network remains our most important metric, and backup generation plays a key role in that as well as maintaining proper operating temperatures for AT&T's network equipment. As such, AT&T is working on the following:

- Reduction of HFC refrigerants
- Low emissions / no emissions fuel cell energy generation
- Replacement of distributed energy resources dependent on fossil fuels

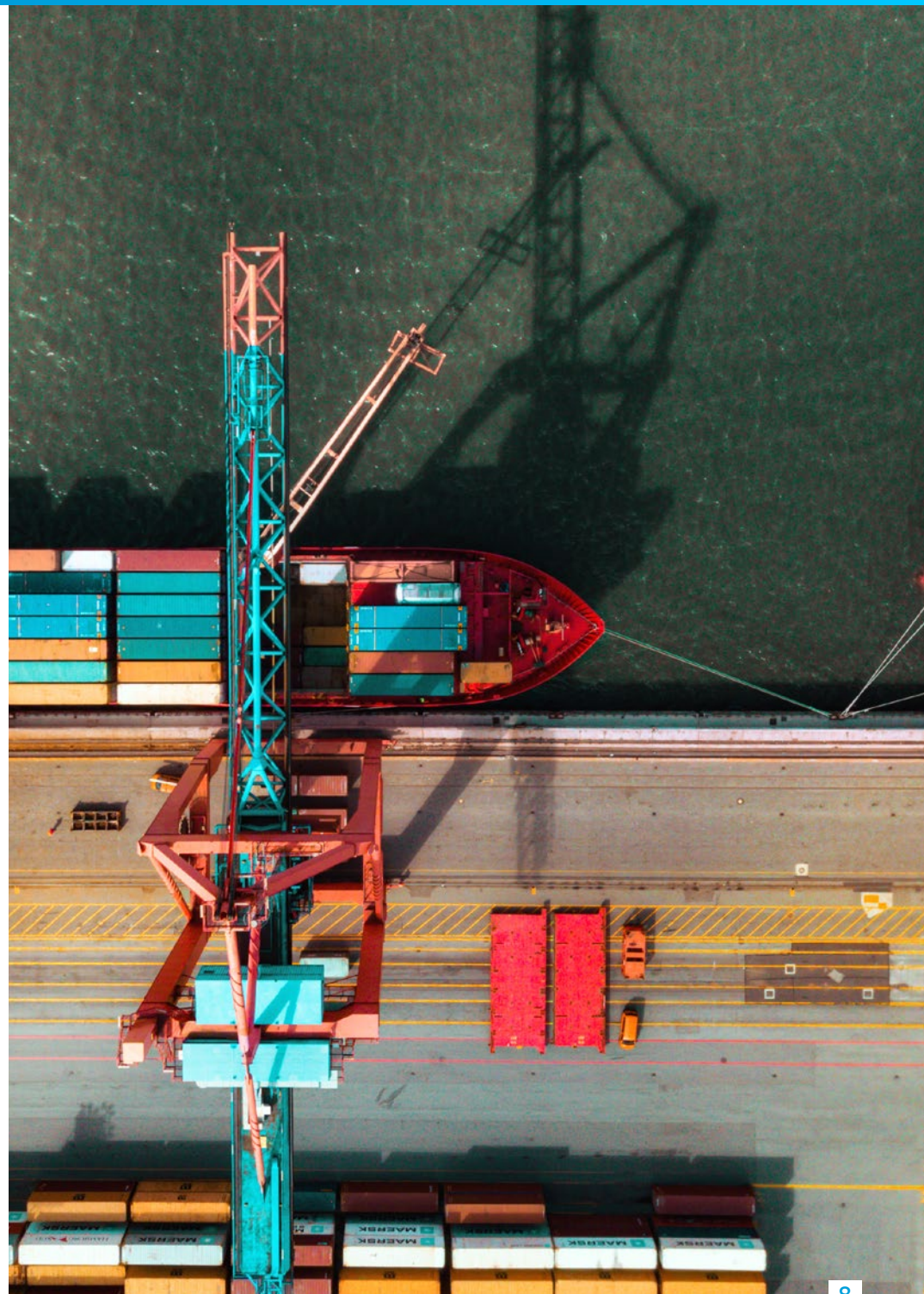
## A Note about Offsets

Though AT&T aims to reduce our footprint to as close to zero emissions as possible, there may be some sources of emissions that cannot be eliminated. In these cases, we will invest in high-quality carbon offsets to cover the associated emissions.



