C0. Introduction

C0.1

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

Türk Telekom, with 176 years of history, is the first integrated telecommunications operator in Turkey. In 2015, Türk Telekomünikasyon A.Ş. adopted a “customer-oriented” and integrated structure in order to respond to the rapidly changing communication and technology needs of customers in the most powerful and accurate way, while maintaining the legal entities of Avea İletişim Hizmetleri A.Ş. and TTNET A.Ş. intact and adhering to the rules and regulations to which they are subject. Having a wide service network and product range in the fields of individual and corporate services, Türk Telekom unified its mobile, internet, phone and TV products and services under the single “Türk Telekom” brand as of January 2016. “Turkey’s Multiplay Provider” Türk Telekom has 13.2 million fixed access lines, 8.9 million broadband and 18.7 million mobile subscribers as of March 31, 2017. Türk Telekom Group Companies provide services in all 81 cities of Turkey with 34,147 employees with the vision of introducing new technologies to Turkey and accelerating Turkey’s transformation into an information society. Türk Telekomünikasyon A.Ş., providing PSTN and wholesale broadband services, owns 100% of mobile operator Avea İletişim Hizmetleri A.Ş., retail internet services, IPTV, satellite TV, Web TV, Mobile TV, Smart TV services provider TTNET A.Ş.,TV Broadcasting and VOD services provider Net Ekran Companies, convergence technologies company Argela Yazılım ve Bilişim Teknolojileri A.Ş., IT solution provider Innova Bilişim Çözümleri A.Ş., online education software company Sebit Eğitim ve Bilgi Teknolojileri A.Ş., call center company AssisTT Rehberlik ve Müşteri Hizmetleri A.Ş., wholesale data and capacity service provider Türk Telekom International and its subsidiaries.

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?

No

C1.1c

(C1.1c) Why is there no board-level oversight of climate-related issues and what are your plans to change this in the future?

	Primary reason	Board-level oversight of climate-related issues will be introduced within the next two years	Please explain
Row 1	The organizational structure has been redefined after the consolidation of three different companies under Türk Telekom brand. This reorganization phase is still going and climate change related issues will come into the board's agenda in the upcoming years.	Yes, we plan to do so within the next two years	

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
Environmental, Health, and Safety manager	Both assessing and managing climate-related risks and opportunities	Quarterly
Energy manager	Managing climate-related risks and opportunities	Annually
Other, please specify (Fleet management)	Managing climate-related risks and opportunities	Annually
Facility manager	Managing climate-related risks and opportunities	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.

Our company takes the climate change-related issues at the manager level and our Environment and HSE Manager is the main responsible for the climate change performance of the company. On the other hand, the leadership regarding low-carbon products and services is distributed to different units, as technological solutions for enabling climate change opportunities are managed by different skill sets. Therefore there is a collaboration between different business units both to cut our company-wise emissions and enabling technological solutions for different stakeholders to minimize GHG emissions overall. All of these mentoned managers are reporting directors who are reporting to the top management.

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?

Environmental, health, and safety manager

Types of incentives

Monetary reward

Activity incentivized

Energy reduction target

Comment

EHS Manager is the responsible for the implementation of overall climate change efforts.

Who is entitled to benefit from these incentives?

Facilities manager

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

All facility managers are responsible for minimizing the GHG emissions due to their operations.

Who is entitled to benefit from these incentives?

Energy manager

Types of incentives

Monetary reward

Activity incentivized

Energy reduction target

Comment

Energy related risks are considered within the Enterprise Risk Management System and hence risk managers are incentivized through climate related issues. Also they have the annual targets regarding the electricity use reduction.

Who is entitled to benefit from these incentives?
Other, please specify (Fleet manager)

Types of incentives
Monetary reward

Activity incentivized
Efficiency project

Comment
Fuel optimization by managing the routes as well as the car stock optimization in order to cut vehicle-based emissions.

Who is entitled to benefit from these incentives?
Other, please specify (Fleet manager)

Types of incentives
Monetary reward

Activity incentivized
Efficiency project

Comment
Personel commuting routes optimization

Who is entitled to benefit from these incentives?
Facilities manager

Types of incentives
Monetary reward

Activity incentivized
Emissions reduction project

Comment
By optimizing the employee settling, 50+ buildings will be evacuated and all emissions related electricity use and fuel consumption will be cut. Also, automizing some other buildings (6) emissions will be cut.

