TURKCELL İLETİŞİM HİZMETLERİ A.Ş. - Climate Change 2018

C0. Introduction

C0.1

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

Turkcell is a converged telecommunication and technology services provider, founded and headquartered in Turkey. It serves its customers with voice, data, TV and value-added consumer and enterprise services on mobile and fixed networks.

Turkcell's shares have been traded on the Borsa Istanbul (BIST) and New York Stock Exchanges (NYSE) since July 11, 2000, and it is the only Turkish company to be listed on the latter exchange. Turkcell is also quoted on the Borsa Istanbul Sustainability Index.

By end of 2017, Turkcell has 36.7 Million subscribers in Turkey, out of which 2.3 are mobile M2M clients. Total revenue of Turkcell in 2017 has been realized as 17,632,064 million TL.

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
Row 1	January 1 2017	December 31 2017	No	<Not Applicable>
Row 2	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Row 3	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Row 4	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>

C0.3

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

Turkey

C0.4

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

TRY

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 consolidation approach to your Scope 1 and Scope 2 greenhouse gas 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) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Chief Executive Officer (CEO)	The final execution power for climate related decisions in Turkcell is on the CEO, Kaan Terzioğlu. Turkcell executive management acknowledges the reality of climate change and takes mitigative & adaptive precautions by approaching to the issue from two aspects: 1) GHG emission calculation, reduction and energy efficiency issues: Climate related technical issues are evaluated for mitigation and adaptation process by the Energy and Site Products Manager. All proposals from the technical staff are considered for improvement in energy efficiency or renewable energy projects are designed. The final review for these actions is done by Technology Group/Infrastructure Management Manager and presented to the CEO for approval. 2) All climate change related corporate engagement such as raising public awareness is run by the Corporate Communication Director. All relevant actions are designed and activities are planned with Turkcell climate strategy outline and presented to the CEO for approval.

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	Reviewing and guiding risk management policies Reviewing and guiding annual budgets	The final execution power for climate related decisions in Turkcell is on the CEO, Kaan Terzioğlu. Turkcell executive management acknowledges the reality of climate change and takes mitigative & adaptive precautions by approaching to the issue from two aspects: 1) GHG emission calculation, reduction and energy efficiency issues: Climate and GHG emissions related technical issues are evaluated for mitigation and adaptation process by the Energy and Site Products Manager. All proposals from the technical staff are considered for improvement in energy efficiency or renewable energy projects are designed. The final review for these actions is done by Technology Group/Infrastructure Management Manager and presented to the CEO for approval. 2) Climate centred stakeholder, corporate engagement and sustainability issues: All climate change related corporate engagement such as raising public awareness is run by the Corporate Communication Director. All relevant action is designed and activities are planned with respect to Turkcell climate strategy outline and presented to the CEO for approval.

C1.2

(C1.2) Below board-level, provide the highest-level management position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Risk committee	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly
Chief Executive Officer (CEO)	Managing climate-related risks and opportunities	Less frequently than annually

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.

The Early Detection of Risk Committee, which was established to identify risks that could impact the existence, development and continuation of the company, to take the necessary measures concerning such risks and conduct risk management work, has been providing support to the Board of Directors since 2012. The committee prepares a risk report every two months and these reports are submitted to the Board of Directors as well as sent to an independent audit company. After the report is submitted, the Board of Directors assesses the identified risks on a regular basis. Mehmet Hilmi Güler is the chairman of the early detection of the risk committee. He was the Energy and Natural Resources Minister of Turkey between 2002-2009. For particularly this reason, climate-related issues like energy consumption are always considered in the risks assessment process. The main reason why early detection of risks committee is highest responsibility below the board level regarding climate change issues is that they monitor and report the every issues that could have potential to interrupt Turkcell operations including climate change impacts.

The final execution power for climate related decisions in Turkcell is on the CEO, Kaan Terzioğlu. Turkcell executive management acknowledge the reality of climate change and takes mitigative & adaptive precautions by approaching to the issue from two aspects:

1. GHG emission calculation, reduction and energy efficiency issues: Climate and GHG emissions related technical issues are evaluated for mitigation and adaptation process by the Energy and Site Products Manager. All proposals from the technical staff are considered for improvement are considered in, energy efficiency or renewable energy projects are designed. The final review for these actions is done by Technology Group/Infrastructure Management Manager and presented to the CEO for approval.
2. Climate centred stakeholder, corporate engagement and sustainability issues: All climate change related corporate engagement such as raising public awareness is run by the Corporate Communication Director. All relevant action is designed and activities are planned with respect to Turkcell climate strategy outline and presented to the CEO for approval.

C1.3

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

Yes

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues.

Who is entitled to benefit from these incentives?

All employees

Types of incentives

Recognition (non-monetary)

Activity incentivized

Emissions reduction project

Comment

There are a range of rewarding schemes at Turkcell. “Now This Deserves An Award” projects that honor those who make a difference; TiP awards for innovative ideas through the Turkcell Innovation Platform.

Who is entitled to benefit from these incentives?

All employees

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction project

Comment

4.6 million TRY was distributed among 1,250 Turkcell Group employees under various projects.

Who is entitled to benefit from these incentives?

Energy manager

Types of incentives

Other non-monetary reward

Activity incentivized

Energy reduction project

Comment

CEO and CXO awards, where the Chief Executive Officer and Deputy Executive Officers show their appreciation of employees creating a difference; patent awards, which Turkcell presents to their Research and Development Engineers.

Who is entitled to benefit from these incentives?

Other, please specify (Energy Committee)

Types of incentives

Monetary reward

Activity incentivized

Energy reduction target

Comment

Defining energy efficiency targets, achievements and saving are scored in KPIs of committee members and relevant teams.

C2. Risks and opportunities

C2.1

(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.

	From (years)	To (years)	Comment
Short-term	0	1	
Medium-term	1	5	

	From (years)	To (years)	Comment
Long-term	5	10	

C2.2

(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

C2.2a

(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Annually	3 to 6 years	Turkcell has received ISO22301 Business continuity certificate. Turkcell is continuously improving business continuity capacity in accordance with ISO 22301 international standard Business continuity plans are prepared by taking into consideration the customer's expectations, company policies and legal obligations. They are regularly exercised to guarantee the operation in case of an emergency. Besides, as a general risk management practice, risk assessment is carried out by Audit Committee, Corporate Governance Committee, Compensation Committee and Early Detection of Risks Committee. Annually prepared risk plans are followed in operational audit activities. The Assessment for Risk and Opportunities considers all factors of regulation, physical change, and the changing demand for company services. Related variables are quantified and modeled within integrated risk management process.

C2.2b

(C2.2b) Provide further details on your organization’s process(es) for identifying and assessing climate-related risks.

We conduct the Turkcell Corporate Risk Management’s processes to identify, assess and manage risks with a risk management procedure in accordance with the COSO Company Risk Management Framework and the ISO 31000 Risk Management standard, workshops, brain storming sessions, reports obtained from risk contacts and other different methods such as interviews and research reports. In this framework we have a predetermined Corporate Risk Management (CRM) process to determine risks by sections, make a proactive risk analysis and assessment, plan the necessary action, report results and share these with management and monitor progress. The Corporate Risk Management Department, under the Group Internal Audit Directorship, coordinates the corporate risk management process as the responsible department. The Early Detection of Risk Committee, which was established to identify risks that could impact the existence, development and continuation of the company, to take

the necessary measures concerning such risks and conduct risk management work, has been providing support to the Board of Directors since 2012. The committee prepares a risk report every two months and these reports are submitted to the Board of Directors as well as sent to an independent audit company. After the report is submitted, the Board of Directors assesses the identified risks on a regular basis. Under the risk headings of financial, operational, strategic, legal and regulatory, reputation and business continuation in the scope of corporate risk management, we monitor financial and non-financial risks like; competition conditions, regulation changes, global economic balances, political uncertainty, exchange rate changes, claims concerning cell towers, business continuity, possibilities of abuse and error in financial controls and compliance to rapidly changing technology.