# Seizing Opportunities

AT&T is well positioned to benefit from the transition to a net-zero economy because a key part of our business is providing the technology and connectivity needed to scale climate solutions. Our connectivity solutions can drive emissions reductions, including in industries that currently have large environmental footprints such as transportation, energy, manufacturing and agriculture.





A [report](#) by the GSMA and Carbon Trust calculated that the use of mobile technology powered global emissions reductions of around 2,135 million tons CO<sub>2</sub>e in 2018 — almost ten times greater than the global emissions footprint of the mobile industry itself. Information and communications technology (ICT) has the potential to hold global CO<sub>2</sub>e emissions at 2015 levels, generating emissions savings of 12.08 Gt CO<sub>2</sub>e by 2030, according to [GeSI](#).

To help realize this potential, we have set a goal to deliver connectivity solutions that enable our business customers to reduce 1 gigaton of greenhouse gas emissions by 2035.

**GOAL: TARGET 2035**

We aim to deliver connectivity solutions that enable our business customers to reduce

**1 gigaton**  
**of GHG emissions**

## Connected Climate Initiative

Through our new Connected Climate Initiative, we are applying our expertise and broadband capabilities to develop and deploy smart connectivity solutions that can enable emissions reductions at a global scale.

As part of the program and to reach our gigaton goal, AT&T is:

### UNIVERSITY RESEARCH PARTNERSHIPS

Exploring the possibilities for 5G and other broadband technologies by working with leading universities to invest in research about enabling emissions reductions in key areas like transportation, energy and manufacturing.

### BUSINESS CO-CREATION

Proactively engaging our business customers to co-create connectivity-driven solutions that drive reduced emissions through operational and cost efficiencies.

### FUELING INNOVATIVE CHANGE

Fueling innovation and disruptive technologies by supporting customers that are looking for and will use connectivity to fundamentally change how work gets done.

### JOINT PRODUCT OFFERINGS

Collaborating with our Alliance Partners — many software and other infrastructure companies — to scale joint product offerings around edge-to-edge digital transformation, making integration of emissions-reducing solutions easier and faster for our customers to access and adopt.

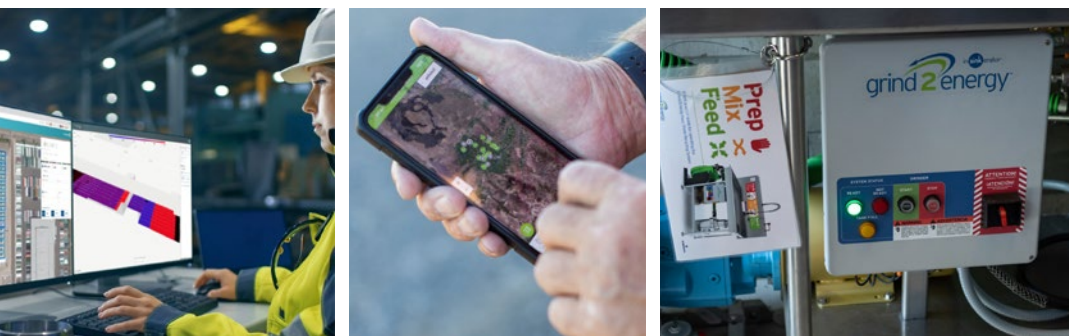
There are two ways that our connectivity helps reduce emissions:

### By enabling AT&T business customers to operate more efficiently and reduce wasted resources.

- For example, AT&T connectivity helps [Lineage Logistics](#), a leading cold food storage operator, keep food safe, lower energy use and reduce carbon emissions. Using smart meters and sensors connected by the AT&T Internet of Things, Lineage is able to maintain optimal temperatures and reduce its electricity use by 33 million kWh annually across 78 different warehouses nationwide. This is equivalent to avoiding the emissions from consuming 2.4 million gallons of gasoline, significantly reducing Lineage's annual energy spend and environmental footprint.
- Another example is OmniMetrix, which uses AT&T Internet of Things (IoT) to enable customers to monitor the condition of their steel oil and gas pipelines. OmniMetrix customers use this technology to help reduce the time, fuel, costs and greenhouse gas emissions associated with traveling to inspections. In addition, this remote monitoring system enables more detailed and timely information about the health of pipelines, creating the potential for reduced leakages. OmniMetrix provides this service to a range of pipeline companies, connecting thousands of sensors at the end of 2018, reducing inspection travel time by an estimated 8,500 hours, saving approximately \$300,000<sup>2</sup> in fuel and labor costs, and shrinking gasoline usage by around 22,000 gallons of gas a year,<sup>3</sup> equivalent to almost 200 metric tons of CO<sub>2</sub>e.

