T Mobile USA inc - Climate Change 2020

C0. Introduction

C0.1

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

T-Mobile U.S. Inc. (NASDAQ: TMUS) is America's supercharged Un-carrier, delivering an advanced 4G LTE and transformative nationwide 5G network that will offer reliable connectivity for all. T-Mobile's customers benefit from its unmatched combination of value and quality, unwavering obsession with offering them the best possible service experience and indisputable drive for disruption that creates competition and innovation in wireless and beyond. Based in Bellevue, Wash., T-Mobile provides services through its subsidiaries and operates its flagship brands, T-Mobile, Metro by T-Mobile and Sprint.

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	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2019	December 31 2019	No	<Not Applicable>

C0.3

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

United States of America

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 highest level of responsibility for climate-related issues at T-Mobile resides with the T-Mobile Board of Directors (BoD) Audit Committee. The committee makes the final decision on which key enterprise risks the Board further investigates. For example, in 2019 the committee reviewed climate-related risks, including but not limited to, risks such as (a) Regulation, Legislation, and Enforcement, (b) Business Disruption, Preparedness, and Recovery, (c) Employee Health and Safety, and (d) Corporate Social Responsibility.

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Reviewing and guiding risk management policies	<Not Applicable>	While the full Board of Directors has overall responsibility for risk oversight, the Board has delegated risk oversight responsibility for certain risks to committees of the Board. On a regular basis, reports of all committee meetings, including the Audit Committee, are presented to the Board, and the Board periodically conducts deep dives on key enterprise risks. The Audit Committee meets regularly and reviews quarterly an enterprise-wide risk assessment, including issues related to climate risk. To assist the Audit Committee with its risk assessment function, the Senior Vice President, Internal Audit & Risk Management, who serves as the Chief Audit Executive, and the Vice President, Chief Compliance Officer have direct communications channels to the Audit Committee and have regular meetings with the Audit Committee and/or its members. They also update the Audit Committee on significant issues raised by the Enterprise Risk and Compliance Committee. In the reporting year the Audit Committee reviewed several climate related risks in the enterprise-wide risk assessment. These risks include (a) Regulation, Legislation, and Enforcement, (b) Business Disruption, Preparedness, and Recovery, (c) Employee Health and Safety, and (d) Corporate Social Responsibility.

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)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly
Other C-Suite Officer, please specify (President, Technology)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	As important matters arise
Other, please specify (Director, Sustainability and Infrastructure Sourcing)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly
Other, please specify (Enterprise Risk Management Team)	<Not Applicable>	Assessing climate-related risks and opportunities	<Not Applicable>	Quarterly
Other, please specify (VP of CSR and Sustainability)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly
Please select	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>

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 highest level of direct responsibility for climate-related issues is held by the President of Technology. This position sits on the Senior Leadership Team and reports directly to the Chief Executive Officer (CEO) who in turn reports to the Board on climate-related issues on an as needed basis at our quarterly or more frequent meetings. Responsibility lies with the President of Technology as they oversee the departments with the greatest impacts on climate-related issues including Technology, Engineering and Procurement.

The President of Technology is informed of climate-related issues by the Vice-President of Corporate Social Responsibility and Sustainability and the Director of Sustainability and Infrastructure Sourcing. This reporting structure provides the President with key insights to assess and monitor climate-related risks at an organizational level. The Vice-President of Corporate Social Responsibility and Sustainability leads the formation and refinement of the corporate climate change strategy. They work with stakeholders from across the company and value-chain to understand the challenges facing the company and synthesize the right strategic vision to address climate risk and opportunity. The Director of Sustainability and Infrastructure Sourcing oversees the day-to-day climate management operations. They oversee a team that includes dedicated sourcing and program managers who work on risk and opportunity identification, energy and emissions performance, renewable energy sourcing and other tasks related to managing climate change at T-Mobile. They also oversee the Energy Working Group (EWG), a cross-functional and cross-departmental team, focused on raising the visibility of energy efficiency as an opportunity for many divisions across the company by working with each business unit to set goals and track progress.

On a macro risk level, our Enterprise Risk Management team, working with the Financial Planning and Analysis group assesses the potential size and scope of climate-related risks as part of our broader quarterly Enterprise Risk Assessment process. A full read-out is reported to the Audit Committee of T-Mobile's Board of Directors on a quarterly basis.

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 inventivized	Comment
Other C-Suite Officer	Monetary reward	Emissions reduction target	Sustainability strategy and climate change targets are an important part of our overall business commitment and strategy. Our emission reduction strategies can positively contribute to our corporate level incentive metrics through reduced company costs, subsequently contributing to our annual corporate level profitability incentive metrics which influence a portion of our executive incentive compensation.
All employees	Monetary reward	Emissions reduction project Energy reduction project	On an ad hoc basis, T-Mobile recognizes employees (and if applicable, suppliers) that show extraordinary contributions to the mission of the energy efficiency or sustainability, particularly for the successful execution of projects that produce energy reduction savings or show innovation. All employees are eligible for spot bonuses at the discretion of their manager or the Director of Sustainability.
Energy manager	Monetary reward	Emissions reduction target Energy reduction target	Additionally, there are individual reduction goals tied to annual compensation established for members of the Energy and Sustainability departments.

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	1	Our Enterprise Risk Management team evaluates the time horizons of risks on the following ranges 0-6 months, 6-12, 12-24, 24-36, and 36+. We also evaluate the context of likelihood, possibility of risk contagion, and potential velocity of the occurrence.
Medium-term	1	3	Our Enterprise Risk Management team evaluates the time horizons of risks on the following ranges 0-6 months, 6-12, 12-24, 24-36, and 36+. We also evaluate the context of likelihood, possibility of risk contagion, and potential velocity of the occurrence.
Long-term	3	40	Our Enterprise Risk Management team evaluates the time horizons of risks on the following ranges 0-6 months, 6-12, 12-24, 24-36, and 36+. We also evaluate the context of likelihood, possibility of risk contagion, and potential velocity of the occurrence.

C2.1b

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

Our Enterprise Risk Management team works with Financial Planning and Analysis group to evaluate the likelihood and impact of possible climate-related risks.

Definition: The team contextualizes substantive financial impact in terms of company Enterprise Value (EV), market capitalization plus company debt minus its cash. Substantive financial impact is defined as the threshold at which EV is threatened so as to raise climate-related risk to the enterprise level. So, for example, the team may evaluate the possibility of both higher maintenance costs and lowered revenues by a damaging weather event. In that case, the team would test to see if these effects would have a substantial impact on the Enterprise Value of the company.

C2.2

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

Value chain stage(s) covered
Direct operations
Upstream
Downstream

Risk management process
Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment
Annually

Time horizon(s) covered
Short-term
Medium-term
Long-term

Description of process
We are committed to understanding and addressing the risks and opportunities presented by climate change. Our Enterprise Risk Management team assesses the potential size and scope of climate-related risks as part of our broader quarterly Enterprise Risk Assessment process. A full read-out is reported to the Audit Committee of T-Mobile's Board of Directors on a quarterly basis. Identified enterprise risks are characterized in the context of likelihood and potential impact, with the report to the audit committee including risks with a substantive financial impact. Risk is considered on a short, medium and long-term basis. Our risk assessment also considers management's risk mitigation activities and controls in place to respond to identified enterprise risks, including climate-related risks. For instance, we partner with the business to track progress on network resiliency efforts, such as investment in permanent power back-up and prioritizing of network hardening efforts in hurricane prone areas. We are also tracking current and emerging risks in corporate social responsibility. Our sustainability team evaluates climate-related risks across multiple business units and the overall enterprise by conducting Task Force on Climate-related Financial Disclosures (TFCD) climate scenario analysis. We analyse the negative financial implications of an unstable environment, regulatory ambiguity, reputational risk and uncertain future energy costs and availability. On an asset level our Network Operations Centers conduct analysis to find where network hardening and redundancy can be improved to mitigate climate-related risks. Case study: Acute physical risk 2017 saw three of the costliest hurricanes in US history. These extreme weather events affected T-Mobile's [physical infrastructure] and in some cases disrupted day-to-day business which affected our ability to provide reliable service to our customers. This led to the upgrade of our Business Disruption risk to a standalone risk (partially taking aspects from network reliability and BCP from a technology risk). The severe impacts of the storms led to a revaluation of the potential effects of physical climate risk on T-Mobile's operations by the Enterprise Risk Management team. In response, T-Mobile actively updated its insurance coverage and action plans related to carrier network redundancy should such storms be expected to increase in frequency in the short, medium, and long-term. Upon the completion of these efforts, we moved this risk from 'managed' to 'monitored' and continue to assess acute physical risk regularly. Case study: Managing transition opportunities: resource efficiency Even though data flowing through T-Mobile's network has increased by over 60 times in the last seven years, using energy-efficient technologies has allowed our energy intensity to decline by 97%. Efficiency gains in cell towers have been made primarily through improvements in heating and cooling. By implementing new methods of efficiently controlling the on-site temperature of cell towers, T-Mobile is reducing the amount of propane, diesel and electricity needed for power. Other innovations in lighting controls, power factor improvements and on-site solar technology are continuously being developed to improve the performance and reliability of cellular equipment. This achievement is an example of how T-Mobile fundamentally incorporates sustainability into its long-term growth strategy while providing customers with more reliable service.