C2.2c

(C2.2c) Which of the following risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Not relevant, explanation provided	Currently there is no regulation in Turkey regarding climate change issues that covers Turkcell's operations. That's why current regulations are not considered in our risk assessment. Although, regulations in Turkey require mandatory reporting of GHG emissions as per Measurement, Reporting and Verification (MRV) guidelines which first went into force on April 25, 2012, no Turkcell operation is in the scope of the regulation.
Emerging regulation	Relevant, sometimes included	Turkey has signed the agreement for Partnership for Market Readiness (PMR) and the Project implementation has started. The Project Development Objective (PDO) of the Partnership for Market Readiness Project (PMR Project) Implementation Phase is to assist Turkey implement a greenhouse gas Monitoring, Reporting, and Verification (MRV) pilot in the electricity sector, based on Turkey's MRV regulation, and to provide analytical information for the establishment of a carbon market in Turkey.
Technology	Relevant, always included	Turkcell has base stations all around Turkey. Climate change scenarios show an increasing trend for mean temperature coupled with increased/reduced precipitation in different regions. Higher mean temperatures result in higher cooling demand and costs. Problems may occur in Data Center feeding equipment/systems. These might be potential damage to network equipment and increased power to cool network equipment and result in reduced performance or disruption of the service. As a conclusion, it may require Investing in new technology for design of base stations, data centers considering future climate projections.
Legal	Relevant, always included	As Turkcell, we always follow regulations and legislation according with their necessities. All regulative topics that concern us are always included in our risk procedures. We report our environmental performance through sustainability reports and CDP reports annually. So far we haven't received any litigation claims regarding any climate-related issues. But if we receive any claims, we'll definitely include it in our current-term risks.
Market	Relevant, always included	ICT is one of the fastest growing sectors and thus carbon footprint of ICT services and products are increasing in parallel. Consumer awareness about environmental impact of services and products used is increasing and demand is shifting to greener and low Carbon services and products. If Turkcell cannot respond to demands from its individual and corporate customers for greener, low carbon and energy efficient services, it can cause reputation loss and decrease demand for Turkcell services.
Reputation	Relevant, always included	ICT is one of the fastest growing sectors and thus carbon footprint of ICT services and products are increasing in parallel. Consumer awareness about environmental impact of services and products used is increasing and demand is shifting to greener and low Carbon

	Relevance & inclusion	Please explain
		services and products. If Turkcell cannot respond to demands from its individual and corporate customers for greener, low carbon and energy efficient services, it can cause reputation loss and decrease demand for Turkcell services.
Acute physical	Relevant, always included	Potential damage to network equipment and property from flooding or landslide due to increased precipitation intensity. Flooding will also affect access to sites for maintenance & repair of the equipment.
Chronic physical	Relevant, always included	Fluctuations in temperatures make it difficult to predict energy needs for the year. Extreme temperatures and heat waves will create conditions beyond the design parameters of the system. As a result, this will cause performance loss or failure in quality of the services provided.
Upstream	Relevant, always included	Access to electricity is extremely important for our operations. Fluctuations in electricity prices due to increase in fuel prices may affect our bottom line due to our significant electricity consumption for our data centers and base stations. Therefore we are implementing both energy efficiency and renewable energy solutions for our data centers and base stations.
Downstream	Not relevant, explanation provided	We have not identified significant climate related risks downstream in for our operations. We are continuously identifying and offering new M2M and IoT solutions for our customers to increase their energy efficiency and emergency management systems, however, these are considered under Market risks already.

C2.2d

(C2.2d) Describe your process(es) for managing climate-related risks and opportunities.

Business continuity management system (BCMS) has been developed to cover various hazards and scenarios together with impact on activities. After months of data collection, activities are identified and prioritized. Turkcell Climate Strategy Brief is based on four main aspects; Mitigation, Adaptation, New Business Models, Climate Centered Corporate Communication and Stakeholder Participation.

The Climate strategy Brief contains major steps for how carbon-related risks and opportunities are managed at company and assets level. The non-commercial sensitivities and results of the various elements of our risk and opportunity management process are presented to all relevant stakeholders through our sustainability communications, including our web site and annual Sustainability Report. Hazards cover a wide range of potential including earthquakes, toxic gases, fires etc. Disaster simulations are run every six months.

Risk and opportunity determination has been made by Corporate Risk Management (CRM) which identifies, analyzes and assesses any risks and opportunities arising from the processes and activities of their departments. They ensure that any necessary actions are planned, and communicate these plans to the CRM Unit. CRM provides the required support, coordinates the relevant groups and conducts risk and opportunity identification and analysis efforts. The findings of the Unit is reported to Early Risk Detection Unit.

Asset level risks and opportunities arise from increased risks of climate change related disasters. Terminal Server project has been adopted to maintain operational sustainability in cases such as multi-fiber or equipment failure. The main aim of the project is to enable Turkcell NDC, Main and Midi POP points to access relative equipment through console interface or current NMS systems through alternative channels (ADSL, 3G) that do not use Turkcell network sources.

Turkcell has base stations in all around Turkey and base stations are easily affected by changing climate like increased temperatures or strong hail as we faced it before. In order to better manage these risks, we used climate change scenarios in our risk assessments and identified the potential effects to our operations. Climate change scenarios show an increasing trend for mean temperatures coupled with increased/reduced precipitation in different regions. Higher mean temperatures result in higher cooling demand and costs. In order to, reduce carbon emissions and energy cost we increased renewable energy investments in base stations. Last year, we supplied 25 GWh electricity need from renewable energy sources.

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?

Supply chain

Risk type

Transition risk

Primary climate-related risk driver

Policy and legal: Enhanced emissions-reporting obligations

Type of financial impact driver

Policy and legal: Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

Company- specific description

Turkey has signed the agreement for Partnership for Market Readiness (PMR) and the Project implementation has started. The Project Development Objective (PDO) of the Partnership for Market Readiness Project (PMR Project) Implementation Phase is to assist Turkey

implement a greenhouse gas Monitoring, Reporting, and Verification (MRV) pilot in the electricity sector, based on Turkey's MRV regulation, and to provide analytical information for the establishment of a carbon market in Turkey.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium-low

Potential financial impact

Explanation of financial impact

Electricity is major input and cost item for operation of base stations and data centers. Around 15% of operational costs are due to Energy consumption. Implementation of cap and trade schemes may increase cost of utility companies and thus cost of purchased electricity from suppliers. In order to reduce both carbon emissions and operating costs we are investing in renewable energy. So far our total spending on renewable energy was XXXX TL and we are expecting same amount of investment in the future.

Management method

Turkcell is implementing projects to reduce energy and emission intensity from all Operations. Those efforts include; -Improving cooling performance of equipment & natural cooling techniques -Using more Energy efficient equipment in base stations & data centers -Designing new Office & data centers as per green building (LEED etc.) standards -Installing solar & wind powered energy generation in base stations.

