

Welcome to your CDP Water Security Questionnaire 2019

W0. Introduction

W0.1

(W0.1) Give a general description of and introduction to your organization.

ENKA İnşaat ve Sanayi A.Ş., a company with its headquarters in Istanbul, Turkey, provides services in the following areas through its affiliated companies, foreign enterprise branches and jointly controlled entities:

- Engineering and Construction
- Power Generation
- Real Estate
- Trade

Founded in 1957, ENKA İnşaat ve Sanayi A.Ş. (ENKA) provides comprehensive services including design and engineering at the purchasing, construction, commissioning, operation, maintenance and project management stages of all kinds of construction projects. It operated mainly in Turkey in the early years and later in other countries. ENKA has carried out more than 500 projects in 45 countries. Working with human resources comprising more than 20,000 and a machinery park valued at USD 351 million, ENKA has succeeded in making its services available in every location in the world.

2018 is the second CDP reporting year for ENKA. The report chapters entitled Energy Efficiency and Climate Change and Water Management cover the activities of ENKA Headquarters, two of ENKA İnşaat Projects, Çimtaş (Steel and Pipe), ENKA Power (all three plants), ENKA Pazarlama, ENKA Schools Kocaeli, ENKA Sports Club and ENKA Real Estate (CCI, ENKA TC, MKH). Scope of the CDP reporting is planned to be expanded to cover all ENKA activities and subsidiaries in future reporting years.

W-EU0.1a

(W-EU0.1a) Which activities in the electric utilities sector does your organization engage in?

Electricity generation

W-EU0.1b

(W-EU0.1b) For your electricity generation activities, provide details of your nameplate capacity and the generation for each power source.

	Nameplate capacity (MW)	% of total nameplate capacity	Gross generation (MWh)
Coal – hard	0	0	0
Lignite	0	0	0
Oil	0	0	0
Gas	3,830	100	23,200,000
Biomass	0	0	0
Waste (non-biomass)	0	0	0
Nuclear	0	0	0
Geothermal	0	0	0
Hydroelectric	0	0	0
Wind	0	0	0
Solar	0	0	0
Other renewable	0	0	0
Other non-renewable	0	0	0
Total	3,830	100	23,200,000

W0.2

(W0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date
Reporting year	January 1, 2018	December 31, 2018

W0.3

(W0.3) Select the countries/regions for which you will be supplying data.

- Georgia
- Russian Federation
- Turkey

W0.4

(W0.4) Select the currency used for all financial information disclosed throughout your response.

- USD

W0.5

(W0.5) Select the option that best describes the reporting boundary for companies, entities, or groups for which water impacts on your business are being reported.

- Companies, entities or groups over which operational control is exercised

W0.6

(W0.6) Within this boundary, are there any geographies, facilities, water aspects, or other exclusions from your disclosure?

- Yes

W0.6a

(W0.6a) Please report the exclusions.

Exclusion	Please explain
<p>ENKA has many other businesses other than electricity generation in numerous countries. Exclusions are;</p> <ul style="list-style-type: none"> -Power plant and infrastructure projects constructed by ENKA İnşaat in various countries -Two Çimtaş plants in Turkey -One Çimtaş steel processing plant in China -Kasktaş Piling Company -Several assets owned by Real Estate subsidiary of ENKA located in Russia -Software and logistic companies located in Turkey -Two schools in Adapazarı and İstanbul 	<p>Most of the water consumption/withdrawal is due to electricity generation facilities (three natural gas power plants) located in Turkey which are included in reporting.</p> <p>Excluded sources have minimum water use/dependence.</p> <p>Only major water consuming locations/facilities have been prioritized. Boundary of reporting is planned to be expanded in future reporting years.</p>

W1. Current state

W1.1

(W1.1) Rate the importance (current and future) of water quality and water quantity to the success of your business.

	Direct use importance rating	Indirect use importance rating	Please explain
<p>Sufficient amounts of good quality freshwater available for use</p>	<p>Vital</p>	<p>Important</p>	<p>Primary use of freshwater is for cooling purposes in power plants. Lack of sufficient amount of water will affect efficiency of the plants and may cause disruption of operation due to safety reasons. Therefore, it is vital for operations. Also, Çimtaş steel and pipe facilities uses freshwater. Investments are made for reducing dependency on freshwater such as recycling water, using sea water or improving monitoring of water consumption/withdrawal. Indirect water consumption exists due to concrete production and either raw material (steel, metals and</p>

			chemicals) suppliers. Accessing good quality water is vital for suppliers providing concrete for construction projects and metal production.
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Not very important	Recycled/brackish water is also used for irrigation of green areas, roads to prevent dust formation, - after concrete casting processes and hydro tests of pipelines where possible. Usually, groundwater does not have good quality due pollution or salinity. In the absence of brackish water, fresh water needs to be provided which will be more costly and difficult to supply.

W1.2

(W1.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	100%	Since ENKA undertakes projects that are in various different locations of the world, both water scarcity and water abundance is encountered. This situation poses challenges in terms of water management and the way which water is supplied to the projects. In conditions where a water network system is not established, wells may be drilled for accessing to groundwater. In other cases, water supplied by the municipalities is used. All water usage, including withdrawal from surface/subsurface waters, water supplied by municipalities or water supplied / transported by third parties are regularly measured and 100% of the amount is recorded.
Water withdrawals – volumes from water stressed areas	100%	Since ENKA undertakes projects that are in various different locations of the world, both water scarcity and water abundance is encountered. This situation poses challenges in terms of water management and the way which water is supplied to the projects. In conditions where a water network system is not established, wells may be drilled for access to groundwater. In other cases, water that is supplied by the municipalities is used. All water usage, including withdrawal from surface / subsurface waters, water supplied by municipalities or water supplied / transported by third parties are regularly measured and 100% of the amount is recorded.

Water withdrawals – volumes by source	100%	Since ENKA undertakes projects that are in various different locations of the world, both water scarcity and water abundance is encountered. This situation poses challenges in terms of water management and the way which water is supplied to the projects. In conditions where a water network system is not established, wells may be drilled for access to groundwater. In other cases, water that is supplied by the municipalities is used. All water usage, including withdrawal from surface / subsurface waters, water supplied by municipalities or water supplied / transported by third parties are regularly measured and 100% of the amount is recorded.
Water withdrawals quality	100%	All water withdrawals are monitored in terms of quality and recorded where necessary.
Water discharges – total volumes	100%	All water discharge volumes are known, monitored and reported. In cases of mains water use (e.g. in HQ offices, schools etc.) we consider total water discharge the same as mains withdrawals.
Water discharges – volumes by destination	100%	All water discharge destinations are known, monitored and reported.
Water discharges – volumes by treatment method	100%	Parameters such as BOD, TSS, oil and temperature are monitored for relevant facilities (ENKA Power's İzmir Plant, Çimtaş Steel and all construction projects that discharge into receiving bodies). Oil is relevant for catering facilities (lessees) and monitored closely to ensure oil traps are functional. For power plants, temperature is most relevant parameters and monitored continuously to ensure compliance with relevant regulations. BOD, TSS, and Oil is monitored in Çimtaş Steel and the construction projects. Relevant articles of SKKY (Water Pollution Control Directive) or corresponding local regulation is used for monitoring/analysis requirements. For thermal power plants, table 9.3 of SKKY is used for monitoring and results are reported to Directorate of Environment and Urbanization.
Water discharge quality – by standard effluent parameters	100%	Parameters such as BOD, TSS, oil and temperature are monitored for relevant facilities (ENKA Power's İzmir Plant, Çimtaş Steel and all construction projects that discharge into receiving bodies). Oil is relevant for catering facilities (lessees) and monitored closely to ensure oil traps are functional. For power plants, temperature is most relevant parameters and monitored continuously to ensure compliance with relevant regulations. BOD, TSS, and Oil is monitored in Çimtaş Steel and the construction projects. For internal monitoring, monthly samples are taken



		from discharge point and analysis are made as per table 9.6 of the SKKY(Water Pollution Control Directive). Also, a station exists at the discharge point for continuous waste water monitoring system (SAIS). Analysis are also made as per table 9.6 of SKKY and values declared by Ministry of environment and Regulation on 24/06/2015 every three months.
Water discharge quality – temperature	100%	Temperature is relevant for natural gas power plants ENKA Power's natural gas power plants in İzmir, Adapazarı and Gebze. For internal monitoring, monthly samples are taken from discharge point and analysis are made as per table 9.6 of the SKKY(Water Pollution Control Directive). Also, a station exists at the discharge point for continuous waste water monitoring system (SAIS). Analysis are also made as per table 9.6 of SKKY and values declared by Ministry of environment and Regulation on 24/06/2015 every three months.
Water consumption – total volume	100%	Water consumed in each location, facility and process is monitored and reported. Process water is monitored in power plants directly. For other locations, total withdrawals – total discharges are used.
Water recycled/reused	100%	ENKA recycles/reuses water in several facilities for many years. Starting from 2017, ENKA has initiated an incentive for reuse/recycling water in all facilities and monitoring all recycled/reused water in detail. Collected data will be analysed and used for target setting in next years.
The provision of fully-functioning, safely managed WASH services to all workers	100%	ENKA provides potable water to all of its employees, either by treating water in its own treatment plants in projects or through procured water by authorized third parties. By regular sampling, testing and monitoring, ENKA ensures the quality of the water is within the applicable standards.