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	Our ability to provide services and generate revenues could be harmed by adverse regulatory action or changes to existing laws and regulations. Our renewable energy projects are subject to state and federal laws and regulations. This includes our current wind farm projects in KS, OK, and IL. We stay informed of current and emerging regulation through our Government Relations organization as well as our membership in Industry organizations such as GeSI.
Emerging regulation	Relevant, always included	Changes in regulations or in the regulatory framework under which we operate, including any increase in restrictions on the ability to operate our networks, could adversely affect our business, financial condition and operating results. For example, increased regulation on renewable technology would be a potential risk as we source much of the energy we use from renewable sources and increased regulation could affect energy costs. We stay informed of current and emerging regulation through our Government Relations department as well as our membership in Industry organizations such as GeSI.
Technology	Relevant, always included	Any material changes in available technology and the effects of such changes, including product substitutions and deployment costs and performance; We continuously work on network resiliency efforts, such as investment in permanent power back-up and prioritizing of network hardening efforts in hurricane prone areas. We have a robust technology organization as well as an Energy Working Group, which informs our understanding of the technology landscape as it relates to climate-related issues.
Legal	Relevant, sometimes included	We are regularly involved in a number of legal proceedings before various state and federal courts, the FCC, the FTC, other federal agencies, and state and local regulatory agencies, including state attorneys general. Such legal proceedings can be complex, costly, and highly disruptive to our business operations by diverting the attention and energy of management and other key personnel. Our renewable energy projects in KS, OK and IL have participated in the regulatory process. We have a legal department which actively manages risk the company faces from potential legal action.
Market	Relevant, always included	Our business, financial condition, and operating results are sensitive to changes in general economic conditions, including energy costs, and other macro-economic factors. Difficult, or worsening, general economic conditions could have a material adverse effect on our business, financial condition, and operating results. We consider the future of the commercial market of telecommunications from a variety of perspectives, focused on the needs of our customers.
Reputation	Relevant, always included	Corporate Social Responsibility and Sustainability are important aspects of what makes T-Mobile the Un-Carrier. Our brand strength is vital to our business success. If the company neglects its social or environmental responsibilities it could face negative consequences from customers, employees, and other key stakeholders. We are working to improve our transparency in several ways, including creating a reporting section on our external website that provides relevant ESG (Environment, Social, and Governance) data/metrics that are important to our key stakeholders.
Acute physical	Relevant, always included	Failure of our or others' systems, networks, or infrastructure may prevent us from providing reliable service. Which could materially adversely affect our reputation and financial condition. Examples of these risks include physical damage, power surges or outages, or equipment failure, including those as a result of severe weather, natural disasters. In 2019 there were 9 major weather events including tornado's and windstorms in the Dallas area, tropical storms along the coast, power outages in California and flooding in Houston. We recognized $19.5M in costs associated with the weather events, a portion of which was recovered from insurance. In 2018 there were disasters in the form of a Hawaii volcano, California wildfires, and hurricanes (Lane, Florence, and Michael). During 2018, we recognized $61 million in costs related to hurricanes, including $36 million in incremental costs to maintain services primarily in Puerto Rico related to hurricanes that occurred in 2017 and $25 million related to hurricanes that occurred in 2018. We have an active Business Continuity team which does scenario planning for acute physical conditions. We stand ready 24/7/365 to support communities with network response teams, telecommunications infrastructure and employee volunteers to lend a hand and ensure network reliability. And we've donated millions of dollars in calls, texts, and equipment to assist relief efforts around the world. For business and government customers, T-Mobile's Persistent Communications solution combines Wi-Fi calling with the ability to access satellite services for back-haul connectivity. This allows first responders and incident commanders to stay connected using their everyday Wi-Fi-enabled phones, even when commercial wireless networks are out of service.
Chronic physical	Relevant, always included	Failure of our or others' systems, networks, or infrastructure may prevent us from providing reliable service. Which could materially adversely affect our reputation and financial condition. Examples of these risks include physical damage, power surges or outages, or equipment failure, including those as a result of severe weather, natural disasters. We have Network Operation Centers (NOCs) that closely manage network traffic. We see trends over time and respond to where our networks and retail need additional hardening.

C2.3

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

C2.3a

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

Identifier
Risk 1

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

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

Primary potential financial impact
Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Extreme weather events can impact critical infrastructure needed to provide service to our customers. With continued digital transformation of the world we operate in, reliable wireless services are becoming more critical in people's lives, despite increasing severity and frequency of extreme weather events as a result of climate change and the aging grid infrastructure. Our engineering and rapid response teams quickly activate emergency equipment such as fuel trucks, mobile Cell on Wheels (COWs) and back-up power solutions, including portable generators. For the California Wildfires, Hurricanes Florence and Michael, and the Hawaii Volcano, T-Mobile donated $2.6 million in in-kind donations (hotspots, phones, etc). During 2018, we recognized $61 million in costs related to hurricanes, including $36 million in incremental costs to maintain services primarily in Puerto Rico related to hurricanes that occurred in 2017 and $25 million related to hurricanes that occurred in 2018.

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)
<Not Applicable>

Potential financial impact figure – minimum (currency)
0

Potential financial impact figure – maximum (currency)
61000000

Explanation of financial impact figure
Such events could cause us to lose customers, lose revenue, incur expenses, suffer reputational damage, and subject us to litigation or governmental investigation. Remediation costs could include liability for information loss, repairing infrastructure and systems, and/or costs of incentives offered to customers. Our insurance may not cover, or be adequate to fully reimburse us for, costs and losses associated with such events. During 2018, we recognized $61 million in costs related to hurricanes, including $36 million in incremental costs to maintain services primarily in Puerto Rico related to hurricanes that occurred in 2017 and $25 million related to hurricanes that occurred in 2018.

Cost of response to risk
300000000

Description of response and explanation of cost calculation
T-Mobile evaluates our sites for how vulnerable they are to environmental changes. We have strong backup systems and built in redundancy for our network operations including critical data centers and other facilities. We deploy a variety of fuel cells, generators, batteries and other alternative energy sources depending on the location and needs of the site. Overall, we are spending more than $300,000,000 to harden our network. Case study: Acute physical risk 2017 saw three of the costliest hurricanes in US history. These extreme weather events affected T-Mobile's [physical infrastructure] and in some cases disrupted day-to-day business which affected our ability to provide reliable service to our customers. This led to the upgrade of our Business Disruption risk to a standalone risk (partially taking aspects from network reliability and BCP from a technology risk). The severe impacts of the storms led to a revaluation of the potential effects of physical climate risk on T-Mobile's operations by the Enterprise Risk Management team. In response, T-Mobile actively updated its insurance coverage and action plans related to carrier network redundancy should such storms be expected to increase in frequency in the short, medium, and/or long-term. Upon the completion of these efforts, we moved this risk from 'managed' to monitored' and continue to assess acute physical risk regularly.

Comment
The financial impact depends on the nature of the extreme weather events we face in a given year.