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	3	
Long-term	3	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	1 to 3 years	

C2.2b

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

Türk Telekom Enterprise Risk Management Directorate conducts risk management activities in accordance with international standards in order to identify and evaluate risks that the company faces. Risk management processes comprise of four parts: establishing the context; Risk Assessment (includes “Risk Identification”, “Analysis” and “Evaluation”); Risk Treatment (includes “Risk Response Decision” and “Risk Treatment Action”); Documentation and Communication (includes “Communication and Consultation” and “Monitoring, Review and Reporting”). Risks identified throughout the Enterprise Risk Management Process are evaluated at different management levels of the company and finalized at Top Management level. Impact(s) of the risks identified are measured qualitatively and if possible, quantitatively, those risks are ranked and prioritized for efficient time and resource management, decisions on whether risks should be treated or not are made by risk owners in line with Türk Telekom Group Enterprise Risk Management Directorate’s guidance.

Climate change and sustainability issues are covered under other risk topics to the extent they relate to company strategies, finances, operations and compliance. Recently, climate change risks are not considered as top risks, as there are other primary risks can affect our business model. Nonetheless, we are working on innovative, low-carbon products and services in our business line, and hence we try to minimize the possibilities those can impact our business.

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	Relevant, sometimes included	We are following the current regulation in terms of GHG emission standards and scope, GHG inventories, and so on. Recently we are not subjected to severe changes due to the current regulation.
Emerging regulation	Relevant, sometimes included	After Paris Agreement and SDGs were introduced, the international stakeholders have started to take climate risks into consideration more carefully. Even though our government did not take place in Paris Agreement, there will still be some regulation regarding cutting the emissions, so we need to be prepared for it.
Technology	Relevant, always included	As being an ICT company, technology risks are always considered primarily, and these risks could also provide some opportunities for our busimess.
Legal	Relevant, sometimes included	Legal risks have defined in the previous parts (current regulations and emerging regulations).
Market	Not evaluated	
Reputation	Relevant, sometimes included	Turk Telekom identifies climate change as a potential source of reputational risk tied to changing customer or community perceptions. This could damage the regulatory environment and investor relationships. It could also make Turk Telekom less attractive to current or future employees. That's why we consider climate related risks a potential threat to our reputation and try to manage them proactively.
Acute physical	Relevant, sometimes included	Acute physical risks may affect our business due to the fluctuating weather temperature. As our cooling systems are a major source of energy use, hot weather conditions may end up increased operational costs for us.
Chronic physical	Not relevant, explanation provided	Chronic physical risks are not evaluated as top risks. We are more vulnerable to acute physical risks whereas chronic ones are easier to manage.
Upstream	Not evaluated	
Downstream	Not evaluated	

C2.2d

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

Enterprise Risk Management System informs the relevant bodies in terms of the top risks. Climate-related risks are not considered as crucial for our company and business model yet, but we run several projects and business development regarding minimizing the climate-related risks. Especially, low-carbon products and services we offer and also use in the company-wide are the basic tools for our risk management approach.

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?

No

C2.3b

(C2.3b) Why do you not consider your organization to be exposed to climate-related risks with the potential to have a substantive financial or strategic impact on your business?

	Primary reason	Please explain
Row 1	Risks exist, but none with potential to have a substantive financial or strategic impact on business	Still, we are planning to assess the climate related risks as they also envision the opportunities for our business.

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, we have identified opportunities but are unable to realize them

C2.4b

(C2.4b) Why do you not consider your organization to have climate-related opportunities?

	Primary reason	Please explain
Row 1	Opportunities exist, we are unable to realize them	Climate change is not considered among the top risks, just because our business model does not rely heavily on fossil fuels. Yet, as a technology company, we are aware of the fact that we can enable other companies and other sectors by providing innovative and low-carbon solutions. When there is a proper

C2.5

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

	Impact	Description
Products and services	Impacted	Our pproducts and services can be seen as opportunities for minimizing GHG emissions, for our company, for different sectors and companies.
Supply chain and/or value chain	Not impacted	
Adaptation and mitigation activities	Not impacted	
Investment in R&D	Impacted	We are investing R&D and innovation programs and projects, as by every innovative and low-carbon product and/or service, we may contribute to combating climate change.
Operations	Impacted for some suppliers, facilities, or product lines	Some units such as base stations and data centers should wok at some certain temperature. Our operations may have been affected adversly from changing temperatures.
Other, please specify	Not impacted	