W1.2b

(W1.2b) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, and how do these volumes compare to the previous reporting year?

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
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Total withdrawals	26,210.02	About the same	Most of the withdrawn (94.92%) water is sea water used in cooling of Izmir power plant. Total water withdrawal across all operations were about the same as 2017.
Total discharges	18,948.64	About the same	Water intake is dominated by sea water withdrawal by ENKA Izmir power plant. Total water discharges across all operations were about the same as 2017.
Total consumption	7,261.38	About the same	Most of the consumption (98.22%) is sea water. Total consumption was about the same as 2017. Consumption in other facilities are due to use of water for sanitation (WASH), irrigation and dust prevention, green areas and and evaporation in processes.

W1.2d

(W1.2d) Provide the proportion of your total withdrawals sourced from water stressed areas.

	% withdrawn from stressed areas	Comparison with previous reporting year	Identification tool	Please explain
Row 1	99	About the same	WRI Aqueduct	Considering sea water withdrawal, 99% is from high water stressed areas. For fresh water, only 33% of withdrawn water is from high water stress areas. % withdrawn from high water stress areas has reduced due to mainly withdrawn water by power plants. Izmir natural Gas Power plant is located in most water scarce location and uses seawater demineralization for cooling. All our facilities in Turkey are considered under high risk. Our facilities in Russia's Moscow region and Volga river basin are classified as medium-high risk and those in Kazan and Georgia were classified as low risk. Quantity of each facilities volume withdrawn are recorded.

W1.2h

(W1.2h) Provide total water withdrawal data by source.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	0.4	This is our first year of measurement	Cimtas Pipe uses a rainwater toilet flushing system to reduce water consumption This is the first year where we started to monitor consumption. ENKA TC's Rainwater Recycling Project began at the Kapitoly Outlet Shopping Centre in St. Petersburg, Russia. However, this is not considered a water stressed area.
Brackish surface water/Seawater	Relevant	24,838.93	About the same	Sea water is used for cooling demand in Izmir NG Power Plant.
Groundwater – renewable	Relevant	411.92	Lower	Groundwater is used for cooling and process water in Adapazarı and Gebze power plants and for process water in Izmir power plant. Çimtas and construction facilities also uses groundwater for process water. Groundwater withdrawal has decreased around 47.7% in 2018 mainly due to the reduction in power generation activities.
Groundwater – non-renewable	Not relevant			All groundwater sources utilized by ENKA are considered renewable sources.
Produced/Entrained water	Not relevant			N/A
Third party sources	Relevant	958.77	About the same	Water demand in schools, shopping centers and headquarters are supplied through municipal network. Only Istanbul headquarter offices and ENKA Schools are located in high water stress areas.

W1.2i

(W1.2i) Provide total water discharge data by destination.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant	6.85		Main discharge to freshwater was from SCPX construction facilities. Amount discharged was much lower because most of the construction activities ended in the reporting period.
Brackish surface water/seawater	Relevant	17,742	Lower	Seawater used for cooling has reduced due to reduced cooling demand in İzmir NG Power plant due to the reduction in electricity generation
Third-party destinations	Relevant	1,199.79	About the same	Operational reductions in Adapazarı and Gebze power plants and the increase in office and real estate operations offsetted each other.

W1.2j

(W1.2j) What proportion of your total water use do you recycle or reuse?

	% recycled and reused	Comparison with previous reporting year	Please explain
Row 1	1-10	About the same	Around 3.4% of all freshwater use is recycled/reused mainly for irrigation and dust control purposes in construction sites.

W-EU1.3

(W-EU1.3) Do you calculate water intensity for your electricity generation activities?

Yes

W-EU1.3a

(W-EU1.3a) Provide the following intensity information associated with your electricity generation activities.

Water intensity value (m3)	Numerator: water aspect	Denominator: unit of production	Comparison with previous reporting year	Please explain
0.01	Other, please specify demineralized water consumption in liter	MWh	About the same	Actual value is 0.006. For Izmir Power plant, intensity target has been defined as 0.020 m3 demineralized water /MWh
0.02	Other, please specify demineralized water cons. in liter	MWh	About the same	Actual value is 0.017. For Gebze and Adapzari Power plant, target has been set as 0.035 m3 demineralized water /MWh.

W1.4

(W1.4) Do you engage with your value chain on water-related issues?

Yes, our suppliers

Yes, our customers or other value chain partners

W1.4a

(W1.4a) What proportion of suppliers do you request to report on their water use, risks and/or management information and what proportion of your procurement spend does this represent?

Row 1

% of suppliers by number

76-100%

% of total procurement spend

76-100

Rationale for this coverage

Within the scope of sustainability studies, ENKA has started working closely with our vendors as well as with all our partners. In this context, the scope of environmental expectations of EGVN (ENKA Global Vendor Network) for vendors was widened. Transition to ISO 14001:2015 version was completed. Life cycle approach which was emphasized specially in this version was shared with our vendors and the expectations were raised... The environment related questions on the Vendor evaluation forms are an important factor for vendor selection.

Water related criteria are evaluated in detail in ENKA supplier selection. Questions raised for suppliers include;

- Assessment of Environmental Management system in place
- Existence of a water management plan
- Legal permissions for water sourcing
- Legal compliance for wastewater discharge
- Existing policies on water efficiency product use,
- Use of alternative sources (rainwater, treated water etc)

Impact of the engagement and measures of success

ENKA suppliers are classified as per the scope and size of the business volume. Long term subcontractors are required to submit full report on water management. Service and good suppliers are required to submit report within the scope of the service/good supplied. Audits are performed to ensure compliance with requirements. Results of audits are shared with suppliers and actions plans are developed and monitored for implementation.

ISO14001 certificate is must for relevant existing or new suppliers. In recent years, significant progress have been made with suppliers in implementing prepared action plans for waste water and other wastes. Suppliers which can achieve compliance with prepared actions plans are not preferred in new projects.

Comment

W1.4b

(W1.4b) Provide details of any other water-related supplier engagement activity.

Type of engagement

Incentivizing for improved water management and stewardship

Details of engagement

Water management and stewardship is integrated into supplier evaluation processes

Water management and stewardship is featured in supplier awards scheme

% of suppliers by number

26-50

% of total procurement spend

51-75

Rationale for the coverage of your engagement

Water management is part of ENKA's sustainability and EHS policy. ENKA knows the value of water and intends its suppliers to have the same approach via supplier management procedures. Requirements of the procedures are reflected in supplier contracts which also obliges suppliers to report their performance to ENKA periodically. Those reports are monitored and verified by ENKA during audits and site visits

Main parameters monitored are;

- Monthly water withdrawal for each source
- Monthly discharged volume for each discharge point.
- Monthly recycled/reused water volume
- Periodic analysis on discharged water
- Biological sensitivities in intake and discharge points

Impact of the engagement and measures of success

ENKA suppliers are classified as per the scope and size of the business volume. Long term subcontractors are required to submit full report on water management. Service and good suppliers are required to submit report within the scope of the service/good supplied. Audits are performed to ensure compliance with requirements. Results of audits are shared with suppliers and actions plans are developed and monitored for implementation.

ISO14001 certificate is must for relevant existing or new suppliers. In recent years, significant progress have been made with suppliers in implementing prepared action plans for waste water and other wastes. Suppliers which can achieve compliance with prepared actions plans are not preferred in new projects.

Comment

W1.4c

(W1.4c) What is your organization's rationale and strategy for prioritizing engagements with customers or other partners in its value chain?