### By enabling new and disruptive technology solutions that address environmental challenges.

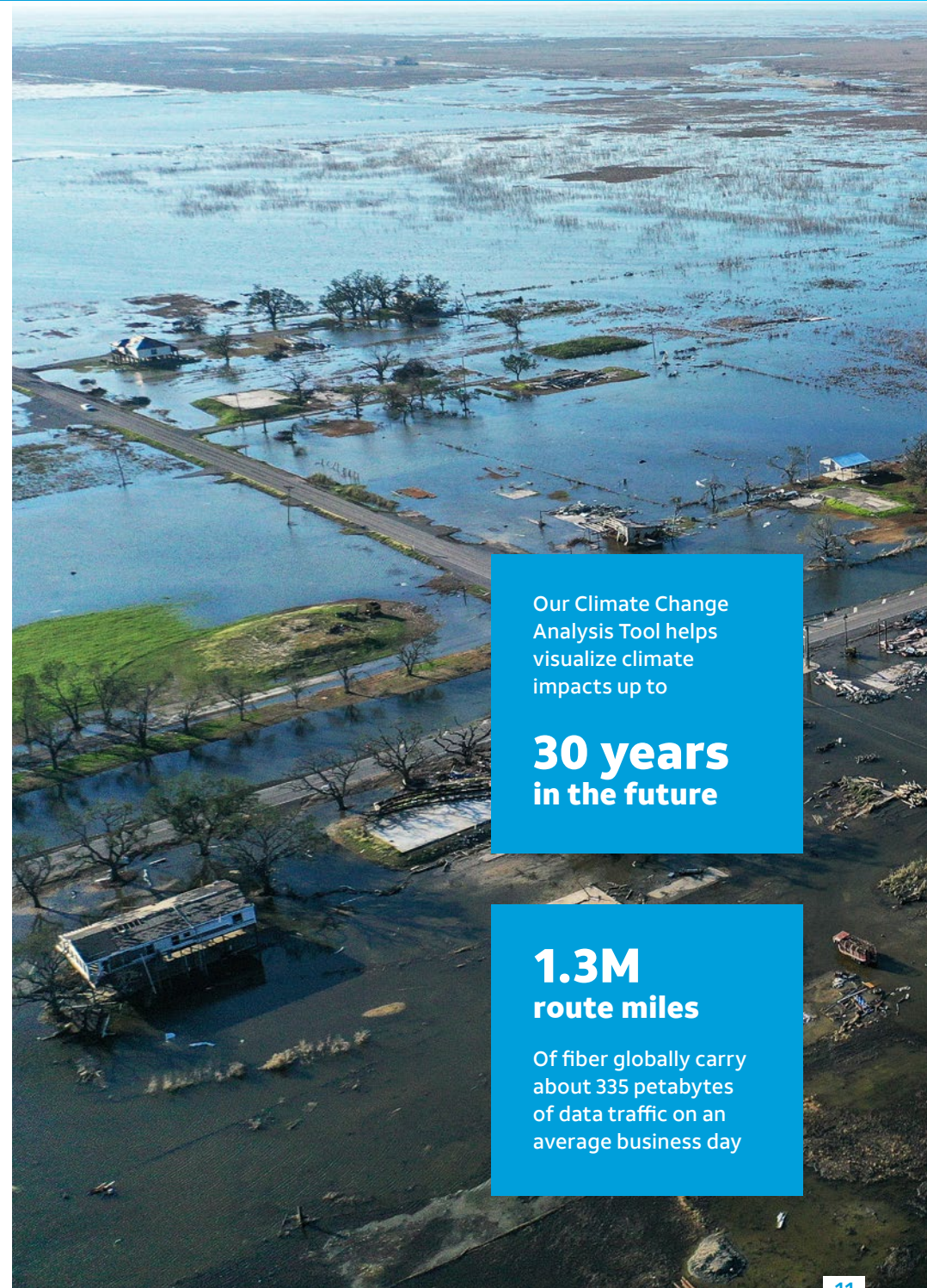
- For example, [Grind2Energy](#) is a food waste processing system that turns food scraps from commercial kitchens into biogas. The gas can then be used to produce clean electricity or heat. The first models of the system used a manual process to handle maintenance and haul waste to the facilities that turn it into biogas. But the Grind2Energy team quickly realized they needed continuous data to optimize operations. They turned to AT&T to integrate IoT connectivity and robust reporting into their system, helping to increase scalability and market competitiveness. Now, Grind2Energy diverts thousands of tons of food waste from landfills each year, where the scraps would otherwise decompose and emit methane, a potent greenhouse gas.
- Another example is the [Soiltech Sensor](#), which helps produce more food using fewer resources by precisely recording and transmitting data for soil moisture, temperature, humidity, location and impacts that may create bruising while crops are being grown, transported and stored. The Soiltech Sensor uses AT&T's LTE-M network to provide near-realtime crop data via the Soiltech Wireless app, enabling users to receive alerts when their crops are experiencing unexpected conditions, which can help address issues anywhere from the field to the food storage facility. After extensive studies on a wide range of crops, including potatoes, onions, sugar beets and barley, the environmental benefits of using the Soiltech Sensor are coming into focus. If a farmer used the Soiltech Sensor on 10,000 acres of potato fields and achieved results similar to these early studies, that farmer could increase potato production by 4% — an additional 10,000 tons of potatoes — while reducing average water use by 500 million gallons each year.