Cost of management

Comment

Communication cost may increase by less than 1%.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Transition risk

Primary climate-related risk driver

Policy and legal: Other

Type of financial impact driver

Policy and legal: Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

Company- specific description
If Turkey joins the EU, it will implement the EU's Emissions Trading Scheme (EU-ETS) directive as a part of its acquis communautaire. According to the current schedule of the acquis, Turkey would need to transpose the EU ETS directive to Turkish law by 2019. Also, Turkey signed (to be ratified) the Paris agreement which is a more ambitious agreement than Kyoto Protocol but provides more flexible market mechanisms to meet emission reduction target. However, since there is no regulation or a roadmap for Carbon pricing, taxation or renewable energy certificates & pricing, investment strategy for energy efficiency & use of renewables in operations is hampered.

Time horizon
Medium-term

Likelihood
More likely than not

Magnitude of impact
Medium-low

Potential financial impact

Explanation of financial impact
Uncertainty and delay in action may cost increase in demand for financing new investments and cost of compliance.

Management method
Regulations which may affect Turkcell Operations directly or indirectly are monitored. Strategies are developed for various scenarios.

Cost of management
364400

Comment
Increasing R&D expenses and energy investment . Cost for current scenario is around $100K for monitoring and compliance with regulations.

Identifier
Risk 3

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

Risk type
Transition risk

Primary climate-related risk driver
Market: Other

Type of financial impact driver
Market: Increased production costs due to changing input prices (e.g., energy, water) and output requirements (e.g., waste treatement)

Company- specific description
We are impacted by fuel prices and increasing energy taxes. We also demand energy to power the network and our operations. While we are making improvements in the efficiency of our operations and fleet, fuel/energy taxes and regulations could impact our company.
Time horizon
Short-term
Likelihood
Very likely
Magnitude of impact
Medium-high
Potential financial impact
Explanation of financial impact
Around 16% of energy consumption in base stations is due to cooling equipment. New higher capacity equipment investments will be needed to provide continuity of the services. This will increase both capital and operational costs.
Management method
Investing in new technology for design of base stations, data centers considering future climate projections
Cost of management
Comment
Equipment investments increase by 10 to 20%.

Identifier
Risk 5
Where in the value chain does the risk driver occur?
Direct operations
Risk type
Physical risk
Primary climate-related risk driver
Chronic: Changes in precipitation patterns and extreme variability in weather patterns
Type of financial impact driver
Increased capital costs (e.g., damage to facilities)
Company- specific description
Potential damage to network equipment and property from flooding or landslide due to increased precipitation intensity. Flooding will also affect access to sites for maintenance & repair of the equipment.

Time horizon
Short-term
Likelihood
Very likely
Magnitude of impact
Medium-high
Potential financial impact
Explanation of financial impact
Increased cost due to flood prevention & resiliency measures in Critical infrastructure of the company.
Management method
Assessment of vulnerabilities of the Critical assets considering the climate related risks.
Cost of management
Comment
Related investments increase by 10 to 20%.

Identifier
Risk 6
Where in the value chain does the risk driver occur?
Direct operations
Risk type
Physical risk
Primary climate-related risk driver
Chronic: Changes in precipitation patterns and extreme variability in weather patterns
Type of financial impact driver
Increased operating costs (e.g., inadequate water supply for hydroelectric plants or to cool nuclear and fossil fuel plants)
Company- specific description
Fluctuations in temperatures make it difficult to predict energy needs for the year. Extreme temperatures and heat waves will create conditions beyond the design parameters of the system. As a result, this will cause performance loss or failure in quality of the services provided.
Time horizon
Medium-term
Likelihood
Likely

Magnitude of impact
Medium-high
Potential financial impact
Explanation of financial impact
Cost of improving resiliency will increase due to increased investment and operational costs.
Management method
Investing in new technology & infrastructure for monitoring the system performance, analyzing hazard risks and early warning.
Cost of management
Comment
Related investments increase by 10 to 20%.

Identifier
Risk 7
Where in the value chain does the risk driver occur?
Customer
Risk type
Transition risk
Primary climate-related risk driver
Reputation: Shifts in consumer preferences
Type of financial impact driver
Reputation: Reduced revenue from decreased demand for goods/services
Company- specific description
ICT is one of the fastest growing sectors, carbon footprint of ICT services and products are increasing in parallel. Consumer awareness about environmental impact of services and products used is increasing and demand is shifting to greener and low Carbon services and products. If Turkcell cannot respond to demands from its individual and corporate customers for greener, low carbon and energy efficient services, it can cause reputation loss and decrease demand for Turkcell services.
Time horizon
Short-term
Likelihood
Likely
Magnitude of impact
Medium-low

Potential financial impact

Explanation of financial impact

Changing consumer demand for Turkcell services and decreasing revenues.

Management method

Increasing climate centered public communication and disclosing information on Turkcell's performance on GHG reduction. Developing innovative services (M2M or remote reading etc) to respond demand and avoid emissions.

Cost of management

Comment

Increasing corporate communication costs by 2%

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

Products and services

Primary climate-related opportunity driver

Shift in consumer preferences

Type of financial impact driver

Increased revenue through new solutions to adaptation needs (e.g., insurance risk transfer products and services)

Company- specific description

Global GHG emissions are increasing however, ICT provides a significant potential for emission reduction. GeSI Smarter 2020 report demonstrates how the increased use of information and communication technology (ICT) such as video conferencing and smart building management could cut the projected 2020 global greenhouse gas (GHG) emissions by 16.5%, amounting to $1.9 trillion in gross energy and fuel

savings and a reduction of 9.1 Gigatonnes carbon dioxide equivalent (GtCO2e) of greenhouse gases. Turkcell provides machine to machine(M2M) solutions in many sectors including smart meter remote reading, fleet monitoring solutions, remote temperature control systems for transport services, diesel generator monitoring systems which help save Energy and reduce emissions. Turkey signed Paris Climate Accord; the agreement encourages countries to scale up emission reduction activities. The Ministry of Environment and Urbanization of Turkey have started working on city level carbon inventories. Turkcell also participated in Smart City Gaziantep Project and worked collaboratively with Gaziantep Metropolitan Municipality to develop M2M systems to increase efficiency at city level. Investments made so far saved 30 million TL from the Municipalities budget, annually.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

Medium-high

Potential financial impact

Explanation of financial impact

Turkcell offers to its customers thousands of vehicles which were transformed into "smart vehicles" and an annual fuel saving worth approximately 1.5 billion TL has been achieved in 2015.

Strategy to realize opportunity

Dissemination of M2M services and developing new solutions for other sectors and cities.

Cost to realize opportunity

Comment

Cost of R&D staff engaged in developing relevant solutions.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Other

Type of financial impact driver

Reduced operational costs (e.g., through use of lowest cost abatement)

Company- specific description

Turkcell is spending effort to reduce GHG emissions and thus Energy consumption. Reduced emissions in many cases correspond to reduced energy consumption and dependency on energy sources. Voluntary reporting initiatives, commitments and targets help in increasing the efficiency and saving operational costs.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Medium-high

Potential financial impact

10295450

Explanation of financial impact

Reduced operational costs due to improved efficiency of the equipment used and services provided. Energy committee has been established within Turkcell to identify saving potentials, implement and monitor the results of the improvements. In 2017, we reduced our emissions from around 25,000,000 kWh electricity by installing renewable energy to base stations and we are planning to keep installing in future. The financial impact is the cost of the average saved electricity cost.