Determining the needs and expectations of stakeholders and engaging them in business processes is of great strategic value and importance for improving performance in processes and activities, minimising risks and managing them effectively, reducing environmental impacts through an awareness of new developments in the company's fields of activity, shaping social investment efforts and collectively constructing a sustainable future. ENKA defines its stakeholders as the individuals, groups and organisations who affect, or are affected, directly or indirectly, by its activities, aims and policies, and by the decisions which it takes. In identifying the stakeholders who may influence its strategies and activities, or whom the activities it carries out may affect, the company makes use of criteria such as degree of impact, potential for impact, authority to represent individuals and institutions, degree of loyalty to the company and influence over company policies and targets.

Together with all its subsidiaries, ENKA has an extensive stakeholder network. In line with its overall understanding and principles of stakeholder engagement, the company maps its stakeholders and identifies channels for interacting with them. ENKA further groups its main stakeholders as employees, customers, business partners, shareholders, community stakeholders and public institutions. ENKA communicates regularly with its stakeholders in a spirit of openness, transparency and accountability. It informs them about its activities via various platforms and endeavours to obtain their opinions. Stakeholder engagement activities have played a determinant role in the identification of ENKA's sustainability strategy and actions.

W2. Business impacts

W2.1

(W2.1) Has your organization experienced any detrimental water-related impacts?

No

W2.2

(W2.2) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?

No

W3. Procedures

W-EU3.1

(W-EU3.1) How does your organization identify and classify potential water pollutants associated with your business activities in the electric utilities sector that could have a detrimental impact on water ecosystems or human health?

ENKA Power Plants have internal and mandatory monitoring systems for relevant pollutants.

Total Suspended Solid (TSS), Iron, COD, BOD, Chloride, pH, Sulphate, grease and temperature parameters are monitored and reported. For internal monitoring, analyses are made as per table 9.6 of SKKY (Water Pollution Control Directive) from water intake points.

Each quarter, samples from discharge points are analysed as per SKKY table 9.6 against limits declared by Min. of Environment and urbanization on 24/06/2015. These samples are sent to the Ministry of Environment and Urbanization.

Continuous waste water monitoring station installed for monitoring instant values and recording defined parameters.

Waste water from boiler, wastewater treatment system for residential consumption are all monitored and reported as per the relevant regulations. Operation team continuously monitors water withdrawal, demineralized water consumption, steam consumption and water consumption in auxiliary facilities.

W-EU3.1a

(W-EU3.1a) Describe how your organization minimizes the adverse impacts of potential water pollutants associated with your activities in the electric utilities sector on water ecosystems or human health.

Potential water pollutant	Description of water pollutant and potential impacts	Management procedures	Please explain
Thermal pollution	Temperature of cooling water may affect biological life in discharge point	Compliance with effluent quality standards	This parameter is relevant especially for discharge to sea. As per the regulations, discharge temperature is continuously monitored to ensure compliance with regulations. Procedures and monitoring system defined in W-EU3 is used for continuous monitoring of the thermal pollution.
Contaminated cooling water	pH, chloride , TSS etc	Compliance with effluent quality standards	Besides continuous monitoring systems and internal monitoring procedures, samples are collected from relevant points as per SKKY (water pollution control directive) parameters.

W3.3

(W3.3) Does your organization undertake a water-related risk assessment?

Yes, water-related risks are assessed

W3.3a

(W3.3a) Select the options that best describe your procedures for identifying and assessing water-related risks.

Direct operations

Coverage

Full

Risk assessment procedure

Water risks are assessed as part of an enterprise risk management framework

Frequency of assessment

Six-monthly or more frequently

How far into the future are risks considered?

>6 years

Type of tools and methods used

Tools on the market

Other

Tools and methods used

WRI Aqueduct

WWF-DEG Water Risk Filter

Other, please specify

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Comment

ENKA undertakes a comprehensive company-wide water-related risk assessment as well as developing separate risk assessments for each of its projects involving its suppliers. Before the construction of projects, Environmental and Social Impact Assessment Reports are prepared by external consultants to identify potential impacts the project may have on the environment as well as defining water-related risks the project may pose. Early Identification of Risks Committee and Risk Management Work Group, together with the help of Corporate and Project HSE Departments also take the responsibility of determining the potential water-related risks and the necessary measures to be taken within the framework of ISO 14001:2015 Environmental Management Systems. As a part of ISO 14001:2015, Life Cycle Assessments of materials supplied and wastes produced are also taken into consideration.

Supply chain

Coverage

Full

Risk assessment procedure

Water risks are assessed as part of an enterprise risk management framework

Frequency of assessment

Six-monthly or more frequently

How far into the future are risks considered?

1 to 3 years

Type of tools and methods used

Other

Tools and methods used

Internal company methods

Comment

ENKA undertakes a comprehensive company-wide water-related risk assessment as well as developing separate risk assessments for each of its projects involving its suppliers. Before the construction of projects, Environmental and Social Impact Assessment Reports are prepared by external consultants to identify potential impacts the project may have on the environment as well as defining water-related risks the project may pose. Early Identification of Risks Committee and Risk Management Work Group, together with the help of Corporate and Project HSE Departments also take the responsibility of determining the potential water-related risks and the necessary measures to be taken within the framework of ISO 14001:2015 Environmental Management Systems. As a part of ISO 14001:2015, Life Cycle Assessments of materials supplied and wastes produced are also taken into consideration.

Other stages of the value chain

Coverage

Full

Risk assessment procedure

Water risks are assessed in an environmental risk assessment

Frequency of assessment

Six-monthly or more frequently

How far into the future are risks considered?

>6 years

Type of tools and methods used

Other

Tools and methods used

External consultants

Comment

We implement extensive water risk assessments for our construction projects, especially for projects financed by IFIs. More specifically, extensive Environment and Social Risk Assessment studies are conducted with the help of external consultants where both environmental and social impacts of water should be considered in great detail.

W3.3b

(W3.3b) Which of the following contextual issues are considered in your organization’s water-related risk assessments?

	Relevance & inclusion	Please explain
Water availability at a basin/catchment level	Relevant, always included	Water availability is vital for electricity generation, construction facilities and also industrial facilities of ENKA. In the absence of water, power plants should either reduce capacity or completely shut down for safety reasons. For construction sites, availability of water will impact subcontractors such as concrete

		suppliers to a very high extent. Water availability for sanitary and drinking purposes are crucial for construction activities as well.
Water quality at a basin/catchment level	Relevant, always included	Two power plants and industrial plants use ground water for cooling or processes. Quality of ground water is usually poor and it gets worse during water scarcity periods. This requires further treatment of water withdrawn or sourcing from another supplier (Municipality, river etc.) which increases cost and risks access to sufficient amount of water.
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, always included	Drinking water and agricultural water consumption has priority against cooling/industrial water demand. In water scarce locations, ground water or surface water access may cause conflict with other stakeholders. ENKA has switched from surface water to sea water cooling in Izmir power plant. In other facilities, recycling treated water is investigated to reduce dependence on water. For construction projects, especially linear projects such as highways and pipelines that cover large and multiple regions, stakeholders engagement plays a crucial role in project financing and execution. Highly detailed Environmental and Social Impact Assessment (ESIA) are conducted and projects are executed taking these into consideration.
Implications of water on your key commodities/raw materials	Relevant, always included	<p>Water availability and quality directly influence efficiency of power plants. If plants need to be shut down, commercial implications due to not supplying electricity will be costly for power plants.</p> <p>Water availability and quality directly influence efficiency of our Natural Gas Combined Cycle power plants in İzmir, Gebze and Adapazarı. If plants need to be shut down, commercial implications due to not supplying electricity will be costly for power plants. For construction sites, water availability will affect cost of suppliers (concrete) and mandatory processes such as pressure tests of pipelines or tanks using water etc.</p>
Water-related regulatory frameworks	Relevant, always included	Water allocation plans and water prices will have direct impact on financial performance and operation of power plants and facilities.
Status of ecosystems and habitats	Relevant, always included	Water intake and discharge is relevant to ENKA activities. ENKA either uses seawater, municipal water or groundwater for processes. Ground water consumption is always kept below allocated limits due to efficiency measures and target settings. At discharge points, relevant pollutant parameters are closely monitored as several points in discharge line to ensure compliance with local regulations and prevent

		damage to ecosystem. For construction projects, especially linear projects such as highways and pipelines that cover large and multiple regions, maintaining the status of ecosystems and habitats plays a crucial role in project financing and execution. Highly detailed Environmental and Social Impact Assessment (ESIA) are conducted and projects are executed taking these into consideration.
Access to fully-functioning, safely managed WASH services for all employees	Relevant, always included	ENKA provides potable water to all of its employees, either by treating water in its own treatment plants in projects or through procured water by authorized third parties. By regular sampling, testing and monitoring, ENKA ensures the quality of the water is within standards.
Other contextual issues, please specify	Not relevant, explanation provided	NA

W3.3c

(W3.3c) Which of the following stakeholders are considered in your organization’s water-related risk assessments?