# Managing Climate-Related Risks

One of the many risks climate change poses is uncertainty. AT&T seeks to better understand and address these uncertainties. We are engaged with internal and external experts to understand how we can best prepare for the risks posed by climate change and make more informed business decisions. We also work with other companies, governments, non-profits and academia to promote technology that tackles climate change and resource challenges.



Our Climate Change Analysis Tool helps visualize climate impacts up to

**30 years**  
in the future

**1.3M**  
route miles

Of fiber globally carry about 335 petabytes of data traffic on an average business day

# Physical Risk

Climate change is associated with increasingly frequent extreme weather events. Because millions of consumers rely on AT&T for vital connectivity, we must provide a reliable network regardless of energy disruptions. Our network includes more than 1.3 million route miles of fiber globally and carries about 335 petabytes of data traffic on an average business day. Any disruption to our fiber routes or other network infrastructure, including cell sites, because of extreme weather events such as hurricanes in the Southeast U.S., fires in the West or other natural disasters may impact network reliability and could lead to increased capital or operating costs for repairing any damage. AT&T is proactively relocating equipment or implementing additional network-hardening requirements to prevent future disruptions.



## Climate Change Analysis Tool

Our [Climate Change Analysis Tool](#), developed in collaboration with the U.S. Department of Energy's Argonne National Laboratory, helps visualize climate impacts such as flooding and hurricane winds at the neighborhood level — up to 30 years into the future. In 2020, we began expanding the data powering the tool from 4 pilot states in the Southeast to the entire contiguous U.S. We're also adding analysis capabilities for further natural disasters such as wildfires and droughts. With the tool, AT&T can better take climate change into account as we plan for network buildouts, maintenance and disaster preparedness.

### NETWORK PLANNING

Our network planning team can use the tool to understand the range of possible impacts to AT&T assets and align risk tolerance with the expected lifespan of those assets. They may also use the data to plan for maintenance. For example, in areas where we anticipate flooding, we can use the data to schedule when and how often we perform maintenance at particular facilities. Or we can use the data to determine where to place (or move) equipment within a Central Office or particular facility.

### CORPORATE REAL ESTATE

Our corporate real estate team can use the data to site or plan for corporate offices, parking structures and other facilities. Or they may use the data to put adaption measures into place at facilities where risk is indicated.

### CONSTRUCTION

Our construction team may use the data to plan as they build out new infrastructure such as cell sites, fiber and small cells to power our 5G network. For example, using the tool, AT&T can now cross-reference our fiber cable locations with projected sea-level rise. This will help us make smarter decisions about how we fortify equipment in areas of risk.

### DISASTER RECOVERY

Our disaster recovery team can use the data to help anticipate where to place resources such as generators and other equipment so they are readily available in areas where climate-related impacts and events are likely to occur.