C2.6

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

	Relevance	Description
Revenues	Impacted	As long as we develop new low-carbon products and services, our revenues will be affected positively, as we can sell more of these products and services for a climate-friendly society.
Operating costs	Impacted	As mentioned in the previous parts, our operations may be affected by extreme weather conditions, such as hot weather, and cooling expenses may climb.
Capital expenditures / capital allocation	We have not identified any risks or opportunities	
Acquisitions and divestments	We have not identified any risks or opportunities	
Access to capital	We have not identified any risks or opportunities	
Assets	We have not identified any risks or opportunities	
Liabilities	We have not identified any risks or opportunities	
Other	We have not identified any risks or opportunities	

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?

No, but we anticipate doing so in the next two years

C3.1c

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

As a leading ICT company, Türk Telekom provides products and services which support the low-carbon economy, by spending efforts on decreasing its GHG emissions, as well as supporting different sectors with low-carbon product and service solutions. GHG management and combating climate change is one of the major issues for the company and those are already embedded into the company's overall strategy. The governance model enables to manage the issue in the top level (senior manager and sustainability committee directly reporting to the board) which also reveals the understanding the importance of the issue. There are a lot of recognition and incentives towards reduction of emissions as well as innovative ideas for different sectors to decrease their emissions. The company has a Climate Change Policy statement which frames the governance and the overall management of the issue. According to that, climate change related issues are considered in the relevant departments and units and are reported to the sustainability committee which directly reports to the Board. The Policy Statement is referring to the Paris Agreement as well as the Goal 13, Climate Action of famous Sustainable Development Goals of United Nations. By this manner, Türk Telekom stands for combating climate change by following and embodying the recent intergovernmental developments. ICT is a fast developing sector by facilitating many low carbon solutions. We are working to identify the needs of our customers and offer cutting-edge services that enable carbon reductions throughout the value chain (e.g. telepresence, cloud computing, increased access to broadband and improving network capabilities). We have numerous customer-facing low carbon solutions such as e-billing and low energy phones. There is always an allocated budget for supporting the development of such products and services and we keep innovating regarding the low-carbon ones.

C3.1g

(C3.1g) Why does your organization not use climate-related scenario analysis to inform your business strategy?

We are living in a turbulent times, as a country and as globally. Working on scenario analysis is hard at the moment for our company as we are also re-organizing.

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	We are planning to introduce a target in the next two years		There is no forecast could be done as the future projections of the company is not clear yet due to the re-organization. Investment decisions will be made by the top management, and according to the growth projections, we can run a forecasting project for our emissions.

C4.2

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

Target
Energy usage

KPI – Metric numerator
CO2eq emissions from buildings

KPI – Metric denominator (intensity targets only)

Base year
2016

Start year
2017

Target year
2018

KPI in baseline year
50966

KPI in target year
43144

% achieved in reporting year
15.5

Target Status
Expired

Please explain
The annual target for energy usage in buildings was 15%. It is surpassed by 0.5%.

Part of emissions target

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

Target
Please select

KPI – Metric numerator

KPI – Metric denominator (intensity targets only)

Base year

Start year

Target year

KPI in baseline year

KPI in target year

% achieved in reporting year

Target Status
Please select

Please explain

Part of emissions target

Is this target part of an overarching initiative?
Please select

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*	7	6761.89
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
Other, please specify (Next Gen Network Transformation)

Estimated annual CO2e savings (metric tonnes CO2e)
3601

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

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)
2326168

Investment required (unit currency – as specified in CC0.4)
16000000

Payback period
4 - 10 years

Estimated lifetime of the initiative
6-10 years

Comment
NGN Transformation project: The migration to IP based soft switch network infrastructure has been reducing the number of exchanges and operational expenses. The telephone network covering all of Turkey, has been migrated into an IP based network. With this migration of the existing PSTN into IP infrastructure, every citizen in Turkey enjoy a large number of value added services wherever they are. As a result of the reduction of exchange areas, this project enables a reduction in cooling needs, which further reduces GHG emissions.