	Relevance & inclusion	Please explain
Customers	Relevant, sometimes included	For power plants, industrial and construction facilities, customers are not directly affected by the water risks. ENKA assesses and filters the risks to prevent reflection to customers. For ENKA schools, leased assets and office buildings, lessees are affected by water related risks. For construction projects, especially linear projects such as highways and pipelines that cover large and multiple regions, Environmental and Social Impacts of water-related risks are sometimes especially important to the project owner’s. Detailed Environmental and Social Impact Assessment (ESIA) are conducted and projects are executed taking these into consideration.
Employees	Relevant, always included	ENKA provides potable water to all of its employees, either by treating water in its own treatment plants in projects or through procured water by authorized third parties. By regular sampling, testing and monitoring, ENKA ensures the quality of the water is within standards. Access to clean water and WASH services for all employees may be affected with water related risks.

Investors	Relevant, always included	Water related risks may cause increased operational costs, reduced efficiencies or disruption in activities. This may eventually affect the risk of investors. For construction projects, especially linear projects such as highways and pipelines that cover large and multiple regions, International Finance Institutions are very stringent on environmental and social requirements including impacts to water sources, habitats, ecosystems and local stakeholders. Detailed Environmental and Social Impact Assessment (ESIA) are conducted and projects are executed taking these into consideration.
Local communities	Relevant, always included	A comprehensive environmental and social assessment is made in all ENKA facility locations to identify potential risks and measures needed. For construction projects, especially linear projects such as highways and pipelines that cover large and multiple regions, involving local communities in the stakeholder engagement process plays a crucial role in project financing and execution. Highly detailed Environmental and Social Impact Assessment (ESIA) are conducted and projects are executed taking these into consideration.
NGOs	Not relevant, explanation provided	For construction projects, especially linear projects such as highways and pipelines that cover large and multiple regions, involving local communities in the stakeholder engagement process plays a crucial role in project financing and execution. Highly detailed Environmental and Social Impact Assessment (ESIA) are conducted and projects are executed taking these into consideration. ENKA collaborates with NGOs on environment related issues and local issues. However, so far there has been no case to consider NGOs in particular to water related risk assessment.
Other water users at a basin/catchment level	Relevant, always included	Water demand in basin/catchment affect both water availability, may affect quality of water and requires a water allocation plan. Water users such as municipalities, agricultural users, and other industrial consumers are all considered in planning and risk assessment.
Regulators	Relevant, always included	ENKA has activities on numerous countries and regions. ENKA implements projects and activities in accordance with local regulations. Water allocation limits, withdrawal and discharge regulations, pricing are important factors for project implementation and thoroughly considered in planning and implementation.
River basin management authorities	Relevant, always included	Procedures and legislations will affect access to water, costs of access to water and discharge criteria. This issue can be critical especially in water stressed or sensitive areas. Therefore, it is significantly considered in regulatory risk assessments performed for each activity.

Statutory special interest groups at a local level	Not relevant, explanation provided	So far, there has been no such cases where any interaction with a statutory group.
Suppliers	Relevant, always included	In some sectors ENKA is active, supplier risks directly affect ENKA in terms of physical risks, business continuity and reputation risks. Therefore, ENKA has a supplier selection/management system which involved environment and water related issues.
Water utilities at a local level	Relevant, always included	For office, school and headquarter buildings, water is obtained and discharged to municipal network. Regulations of water utilities also affect ENKA in terms of water allocation and discharge criteria.
Other stakeholder, please specify	Not considered	Not applicable

W3.3d

(W3.3d) Describe your organization's process for identifying, assessing, and responding to water-related risks within your direct operations and other stages of your value chain.

ENKA undertakes a comprehensive company-wide water-related risk assessment as well as developing separate risk assessments for each of its projects involving its suppliers. ENKA Group companies undertake separate specific risk-assessments for individual sites such as power plants and residential and commercial buildings as well.

Before the construction of projects, Environmental and Social Impact Assessment Reports are prepared by external consultants to identify potential impacts the project may have on the environment as well as defining water-related risks the project may pose.

Early Identification of Risks Committee and Risk Management Work Group, together with the help of Corporate and Project HSE Departments also take the responsibility of determining the potential water-related risks and the necessary measures to be taken within the framework of ISO 14001:2015 Environmental Management Systems. As a part of ISO 14001:2015, Life Cycle Assessments of materials supplied and wastes produced are also taken into consideration. The risks are evaluated in terms of the financial and operational impacts they may have and dealt with accordingly.

For water related risk assessment, water scarcity and quality related risks are prioritized. Assets are located on water risk maps and their risks are evaluated with respect to water dependence, sensitivity to water quality and potential impacts on each asset.

We implement extensive water risk assessments for our construction projects, especially for projects financed by IFIs. More specifically, extensive Environment and Social Risk Assessment studies are conducted with the help of external consultants in hydro power tenders where both environmental and social impacts of water should be considered in great detail.

W4. Risks and opportunities

W4.1

(W4.1) Have you identified any inherent water-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes, both in direct operations and the rest of our value chain

W4.1a

(W4.1a) How does your organization define substantive financial or strategic impact on your business?

Any impact resulting in more than 1% increase in capex or causing more than 1% decrease in revenues are classified as substantive impact. Any impact, which may result in 1 day or longer disruption, or those that may constitute safety risk are strategic impacts. Probability, frequency and impact are taken into account when classifying an impact as substantive or not.

Power generation and industrial facilities are most critical assets vulnerable to water related risks. Construction projects may also be impacted by the water risks due to water scarcity, local community and other stakeholder concerns, environmental or other regulations. Prolonged water scarcity or low quality water supply may result in substantive impacts ENKA's multiple businesses.

Water scarcity and low quality (high salinity, temperature or polluted water) water will require additional investment for water treatment and supply increasing the capital expenditures or reduce the efficiency of power plants or lower product quality.

W4.1b

(W4.1b) What is the total number of facilities exposed to water risks with the potential to have a substantive financial or strategic impact on your business, and what proportion of your company-wide facilities does this represent?



	Total number of facilities exposed to water risk	% company-wide facilities this represents	Comment
Row 1	13	76-99	Facilities included in reporting boundary constitute a majority of the facilities and revenue streams of the company. Each manufacturing plant, leased asset, school building, power plant or construction site is considered as an individual facility. 16 facilities have been included in water risk assessment. 13 of these facilities are exposed to water risks with the potential to have a substantial financial or strategic impact on ENKA's activities.

W4.1c

(W4.1c) By river basin, what is the number and proportion of facilities exposed to water risks that could have a substantive impact on your business, and what is the potential business impact associated with those facilities?

Country/Region

Turkey

River basin

Other, please specify

Marmara

Number of facilities exposed to water risk

5

% company-wide facilities this represents

1-25

% company's annual electricity generation that could be affected by these facilities

26-50



% company's total global revenue that could be affected

51-75

Comment

Country/Region

Turkey

River basin

Other, please specify

Gediz

Number of facilities exposed to water risk

1

% company-wide facilities this represents

26-50

% company's annual electricity generation that could be affected by these facilities

51-75

% company's total global revenue that could be affected

1-25

Comment

Country/Region

Russian Federation

River basin

Volga

Number of facilities exposed to water risk

4

% company-wide facilities this represents

1-25

% company's annual electricity generation that could be affected by these facilities

Less than 1%

% company's total global revenue that could be affected

1-25

Comment

Country/Region

Turkey

River basin

Other, please specify
susurluk

Number of facilities exposed to water risk

2

% company-wide facilities this represents

1-25

% company's annual electricity generation that could be affected by these facilities

Less than 1%

% company's total global revenue that could be affected

1-25

Comment

Country/Region

Turkey

River basin

Sakarya

Number of facilities exposed to water risk

1

% company-wide facilities this represents

1-25

% company's annual electricity generation that could be affected by these facilities

1-25

% company's total global revenue that could be affected

1-25

Comment

W4.2

(W4.2) Provide details of identified risks in your direct operations with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Region

Turkey

River basin

Other, please specify

Marmara

Type of risk

Physical

Primary risk driver

Increased water scarcity

Primary potential impact

Increased operating costs

Company-specific description

Headquarter buildings, ENKA Schools, and Gebze power plant is located in Marmara basin. The Marmara basin has a high risk of water scarcity that may impact our operations.