Identifier
Risk 2

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Mandates on and regulation of existing products and services

Primary potential financial impact
Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Our ability to provide services and generate revenues could be harmed by adverse regulatory action or changes to existing laws and regulations. This is true across a variety of issues the company faces, including any regulation that creates higher cost burdens on our products or services. Additionally, we could lose revenue as regulation could have the impact of raising taxes or fees for wireless service for our customers. One possible example of this risk could be future state or federal regulation that requires us to operate without reliance on the power grid in times of extreme weather events. This would require more backup power amongst other costs and burdens on our ability to deliver service safely in a state of emergency.

Time horizon
Medium-term

Likelihood
About as likely as not

Magnitude of impact
Low

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
We do not currently estimate a specific financial impact range for emerging regulation related to climate change.

Cost of response to risk
0

Description of response and explanation of cost calculation
We report a cost of zero as staying informed of current and emerging regulation is part of our normal operations. We stay informed of current and emerging regulation through our Government Relations department as well as our membership in Industry organizations such as GeSI.

Comment
N/A

Identifier
Risk 3

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

Risk type & Primary climate-related risk driver

Market	Increased cost of raw materials

Primary potential financial impact
Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
We depend on suppliers, their subcontractors, and other third parties in order for us to efficiently operate our business. While we do not operate in all of the areas in which our suppliers operate, we understand that to some extent our suppliers ability to withstand and recover from climate shocks in their regions has a direct impact on our company's business.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
We commonly rely upon the suppliers to provide contractual assurances and accurate information regarding risks associated with their provision of products or services in accordance with our expectations and standards such as our supplier code of conduct and our third party-risk management standards. Disruptions or failure of such suppliers to adequately perform could have a material adverse effect on our business, financial condition, and operating results.

Cost of response to risk
125000

Description of response and explanation of cost calculation
A third-party risk management process is conducted through a program called Enterprise Supplier Risk Assessment Program (ESRAP). The program assesses risk exposure to a third-party based on the goods or services to be provided by that entity (this includes suppliers, vendors, consultants, service providers and any other entity with whom we have a business relationship). The outcome of ESRAP informs what additional due diligence risk assessments may be required of the third-party before they can be engaged, or re-engaged, by T-Mobile. While there are a few limited classes of engagement (such as working with taxing authorities) that do not require an ESRAP, the vast majority of third-parties are required to go through the process. The Sustainability team is also currently adopting enhanced environmental and social screening of our suppliers. Our management of supply chain related climate risk is integrated into our standard operating procedures, but we spent $125,000 in 2019 to upgrade our screening capabilities.

Comment
N/A

C2.4

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

C2.4a

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

Identifier
Opp1

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Energy source

Primary climate-related opportunity driver
Use of lower-emission sources of energy

Primary potential financial impact
Reduced indirect (operating) costs

Company-specific description
T-Mobile utilizes about 3 million megawatt hours (MWh) of energy across our headquarters, stores, cell towers, call centers and other locations (this number will increase in 2020 with our merger with Sprint). To address this energy use, T-Mobile has taken the initiative to enter the renewable energy space. Through our renewable energy use we plan to cut our energy costs by around $100 million in the next 15 years with the executed Renewable Energy Purchase Agreements. The REPAs consists of two components: (1) an energy forward agreement that is net settled based on energy prices and the energy output generated by the facility and (2) a commitment to purchase environmental attributes (“EACs”) in the same amount as the energy output generated by the facility. T-Mobile USA will net settle the forward agreement and acquire the EACs monthly by paying, or receiving, an aggregate net payment based on two variables (1) the facility’s energy output (2) the difference between (a) an initial fixed price, subject to annual escalation, and (b) current local marginal energy prices during the monthly settlement period. We are also working to lower our carbon footprint by taking advantage of our merger with Sprint. Finding ways to increase our service coverage while reducing the energy load of our combined assets.

Time horizon
Long-term

Likelihood
Very 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)
100000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure
T-Mobile utilizes about 3 million megawatt hours (MWh) of energy across our headquarters, stores, cell towers, call centers and other locations (this number will increase in 2020 with our merger with Sprint). To address this energy use, T-Mobile has taken the initiative to enter the renewable energy space. Through our renewable energy use we plan to cut our energy costs by around $100 million in the next 15 years with the executed Renewable Energy Purchase Agreements. The REPAs consists of two components: (1) an energy forward agreement that is net settled based on energy prices and the energy output generated by the facility and (2) a commitment to purchase environmental attributes ("EACs") in the same amount as the energy output generated by the facility. T-Mobile USA will net settle the forward agreement and acquire the EACs monthly by paying, or receiving, an aggregate net payment based on two variables (1) the facility's energy output (2) the difference between (a) an initial fixed price, subject to annual escalation, and (b) current local marginal energy prices during the monthly settlement period.

Cost to realize opportunity
0

Strategy to realize opportunity and explanation of cost calculation
To respond to this cost-saving opportunity, T-Mobile has taken the initiative to enter the renewable energy space. Through our renewable energy use we plan to cut our energy costs by around $100 million in the next 15 years. The capital costs on these projects have thus far been negligible. Below are three case studies of active major renewable energy projects: 1. Red Dirt Wind Project – Located in Oklahoma it started producing renewable energy for T-Mobile in December 2017. Our long-term agreement is for up to 160MW of the overall 300MW Red Dirt wind project. The Red Dirt wind project is owned and operated by Enel Green Power North America, Inc. ("EGPNA") and is one of EGPNA's largest wind farms in Oklahoma. 2. In January 2018, T-Mobile unveiled its second major wind project, Infinity Renewables' Solomon Forks Wind Project in Kansas, with power generation began operating in July 2019. The power purchase agreement adds another 160MW of wind energy to the T-Mobile portfolio. 3. Otter Creek Wind Project, located in LaSalle County, Illinois adds 158MW of capacity to our portfolio and is online as of March 2020. Combined, the three projects give T-Mobile nearly 480 MW of Renewable Energy capacity. Overall, we have signed deals for over 1 GW of new capacity, diversifying our portfolio in scale, technology and geography. By 2021 we will be producing over 3,000 GWh of renewable energy annually.

Comment
N/A

Identifier
Opp2

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Use of more efficient production and distribution processes

Primary potential financial impact
Reduced indirect (operating) costs

Company-specific description
We are constantly looking to innovate, making our service the best it can be for our customers while reducing our environmental impact in the process. Finding efficiency through technological innovation can improve our network and lower our cost to operate. We do this by employing existing technology as well as devoting research to boost energy efficiency and reduce energy usage across T-Mobile's entire business. This leads to sizable effects in our energy reduction given the energy intensity of network towers and data centers.

Time horizon
Short-term

Likelihood
Very likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
50000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
A decrease in energy use of 15% could potentially result in a savings of nearly $50,000,000 with the assumption of energy priced at $.10 per KwH.

Cost to realize opportunity
0

Strategy to realize opportunity and explanation of cost calculation
Through the lens of sustainability, we are finding new ways to use emerging technologies to make our network more powerful and/or efficient. This has the result of both decreasing our cost to operate and improve our service to our customers. This is a double win for T-Mobile and our customers. Even though data flowing through T-Mobile's network has increased by over 60 times in the last seven years, using energy-efficient technologies has allowed our energy intensity to decline by 97%. Efficiency gains in cell towers have been made primarily through improvements in heating and cooling. By implementing new methods of efficiently controlling the on-site temperature of cell towers, T-Mobile is reducing the amount of propane, diesel and electricity needed for power. Other innovations in lighting controls, power factor improvements and on-site solar technology are continuously being developed to improve the performance and reliability of cellular equipment. This achievement is an example of how T-Mobile fundamentally incorporates sustainability into its long-term growth strategy while providing customers with more reliable service. These innovations are a result of our R&D team's regular responsibilities. Therefore, there is no additional cost to realize this opportunity and have evaluated the figure to be $0.

Comment
Capital costs are not estimated but would be necessary to achieve some sustainability opportunities.

Identifier
Opp3

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Products and services

Primary climate-related opportunity driver
Shift in consumer preferences

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
Through our Un-carrier strategy, we've disrupted the wireless communications services industry by listening to our customers and providing them with added value and an exceptional experience. Over the past 7 years our growth has skyrocketed. We have proven that doing what's right for the customer is also good for business. We view tackling climate change and leading on renewable energy as a tremendous opportunity for T-Mobile to challenge the status quo and seize both financial opportunity and the mantle of industry leadership.