To help our communities better prepare for climate-related risks, we will continue to make the Argonne National Laboratory climate datasets developed for our business available to the public. We're also investing in programs like our [Climate Resiliency Community Challenge](#) and the [National Fish and Wildlife Foundation's](#) resilience work for coastal communities. We're especially interested in supporting the people most likely to bear the burden of climate change, who are often also the ones least able to afford to do so.

## Transition Risk

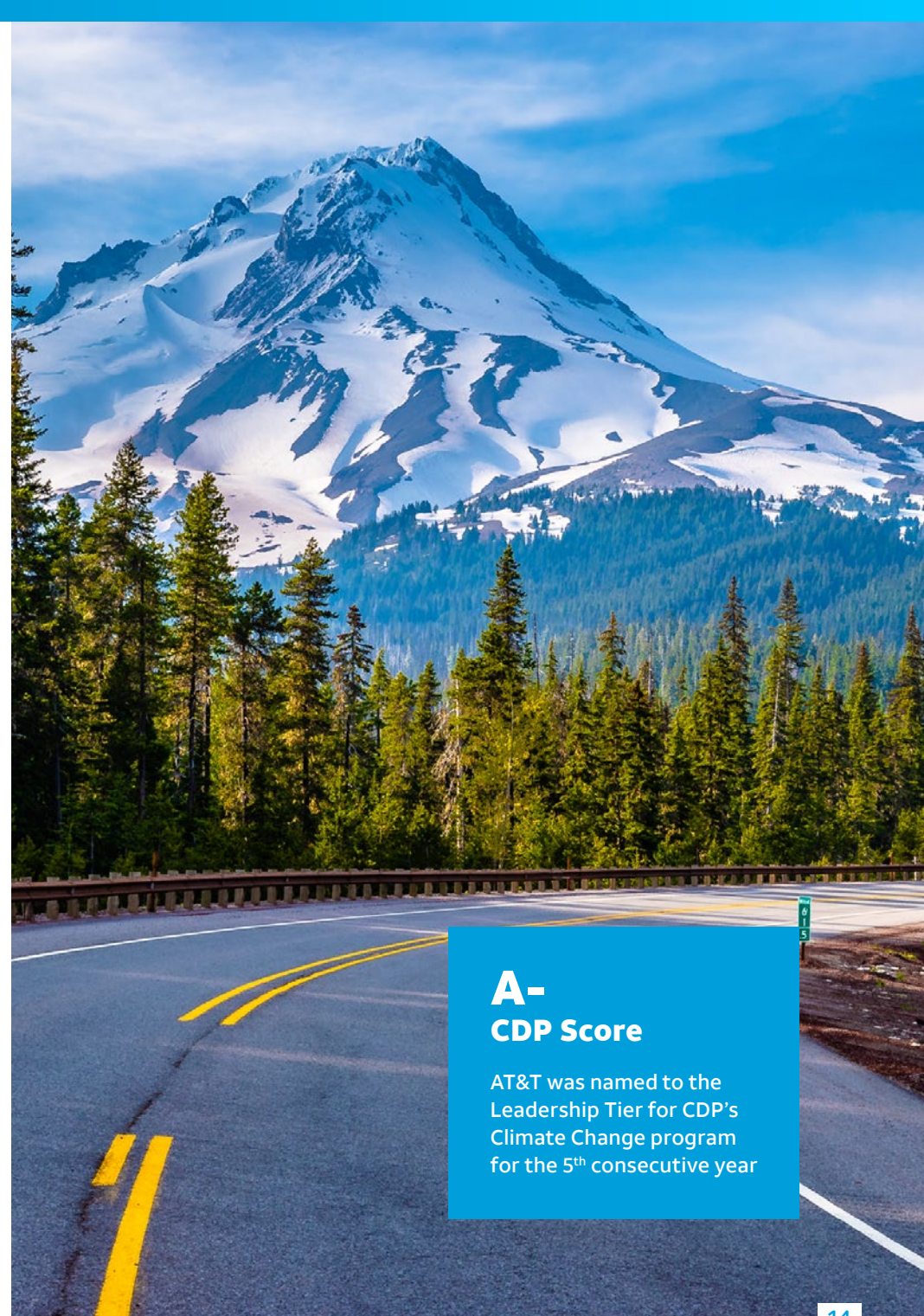
AT&T assesses how regulations, developments in technology, and market or reputational factors could affect our company. An increase in the cost of GHG emissions, such as through an imposed fuel or carbon tax or other pricing mechanism, may drive up the cost of fossil fuel-based energy. AT&T relies in part on fossil fuel-based energy to power our network and fleet. We also purchase a significant amount of electricity to power our operations. While we are working to increase the amount of renewable electricity in our portfolio, we still rely on the grid and non-renewable sources to ensure our energy supply. Any policy that increases the cost of GHG emissions and/or a policy that may drive up the cost of fossil fuel-based energy or power has the potential to increase our operating costs.