Timeframe

1 - 3 years

Magnitude of potential impact

Medium-high

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

560,000,000

Explanation of financial impact

Financial impact was given as the share of our Gebze power plant in the Marmara basin in ENKA Group revenues. High risk of water scarcity in the Marmara region means that the power plant operations may be impacted. Natural Gas Power Plants need water for cooling medium and water scarcity may lead to shut down of operations.

Primary response to risk

Adopt water efficiency, water re-use, recycling and conservation practices
Investing in water efficiency and re-use projects.

Description of response

ENKA POWER has made an investment to generate fresh water for cooling from sea water in İzmir plant. However, our two plants in the Marmara region are not near the sea. Therefore we are investigating investment options to reuse/recycle waste water in process.

Cost of response

0

Explanation of cost of response

No additional expenses were observed.

Country/Region

Turkey

River basin

Other, please specify

Gediz

Type of risk

Physical

Primary risk driver

Increased water stress

Primary potential impact

Increased production costs

Company-specific description

Izmir NG power plant is most vulnerable asset located in this basin

Timeframe

4 - 6 years

Magnitude of potential impact

High

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

600,000,000Explanation of financial impact

Financial impact was given as the share of our power plant in the Gediz basin region in ENKA Group revenues. High risk of water scarcity in the region means that the power plant operations may be impacted. Natural Gas Power Plants need water for cooling medium and water scarcity may lead to shut down of operations.

Primary response to risk

Adopt water efficiency, water re-use, recycling and conservation practices
Water efficiency investments.

Description of response

We have invested in a water desalination plant in our İzmir Power plant, thus we are able to produce freshwater from seawater and use it directly in our operations.

Cost of response

3,500,000

Explanation of cost of response

CAPEX for the desalination investment

Country/Region

Russian Federation

River basin

Volga

Type of risk

Physical

Primary risk driver

Declining water quality

Primary potential impact

Increased operating costs

Company-specific description

Most of the real estate assets are located in Moscow and Volga basin. Decreased water quality will make access to clean water more costly and capital intensive.

Timeframe

1 - 3 years

Magnitude of potential impact

Low

Likelihood

Likely

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Explanation of financial impact

Primary response to risk

Engage with customers

Description of response

Monitoring discharge from leased assets, building new assets as per the green building standards

Cost of response

0

Explanation of cost of response

No additional operational expenses.

Country/Region

Turkey

River basin

Other, please specify

Susurluk

Type of risk

Physical

Primary risk driver

Increased water stress

Primary potential impact

Increased operating costs

Company-specific description

Çimtaş pipe and steel facilities are located in Susurluk Basin. Low quality water in the basin mandates investment in further treatment technologies or supplying water from other (more expensive) sources.

Timeframe

1 - 3 years

Magnitude of potential impact

Medium-low

Likelihood

Likely

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Explanation of financial impact

Operational cost for obtaining water will increase due to increased costs of high quality water generation or supplying water from third parties.
Investing in advanced treatment systems will also increase CAPEX need for adaptation.

Primary response to risk

Adopt water efficiency, water re-use, recycling and conservation practices
Investing in new tech. for treatment

Description of response

Cost of response

Explanation of cost of response

W4.2a

(W4.2a) Provide details of risks identified within your value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Region

Iraq

River basin

Other, please specify
Zap River Basin

Stage of value chain

Supply chain

Type of risk

Physical

Primary risk driver

Increased water stress

Primary potential impact

Increased operating costs

Company-specific description

Suppliers of ENKA, in particular for construction/infrastructure projects in Middle East, face problems in access to water resources. Therefore, water is supplied from distant sources. This increases operational costs and supply risks (delay in water supply and cascading impact on other operations).

Timeframe

Current - up to 1 year

Magnitude of potential financial impact

Low

Likelihood

Virtually certain

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate



Potential financial impact figure (currency)

1

Explanation of financial impact

Increase as percentage of total operational expenses

Primary response to risk

Supplier diversification

Description of response

Risks are either due to inadequate water availability or supply chain disruptions. Alternative water resources, suppliers and logistic options are considered for business continuity.

Cost of response

1

Explanation of cost of response

As % of total operational expenses.

W4.3

(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?

No

W4.3b

(W4.3b) Why does your organization not consider itself to have water-related opportunities?

	Primary reason	Please explain
Row 1	Opportunities exist, but none with potential to have a substantive financial or strategic impact on business	Businesses involved and local regulations on water related issues limit the realization of opportunities. Also, potential opportunities are not considered financially substantive.

W5. Facility-level water accounting

W5.1

(W5.1) For each facility referenced in W4.1c, provide coordinates, total water accounting data and comparisons with the previous reporting year.

Facility reference number

Facility 1

Facility name (optional)

Çimtaş Çelik İmalat Montaj ve Tesisat A.Ş.

Country/Region

Turkey

River basin

Other, please specify

Susurluk

Latitude

40.411346

Longitude

29.099122

Primary power generation source for your electricity generation at this facility

Not applicable

Total water withdrawals at this facility (megaliters/year)

28.17

Comparison of withdrawals with previous reporting year

Lower

Total water discharges at this facility (megaliters/year)

6.85

Comparison of discharges with previous reporting year

Lower

Total water consumption at this facility (megaliters/year)

21.65

Comparison of consumption with previous reporting year

Lower

Please explain

Total water withdrawals, discharges and consumption were lower in Çimtaş Steel due to operational reasons.

Facility reference number

Facility 2

Facility name (optional)

Çimtaş Pipe İmalat Montaj ve Tesisat A.Ş.

Country/Region

Turkey

River basin

Other, please specify

Susurluk

Latitude

40.407436

Longitude

29.109001

Primary power generation source for your electricity generation at this facility

Not applicable

Total water withdrawals at this facility (megaliters/year)

36.11

Comparison of withdrawals with previous reporting year

Lower

Total water discharges at this facility (megaliters/year)

35.81

Comparison of discharges with previous reporting year

Lower

Total water consumption at this facility (megaliters/year)

0.3

Comparison of consumption with previous reporting year

Much lower

Please explain

In addition to operational reasons, Çimtaş Pipe has started utilizing rainwater collection system in order to reduce groundwater use.

Facility reference number

Facility 3

Facility name (optional)

ENKA Pazarlama İhracat İthalat A.Ş.

Country/Region

Turkey

River basin

Other, please specify
Marmara

Latitude

40.83389

Longitude

29.321671

Primary power generation source for your electricity generation at this facility

Not applicable

Total water withdrawals at this facility (megaliters/year)

7.11

Comparison of withdrawals with previous reporting year

Lower

Total water discharges at this facility (megaliters/year)

7.11

Comparison of discharges with previous reporting year

Lower

Total water consumption at this facility (megaliters/year)

0

Comparison of consumption with previous reporting year

Lower

Please explain

Discharge is considered equal to water withdrawn in ENKA Pazarlama. This is because ENKA Pazarlama operations include office buildings only and it is impossible to monitor discharges. Therefore $W+C = D$ formula is utilized.

Facility reference number

Facility 4

Facility name (optional)

ENKA Hedquarter Office

Country/Region

Turkey

River basin

Other, please specify

Marmara

Latitude

41.058568

Longitude

29.016148

Primary power generation source for your electricity generation at this facility

Not applicable

Total water withdrawals at this facility (megaliters/year)

11.35

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

11.35

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

0

Comparison of consumption with previous reporting year

About the same

Please explain

Discharge is considered equal to water withdrawn in ENKA HQ. This is because ENKA HQ Operations only include office buildings and it is impossible to monitor discharges in real time. Therefore $W+C = D$ formula is utilized. The only reason for water use is sanitary purposes for regular everyday office use and no major change in water withdrawals from ENKA HQ was observed.

Facility reference number

Facility 5

Facility name (optional)

ENKA Vakfı İstinye Yerleşkesi

Country/Region

Turkey

River basin

Other, please specify

Marmara

Latitude

41.113438

Longitude

29.036693

Primary power generation source for your electricity generation at this facility

Not applicable

Total water withdrawals at this facility (megaliters/year)

53.11

Comparison of withdrawals with previous reporting year

Higher

Total water discharges at this facility (megaliters/year)

48.06

Comparison of discharges with previous reporting year

Higher

Total water consumption at this facility (megaliters/year)

5.05

Comparison of consumption with previous reporting year

Higher

Please explain

Enka Foundation operations fluctuate yearly. Therefore increases or decreases in yearly figures vary greatly.