Activity type
Energy efficiency: Processes

Description of activity
Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
416.14

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

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)
268793

Investment required (unit currency – as specified in CC0.4)
0

Payback period
<1 year

Estimated lifetime of the initiative
6-10 years

Comment
ATM-IP Transformation project: Transference of ATM DSLAM based subscribers to IPDSLAM ports. This occasion enabled an uplink increase and provided our subscribers higher bandwith. During this process, new generation devices consumes less energy and provides savings.

Activity type
Energy efficiency: Building services

Description of activity
Building controls

Estimated annual CO2e savings (metric tonnes CO2e)
182.15

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

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)
117655

Investment required (unit currency – as specified in CC0.4)
4700000

Payback period
1-3 years

Estimated lifetime of the initiative
16-20 years

Comment
DX Air Conditioning Transformation project: Air conditioning systems has been replaced with new generation energy efficient conditioning systems. As a result of this transformation, operation costs and energy consumption levels have decreased. The payback period is consiedered as 1-3 years, as this is a continuous project, therefore investment cost is distributed over years.

Activity type
Energy efficiency: Building services

Description of activity
Building controls

Estimated annual CO2e savings (metric tonnes CO2e)
919.6

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

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)
600000

Investment required (unit currency – as specified in CC0.4)
65000

Payback period
<1 year

Estimated lifetime of the initiative
6-10 years

Comment
Air Conditioning optimization projects: Air conditioning systems are optimized company wide by Back-up applications, fan optimization solutions, Wall-Type Air Conditioner Optimization Projects, Operation of Air Conditioning Indoor Fans by Driver, DC Energy Halls Set Value Increase which resulted energy savings.

Activity type
Energy efficiency: Building fabric

Description of activity
Other, please specify (Optimization of indoor space use)

Estimated annual CO2e savings (metric tonnes CO2e)
637.9

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

Voluntary/Mandatory
Please select

Annual monetary savings (unit currency – as specified in CC0.4)
412048

Investment required (unit currency – as specified in CC0.4)
310000

Payback period
<1 year

Estimated lifetime of the initiative
16-20 years

Comment
The optimization of system rooms as well as their consolidation. Non-used air conditioners are used somewhere else, therefore emissions are cut.

Activity type
Energy efficiency: Building services

Description of activity
Building controls

Estimated annual CO2e savings (metric tonnes CO2e)
766.3

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

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)
495000

Investment required (unit currency – as specified in CC0.4)
630000

Payback period
1-3 years

Estimated lifetime of the initiative
16-20 years

Comment
Expired air conditioners which cool down the system rooms are changed with the new technology ones.

Activity type
Low-carbon energy installation

Description of activity
Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)
178.8

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

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)
115500

Investment required (unit currency – as specified in CC0.4)
635000

Payback period
4 - 10 years

Estimated lifetime of the initiative
21-30 years

Comment

C4.3c

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

Method	Comment
Dedicated budget for other emissions reduction activities	

C4.5

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

C4.5a

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

Level of aggregation
Product

Description of product/Group of products
Cloud-eye system is a remote camera system and a surveillance agent which helps to security bodies to investigate issues easily. It enables official security authorities to reach more areas virtually, which results in less patrolling. By providing optimization and efficiency, this technology avoids unnecessary emissions from patrolling.

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

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions
Evaluating the carbon-reducing impacts of ICT

% revenue from low carbon product(s) in the reporting year
0.01

Comment

Level of aggregation
Group of products

Description of product/Group of products
We are developing and selling smart city solutions, such as traffic cameras, smart poles and etc. By smart city technologies, we are offering tailor-made technological solutions for different city needs. They make city life easier with the help of gathered data from sensors, vehicles and enable smart health, traffic, environment and energy services.

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

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions
Evaluating the carbon-reducing impacts of ICT

% revenue from low carbon product(s) in the reporting year
0.01

Comment

Level of aggregation
Company-wide

Description of product/Group of products
Video conference technology is widely used among our facilities, headquarters, and different locations. Videoconference allows for communication between people in two or more locations through simultaneous two way video and audio transmissions. Via this service, several users in different locations are able to communicate without the need to travel and meet face to face. We have done more than 80 thousands VK rooms booking.