Strategy to realize opportunity

Better monitoring of Energy consumption for facilities, equipment and vehicles. Collaboration with research institutions for ensuring environmental performance of equipment purchased.

Cost to realize opportunity

0

Comment

Negligible additional cost.

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver
Development of new products or services through R&D and innovation
Type of financial impact driver
Increased revenue through new solutions to adaptation needs (e.g., insurance risk transfer products and services)
Company- specific description
The potential of smart mobile applications (M2M) is observed particularly in smart transportation and logistics with smart grids and meters. Turkcell is collaborating with all of the electricity distribution companies in Turkey and offering smart meter solutions.
Time horizon
Current
Likelihood
Virtually certain
Magnitude of impact
Medium-high
Potential financial impact
Explanation of financial impact
Increasing revenue and penetration to new sectors and implementation areas.
Strategy to realize opportunity
Dissemination of M2M services and developing new solutions for other sectors.
Cost to realize opportunity
0
Comment
Negligible

Identifier
Opp4
Where in the value chain does the opportunity occur?
Direct operations
Opportunity type
Energy source
Primary climate-related opportunity driver
Shift toward decentralized energy generation
Type of financial impact driver

Reduced exposure to future fossil fuel price increases

Company- specific description

Changes in mean temperature has in part prompted installation of new technology that itself allows Turkcell the opportunity to save money and emissions such as by using wind turbine power and network electricity alternately, and set up solar and wind power-operated communication units.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Low

Potential financial impact

10295450

Explanation of financial impact

Increasing capital investment, reduced operational costs

Strategy to realize opportunity

Site assessments are made considering the reliability of the electricity grid, wind potential and solar potentials. Cost of disruption in services is also considered as a loss.

Cost to realize opportunity

Comment

Process is managed by Energy team of Turkcell. Investment costs and returns are assessed by financial team.

Identifier

Opp5

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Ability to diversify business activities

Type of financial impact driver

Better competitive position to reflect shifting consumer preferences, resulting in increased revenues

Company- specific description
According to “Climate Change Projections for Turkey” report published by the Turkey’s General Directorate of Meteorology’s Turkey will face 2oC to 3oC degrees increase in its mean temperature starting from 2013 to 2040. In order to create an opportunity from this upturn, under the Business Continuity Management System, solutions are actively developed for all of our customers to use in case of disasters or emergencies. Turkcell works on developing technologies to communicate effectively without any disruption to reduce risks in an event of disaster. Detailed information about some of these solutions, i.e. “Urgent SMS”, “Disaster and Emergency Service” and “Earthquake Service”.
Time horizon
Current
Likelihood
Very likely
Magnitude of impact
Medium-low
Potential financial impact
Explanation of financial impact
Increasing revenue due to use of new services.
Strategy to realize opportunity
Increasing market penetration of the services and awareness about the services provided.
Cost to realize opportunity
0
Comment
Negligible additional cost

Identifier
Opp6
Where in the value chain does the opportunity occur?
Direct operations
Opportunity type
Energy source
Primary climate-related opportunity driver
Use of new technologies
Type of financial impact driver
Reduced operational costs (e.g., through use of lowest cost abatement)

Company- specific description
Changes in mean temperature has in part prompted installation of new technology that itself allows Turkcell the opportunity to save money and emissions such as by introducing the newly-mounted free cooling equipment.
Time horizon
Current
Likelihood
Very likely
Magnitude of impact
Please select
Potential financial impact
Explanation of financial impact
Increased revenue
Strategy to realize opportunity
Site assessments are made considering the reliability of the electricity grid, weather conditions and performance of the equipment used in the facilities.
Cost to realize opportunity
Comment
Process is managed by Energy team of Turkcell. Investment costs and returns are assessed by financial team.

C2.5

(C2.5) Describe where and how the identified risks and opportunities have impacted your business.

	Impact	Description
Products and services	Not yet impacted	We have considered and identified our climate-related risks and opportunities related with products and services. We haven't faced any significant impact regarding climate-related issues so it's assessed that we're not yet impacted. However, this can be change since climate change scenarios show an increasing trend for mean temperature coupled with increased/reduced precipitation in different regions. Higher mean temperatures result in higher cooling demand and costs. Problems may occur in Data Center feeding equipment/systems. These might be potential damage to network equipment and increased power to cool network equipment and result in reduced performance or disruption of the service.
Supply chain and/or value chain	Not impacted	It is important for us that the suppliers we work together with in our business partner ecosystem comply with basic environmental, social and ethical rules. During the supplier selection stage, we observe their compatibility with the Turkcell Group Procurement Codes of Conduct in line with our responsible procurement approach. In order to minimize the environmental impact of our operations we make sure the products we procure from outside are environmentally friendly products. In this context we seek compliance with basic environmental criteria like

	Impact	Description
		energy efficiency in all procurements from infrastructure to office supplies. We haven't faced any climate related risks or opportunities in our supply chain. Since we want our suppliers to comply with our procedures and want them to provide information, we are able to easily follow climate change effects on our suppliers.
Adaptation and mitigation activities	Not yet impacted	We are not yet impacted by the Adaptation and mitigation activities. If Turkey joins the EU, it will implement the EU's Emission Trading Scheme (EU-ETS) directive as a part of its acquis communitaire. According to the current schedule of the acquis, Turkey would need to transpose the EU ETS directive to Turkish law by 2019. Also, Turkey signed (to be ratified) the Paris agreement which is a more ambitious agreement than Kyoto Protocol but provides more flexible market mechanisms to meet emission reduction target. However, since there is no regulation or a roadmap for Carbon pricing, taxation or renewable energy certificates & pricing, investment strategy for energy efficiency & use of renewables in operations is hampered.
Investment in R&D	Not yet impacted	We haven't faced any significant impact on our R&D work. However, R&D studies are getting shaped around climate change effects. We demand energy to power the network and our operations and Fuel prices and energy taxes are increasing every year. While we are making improvements in the efficiency of our operations and fleet, fuel/energy taxes and regulations could impact our company.
Operations	Not yet impacted	Turkcell has base stations in all around Turkey. Climate change scenarios show an increasing trend for mean temperature coupled with increased/reduced precipitation in different regions. Higher mean temperatures result in higher cooling demand and costs. Problems may occur in Data Center feeding equipment/systems. These might be potential damage to network equipment and increased power to cool network equipment and result in reduced performance or disruption of the service. As a conclusion, it may require replacement of equipment with higher cooling capacity systems. However, all of these effects are not realized yet, so our operations have not yet impacted by possible climate change risks.
Other, please specify	Please select	

C2.6

(C2.6) Describe where and how the identified risks and opportunities have factored into your financial planning process.

	Relevance	Description
Revenues	Not yet impacted	Climate change risks and opportunities haven't impacted our revenue yet. However, ICT is one of the fastest growing sectors, carbon footprint of ICT services and products are increasing in parallel. Consumer awareness about environmental impact of services and products used is increasing and demand is shifting to greener and low Carbon services and products. If Turkcell cannot respond to demands from its individual and corporate customers for greener, low carbon and energy efficient services, it can cause reputation loss and decrease demand for Turkcell services. Changing consumer demand for Turkcell could cause a decrease in revenues. In order to mitigate this we have to increase our corporate communication costs up to 2%.
Operating costs	Impacted	We are impacted by fuel prices and increasing energy taxes. We also demand energy to power the network and our operations. While we are making improvements in the efficiency of our operations and fleet, fuel/energy taxes and regulations could impact our company. Impact could be as high as 10% increase in energy costs.