Facility reference number

Facility 6

Facility name (optional)

Kocaeli ENKA Okulları

Country/Region

Turkey

River basin

Other, please specify

Marmara

Latitude

40.836506

Longitude

29.544027

Primary power generation source for your electricity generation at this facility

Not applicable

Total water withdrawals at this facility (megaliters/year)

7.59

Comparison of withdrawals with previous reporting year

This is our first year of measurement

Total water discharges at this facility (megaliters/year)

7.59

Comparison of discharges with previous reporting year

This is our first year of measurement

Total water consumption at this facility (megaliters/year)

0

Comparison of consumption with previous reporting year

This is our first year of measurement

Please explain

Discharge is considered equal to water withdrawn in Kocaeli ENKA Schools because it is impossible to monitor discharges. Therefore $W+C = D$ formula is utilized. This is the first year of inclusion in the scope, therefore it is impossible to compare with previous year.

Facility reference number

Facility 7

Facility name (optional)

İzmir Elektrik Üretim Ltd. Şti.

Country/Region

Turkey

River basin

Other, please specify

Gediz

Latitude

38.746445

Longitude

26.95805

Primary power generation source for your electricity generation at this facility

Gas

Total water withdrawals at this facility (megaliters/year)

24,871.93

Comparison of withdrawals with previous reporting year

Lower

Total water discharges at this facility (megaliters/year)

17,742

Comparison of discharges with previous reporting year

Lower

Total water consumption at this facility (megaliters/year)

7,129.93

Comparison of consumption with previous reporting year

Lower

Please explain

İzmir NG Power plant uses seawater for cooling and groundwater for other uses such as WASH services. Water consumption was lower in 2018 because of the reduction in electricity generation.

Facility reference number

Facility 8

Facility name (optional)

Gebze Elektrik Üretim Ltd. Şti.

Country/Region

Turkey

River basin

Other, please specify

Marmara

Latitude

40.863926

Longitude

30.397573

Primary power generation source for your electricity generation at this facility

Gas

Total water withdrawals at this facility (megaliters/year)

233.83

Comparison of withdrawals with previous reporting year

Lower

Total water discharges at this facility (megaliters/year)

233.83

Comparison of discharges with previous reporting year

Lower

Total water consumption at this facility (megaliters/year)

0

Comparison of consumption with previous reporting year

Lower

Please explain

Gebze NG Power plant uses groundwater for cooling and other uses such as WASH services. Water consumption was lower in 2018 because of the reduction in electricity generation.

Facility reference number

Facility 9

Facility name (optional)

Adapazarı Elektrik Üretim Ltd. Şti.

Country/Region

Turkey

River basin

Sakarya

Latitude

40.863926

Longitude

30.397573

Primary power generation source for your electricity generation at this facility

Gas

Total water withdrawals at this facility (megaliters/year)

116.92

Comparison of withdrawals with previous reporting year

Lower

Total water discharges at this facility (megaliters/year)

116.92

Comparison of discharges with previous reporting year

Lower

Total water consumption at this facility (megaliters/year)

0

Comparison of consumption with previous reporting year

Lower

Please explain

Adapazarı NG Power plant uses groundwater for cooling and other uses such as WASH services. Water withdrawals were lower in 2018 because of the reduction in electricity generation. Water consumption of the facility is negligible therefore for accounting purposes consumption comes up to 0.

Facility reference number

Facility 10

Facility name (optional)

City Center Investment B.V.

Country/Region

Russian Federation

River basin

Volga

Latitude

55.746968

Longitude

37.536749

Primary power generation source for your electricity generation at this facility

Not applicable

Total water withdrawals at this facility (megaliters/year)

192.45

Comparison of withdrawals with previous reporting year

About the same

Total water discharges at this facility (megaliters/year)

192.45

Comparison of discharges with previous reporting year

About the same

Total water consumption at this facility (megaliters/year)

0

Comparison of consumption with previous reporting year

About the same

Please explain

Discharge is considered equal to water withdrawn in City Center Investment (CCI) because it is impossible to monitor discharges in real time. Therefore $W+C = D$ formula is utilized. Operations were very similar to previous year, therefore withdrawals, consumption and discharges are almost the same as previous year.

Facility reference number

Facility 11

Facility name (optional)

ENKA TC Limited Liability Company

Country/Region

Russian Federation

River basin

Volga

Latitude

55.746686

Longitude

37.536488

Primary power generation source for your electricity generation at this facility

Not applicable

Total water withdrawals at this facility (megaliters/year)

531.75

Comparison of withdrawals with previous reporting year

Higher

Total water discharges at this facility (megaliters/year)

466.71

Comparison of discharges with previous reporting year

Higher

Total water consumption at this facility (megaliters/year)

65.04



Comparison of consumption with previous reporting year

Higher

Please explain

Mains water is used for WASH services in ENKA TC shopping malls. Water consumption has increased in 2018 due to increases in the number of visitors. ENKA TC has also started to utilize a rainwater collection system in 2018.

Facility reference number

Facility 12

Facility name (optional)

Moskva Krasnye Holmy

Country/Region

Russian Federation

River basin

Volga

Latitude

55.733032

Longitude

37.644102

Primary power generation source for your electricity generation at this facility

Not applicable

Total water withdrawals at this facility (megaliters/year)

66.54

Comparison of withdrawals with previous reporting year

Higher

Total water discharges at this facility (megaliters/year)

66.54

Comparison of discharges with previous reporting year

Higher

Total water consumption at this facility (megaliters/year)

0

Comparison of consumption with previous reporting year

About the same

Please explain

Discharge is considered equal to water withdrawn in Moskva Krasnye Holmy because it is impossible to monitor discharges in real time. Therefore $W+C = D$ formula is utilized. Due to increased operations, withdrawals and discharges were increased by about 10%.

Facility reference number

Facility 13

Facility name (optional)

Hotel Moskva Krasnye Holmy

Country/Region

Russian Federation

River basin

Volga

Latitude

55.733032

Longitude

37.644102

Primary power generation source for your electricity generation at this facility

Not applicable

Total water withdrawals at this facility (megaliters/year)

53.15

Comparison of withdrawals with previous reporting year

Higher

Total water discharges at this facility (megaliters/year)

13.42

Comparison of discharges with previous reporting year

Lower

Total water consumption at this facility (megaliters/year)

38.74

Comparison of consumption with previous reporting year

Higher

Please explain

Operational increases resulted in higher water withdrawals and consumption.

W5.1a

(W5.1a) For each facility referenced in W5.1, provide withdrawal data by water source.

Facility reference number

Facility 1

Facility name

Çimtaş Çelik İmalat Montaj ve Tesisat A.Ş.

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

28.17

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

0

Comment

Facility reference number

Facility 2

Facility name

Çimtaş Pipe İmalat Montaj ve Tesisat A.Ş.

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0.3

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

35.81

Comment

Facility reference number

Facility 3

Facility name

ENKA Pazarlama İhracat İthalat A.Ş.

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

7.11

Comment

Facility reference number

Facility 4

Facility name

ENKA Merkez Ofisler

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

11.35

Comment

Facility reference number

Facility 5

Facility name

ENKA Vakfı İstinye Yerleşkesi

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

53.11

Comment

Facility reference number

Facility 6

Facility name

Koçali ENKA Okulları

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

7.59

Comment

Facility reference number

Facility 7

Facility name

İzmir Elektrik Üretim Ltd. Şti.

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

24,838.93

Groundwater - renewable

33

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

0

Comment

Facility reference number

Facility 8

Facility name

Gebze Elektrik Üretim Ltd. Şti.

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

233.83

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

0

Comment

Facility reference number

Facility 9

Facility name

Adapazarı Elektrik Üretim Ltd. Şti.

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

116.92

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

0

Comment

Facility reference number

Facility 10

Facility name



City Center Investment B.V.

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

192.45

Comment

Facility reference number

Facility 11

Facility name

ENKA TC Limited Liability Company

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0.1



Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

531.66

Comment

Facility reference number

Facility 12

Facility name

Moskva Krasnye Holmy

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

66.54

Comment

Facility reference number

Facility 13

Facility name

Hotel Moskva Krasnye Holmy

Fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Brackish surface water/seawater

0

Groundwater - renewable

0

Groundwater - non-renewable

0

Produced/Entrained water

0

Third party sources

53.15

Comment

W5.1b

(W5.1b) For each facility referenced in W5.1, provide discharge data by destination.