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

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions
Evaluating the carbon-reducing impacts of ICT

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

Comment
As this is a company-wide service, there is no revenue related. We avoided approximately 5,600 ton CO2eq according to our calculations. Calculation methodology: Emission calculation due to the avoided emission is based on several assumptions. Not every video conference is causing an avoided flight therefore we use the fraction of 0.5. In addition to that, each VK has four participants in average, each meeting which avoids a flight is actually avoiding for two participants. Therefore we, in total, avoid around 80 thousands domestic flights which in Turkey can be calculated as 500 km of distance.

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 2015

Base year end
December 31 2015

Base year emissions (metric tons CO2e)
117770.5

Comment

Scope 2 (location-based)

Base year start
January 1 2015

Base year end
December 31 2015

Base year emissions (metric tons CO2e)
643011.2

Comment

Scope 2 (market-based)

Base year start
January 1 2015

Base year end
December 31 2015

Base year emissions (metric tons CO2e)
643011.2

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

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)
122256

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 are reporting a Scope 2, market-based figure

Comment

C6.3

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

Row 1

Scope 2, location-based
639526.4

Scope 2, market-based (if applicable)
639526.4

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
Relevant, not yet calculated

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

Capital goods

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

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

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation
Fleet and excavators

Upstream transportation and distribution

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

Waste generated in operations

Evaluation status
Relevant, calculated

Metric tonnes CO2e
4516.7

Emissions calculation methodology
We calculated total emissions due to paper and cartridges use according to the number of use. The data is obtained internally.

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

Explanation

Business travel

Evaluation status
Relevant, calculated

Metric tonnes CO2e
4053.8

Emissions calculation methodology
Business travel data is gathered from the relevant supplier in terms of destinations and we converted and calculated them into GHG emissions. Domestic, European and transcontinental flights got different coefficients.

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

Explanation

Employee commuting

Evaluation status
Relevant, calculated

Metric tonnes CO2e
6709.7

Emissions calculation methodology
We gathered data from the relevant supplier and calculated the emissions according to the distances, vehicle size and engine emission type.

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 do not have any leased assets in the upstream of our business.

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
Downstream transportation and distribution do not fall into our scope for this response.

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
Our products do not have any further processing after they are sold.

Use of sold products

Evaluation status

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation
Our products and services are hard to be defined as energy user. Therefore this part is not added into the calculations.

End of life treatment of sold products

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation
There are some targets and projects regarding the collection of e-waste and yet they are not considered as part of the emission calculations.

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
We do not have any downstream leased assets.

Franchises

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 do not have any franchises. Therefore they are not added into calculation.

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
We do not have any further emissions doe to the investments done in the reporting year.

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 is no other emission source in the upstream.

Other (downstream)

Evaluation status

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation
There is no other emission source in the downstream.

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
41995

Metric numerator (Gross global combined Scope 1 and 2 emissions)
761782.4

Metric denominator
unit total revenue

Metric denominator: Unit total
18140000000

Scope 2 figure used
Market-based

% change from previous year
4.7

Direction of change
Decreased

Reason for change
Our revenue has increased enough to compensate the increased emissions.

Intensity figure
22.079

Metric numerator (Gross global combined Scope 1 and 2 emissions)
761782.4

Metric denominator
full time equivalent (FTE) employee

Metric denominator: Unit total
34502

Scope 2 figure used
Market-based

% change from previous year
3.2

Direction of change
Increased

Reason for change
As our global emission have increased, the intensity figure FTE is also increased since there is a slight difference between the numbers of full time employees in both 2016 and 2017.

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	121565	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	147.7	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	543.3	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	122256

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)
Data centers	2653
Base stations	21374
Transmission lines	46514
Buildings	19937
Transportation	31779

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	639526.4	639526.4		

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)
Data centers	29625	29625
Base stations	234793	234793
Transmission systems	351901	351901
Buildings	23207	23207

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		<Not Applicable>		
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output		<Not Applicable>		
Change in methodology	57650.6	Increased	8	Due to the lower emission factor for electricity in 2016, the comparison between 2016 and 2017 has a difference.
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?