Time horizon
Long-term

Likelihood
Virtually certain

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)
300000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Customer growth fuels our business and an improved competitive position could lead to an expansion of our customer base. We estimate financial impact of this opportunity based on a potential increase in T-Mobile's customer share as a direct or indirect of our leadership in tackling climate change. A 1% gain in customer share could result in an increase revenue of over $300 million.

Cost to realize opportunity
500000

Strategy to realize opportunity and explanation of cost calculation
We have made a public commitment to 100% renewable energy by 2021, and challenged AT&T and Verizon to match us with the #CleanUpWireless Challenge. We have signed deals for over 1 GW of new capacity, diversifying our portfolio in scale, technology and geography. By 2021 we will be producing over 3,000 GWh of renewable energy annually. We support the Nature Conservancy. In 2017 we made a $500,000 commitment to support the Conservancy's work toward a low-carbon, clean energy future across all 50 U.S. states. In 2018 we planted 27,000 trees through our #TreeMobile program. So far in 2019 we have planted over 300,000 trees with a goal of planting 500,000 trees in partnership with the Nature Conservancy.

Comment
N/A

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?
Yes, and we have developed a low-carbon transition plan

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
Other, please specify (Internal Scenario Analysis)	The energy and sustainability team use climate-related scenarios to plan our goals and evaluate risk. Through this process we have identified the most important climate risks in US and Puerto Rico where T-Mobile operates. The team utilizes the definition of short, medium and long-term horizons as suggested by our Enterprise Risk Management team and devised a set of management actions that would be undertaken to pursue the T-Mobile climate action plan. Our team evaluates climate-related risks across multiple business units and the overall enterprise. We also work with third-parties, such as BSR and GeSI, to help us identify and assess climate-related risks. From a risk perspective, we understand the negative financial implications of an unstable environment, regulatory ambiguity, and uncertain future energy costs and availability. Beyond these business pressures, we also understand our responsibility to prevent and mitigate the impacts of climate change so that we can preserve our planet for future generations. 1. Fossil fuels continue to be the primary mode for electricity generation in the United States. Introduction of low carbon technologies and retirement of old power plants globally is not as rampant as needed to meet the 2C pledge 2. Carbon Pricing is currently not implemented by US legislation. T-Mobile has its own internal carbon price at 70 cents/MWh. This internal price places a monetary value on greenhouse gas emissions, which then factor into project selection decisions and business operations, prioritizing those that lower the company's carbon footprint. 3. Energy security concerns are important as we consider the future of the commercial market of telecommunications from a variety of perspectives, focused on the needs of our customers. 4. We have an active disaster recovery team which does scenario planning for acute physical conditions. 5. We have Network Operation Centers (NOCs) that closely manage network traffic. We see trends over time and respond to where our networks and retail need additional hardening. Increased severity of extreme weather events such as cyclone and floods will increase T-Mobile's capital costs to fix damaged facilities. Additionally, extreme weather events can impact critical infrastructure needed to provide service to our customers. Such events could cause us to lose customers, lose revenue, incur expenses, suffer reputational damage, and subject us to litigation or governmental investigation. Remediation costs could include liability for information loss, repairing infrastructure and systems, and/or costs of incentives offered to customers. Our insurance may not cover, or be adequate to fully reimburse us for, costs and losses associated with such events. We have set a number of goals to decrease our carbon footprint, including sourcing 100% of our electricity from renewable energy by 2021. Our goals are driven by our interest in reducing our dependence on fossil fuels, improving the cost and security of our fuel supply and reducing the harmful impacts of greenhouse gas emissions on the planet. With the RCP 2.6 scenario, T-Mobile has committed to reduce combined absolute scope 1 and scope 2 GHG emissions 95% by 2025 from a 2016 base-year. Additionally, T-Mobile also commits to reduce scope 3 GHG emissions by 15 % per customer by 2025 from a 2016 base-year. We want to inspire action by setting industry-leading environmental goals and amplifying our message to take action on climate change. This is apparent as T-Mobile is the first telecommunication company to join the RE 100 commitments. We have built backup systems and built-in redundancy for our network operations including critical data centers and other facilities. We deploy a variety of fuel cells, generators, batteries and other energy efficiency sources practices depending on the location and needs of the site.

C3.1d

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

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	We have set a number of goals to decrease our carbon footprint, including sourcing 100% of our electricity from renewable energy by 2021. Our goals are driven by our interest in reducing our dependence on fossil fuels, improving the cost and security of our fuel supply and reducing the harmful impacts of greenhouse gas emissions on the planet, all while providing reliable service for our customers.
Supply chain and/or value chain	Yes	We have taken steps to increase transparency in our supply chain, using new screening tools to evaluate the social and environmental risk of our suppliers.
Investment in R&D	Yes	As we look for new strategic opportunities, the ability of our technologies to reduce carbon emissions is one area that could see growth in the coming decades. According to Digital with Purpose, a T-Mobile sponsored report, by 2030 digital technologies will deliver reductions in carbon emissions equivalent to nearly seven times the size of the growth in the total information and communications technology (ICT) sector emissions footprint over the same period. According to the report over $3 trillion is likely to be spent on research and development in the ICT sector in the ten years up to 2030, indicating huge potential for innovative solutions to the SDGs if effectively directed and as existing technologies mature.
Operations	Yes	Our focus on low-carbon solutions has already paid dividends for our company, such as our large wind Power Purchase Agreements. And we continue to set ambitious new goals to focus our ambition on renewable energy and GHG reduction.

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	Direct costs	As a result of increased severe weather events we are building more resilient networks. We have strong backup systems and built in redundancy for our network operations including critical data centers and other facilities. We deploy a variety of fuel cells, generators, batteries and other alternative energy sources depending on the location and needs of the site. T-Mobile utilizes about 3 million megawatt hours (MWh) of energy across our headquarters, stores, cell towers, call centers and other locations (this number will increase in 2020 with our merger with Sprint). To address this energy use, T-Mobile has taken the opportunity to enter the renewable energy space. Through our renewable energy use we plan to cut our energy costs by around $100 million in the next 15 years. In 2018, T-Mobile became the first telecommunications company to join RE100. Since then, the company has implemented a number of initiatives to reduce the carbon footprint of its operations. Central to this aim is its portfolio approach to its renewable energy program, with an energy mix of several wind and solar projects through a power purchasing agreement (PPA) financial structure.

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
2017

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 1+2 (market-based)

Base year
2016

Covered emissions in base year (metric tons CO2e)
1145477

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

Target year
2025

Targeted reduction from base year (%)
95

Covered emissions in target year (metric tons CO2e) [auto-calculated]
57273.85

Covered emissions in reporting year (metric tons CO2e)
766665

% of target achieved [auto-calculated]
34.8107795865138

Target status in reporting year
Underway

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)
We have an officially validated science-based target. T-Mobile commits to reduce combined absolute scope 1 and scope 2 GHG emissions 95% by 2025 from a 2016 base-year. Our emissions declined by 12% in 2019 Y/Y as we have taken steps to expand our network while signing renewable energy deals that will help us meet our target.

Target reference number
Abs 2

Year target was set
2013

Target coverage
Business activity

Scope(s) (or Scope 3 category)
Scope 2 (market-based)

Base year
2012

Covered emissions in base year (metric tons CO2e)
87263

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 (%)

100

Covered emissions in target year (metric tons CO2e) [auto-calculated]
0

Covered emissions in reporting year (metric tons CO2e)
0

% of target achieved [auto-calculated]
100

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)
T-Mobile has set a target to have all commercial and retail locations 100% powered by renewable energy by 2020. We reached this goal with our renewable energy production in 2019.

Target reference number
Abs 3

Year target was set
2013

Target coverage
Business activity

Scope(s) (or Scope 3 category)
Scope 2 (market-based)

Base year
2012

Covered emissions in base year (metric tons CO2e)
21816

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 (%)
100

Covered emissions in target year (metric tons CO2e) [auto-calculated]
0

Covered emissions in reporting year (metric tons CO2e)
0

% of target achieved [auto-calculated]
100

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)
T-Mobile has set a target to have all data centers 100% powered by renewable energy by 2020. We reached this goal with our renewable energy production in 2019.