	Relevance	Description
Capital expenditures / capital allocation	Not yet impacted	We have not experienced any climate impacts that would require significant extra capital expenditures. However, Turkcell has base stations all around Turkey. Climate change scenarios show an increasing trend for mean temperature coupled with increased/reduced precipitation in different regions. Higher mean temperatures result in higher cooling demand and costs. Problems may occur in Data Center feeding equipment/systems. These might be potential damage to network equipment and increased power to cool network equipment and result in reduced performance or disruption of the service. As a conclusion, it may require replacement of equipment with higher cooling capacity systems and even transferring our important data centers to more secure locations that will experience less temperature impacts when it comes to climate change. These issues may increase our capital costs.
Acquisitions and divestments	We have not identified any risks or opportunities	As an ICT company, we do not have any operations that would require significant divestment to reduce climate risks.
Access to capital	Impacted	Climate change related issues are already impacting our access to capital financial processes. Investors of Turkcell are not only interested in financial performance but also nonfinancial measures, such as sustainability. The BIST Sustainability Index provides the opportunity for companies to develop their risk management skills regarding corporate transparency and sustainability with accountability. Turkcell is involved in BIST Sustainability Index since 2014. This is directly linked with meeting demand for investors who seeks greener investments, hence increasing market value.
Assets	Not yet impacted	Our assets haven’t been impacted by any climate change risks and opportunities and we are not expecting to be effected up until 3 years. However, Turkcell has base stations in all around Turkey. Climate change scenarios show an increasing trend for mean temperature coupled with increased/reduced precipitation in different regions. Higher mean temperatures result in higher cooling demand and costs. Problems may occur in Data Center feeding equipment/systems. These might be potential damage to network equipment and increased power to cool network equipment and result in reduced performance or disruption of the service. As a conclusion, it may require replacement of equipment with higher cooling capacity systems. This will increase our capital costs.
Liabilities	Not yet impacted	Currently, Turkey's GHG monitoring and reporting regulation does not have any mandatory obligations for the ICT sector. We are not in any position to be liable for climate impacts. However, changes in regulations may bring in additional reporting and reduction (e.g. refrigerants for base stations and data centers) requirements requirements. We do not foresee this kind of implementation to the regulation in the medium to long term.
Other	Please select	

C3. Business Strategy

C3.1

(C3.1) Are climate-related issues integrated into your business strategy?

Yes

C3.1a

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

Yes, qualitative

C3.1c

(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.

ITCs are energy dependent and energy intensive companies and they have geographically scattered stations. Turkcell faces a group of interrelated challenges in transitioning itself to the low carbon economy while managing risks and opportunities. The strategy for the transition could be based on four main aspects:

1. Mitigation:

The first and the most vital phase of low carbon economy is still the action for mitigation of global GHG emissions through efficiency, new technology and switching to renewable energy resources. Mitigation of GHG emissions by Turkcell includes these major steps:

1a. Improving Data Center Infrastructure Efficiency (DCIE)

• Reclaiming energy by avoiding cooling inefficiencies, upgrading the cooling system, allowing variable cooling and making greater use of outside air,
• Consolidation and virtualization of server utilization,
• Calibrating aisle temperatures and matching server capacity to load in real time,
• Correlating facility emergency procedures to minimize the impact of outages,
• Determining the actual power consumption to maximize server capacity,
• Switching from transfer switch to AC/DC distribution for better use of renewable energy resources such as solar power cells,
• High level of cooperation between facility and IT managers for consistency,
• Cost accounting to monetize the data centers to motivate financial rewards.

1b. Decreasing the data center or facility based energy consumption

• Investing in new renewable energy technology for data centers and stations such as solar power cells and wind,
• Improving the building conditions of management, stores and call centers,
• Minimizing commute and travel through video conferences and online communication platforms,
• Designing new Office buildings and data centers as per "green building" standards

2. Adaptation

Turkcell has developed unique solutions for natural disasters including climate borne disasters and thus has become technology partner of UNDP

in 2013. Turkcell Business Continuity Management identifies potential threats, their impact and provides a framework for building resilience with the ability to create an effective response that safeguards the interests of key stakeholders and value-creating activities. Turkcell has established the Business Continuity Management System ("BCMS") to implement, operate, monitor, review, maintain and improve the business continuity.
Turkcell BCMS is assisted by the coordinators and business continuity virtual team. Regular BCM training and awareness programs are carried out throughout the organization. The effectiveness of BCMS is monitored every year through internal/external audits, and integrated exercises, the results of which are reviewed in management review meetings. We exercise and test our business continuity plans, communication and warning procedures to ensure that they are consistent with the business continuity objectives.
Turkcell's BCM will be able to cover the majority of Turkcell's operations through potential environmental events and natural disasters. They are regularly exercised to guarantee the operation of time-sensitive business activities in case of business disruptions.

The adaptation of Turkcell to the new physical conditions of climate change may have these major steps:
• Assessing the geographic conditions of data centers and stations to forecast physical impact such as high temperature increase, flooding and storms,
• Building an infrastructure reinforcement plan based on the assessment above,
• Investing in the new insulation and impermeability technologies,
• Planning for emergency data center allocation in terms of non-repairable impact of instant physical change such as floods.

3. New Business Models
Climate change and the resulting conditions will eventually force the governments to formulate new regulations to force the businesses to mitigate the GHG emissions and adapt the new climate conditions. On the other hand the consumers and other stakeholders will demand new products and service tools that will meet these new requirements. Or else, consumers will favor certain products and services only because they are more climate-friendly. As much as these new business conditions may seem a source of risk for the corporates, they may be a source of new business opportunities. A paradigm shift with the picture of the new business structure under climate change means more business with innovative service and products. Such innovation within Turkcell can be realized by;

• Identifying the potential regulations such as emission caps and formulating strategies to meet the cap and become an emission reduction allowance seller in the market,
• Providing a futuristic approach to new products such as disaster alert, agricultural yield forecasts and disaster relief management,
• Creating new climate friendly products and services that will reinforce the identity of "corporate social responsibility",
• Facilitating the use of ICT technologies in the concept of smart cities.

• Cloud based solutions such as cloud computing, cloud storage.

4. Climate Centered Corporate Engagement and Stakeholder Participation
As the society becomes more climate conscious and the public understanding of “personal benefit” evolves into “climate responsibility” under low carbon economy, it will become more important for companies to center their corporate engagement towards climate and related environmental issues. On the other hand, involving stakeholders and attending to their influence on climate related corporate strategy would become more sensitive. In that sense, Turkcell could;

• Contribute in raising public awareness for combat against climate change,
• Delivering the message to the governmental bodies and lobbying for the interest of the society,
• Cooperating for NGOs and other stakeholders and business groups to formulate climate change management strategies,
• Maintaining communication with the consumers, attending to their needs for new tools and services with respect to new low carbon economy,
• Building interest in innovation of new technology by cooperating with academia and research centers,
• Creating new B2B and B2C financial mechanisms to support research for new efficient technology and better use of renewable resources.