Market-based

C8. Energy

C8.1

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

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

C8.2

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

	Indicate whether your organization 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	No

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	239328	239328
Consumption of purchased or acquired electricity	<Not Applicable>	2.1	1248752	1248754
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total energy consumption	<Not Applicable>	2.1	1488080	1448182

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)
Diesel

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
136851

MWh fuel consumed for the self-generation of electricity
24395

MWh fuel consumed for self-generation of heat
0

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

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

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

Fuels (excluding feedstocks)
Natural Gas

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
70255

MWh fuel consumed for the self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

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

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

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

Fuels (excluding feedstocks)
Fuel Oil Number 1

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
3266

MWh fuel consumed for the self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

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

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

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

Fuels (excluding feedstocks)
Coal

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
4623

MWh fuel consumed for the self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

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

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

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

C8.2d

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

Coal

Emission factor
1.489

Unit
metric tons CO2e per m3

Emission factor source
IPCC AR5 adjusted by the national emission factors released by the state.

Comment

Diesel

Emission factor
2.6652

Unit
metric tons CO2e per m3

Emission factor source
IPCC AR5 adjusted by the national emission factors released by the state.

Comment

Fuel Oil Number 1

Emission factor
3.1265

Unit
metric tons CO2e per liter

Emission factor source
IPCC AR5 adjusted by the national emission factors released by the state.

Comment

Natural Gas

Emission factor
1.9422

Unit
metric tons CO2e per m3

Emission factor source
IPCC AR5 adjusted by the national emission factors released by the state.

Comment

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

MWh consumed associated with low-carbon electricity, heat, steam or cooling
2.15

Emission factor (in units of metric tons CO2e per MWh)
0

Comment

C9. Additional metrics

C9.1

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

Description
Energy use

Metric value
1488082

Metric numerator
Energy use in MWh

Metric denominator (intensity metric only)

% change from previous year
2.6

Direction of change
Increased

Please explain
The electricity coefficient is increased from the previous year. Therefore there is a slight increase in our total energy use.

C10. Verification

C10.1

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

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

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?

No, but we are actively considering verifying within the next two years

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

C12.1a

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

Type of engagement
Compliance & onboarding

Details of engagement
Climate change is integrated into supplier evaluation processes

% of suppliers by number
50

% total procurement spend (direct and indirect)

% Scope 3 emissions as reported in C6.5

Rationale for the coverage of your engagement
We are running this program for a while and yet the percentage of suppliers covered is changing.

Impact of engagement, including measures of success

Comment

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?
Other

C12.3e

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

By being member of different multi-stakeholder initiatives, we are working towards lobbying the policiy makers about climate change-related issues, especially, the enabling dimension of ICT sector. We were a member of Global e-Sustainability Initiative (GeSI) for years. By this engagement we have a chance to follow the recent developments regarding the low carbon economy and we position the company aligned with these developments. This give us a chance to lobby the policy-makers with a strong background in enabling effect of ICT. In fact, Türk Telekom is the first Turkish company at GeSI. We were also taking part at Energy Efficiency Working Group operating under GeSI. Türk Telekom is also the first telecom operator to be elected to the Board of Directors of the Eurogia+ Cluster operating under the European Union's EUREKA R&D Program. Through this membership, Türk Telekom aims to have a voice in the formulation and development of European energy efficiency and low carbon technologies. We have also been a member of Sürdürülebilir Kalkınma Derneği (SKD - WBCSD Turkey Branch), and actively participating the the working groups such as Women Employment and Equal Opportunities, Sustainable Agriculture and Access to Food, Energy, Decent Works, Sustainable Consumption and Sustainable Finance and Innovation. This also gives us the opportunity to see the bigger picture related to sustainable society and hence we can understand the interconnections among these issues through the lens of climate change and low carbon society. Our presence in Energy Working Group is particularly important for combating climate change and creating new solutions towards a low-carbon economy.

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?

We have published a policy on combating climate change internally, and our approach to the climate-related issues are disclosed there. In the light of this policy, we are also working towards a low-carbon socity, with our products and services offered. We have also been taking part of CDP since 2010 (with a break between 2013-2016) and disclosing our performance with investors.

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 communications

Status
Complete

Attach the document
2017-Annual-Report.pdf

Content elements
Governance
Risks & opportunities
Other metrics

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	HSE and Environment Manager	Environmental, health and safety manager

Submit your response

In which language are you submitting your response?
English

Please confirm how your response should be handled by CDP

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

Please confirm below
I have read and accept the applicable Terms