Target reference number
Abs 4

Year target was set
2013

Target coverage
Business activity

Scope(s) (or Scope 3 category)
Scope 2 (market-based)

Base year
2012

Covered emissions in base year (metric tons CO2e)
981710

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 (%)

50

Covered emissions in target year (metric tons CO2e) [auto-calculated]
490855

Covered emissions in reporting year (metric tons CO2e)
729490

% of target achieved [auto-calculated]
51.3838098827556

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)
T-Mobile has set a target to have all network locations 50% powered by renewable energy by 2020. We achieved 51% of this goal with our renewable energy production in 2019.

Target reference number
Abs 5

Year target was set
2013

Target coverage
Business activity

Scope(s) (or Scope 3 category)
Scope 2 (market-based)

Base year
2012

Covered emissions in base year (metric tons CO2e)
981710

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

Target year
2025

Targeted reduction from base year (%)
100

Covered emissions in target year (metric tons CO2e) [auto-calculated]
0

Covered emissions in reporting year (metric tons CO2e)
729490

% of target achieved [auto-calculated]
25.6919049413778

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)
T-Mobile has set a target to have all network locations 100% powered by renewable energy by 2025. We achieved 26% of this goal with our renewable energy production in 2019.

C4.1b

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

Target reference number
Int 1

Year target was set
2017

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 3 (upstream & downstream)

Intensity metric
Other, please specify (Co2e per 1,000 customers)

Base year
2016

Intensity figure in base year (metric tons CO2e per unit of activity)
63.06

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure
100

Target year
2025

Targeted reduction from base year (%)
15

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]
53.601

% change anticipated in absolute Scope 1+2 emissions
0

% change anticipated in absolute Scope 3 emissions
15

Intensity figure in reporting year (metric tons CO2e per unit of activity)
43.3

% of target achieved [auto-calculated]
208.901575219368

Target status in reporting year
Underway

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)
We have set an officially validated science-based target. T-Mobile commits to reduce scope 3 GHG emissions 15% per customer by 2025 from a 2016 base-year. As T-Mobile continues to win in the marketplace, we believe measuring our scope 3 reductions on a per customer basis is the best approach. If we win greater market share from our competitors it is possible our absolute scope 3 emissions could increase.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?
Target(s) to increase low-carbon energy consumption or production
Other climate-related target(s)

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number
Low 1

Year target was set
2018

Target coverage
Company-wide

Target type: absolute or intensity
Absolute

Target type: energy carrier
Electricity

Target type: activity
Consumption

Target type: energy source
Renewable energy source(s) only

Metric (target numerator if reporting an intensity target)
Percentage

Target denominator (intensity targets only)
<Not Applicable>

Base year
2016

Figure or percentage in base year
0

Target year
2021

Figure or percentage in target year
100

Figure or percentage in reporting year
35

% of target achieved [auto-calculated]
35

Target status in reporting year
Underway

Is this target part of an emissions target?
No

Is this target part of an overarching initiative?
RE100

Please explain (including target coverage)
T-Mobile is committed to making sustainability a fundamental part of its strategy, culture and activities, and has committed to use 100% renewable energy for all its operations by 2021. This commitment is the driving force behind the company reaching an ambitious carbon emission reduction target, alongside implementing energy efficiency savings in facilities and networks.

C4.2b

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

Target reference number
Oth 1

Year target was set
2019

Target coverage
Company-wide

Target type: absolute or intensity
Intensity

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

Energy consumption or efficiency	MWh

Target denominator (intensity targets only)
unit of service provided

Base year
2019

Figure or percentage in base year
0

Target year
2030

Figure or percentage in target year
95

Figure or percentage in reporting year
0

% of target achieved [auto-calculated]
0

Target status in reporting year
New

Is this target part of an emissions target?
No

Is this target part of an overarching initiative?
No, it's not part of an overarching initiative

Please explain (including target coverage)
T-Mobile understands that reducing energy consumption is the most efficient way to reduce emissions. As such, T-Mobile set an updated company-wide energy efficiency target in 2019. This target is a 95% reduction in energy consumption (MWh) per petabyte (PB) of data traffic on T-Mobile's network by 2030.

C4.3

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

C4.3a

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

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	61	98799
To be implemented*	5925	644201
Implementation commenced*	20	218
Implemented*	289	592800
Not to be implemented	28	162

C4.3b

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

Initiative category & Initiative type

Low-carbon energy consumption	Wind

Estimated annual CO2e savings (metric tonnes CO2e)
419000

Scope(s)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
6639000

Investment required (unit currency – as specified in C0.4)
1988000

Payback period
<1 year

Estimated lifetime of the initiative
11-15 years

Comment
Generation and retirement of renewable energy certificates (RECs) from one of our wind energy Virtual Power Purchase Agreements (VPPAs).

Initiative category & Initiative type

Energy efficiency in buildings	Lighting

Estimated annual CO2e savings (metric tonnes CO2e)
1000

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

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
316000

Investment required (unit currency – as specified in C0.4)
3079000

Payback period
4-10 years

Estimated lifetime of the initiative
6-10 years

Comment
LED lighting upgrades at nationwide retail stores and T-Mobile Headquarters.

Initiative category & Initiative type

Energy efficiency in production processes	Cooling technology

Estimated annual CO2e savings (metric tonnes CO2e)
800

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

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
116000

Investment required (unit currency – as specified in C0.4)
332000

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment
Removal of air conditioning units from cell site cabinets and replacement with direct air cooling fan doors.

Initiative category & Initiative type

Low-carbon energy consumption	Wind

Estimated annual CO2e savings (metric tonnes CO2e)
172000

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)
261000

Payback period
No payback

Estimated lifetime of the initiative
<1 year

Comment
Unbundled REC purchases from various U.S. wind energy farms.

C4.3c

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

Method	Comment
Dedicated budget for other emissions reduction activities	T-Mobile has quickly established itself as the benchmark for the telecommunications industry in renewable energy performance. In April 2017, we made the largest ever wind power investment to date by a US wireless company, signing a long-term agreement of up to 160MW from the new Red Dirt wind project in Oklahoma. T-Mobile has since added two wind massive wind farms, with the projects, Solomon Forks and Otter Creek adding approximately 320MW to the portfolio. Combined with our Red Dirt wind farm, we are producing over 1.7 million KWh of electricity on annual basis. Our strategy has been to set ambitious goals (such as RE 100) and diversify our renewable portfolio in scale, technology and geography.

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
T-Mobile SyncUp (https://www.t-mobile.com/offers/syncup) gives our customers a variety of ways to drive safer and also save gas (and GHG emissions). The SyncUp system allows maintenance reminders, recall information, fuel levels, battery life, car trouble alerts, and more to be sent straight to our customers phones. Safer and more efficient driving keeps families secure and lowers the cost of driving on the environment. One example of this can be found in Cobb County, Georgia. The county has equipped nearly 300 vehicles with T-Mobile SyncUP FLEET, including fire and emergency services vehicles. Implementing T-Mobile's services has been seamless, and SyncUP FLEET alone is expected to save the county $50,000 each year in fuel costs and more.

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
0

% of total portfolio value
<Not Applicable>

Asset classes/ product types
<Not Applicable>

Comment
n/a

Level of aggregation
Group of products

Description of product/Group of products
Our service enables a number of third-party products and activities that help avoid GHG emissions. This includes enabling emission reducing solutions in mobility, manufacturing, agriculture, building, and energy.

Are these low-carbon product(s) or do they enable avoided emissions?
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
0

% of total portfolio value
<Not Applicable>

Asset classes/ product types
<Not Applicable>

Comment
n/a

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 2016

Base year end
December 31 2016

Base year emissions (metric tons CO2e)
28486

Comment
Our approved SBTI goal is the following: “T-Mobile commits to reduce combined absolute scope 1 and scope 2 GHG emissions 95% by 2025 from a 2016 base-year. T-Mobile also commits to reduce scope 3 GHG emissions by 15% per customer by 2025 from a 2016 base-year.”