Facility reference number

Facility 1

Facility name

Çimtaş Çelik İmalat Montaj ve Tesisat A.Ş.

Fresh surface water

6.85

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 2

Facility name

Çimtaş Pipe İmalat Montaj ve Tesisat A.Ş.

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

35.81

Comment

Facility reference number

Facility 3

Facility name

ENKA Pazarlama İhracat İthalat A.Ş.

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

7.11

Comment

Facility reference number

Facility 4

Facility name

ENKA Merkez Ofisler

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

11.35

Comment

Facility reference number

Facility 5

Facility name

ENKA Vakfı İstinye Yerleşkesi

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

48.06

Comment

Facility reference number

Facility 6

Facility name

Kocaeli ENKA Okulları

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

7.59

Comment

Facility reference number

Facility 7

Facility name

İzmir Elektrik Üretim Ltd. Şti.

Fresh surface water

0

Brackish surface water/Seawater

17,742

Groundwater

0

Third party destinations

0

Comment

Facility reference number

Facility 8

Facility name

Gebze Elektrik Üretim Ltd. Şti.

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

233.83

Comment

Facility reference number

Facility 9

Facility name

Adapazarı Elektrik Üretim Ltd. Şti.

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

116.92

Comment

Facility reference number

Facility 10

Facility name

City Center Investment B.V.

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

192.45

Comment

Facility reference number

Facility 11

Facility name

ENKA TC Limited Liability Company

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

466.71

Comment

Facility reference number

Facility 12

Facility name

Moskva Krasnye Holmy

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

66.54

Comment

Facility reference number

Facility 13

Facility name

Hotel Moskva Krasnye Holmy

Fresh surface water

0

Brackish surface water/Seawater

0

Groundwater

0

Third party destinations

13.42

Comment

W5.1c

(W5.1c) For each facility referenced in W5.1, provide the proportion of your total water use that is recycled or reused, and give the comparison with the previous reporting year.

Facility reference number

Facility 1

Facility name

Çimtaş Çelik İmalat Montaj ve Tesisat A.Ş.

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

Facility reference number

Facility 2

Facility name

Çimtaş Pipe İmalat Montaj ve Tesisat A.Ş.

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

Facility reference number

Facility 3

Facility name

ENKA Pazarlama İhracat İthalat A.Ş.

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

Facility reference number

Facility 4

Facility name

ENKA Merkez Ofisler

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

Facility reference number

Facility 5

Facility name

ENKA Vakfı İstinye Yerleşkesi

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

Facility reference number

Facility 6

Facility name

Kocaeli ENKA Okulları

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

Facility reference number

Facility 7

Facility name

İzmir Elektrik Üretim Ltd. Şti.

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

Facility reference number

Facility 8

Facility name

Gebze Elektrik Üretim Ltd. Şti.

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

Facility reference number

Facility 9

Facility name

Adapazarı Elektrik Üretim Ltd. Şti.

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

Facility reference number

Facility 10

Facility name

City Center Investment B.V.

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

Facility reference number

Facility 11

Facility name

ENKA TC Limited Liability Company

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

Facility reference number

Facility 12

Facility name

Moskva Krasnye Holmy

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

Facility reference number

Facility 13

Facility name

Hotel Moskva Krasnye Holmy

% recycled or reused

None

Comparison with previous reporting year

About the same

Please explain

W5.1d

(W5.1d) For the facilities referenced in W5.1, what proportion of water accounting data has been externally verified?

Water withdrawals – total volumes

% verified

Not verified

What standard and methodology was used?

Water withdrawals – volume by source

% verified

Not verified

What standard and methodology was used?

Water withdrawals – quality

% verified

Not verified

What standard and methodology was used?

Water discharges – total volumes

% verified

Not verified

What standard and methodology was used?

Water discharges – volume by destination

% verified

Not verified

What standard and methodology was used?

Water discharges – volume by treatment method

% verified

Not verified

What standard and methodology was used?

Water discharge quality – quality by standard effluent parameters

% verified

Not verified

What standard and methodology was used?

Water discharge quality – temperature

% verified

Not verified

What standard and methodology was used?

Water consumption – total volume

% verified

Not verified

What standard and methodology was used?

Water recycled/reused

% verified

Not verified

What standard and methodology was used?

W6. Governance

W6.1

(W6.1) Does your organization have a water policy?

Yes, we have a documented water policy that is publicly available

W6.1a

(W6.1a) Select the options that best describe the scope and content of your water policy.

	Scope	Content	Please explain
Row 1	Company-wide	Description of business dependency on water Description of business impact on water Description of water-related performance standards for direct operations Description of water-related standards for procurement Reference to international standards and widely-recognized water initiatives Company water targets and goals	<p>ENKA understands the value of water for its activities and importance for stakeholders. Company declares the policy for water, business implications and risks in its 2018 sustainability report and its sustainability website (https://www.enka.com/sustainability/) Sustainability policy is available in four languages in ENKA website. Details about water policy, implications for ENKA and stakeholders are given in detail in ENKA's Sustainability report. Sustainability strategy of ENKA is linked to 13 SDGs, including SDG6 and 13, declared in ENKA website. ENKA founded ENKA Academy in 2015 to provide ENKA personnel with opportunities to learn and develop their competencies, and to support the achievement of the company's sustainability goals. Aside from ENKA Academy, training departments under individual projects and subsidies have offered training in relevant topics including environment and sustainability issues. ENKA is a signatory of Global Compact and supports collective action through NGOs.</p> <p>Environmental Impact Assessment (EIA) is undertaken before the beginning of activities on all ENKA projects and the use of water sources that are of adequate quality and capacity is preferred. The situation of water sources, water stress, drinking water and waste water quality are inspected in all operations, first at the onset and then at regular intervals, and improvement actions are taken for identified risks. In addition, ENKA undertakes continuous research on reducing water consumption and uses suitable</p>

	<p>Commitment to align with public policy initiatives, such as the SDGs</p> <p>Commitments beyond regulatory compliance</p> <p>Commitment to water-related innovation</p> <p>Commitment to stakeholder awareness and education</p> <p>Commitment to water stewardship and/or collective action</p> <p>Acknowledgement of the human right to water and sanitation</p> <p>Recognition of environmental linkages, for example, due to climate change</p>	<p>infrastructure systems and high-efficiency equipment to minimise water loss.</p> <p>In addition, our water related goals (part of a larger Sustainability Goals initiative) are also a part of our water policy. We are targeting to reduce the domestic water consumption in Çimtaş to 15 litres/man-hours and commit to at least 2 projects to recycle water in order to reduce our blue water footprint.</p>
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W6.2

(W6.2) Is there board level oversight of water-related issues within your organization?

Yes

W6.2a

(W6.2a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for water-related issues.

Position of individual	Please explain
Chief Executive Officer (CEO)	The overall accountability for water and climate change within ENKA lies with the President and Chairman of the Executive Committee (CEO), who is reporting to company's Board of Directors. The ENKA Board of Directors has oversight of all areas of risk including climate change and water-related issues.

W6.2b

(W6.2b) Provide further details on the board's oversight of water-related issues.

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - all meetings	<ul style="list-style-type: none"> Monitoring implementation and performance Overseeing major capital expenditures Providing employee incentives Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding major plans of action Reviewing and guiding risk management policies 	<p>For climate and water-related risks, the Board and the CEO are supported by the ENKA Sustainability Committee that is composed of members of Corporate Groups and ENKA's subsidiaries' representatives. The Committee's role is to review and advise the Board and CEO on policies and performance against the ENKA's Code of Business Conduct, and mandatory HSE standards. HSE targets includes many objectives such as "0" environmental incidents or developing at least one project related to the environment and the community in each project locations (at least one of each per Project).</p> <p>Beginning in 2018, ENKA has set its sustainability targets including for GHG emissions and water consumption which were approved by the Board and the CEO. All group companies either HSE and/or Sustainability experts or established sustainability departments. HSE and Sustainability performance, depending on each subsidiary's procedure, is reported monthly to the Sustainability Committee. ENKA Sustainability Committee manages ENKA Group and all Subsidiaries' sustainability programs and meets quarterly. The outcomes from the</p>

	Reviewing and guiding strategy Reviewing and guiding corporate responsibility strategy Reviewing innovation/R&D priorities Setting performance objectives	Sustainability Committee meetings are reported to the Chairman of the Executive Committee and CEO by the Director of Quality, HSE and Integrity (DQHSEI).
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W6.3

(W6.3) Provide the highest management-level position(s) or committee(s) with responsibility for water-related issues (do not include the names of individuals).