It is obvious that, in near future, a vital part of corporate risk management and strategy will depend on maintaining business under new climate conditions, regulations and the ability to transition to low carbon economy. The definition of business success and best practice will be redefined with respect to capability of developing business and maintaining market share, revenue and also reputation while the conditions change rapidly and drastically in the next two decades. Such capability is called “corporate climate resilience” and Turkcell aims at developing resilience by applying certain measures defined within four main areas as defined above.

C3.1d

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

Climate-related scenarios	Details
Nationally determined contributions (NDCs)	ICT provides a significant potential for emission reduction. GeSI Smarter 2020 report demonstrates how the increased use of information and communication technology (ICT) such as video conferencing and smart building management could cut the projected 2020 global greenhouse gas (GHG) emissions by 16.5%, amounting to $1.9 trillion in gross energy and fuel savings and a reduction of 9.1 Gigatonnes carbon dioxide equivalent (GtCO2e) of greenhouse gases. Turkcell provides machine to machine (M2M) solutions in many sectors including smart meter remote reading, fleet monitoring solutions, remote temperature control systems for transport services, diesel generator monitoring systems which help save Energy and reduce emissions. Turkey signed Paris Climate Accord; the agreement encourages countries to scale up emission reduction activities. By signing the Paris Agreement, Turkey agreed to reduce existing greenhouse gas emissions by 21% from business as usual case by 2030, using a mix of domestic and international resources. Following the 2015 United Nations Climate Change Conference (COP 21) we assessed our emission reduction target as well as our climate change strategy and operations, and came into conclusion that we are parallel with Turkey’s INDC target. In order to monitor our

Climate-related scenarios	Details
	climate change impact, we annually measure our carbon and report results to CDP and publish them in our sustainability reports. The Ministry of Environment and Urbanization of Turkey have started working on city level carbon inventories. Turkcell also participated in Smart City Gaziantep Project and worked collaboratively with Gaziantep Metropolitan Municipality to develop M2M systems to increase efficiency at city level. Investments made so far saved 30 million TL from the Municipalities budget, annually.

C4. Targets and performance

C4.1

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

No target

C4.1c

(C4.1c) Explain why you do not have emissions target and forecast how your emissions will change over the next five years.

	Primary reason	Five-year forecast	Please explain
Row 1	Important but not an immediate business priority	Increase	Turkey is an emerging market and plans to grow 5% annually on average. As the largest ICT provider in Turkey, our growth plans are also in line with our country. Even Turkey's INDC is to reduce emissions from a business as usual scenario. Therefore while we believe reducing our emissions intensity is important, setting an emissions reduction target is not an immediate business priority.

C4.2

(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.

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 projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation		
To be implemented*		
Implementation commenced*		
Implemented*	3	430
Not to be implemented		

C4.3b

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

Activity type
Energy efficiency: Processes
Description of activity
Process optimization
Estimated annual CO2e savings (metric tonnes CO2e)
85
Scope
Scope 1
Voluntary/Mandatory
Voluntary
Annual monetary savings (unit currency – as specified in CC0.4)
75000
Investment required (unit currency – as specified in CC0.4)
150000
Payback period
1-3 years
Estimated lifetime of the initiative
3-5 years

Comment
Installaton of new control cards for diesel generator management

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Activity type
Low-carbon energy installation
Description of activity
Other, please specify (Rectifier management system)
Estimated annual CO2e savings (metric tonnes CO2e)
250
Scope
Scope 2 (location-based)
Voluntary/Mandatory
Voluntary
Annual monetary savings (unit currency – as specified in CC0.4)
100000
Investment required (unit currency – as specified in CC0.4)
35000
Payback period
<1 year
Estimated lifetime of the initiative
6-10 years
Comment
Installing rectifier management system

Activity type
Energy efficiency: Processes
Description of activity
Refrigeration
Estimated annual CO2e savings (metric tonnes CO2e)
95
Scope
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary
Annual monetary savings (unit currency – as specified in CC0.4)
75000
Investment required (unit currency – as specified in CC0.4)
650000
Payback period
4 - 10 years
Estimated lifetime of the initiative
11-15 years
Comment
Installation of Free cooling systems in base stations

C4.3c

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

Method	Comment
Dedicated budget for energy efficiency	Turkcell has established Energy Committee in 2014. One of the responsibilities of the committee is reviewing the Energy consumption & efficiency plans. Within this scope, investment needs, returns and cost benefit analysis are made and submitted to management for approval. Dedicated budgets are reserved for approved investments. Turkcell energy efficiency initiatives throughout 2014 saved 15.9 million kWh (equivalent to the annual energy consumption of 5,900 households), demonstrating our respect for the environment. Furthermore, we have increased the number of base stations powered by renewable energy. Moreover, we have installed energy measurement systems to monitor our energy consumption. We have built a system to monitor our energy consumption; carry out energy efficiency studies and make improvements where necessary. The system has received ISO50001 (Energy Management System) certification, and Turkcell remains the industry leader in this regard.

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
Group of products
Description of product/Group of products
Turkcell offers innovative solutions for its clients for increasing saving and efficiency of their processes. M2M (Machine to Machine) is a new technology designed to enable machines to be managed and monitored remotely and communicate to each other through a specified SIM card. M2M services offered by Turkcell include Smart Device, Mobile POS ,Team Mobile , Smart Energy , Smart House, Smart Industry. So far, under Turkcell's Corporate Win Program, Turkcell has provided $ 13.6 million to their customers and have helped those brands with whom they collaborate to grow Cloud computing based services has exceeded 1.7 million users. Cloud technology reduces the server related costs and increases the capacity of the servers.
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
Other, please specify (Internal methodology)
% revenue from low carbon product(s) in the reporting year
3
Comment

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 2013
Base year end
December 31 2013
Base year emissions (metric tons CO2e)
8391
Comment
Scope 2 (location-based)
Base year start

January 1 2013
Base year end
December 31 2013
Base year emissions (metric tons CO2e)
243054
Comment
Scope 2 (market-based)
Base year start
January 1 2013
Base year end
December 31 2013
Base year emissions (metric tons CO2e)
0
Comment

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.

IPCC Guidelines for National Greenhouse Gas Inventories, 2006
ISO 14064-1
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
US EPA Climate Leaders: Direct HFC and PFC Emissions from Use of Refrigeration and Air Conditioning Equipment

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?
Row 1
Gross global Scope 1 emissions (metric tons CO2e)
22653.11
End-year of reporting period
<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 have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

Comment

C6.3

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

Row 1

Scope 2, location-based

358286.01

Scope 2, market-based (if applicable)

<Not Applicable>

End-year of reporting period

<Not Applicable>

Comment

C6.4

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

No

C6.5

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

Purchased goods and services

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

Previously, we included the purchased diesel for our generators in base stations by independent service providers here. However, because we implemented online monitoring systems for our generators, we are able to provide accurate diesel consumption amounts in our Scope 1 calculations, therefore Scope 3 emissions from purchased goods and services are no longer relevant to our operations.

Capital goods

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

There were no capital goods related emissions within the reporting year.

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

Evaluation status

Relevant, calculated

Metric tonnes CO2e

61312.85

Emissions calculation methodology

We collect natural gas, diesel and gasoline consumption amounts and multiply them with DEFRA Scope 3 factors. We also include emissions resulting from electricity transmission and distribution losses.