Scope 2 (location-based)

Base year start
January 1 2016

Base year end
December 31 2016

Base year emissions (metric tons CO2e)
1116991

Comment
Our approved SBTI goal is the following: “T-Mobile commits to reduce combined absolute scope 1 and scope 2 GHG emissions 95% by 2025 from a 2016 base-year. T-Mobile also commits to reduce scope 3 GHG emissions by 15 % per customer by 2025 from a 2016 base-year.”

Scope 2 (market-based)

Base year start
January 1 2016

Base year end
December 31 2016

Base year emissions (metric tons CO2e)
1116991

Comment
For Scope 2, T-Mobile’s base year emissions are equal to its location-based emissions as supplier-specific market-based data was not available.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
US EPA Mandatory Greenhouse Gas Reporting Rule

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)
37175

Start date
<Not Applicable>

End date
<Not Applicable>

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
T-Mobile's market-based scope 2 emissions include large-scale renewable energy purchases made by the company in 2019. The renewable energy credits from the wind power projects are retained by T-Mobile.

C6.3

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

Reporting year

Scope 2, location-based
1393730

Scope 2, market-based (if applicable)
729490

Start date
<Not Applicable>

End date
<Not Applicable>

Comment
We had two operational projects active in 2019, Solomon Forks and Red Dirt wind farms. We also made an unbundled REC purchase. This led to avoided emissions of 664,240.

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?
No

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 CO2e
1646748

Emissions calculation methodology
Purchased Goods and Services activity data was obtained from suppliers and T-Mobile's financial and data analytics team. T-Mobile collected the quantity of procured devices, as, e.g. smartphones, simple phones, tablets and wearables. Product specific emission factors were multiplied with the acquired purchases. All additional purchased goods and services were translated into CO2e metric tons utilizing the $ purchasing volume per category and the specific emission factor.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
40

Please explain
Primary data is compiled with the help of T-Mobile's financial and analytics teams. Specific data was not attained from suppliers, although T-Mobile utilizes publicly-available LCA data for supplier products when possible.

Capital goods

Evaluation status
Relevant, calculated

Metric tonnes CO2e
1032176

Emissions calculation methodology
A similar methodology which was applied to purchased goods and service was also used to calculate emissions for capital goods. All purchased capital goods were translated into CO2e metric tons utilizing the $ purchasing volume per category and the specific emission factor.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Primary data is compiled with the help of T-Mobile's financial and analytics teams. Specific data was not attained from suppliers, although T-Mobile has started preliminary work to acquire LCA for new products from its top suppliers.

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

Evaluation status
Relevant, calculated

Metric tonnes CO2e
222608

Emissions calculation methodology
Emission factors in this category take T-Mobile's upstream emissions into account, which are caused through the extraction, production and transportation of upstream energy. Upstream emissions were calculated for the following: consumption for electricity, heat and fuel.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain

Upstream transportation and distribution

Evaluation status
Relevant, calculated

Metric tonnes CO2e
213485

Emissions calculation methodology
T-Mobile's methodology takes into account GHG emissions generated by upstream transportation of purchased goods and capital goods. Emissions are based on estimates and factors provided through CDP Supply Chain data as well as publicly available LCA data for supplier products. The transport Co2e emission factor was multiplied by the total product weight of electronic devices. GHG emission for other purchased goods and capital goods were estimates based on the purchase price and an average share of freight costs which is approximately 5%.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
96

Please explain
Upstream Transportation emissions for T-Mobile incorporates transportation services from supplier/manufacturer sites to T-Mobile's distribution center in the USA.

Waste generated in operations

Evaluation status
Relevant, calculated

Metric tonnes CO2e
4510

Emissions calculation methodology
Our third party service contractors provide the technical and municipal waste data. Ecoinvent v3 was utilized to calculate these emissions. Additionally, the calculation takes the annual generation of wastewater into account. Ecoinvent v3 datasets for wastewater treatment is used for the emissions calculation.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Negative or avoided emissions associated with recycling are handled separately.

Business travel

Evaluation status
Relevant, calculated

Metric tonnes CO2e
35856

Emissions calculation methodology
T-Mobile's actual data of business travel is tracked, and Ecoinvent v3 emission factors have been applied on business- related activities to calculate GHG emissions. The emissions from hotel stays are also included in the provided figure.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Road, air travel and hotel stays are reported in business travel.

Employee commuting

Evaluation status
Relevant, calculated

Metric tonnes CO2e
140304

Emissions calculation methodology
The GHG emissions in this category are based on survey data and assumptions. An analysis was conducted by the sustainability team to calculate an average distance and mode of transportation utilized by the company's employees based on survey data of over 1,500 employees. The applied emission factors for the different modes of travel are taken from the Ecoinvent v3 database.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
T-Mobile plans to continue acquiring more data to update its assumptions.

Upstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
T-Mobile's scope of boundary is operational control. Since there is no distinction between the data collection of T-Mobile assets and leased assets, a separate calculation is not possible. Thus, all GHG emissions related to T-Mobile upstream leased assets are already included in scope 1 and 2.

Downstream transportation and distribution

Evaluation status
Relevant, calculated

Metric tonnes CO2e
101210

Emissions calculation methodology
Shipping and warehousing costs have been considered to calculate T-Mobile's downstream transportation and distribution. The assessment is done utilizing data from CDP Supply Chain.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Downstream warehouse activities and transportation from T-Mobile's distribution centers to the point of sale are taken into account.

Processing of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
T-Mobile does not produce intermediate products for processing of sold products. Therefore, this category is not applicable.

Use of sold products

Evaluation status
Relevant, calculated

Metric tonnes CO2e
318794

Emissions calculation methodology
Energy consumption of sold products is based on expected lifetime emissions of sold end user devices by multiplying the product-specific energy consumption with the average emission factors of the electricity grid mix. Use of sold products was differentiated in the following two categories: • Emissions accounted for sold products according to GHG protocol in the reporting year • Emissions accounted for T-Mobile contracts according to the GHG protocol in the reporting year.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
36

Please explain
Product specific energy consumption was based on publicly-available LCA data for supplier products when possible.

End of life treatment of sold products

Evaluation status
Relevant, calculated

Metric tonnes CO2e
9702

Emissions calculation methodology
Average end of life emissions of product sold is calculated using publicly-available LCA data for supplier products and internal product carbon footprint studies.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
88

Please explain
End-of-life treatment for sold products is considered for reporting. Emissions avoided through recycling are reported separately.

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
T-Mobile's scope of boundary is operational control. Since there is no distinction between the data collection of T-Mobile assets and leased assets, a separate calculation is not possible. Thus, all GHG emissions related to T-Mobile upstream leased assets are already included in scope 1 and 2.

Franchises

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
The category has been excluded from the calculation because T-Mobile functions under the operational control with emissions reported under the Scope 1 and 2 categories.

Investments

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
T-Mobile's Investments were negligible in 2019. Therefore, the category was excluded for the scope 3 calculation.

Other (upstream)

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
All upstream categories defined in the GHG protocol guide have been accounted for in T-mobile's GHG emissions

Other (downstream)

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
All downstream categories defined in the GHG protocol guide have been accounted for in T-mobile's GHG emissions

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 CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure
17.04

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
766665

Metric denominator
unit total revenue

Metric denominator: Unit total
44998000000

Scope 2 figure used
Market-based

% change from previous year
22

Direction of change
Decreased

Reason for change
We were able to increase revenues, while reducing our overall emissions via renewable energy purchases.