# Governance

Oversight for climate-related risks and activities rests with the Public Policy and Corporate Reputation Committee of the AT&T Board of Directors. The committee provides directional feedback on climate change-related strategies. In addition, our CSR Governance Council, led by our Chief Sustainability Officer, is composed of senior executives representing business areas linked to CSR topics deemed most material by our stakeholders.



## A- CDP Score

AT&T was named to the Leadership Tier for CDP's Climate Change program for the 5<sup>th</sup> consecutive year



Our [Climate Change Policy](#) explains how we measure and manage our approach to the impacts of climate change. We must continually strive to help our customers be more sustainable, reduce our own GHG emissions and increase resilience throughout our operations. Our [Energy Policy](#) outlines our commitment to the efficient, cost-effective and environmentally responsible use of energy while maintaining or improving quality, reliability, productivity and safety.

Demonstrated progress toward and achievement of goals related to climate-related issues (such as our programs for adoption of renewable energy, our approved science-based carbon reduction targets and our 2035 carbon neutral goal) are part of the annual performance objectives for our CSO, AVP — Global Environmental Sustainability and other senior leaders across our business. Performance toward such goals is taken to account when these individuals' supervisors determine annual merit salary increases and bonus awards. For more information about how remuneration is tied to the management of climate-related issues, among other topics, please see our [CDP response](#).

## Climate Advocacy and Industry Collaboration

In September 2018, AT&T joined the [Climate Leadership Council](#) (CLC) as a founding member. The CLC is working to promote a carbon dividends plan as a bipartisan, market-based solution to help reduce U.S. GHG emissions.

We work with several groups to publicly promote the use of technology to address climate and resource challenges. They include industry groups, such as [GeSI](#), [GSMA](#), the [Renewable Energy Buyers Alliance \(REBA\)](#) and the [Alliance for Telecommunication Industry Solutions \(ATIS\)](#), and business organizations such as the [Business Roundtable \(BRT\)](#). We've also signed onto

the [Corporate Renewable Energy Buyer's Principles](#). AT&T is also an active participant in the [Third Derivative](#), a collection of start-ups, venture capitalists, corporates, and industry experts working with a next-generation accelerator to accelerate the rate of climate innovation together.

## Disclosure

We report our progress on climate change through our [Annual ESG Reporting](#), which we update each spring. We align our reporting to the [Task Force on Climate-related Financial Disclosures \(TCFD\)](#).

We also respond to CDP's climate change survey. In 2020, AT&T was named to the Leadership Tier for CDP's Climate Change program for the 5<sup>th</sup> consecutive year, earning an A- score.

Collectively we use these frameworks to disclose our climate information, such as climate-related financial impacts, so that investors and other stakeholders can make informed decisions.

For more information about our climate change management, please see our [Greenhouse Gas Emissions](#) and [Climate Change](#) issue briefs.

#### ENDNOTES

- 1 Covering purchased goods and services, capital goods and downstream leased assets as a portion of spend
- 2 Average hourly wage based on “Average hourly and weekly earnings of all employees on private nonfarm payrolls by industry sector, seasonally adjusted,” Bureau of Labor Statistics, September 06, 2019, <https://www.bls.gov/news.release/empsit.t19.htm> and average cost of fuel based on “USA Gasoline prices, 23-Sep-2019,” GlobalPetrolPrices.com, September 23, 2019, [https://www.globalpetrolprices.com/USA/gasoline\\_prices](https://www.globalpetrolprices.com/USA/gasoline_prices)
- 3 Calculations are based on actual savings from 122 sites that were extrapolated across all pipeline monitoring connections provided by OmniMetrix