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

0

Explanation

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

855.73

Emissions calculation methodology
We collect fuel consumption information from our logistics provider and multiply with relevant DEFRA factors.
Percentage of emissions calculated using data obtained from suppliers or value chain partners
100
Explanation
Data is obtained from logistics provided.
Waste generated in operations
Evaluation status
Relevant, calculated
Metric tonnes CO2e
192.05
Emissions calculation methodology
We only include recycled and reused waste data. We multiply the KG amounts collected by our value chain partner with DEFRA waste factors.
Percentage of emissions calculated using data obtained from suppliers or value chain partners
100
Explanation
Business travel
Evaluation status
Not evaluated
Metric tonnes CO2e
Emissions calculation methodology
Percentage of emissions calculated using data obtained from suppliers or value chain partners
Explanation
Employee commuting
Evaluation status
Relevant, calculated
Metric tonnes CO2e
6719.71
Emissions calculation methodology
We collect mileage and fuel consumption information from our service provider for employee service buses they provide for us and multiply with DEFRA factors.
Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Explanation

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

We include the emissions resulting from our base stations in leased locations in our Scope 1 emissions because we have direct operational control over them.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

Data regarding downstream transportation and distribution is included in upstream transportation and distribution emissions because we use the same logistics provider and it is virtually impossible to separate the data.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

There is no intermediary product sold by Turkcell which is later processed.

Use of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

205.81

Emissions calculation methodology

We obtain electricity consumption and battery information from the producer of the cell phones and tablets we sell. We then calculate electricity consumption to charge the batteries of the cell phones we sold in 2017 for a full year (considering they are charged every day for a full year). We then multiply the resulting electricity consumption with Turkey's grid emission factor calculated with the electricity production data published by TEİAŞ.

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

100

Explanation

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

We include this data under Waste generated in operations because it is impossible to give breakdown of the data as it is collected by the same agency.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

There are no downstream leased assets for Turkcell.

Franchises

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

Turkcell vendors do not operate in the form of franchises. Each vendor is a separate company.

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

Explanation

Investments

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

Turkcell İletişim A.Ş. operates in Turkey and reports within boundaries of Turkey. There are no domestic investments for Turkcell.

Other (upstream)

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

There are no other relevant upstream GHG emissions.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

There are no other relevant downstream GHG emissions.

C6.7

(C6.7) Are carbon dioxide emissions from biologically sequestered 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

0.0216

Metric numerator (Gross global combined Scope 1 and 2 emissions)

380939.12

Metric denominator

unit total revenue

Metric denominator: Unit total

17632064

Scope 2 figure used

Location-based

% change from previous year

7.51

Direction of change

Decreased

Reason for change

While our S1+S2 emissions increased by about 14% in absolute terms, we managed to decrease our emissions intensity by 7.51% due to our energy efficient HQ and Technology buildings and energy efficiency investments in our base stations and data centers.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization have greenhouse gas emissions other than carbon dioxide?

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	16663.8	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	19.21	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	105.94	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	5864.16	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)
Turkey	22653.11

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)
Buildings and data centers	21064.18
TT-TRT (leased state owned locations)	0
Superonline	1588.93
Base stations	0

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 in market-based approach (MWh)
Turkey	358268.01	0	691103.22	0

C7.6

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

By activity

C7.6c

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

Activity	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Buildings and data centers	84217.37	0
TT-TRT (leased state owned locations)	5224.81	0
Superonline	8342.28	0
Base stations	260504.55	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?

Increased

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		<Not Applicable>		
Other emissions reduction activities	430	Decreased	0.13	We have managed to reduce our S1+S2 emissions by 430 tCO2e due to emission reduction activities. Our previous year S1+S2 emissions were 333,699 tCO2e. (-430/333,699)*100 = -0.13%
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output	40248.14	Increased	12.06	Increase in our S1+S2 emissions in 2017 compared to 2016 minus the change in methodology impact (47,240.12-6,992 = 40,248.17). Our 2016 S1+S2 emissions were 333,699 tCO2e. 40,248.14/333,699*100 = 12.06% impact on S1+S2 emissions.
Change in methodology	6992	Increased	2.1	Diesel consumption emissions from generators were included in Scope 3 emissions previously. This was due to the fact that our base stations were serviced by independent service providers and it was impossible to track our generators' usage as fixed price deals were made with them and there was no reporting obligation for how much fuel added. We have implemented online monitoring system for our generators and therefore obtained accurate generator running data for this year so we can include them in our Scope 1 boundary. Our 2016 S1+S2 emissions were 333,699 tCO2e. 6,992/333,699*100 = 2.10% impact on S1+S2 emissions.
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other		<Not Applicable>		

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?

Location-based

C8. Energy

C8.1

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

More than 5% but less than or equal to 10%

C8.2

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

	Indicate whether your organization undertakes this energy-related activity
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	Yes

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	65903.86	65903.86
Consumption of purchased or acquired electricity	<Not Applicable>	0	691103.22	691103.22

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
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>	375	<Not Applicable>	375
Total energy consumption	<Not Applicable>	375	757007.08	757382.08

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 steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

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

Fuels (excluding feedstocks)

Natural Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

13614

MWh fuel consumed for the self-generation of electricity

0

MWh fuel consumed for self-generation of heat

13614

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>

Fuels (excluding feedstocks)

Diesel

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

50193.15

MWh fuel consumed for the self-generation of electricity

29701.16

MWh fuel consumed for self-generation of heat

20491.99

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>

Fuels (excluding feedstocks)

Motor Gasoline

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

2096.28

MWh fuel consumed for the self-generation of electricity

0

MWh fuel consumed for self-generation of heat

2096.28

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>

C8.2d

(C8.2d) List the average emission factors of the fuels reported in C8.2c.

Diesel

Emission factor

0.00265

Unit

metric tons CO2e per liter

Emission factor source

IPCC Chapter 2 Stationary Combustion (Table 2.3) & IPCC Chapter 3 Mobile Combustion (Table 3.3.1) average IPCC Fifth Assessment Report

Comment

Motor Gasoline

Emission factor

0.00227

Unit

metric tons CO2e per liter

Emission factor source

IPCC Chapter 3 Mobile Combustion (Table 3.2.1 &3.2.2) IPCC Fifth Assessment Report

Comment

Natural Gas

Emission factor

0.00194

Unit

metric tons CO2e per m3

Emission factor source
IPCC Chapter 2 Stationary Combustion (Table 2.3) IPCC Fifth Assessment Report
Comment

C8.2e

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

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	30076.16	30076.16	375	375
Heat	13614.43	13614.43	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C8.2f

(C8.2f) Provide details on the electricity, heat, steam and/or cooling amounts that were accounted for at a low-carbon emission factor in the market-based Scope 2 figure reported in C6.3.

Basis for applying a low-carbon emission factor
Off-grid energy consumption from an on-site installation or through a direct line to an off-site generator owned by another company
Low-carbon technology type
Solar PV
Wind
MWh consumed associated with low-carbon electricity, heat, steam or cooling
375
Emission factor (in units of metric tons CO2e per MWh)
0
Comment
Some of our base stations are completely off grid and are powered through solar and wind power.

C9. Additional metrics

C9.1

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

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 and/or Scope 2 emissions and attach the relevant statements.