C7. Emissions breakdowns

C7.1

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

C7.1a

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

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	36966	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	63	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	146	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 CO2e)
United States of America	37175

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 CO2e)
Direct emissions fossil fuels	10138
Direct emissions fuels vehicle fleet	24928
Direct emissions Stationary Generator	2109

C7.5

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	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	1393730	729490	3528095	1182171

C7.6

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

By business division

C7.6a

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

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
T-Mobile's Network: Cell sites, DAS hub, DAS Node and Switch sites	1259375	729490
T-Mobile Data Centers	41588	0
T-Mobile's Retail Stores and Commercial buildings: Call Centers, Warehouses, Office	92767	0

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	336240	Decreased	35	We increased our renewable energy purchases by 105% year over year which resulted in a 35% decrease in emissions year over year. The percentage change is calculated by dividing the change in Scope 1 and 2 emissions attributable to additional renewable energy consumption by the previous year's Scope 1 and 2 emissions: (336,240 tCO2e / 951,127 tCO2e) * 100% = 35%.
Other emissions reduction activities	164951	Decreased	17	We had an average efficiency increase of 17% across our portfolio. The percentage change is calculated by dividing the change in Scope 1 and 2 emissions attributable to other emissions reduction activities by the previous year's Scope 1 and 2 emissions: (164,951 tCO2e / 951,127 tCO2e) * 100% = 17%. T-Mobile has been working diligently to upgrade our cellular network equipment to handle a larger data and customer demand utilizing equipment that is more energy efficient. High efficiency rectifiers, antennas, and cabinet designs have achieved an efficiency across our network. Lighting, cooling, controls and design projects in our retail and commercial spaces are also yielding efficiencies.
Divestment	0	No change	0	
Acquisitions	0	No change	0	
Mergers	0	No change	0	
Change in output	316729	Increased	33	Output increased by 33% from the previous year, largely driven by a 25% increase in data usage. We calculate this figure by taking the difference in the values of the previous year and dividing it by the starting year. We also increased our customer count by almost 7 million customers. Despite this massive growth, our scope 1 and 2 total increase was minimal, due to our purchases of renewable energy and energy efficiency activities conducted by T-Mobile on its network and commercial buildings.
Change in methodology	0	No change	0	
Change in boundary	0	No change	0	
Change in physical operating conditions	0	No change	0	
Unidentified	0	No change	0	
Other	0	No change	0	

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	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	No

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)	0	160296	160296
Consumption of purchased or acquired electricity	<Not Applicable>	1182171	2191211	3373382
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total energy consumption	<Not Applicable>	1182171	2345924	3528095

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	No
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)
Compressed Natural Gas (CNG)

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
0.6

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
58.282

Unit
kg CO2e per million Btu

Emissions factor source
1. 2006 IPCC Guidelines for National Greenhouse Gas Inventories. 2. World Resources Institute (2015). GHG Protocol tool for mobile combustion. Version 2.6.

Comment

Fuels (excluding feedstocks)
Motor Gasoline

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
102943

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
8.866

Unit
kg CO2e per gallon

Emissions factor source
1. 2006 IPCC Guidelines for National Greenhouse Gas Inventories. 2. World Resources Institute (2015). GHG Protocol tool for mobile combustion. Version 2.6.

Comment

Fuels (excluding feedstocks)
Diesel

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
427

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
10.157

Unit
kg CO2e per gallon

Emissions factor source
1. 2006 IPCC Guidelines for National Greenhouse Gas Inventories. 2. World Resources Institute (2015). GHG Protocol tool for mobile combustion. Version 2.6.

Comment

Fuels (excluding feedstocks)
Diesel

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
8372

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
10.191

Unit
kg CO2e per gallon

Emissions factor source
1. 2006 IPCC Guidelines for National Greenhouse Gas Inventories. 2. World Resources Institute (2015). GHG Protocol tool for stationary combustion. Version 4.1.

Comment

Fuels (excluding feedstocks)
Propane Liquid

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
9985

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
68.201

Unit
kg CO2e per million Btu

Emissions factor source
1. 2006 IPCC Guidelines for National Greenhouse Gas Inventories. 2. World Resources Institute (2015). GHG Protocol tool for stationary combustion. Version 4.1.

Comment

Fuels (excluding feedstocks)
Natural Gas

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
38568

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
59.365

Unit
kg CO2e per million Btu

Emissions factor source
1. 2006 IPCC Guidelines for National Greenhouse Gas Inventories. 2. World Resources Institute (2015). GHG Protocol tool for stationary combustion. Version 4.1.

Comment

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 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
United States of America

MWh consumed accounted for at a zero emission factor
829671

Comment

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
United States of America

MWh consumed accounted for at a zero emission factor
352500

Comment

C9. Additional metrics

C9.1

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

Description
Energy usage

Metric value
78

Metric numerator
3,528,095

Metric denominator (intensity metric only)
44,998,000,000

% change from previous year
6

Direction of change
Increased

Please explain
We utilized approximately 6% more energy per million dollars of revenue we generated. On an emissions basis we reduced emissions by 22% by Co2 per million of revenue.

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
Limited assurance

Attach the statement
T-Mobile Assurance Statement_8.17.2020.pdf

Page/ section reference
Pages 1 -4

Relevant standard
ISO14064-3

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 market-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
T-Mobile Assurance Statement_8.17.2020.pdf

Page/ section reference
Pages 1-4

Relevant standard
ISO14064-3

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: Purchased goods and services

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
T-Mobile Assurance Statement_8.17.2020.pdf

Page/section reference
Pages 1-4

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: Capital goods

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
T-Mobile Assurance Statement_8.17.2020.pdf

Page/section reference
Pages 1-4

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

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

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
T-Mobile Assurance Statement_8.17.2020.pdf

Page/section reference
Pages 1-4

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: Upstream transportation and distribution

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
T-Mobile Assurance Statement_8.17.2020.pdf

Page/section reference
Pages 1-4

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: Upstream leased assets

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
T-Mobile Assurance Statement_8.17.2020.pdf

Page/section reference
Pages 1-4

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

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
Limited assurance

Attach the statement
T-Mobile Assurance Statement_8.17.2020.pdf

Page/section reference
Pages 1-4

Relevant standard
ISO14064-3

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
Limited assurance

Attach the statement
T-Mobile Assurance Statement_8.17.2020.pdf

Page/section reference
Pages 1-4

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: Employee commuting

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
T-Mobile Assurance Statement_8.17.2020.pdf

Page/section reference
Pages 1-4

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: Downstream transportation and distribution

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
T-Mobile Assurance Statement_8.17.2020.pdf

Page/section reference
Pages 1-4

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: Use of sold products

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
T-Mobile Assurance Statement_8.17.2020.pdf

Page/section reference
Pages 1-4

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: End-of-life treatment of sold products

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
T-Mobile Assurance Statement_8.17.2020.pdf

Page/section reference
Pages 1-4

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.2

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

C10.2a

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

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C8. Energy	Energy consumption	International Standard on Assurance Engagements (ISAE) 3000 Revised	Renewable Energy Credits (RECs) purchased in 2018 offset electricity usage at commercial and retail sites, data centers and other critical facilities in the US and Puerto Rico during 2018 was verified by APEX. T-Mobile Assurance Statement_8.17.2020.pdf
C8. Energy	Renewable energy products	International Standard on Assurance Engagements (ISAE) 3000 Revised	Energy use was verified along with the emissions data by APEX. T-Mobile Assurance Statement_8.17.2020.pdf

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?
No, and we do not anticipate being regulated in the next three years

C11.2

(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?
Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price
Stakeholder expectations
Change internal behavior
Drive energy efficiency
Drive low-carbon investment
Identify and seize low-carbon opportunities

GHG Scope
Scope 1
Scope 2

Application
Carbon Pricing is currently not implemented by US legislation. T-Mobile has its own internal carbon price at 70 cents/MWh. This internal price places a monetary value on greenhouse gas emissions, which then factor into project selection decisions and business operations, prioritizing those that lower the company's carbon footprint.progress towards 100% renewable energy.

Actual price(s) used (Currency /metric ton)
1

Variance of price(s) used
Uniform Pricing

Type of internal carbon price
Implicit price

Impact & implication
Carbon Pricing is currently not implemented by US legislation. T-Mobile has its own internal carbon price at 70 cents/MWh. This internal price places a monetary value on greenhouse gas emissions, which then factor into project selection decisions and business operations, prioritizing those that lower the company's carbon footprint.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?
Yes, our suppliers
Yes, our customers
Yes, other partners in the value chain

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
Climate change is integrated into supplier evaluation processes

% of suppliers by number
10

% total procurement spend (direct and indirect)
95

% of supplier-related Scope 3 emissions as reported in C6.5
95

Rationale for the coverage of your engagement
We look for suppliers who remind us of ourselves— ethical, hard-working, and customer-focused. And we want them to share our commitment to diversity, human rights, and business practices that are fair and considerate of their workers and the environment. Before selecting or retaining suppliers, we consider their business integrity and let them know about our ethical expectations. We have recently engaged with a leading third-party vendor to assess the risk and performance of current and future suppliers via an online assessment. This effort enables our enterprise risk management team and our procurement managers to gain insight on the social and environmental risks and performance of suppliers.