Scope

Scope 1

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

Turkcell_CDP statement_2018.pdf

Page/ section reference

1

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope
Scope 2 location-based
Verification or assurance cycle in place
Annual process
Status in the current reporting year
Complete
Type of verification or assurance
Reasonable assurance
Attach the statement
Turkcell_CDP statement_2018.pdf
Page/ section reference
1
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 3 emissions and attach the relevant statements.
Scope
Scope 3- all relevant categories
Verification or assurance cycle in place
Annual process
Status in the current reporting year
Complete
Attach the statement
Turkcell_CDP statement_2018.pdf
Page/section reference
1

Relevant standard
ISO14064-3

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	Other, please specify (Energy Consumption)	ISO14064-3	Our energy consumptions related to emissions were verified as well. (See page 1, Additionally verified data as follows section in the attached statement). Turkcell_CDP statement_2018.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?

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

C12. Engagement

C12.1

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

Yes, our suppliers

Yes, our customers

C12.1a

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

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

% total procurement spend (direct and indirect)

% Scope 3 emissions as reported in C6.5

Rationale for the coverage of your engagement

Turkcell attach importance to contribute the national economy and choose their suppliers from local companies. Indirectly Turkcell reduce its impact on the ecosystem. One of the strategy to prioritise the engagement is the established Ethic Procurement Rules to make the business relationships more transparent and standard. The rules are related in child labor, bribery, working hours, health, environment etc. Under the environmental rules green procurement principles were also determined. The suppliers are informed about the principles in written format, this enables suppliers to understand Turkcell's needs in energy efficient and environmentally friendly products. Turkcell also asks for the suppliers to commit to be compatible with the rules.

Impact of engagement, including measures of success

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
Size of engagement
% Scope 3 emissions as reported in C6.5
Please explain the rationale for selecting this group of customers and scope of engagement
Turkcell strives to develop more energy efficient technologies and products. In this way, Turkcell creates an energy awareness and attracts customers. Succes is measured by the savings more peoples's engagement with energy efficient technologies. In 2017, Turkcell reached 2.3 Million M2M (MachineToMachine) subscribers who takes the advantages of remote managing and monitoring of their businesses.
Impact of engagement, including measures of success
Turkcell offers to its customers thousands of vehicles which were transformed into "smart vehicles" and an annual fuel saving worth approximately 1,5 billion TL has been achieved in 2015. Our biggest measure of success is to our customers' increasing value of energy efficiency.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?
Direct engagement with policy makers
Trade associations
Funding research organizations
Other

C12.3a

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

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Clean energy generation	Support	Turkcell develops renewable energy projects for the zones that fall far from the grid. Those activities also target improvement of sustainability. Turkcell works closely with the Ministry of Energy and Natural Resources for incentives to expand these projects to new areas.	Incentives for micro scale renewable projects to expand the renewable energy generation at different sites.
Adaptation or resilience	Support	Turkcell is a member to Turkish Industry and Business Association (TUSİAD). TUSIAD is part of the Coordination Board on Climate Change and Air Management which is the most executive governmental decision making body in	IDKK (Climate Change Coordination Committee) of Turkey issues directives every six months and communicates various policies with different

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
		Turkey. TUSİAD represents large scale industry in the committee and Turkcell contributes TUSIAD efforts to influence the major climate related decisions by the government.	governmental policy makers. TUSIAD proposes GHG mitigation and adaptation policies at the Committee.
Other, please specify (Dissemination of M2M Solutions)	Support	In order to remove barriers for dissemination of M2M services, through Mobilsiad, Mobisad, Tüted, Teder and TBV, Turkcell is in contact with The Ministry of Transport, Maritime Affairs and Communication to remove the fee for wireless license.	In order to decrease import of smart devices and encourage local smart device and sim cards and disseminate broadband internet network, fee for KA band devices should be cancelled. This will increase the number of users, efficiency and avoid foreign trade loss.
Other, please specify (Emergency Disaster Management)	Support	Turkcell set up a team to disseminate disaster emergency information to affected community and local institutions. Natural disasters are tracked by information systems. Turkcell provide coordinations in disaster areas. Locations of vulnerable peoples are shared with AFAD (Disaster&Emergency Management Authority).	Comprehensive Disaster and Disaster Recovery Management Policies.
Adaptation or resilience	Support	Turkcell provides technology support to the project (TARBİL) which is conducted by Ministry of Food, Agriculture and Livestock. The project aims to improve agricultural efficiency through tracking water and pesticide control.	Innovative development solutions for agriculture sector
Energy efficiency	Support	Turkcell has collaborated with Gaziantep Metropolitan Municipality to implement several technologies which offer real-time measurements, as well as vehicle tracking, remote meter reading, water/irrigation management, heat monitoring. In addition to energy efficiency, measures have enabled flood prevention, better maintenance of green space and as a result of such solutions, the city has saved approximately 30 million Turkish Liras per year.	Dissemination of smart city technologies and providing incentives for local governments.

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

Informatics Industry Association

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position
TUBISAD has more than 200 members governing a volume of 40 billion USD. TUBISAD is supporting environment-friendly Technologies and working for developing regulations and policies for a healthy, competitive and sustainable ICT market in Turkey.
How have you, or are you attempting to, influence the position?
Turkcell is a board member in TUBISAD and able to influence the decisions and actions taken by TUBISAD.

Trade association
GSMA
Is your position on climate change consistent with theirs?
Consistent
Please explain the trade association's position
The GSMA is collaborating with the European Commission and the International Telecommunication Union (ITU) on standardisation, including methodologies to assess environmental impact. The Mobile Energy Efficiency GSMA acknowledges role of ICT in managing GHG emissions and collaborates with its members, international agencies (EU, IFC, WB, international telecommunication unit etc) to develop methodology and tools for emission reduction via ICT applications.
How have you, or are you attempting to, influence the position?
Turkcell is supporting GSMA efforts and providing communication on progress in line with GSMA's objectives for reducing emissions and providing solutions. Turkcell has prepared a video for GSMA to disclose the efforts for Energy efficiency and emission reduction. video is available at https://www.youtube.com/watch?v=9dA4IN-FelU

C12.3d

(C12.3d) Do you publicly disclose a list of all research organizations that you fund?
Yes

C12.3e

(C12.3e) Provide details of the other engagement activities that you undertake.
Turkcell supports or involved in many NGOs, networks or stakeholders. Turkcell is developing projects, sponsoring events or publishing reports in collaboration with those stakeholders. Full list is available at http://www.turkcell.com.tr/tr/hakkimizda/sosyal-sorumluluk/stk-iliskileri/uyeliklerimiz
Turkcell has a separate Turkcell Media address that enables to communicate directly with public and investors.
http://www.turkcell.com.tr/en/aboutus/investor-relations/press-release

Turkcell also actively participates in the events (conferences, seminars etc.) and shares the experience in Turkcell for Energy saving and emission reduction activities which may serve as an example for the sector.
Turkcell has also initiatives in smart cities and works with city municipalities. Turkcell and Gaziantep municipality worked collaboratively to develop technological solutions to use natural resources effectively and improve the citizens' quality of life. The project anticipates 30 million TL cost avoidance from the Municipalities' budget in a year.

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?

Turkcell has a corporate Climate Strategy Outline to define its overall climate change strategy and how it is integrated to its corporate risk management. Both Corporate Communication Director and Energy and Technology Group/Infrastructure Management Manager are responsible with maintaining the consistency of all Turkcell activities with the climate strategy outline paper. Both directors review the climate strategy together with Turkcell activities and projects before assuring the consistency.

Turkcell has accelerated their actions on smart and innovative technologies to contribute to low carbon transition.

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

Content elements

Governance
Emissions figures

C14. 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.

C14.1

(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Kaan Terzioğlu - Chief Executive Officer	Chief Executive Officer (CEO)