Impact of engagement, including measures of success
We measure the impact of our engagement based on the number of suppliers we evaluate. We have so far evaluated approximately 1,800 companies on a basic risk assessment level and we plan on continuing our efforts to look broadly and deeply at our supply chain for sustainability risk and performance.Our engagement with suppliers includes conversations on ways to collaborate on energy efficiency, reducing greenhouse gas emissions, and climate change advocacy. As a measurement of success, in 2018, one of our major suppliers, Ericsson published a Science-Based Target.We believe that as we are able to assess more of our supply chain for environmental and social risk, and as we incorporate sustainability measures into more of our purchasing, we are building a stronger and more climate resilient company.

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
100

% of customer - related Scope 3 emissions as reported in C6.5
35

Portfolio coverage (total or outstanding)
<Not Applicable>

Please explain the rationale for selecting this group of customers and scope of engagement
We engage with, educate, and inform 100% of our customers by setting ambitious goals, advocating for change, and inspiring our customers. We believe our entire customer base has the capacity to enact change, including increasing the number of recycled and reused devices to reduce environmental impact. Advocating for change: In September 2019, T-Mobile participated in NYC Climate Week, sponsoring Digital With Purpose: Delivering a Smarter 2030, a report released by the Global e-Sustainability Initiative (GeSI) and Deloitte. The report calls upon global governments, businesses, and individuals to identify ways to use digital technology to actualize the United Nations' 2030 Agenda for Sustainable Development. Inspiring our customers: Of the 5.2 million used devices and accessories collected by T-Mobile in 2019, T-Mobile reused or resold 97% of the hardware. The remaining 3% is responsibly recycled by our partners. As a result of this effort, over 17 million customer devices have been reused or resold since 2016. For every one million devices that are recycled, 35,284 pounds of copper, 772 pounds of silver, 75 pounds of gold and 33 pounds of palladium are recovered, which can be used again in new devices, preventing over-extraction. Setting ambitious goals: Science matters. We support the commitment of the Science-Based Targets Initiative (SBTi) and world governments to prevent dangerous climate change by limiting global warming to well below 2 degrees Celsius. To do our part, we have set science-based emissions targets. Our goals have been officially verified by the SBTi and we will continue to work with leading environmental non-profit organizations to adopt best practices in target setting.

Impact of engagement, including measures of success
We measure the impact of our engagement based on the number of phones reused or recycle. We have steadily increased that number since our program inception in 2008. As a measurement of the success of the program, In 2019, we reused or recycled over 5.2 million phones, the equivalent of avoiding over 31,000 tons of emissions compared to their impact if discarded in a landfill. T-Mobile uses Social Media, including Facebook (@TMobile) with 5.5MM followers, and Twitter with 1.3MM followers, to post, share and tweet about T-Mobile's commitment to energy efficiency and resource conservation. T-Mobile encourages our customers across the globe to save energy, through smart phone use to surf the web as well as encouraging the use of apps, like those that track habits, adjust thermostats, and turn on & off lights remotely. In 2018 we planted 27,000 trees through our #TreeMobile program. In 2019 we planted over 300,000 trees with a goal of planting 500,000 trees in partnership with the Nature Conservancy.

C12.1d

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

T-Mobile continues to be recognized as a global leader in defining and advancing the standards of ethical business practices as a World's Most Ethical Company by the Ethisphere Institute. 2019 marks 11 consecutive years T-Mobile has been the only US wireless provider to receive this award for aligning principle with action, keeping trust part of its corporate DNA, and shaping future industry standards by creating the gold standard. We aim to inspire our business partners and to hold them to the same standard, including environmental standards, through our Supplier Code of Conduct.

We also engage our employees internally. With T-Mobile's internal social network, our Corporate Social Responsibility team shares information regarding energy efficiency and sustainability to all 52,000 T-Mobile employees, including the promotion of our green energy usage and commitments. Our employees are our greatest asset, and can spread the word about how seriously T-Mobile takes its environmental responsibility and what steps we are taking to positively impact climate change.

In 2019 we held an in-person event for our headquarters employees on Earth Day, as well a streaming webcast to our employees around the country. We reviewed our RE100 commitment, learned about our real estate sustainability, and heard about our growing partnership with the Nature Conservancy.

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?
Trade associations
Other

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
The Global e-Sustainability Initiative (GeSI) is a leading source of impartial information, resources and best practices for achieving integrated social and environmental sustainability through ICT. GeSI helps key policymakers, industries, stakeholders, and households understand the role ICT can perform in achieving the Sustainable Development Goals (SDGs).

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
GeSI is committed to sustainability actions and outcomes. Our members and partners use their collective knowledge and experience to identify opportunities and develop solutions for improving energy and resource efficiency, reducing carbon emissions and footprints, ensuring sustainable practices in the supply chain, encouraging access to sustainable technologies, and supporting ICT-enabled transformation across all industries and sectors around the globe.

How have you influenced, or are you attempting to influence their position?
We participate as member of the Board of Directors of the GeSI organization. We also sit on the Climate Change and Human Rights committees.

C12.3e

(C12.3e) Provide details of the other engagement activities that you undertake.

In 2017, T-Mobile joined the RE 100, a collaborative, global initiative uniting more than 100 influential businesses committed to 100% renewable electricity, working to massively increase demand for—and delivery of—renewable energy. As a member we have set a public goal to source 100% of our global electricity from renewable sources by 2021 and to publicly report our progress on an annual basis.

In March of 2018, the U.S. Environmental Protection Agency (EPA) welcomed T-Mobile to the Green Power Partnership – a collective of companies leading the way in renewable energy. T-Mobile is the only major wireless company in the Partnership for its entire U.S. footprint. T-Mobile joins Apple, Google, Microsoft and other tech giants as a Green Power Partner.

In October of 2018, T-Mobile was recognized by both the Environmental Protection Agency (EPA) and Center for Resource Solutions (CRS) for its industry-leading green energy initiatives. At the Green Power Leadership Awards in Houston, the EPA recognized the Un-carrier for "exemplary action and dedication to significantly advance the development of U.S. renewable energy markets through voluntary green power use." Plus, the CRS also named T-Mobile "as an industry leader that is innovating and championing renewable energy and whose actions are supporting the accelerated development of green power markets."

In September of 2019, T-Mobile sponsored *Digital With Purpose: Delivering a Smarter 2030*, a report released by the Global e-Sustainability Initiative (GeSI) and Deloitte during NYC Climate Week. The report calls upon global governments and businesses to identify ways to use digital technology to actualize the United Nations' 2030 Agenda for Sustainable Development.

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?

Our T-Mobile Code of Business Conduct describes how we ensure consistency in our lobbying efforts. All employees are trained on the code annually and the code says only authorized employees of T-Mobile are allowed to lobby government officials and employees on behalf of T-Mobile. The code details that business decisions be consistent with the minimization of environmental impact, which is in line with T-Mobile's commitment to make sustainability a fundamental part of its strategy.

Read more about our policies here https://investor.t-mobile.com/corporate-governance/governance-documents/default.aspx

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).

Publication
In voluntary sustainability report

Status
Complete

Attach the document
National companies _ 2019 Corporate Responsibility Report.pdf

Page/Section reference
Pages 7 & 8

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment
https://www.cr-report.telekom.com/site20/

Publication
In voluntary communications

Status
Complete

Attach the document
__DIGITAL WITH PURPOSE_Summary_A4-WEB.pdf

Page/Section reference
Pages 36 - 39

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment
Digital with Purpose , Case Study on T-Mobile.

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C15.1

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

	Job title	Corresponding job category
Row 1	President of Technology	President

Submit your response

In which language are you submitting your response?
English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission
I am submitting my response	Investors Customers	Public

Please confirm below

I have read and accept the applicable Terms