Name of the position(s) and/or committee(s)

Other, please specify

Director of Quality, HSE and Integrity

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

Senior responsible for water-related issues, and nominated risk owner, is the Director of Quality, HSE and Integrity (DQHSEI). Under the supervision of DQHSEI, Corporate HSE Team is responsible for evaluating water risks to the ENKA group, supports the business in developing management strategies and has oversight of the company's water management implementation. The team is led by the Corporate HSE



Manager, the water risk focal point, and reports to the DQHSEI.

All ENKA group companies employ HSE/Sustainability Managers that report to DQHSEI through Sustainability Committee. Climate performance and other climate/water-related issues are reported to the Group Sustainability Team monthly, and to Sustainability Committee that meets quarterly.

For all construction projects, HSE indicators including water information is reported by the Project HSE Managers to the Corporate HSE, which reports to the DQHSEI monthly, who in turn consolidates the information and reports to the CEO.

W-FB6.4/W-CH6.4/W-EU6.4/W-OG6.4/W-MM6.4

(W-FB6.4/W-CH6.4/W-EU6.4/W-OG6.4/W-MM6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?

Yes

W-FB6.4a/W-CH6.4a/W-EU6.4a/W-OG6.4a/W-MM6.4a

(W-FB6.4a/W-CH6.4a/W-EU6.4a/W-OG6.4a/W-MM6.4a) What incentives are provided to C-suite employees or board members for the management of water-related issues (do not include the names of individuals)?

	Who is entitled to benefit from these incentives?	Indicator for incentivized performance	Please explain
Monetary reward	Other, please specify Management Group	Reduction of water withdrawals Reduction in consumptive volumes Other, please specify	Incentives for successful management of sustainability and climate change related issues are provided in ENKA through the evaluation of the Executive Committee. Project/Business managers are rewarded for achievements and good practices. Executive Committee also monitors the financial management and environmental performance of corporate and project executives and rewarded with yearly premiums according to their seniority and experience.

		Sustainability and climate change achievements	
Recognition (non-monetary)	Other, please specify All employees	Efficiency project or target – direct operations Efficiency project or target – downstream in the value chain Efficiency project or target – upstream in the value chain	Recognition incentives are in place for employees on HSE related issues. HSE Incentive Procedure, which includes sustainability and environment topics as well, states whoever reports or notifies any non-conformity, contributes to HSE and Quality applications or increases the perception of these concepts within projects and has extraordinary operating performance gets rewarded individually with individual KPIs through premiums and behaviour recognition.
Other non-monetary reward	No one is entitled to these incentives		

W6.5

(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?

- Yes, trade associations
- Yes, funding research organizations
- Yes, other

W6.5a

(W6.5a) What processes do you have in place to ensure that all of your direct and indirect activities seeking to influence policy are consistent with your water policy/water commitments?

As stated in our water policy, protecting the environment and impacted communities, maintaining sustainability, identifying, eliminating and minimizing all hazards, risks, environmental and social impacts and complying with all the standards and regulations of the country we work in are all priorities of



ENKA. As per the requirements of customers of projects, ENKA builds and operates water and wastewater treatments plants in all projects and facilities it operates. Especially in developing countries, abiding by the requirements of the customers and complying with international standards of water and wastewater discharge influences the public water policy of that country, which may or may not be in line with international standards, to be closer to that of international standards. By funding R&D through its Design Center, ENKA aims to be a leader in developing innovative solutions with regards to minimizing water consumption and relevant costs.

ENKA joined the TUSIAD Environment and Climate Change Working Group. By joining the Working Group, ENKA hopes to play a much more active role in supporting TUSIAD's position of supporting Turkey's sustainable development. TUSIAD's Environment and Climate Change Working Group is part of its Energy & Environment roundtable. The roundtable aims to contribute to embedding sustainable development principles and to the environmental protection and spreading out the principles of low carbon economy into the business practices.

W6.6

(W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?

No, but we plan to do so in the next two years

W7. Business strategy

W7.1

(W7.1) Are water-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	11-15	ENKA is aware of the water related issues and impact for its operations and importance for stakeholders. Objective of integrating water related issues to business plan is part of ENKA's sustainability policy to minimize impact, increase efficiency in operations, improve sustainability

			<p>performance in operations, develop resilience against water related risks and achieve business continuity in adverse conditions. We know that our customers' projects demonstrate progress. They bring opportunity for individuals and regions. For its industrial (oil&gas, energy) projects, ENKA Design Center comes up with innovative solutions to minimize water consumption as much as possible during and after construction activities. Financial planning is also a crucial part of this process as necessary funding is made available to the Design Center for these studies to be completed.</p> <p>ENKA business lines have implemented water-related issues to their long-term business plans. For example, due to the impacts of climate change, ENKA Construction projects were divested from fossil fuel power plant tenders and two new Hydroelectric Power Plant tenders have been won in Georgia. These tenders include long term power purchase agreements and sufficient water availability has become vital for long-term revenues and business objectives.</p>
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	11-15	<p>ENKA has procedures and assigned employees, committees in place for risk detection, performance monitoring and continuous improvement. ENKA Academy, ENKA Engineering Center, Early Identification of Risks Committee, Sustainability Committee work for developing solutions for achieving objectives. Availability of water, quality of water, future developments, climate change scenarios are all integrated in ENKA investments and projects. Using advanced water treatment technologies for producing clean water for drinking/sanitation in water scarce areas or investing on water treatment/recycling technologies to reduce water withdrawal in power plants and steel facilities are some of the actions implemented to reduce dependency on fresh/clean water resources. Decision for investing in new technologies/increase capital expenditure. Undertaking water-related projects such as water and wastewater treatment plants, hydroelectric power plants and water network systems and shaping its financial planning accordingly.</p>
Financial planning	Yes, water-related issues are integrated	11-15	<p>Early risk detection committee and Risk Management Work Group assess the risk and impact on operations. Measure to abate identified risks are developed by risk committee and engineering team. Potential cost of the risk, probability, impact are evaluated against the cost of abatement. Prioritized investments are included in financial planning of the company.</p>

			<p>ENKA business lines have implemented water-related issues to their long-term business plans. For example, due to the impacts of climate change, ENKA Construction projects were divested from fossil fuel power plant tenders and two new Hydroelectric Power Plant tenders have been won in Georgia. These tenders include long term power purchase agreements and sufficient water availability has become vital for long-term revenues and business objectives.</p>
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W7.2

(W7.2) What is the trend in your organization’s water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

Row 1

Water-related CAPEX (+/- % change)

0

Anticipated forward trend for CAPEX (+/- % change)

5

Water-related OPEX (+/- % change)

0

Anticipated forward trend for OPEX (+/- % change)

5

Please explain

Desalination system in ENKA Power’s İzmir Natural Gas Combined Cycle Power Plant has been established. We do not anticipate drastic changes for CAPEX or OPEX going forward.

W7.3

(W7.3) Does your organization use climate-related scenario analysis to inform its business strategy?

	Use of climate-related scenario analysis	Comment
Row 1	Yes	<p>IEA SD Scenario and Risk assessment tools (WRI and Aqueduct) has been used for scenario/risk analysis. Early Identification of Risks Committee has updated water management and water sustainability strategies upon this analysis made as below;</p> <ul style="list-style-type: none"> • ENKA has started to analyse water footprint starting from 2016 and works on setting a target for water consumption for future years • ENKA has defined its sustainability strategy including protecting environment and water resources • ENKA has decided to restructure the trainings to include at least 5% of training hours to environment/water protection and water efficiency • ENKA has set targets to reduce water consumption in owned/leased buildings and through LEED certification of these buildings.

W7.3a

(W7.3a) Has your organization identified any water-related outcomes from your climate-related scenario analysis?

Yes

W7.3b

(W7.3b) What water-related outcomes were identified from the use of climate-related scenario analysis, and what was your organization's response?



	Climate-related scenario(s)	Description of possible water-related outcomes	Company response to possible water-related outcomes
Row 1	IEA Sustainable Development Scenario	Energy generation is one of ENKA's major business activities. Energy-Water relation is two-sided for ENKA since all three ENKA power plants relies on water for cooling and process. Any limitation in access to sufficient water or increase in water temperature will reduce efficiency and cause further increase in fuel consumption and emissions.	ENKA Power has invested in new technologies to reduce emission intensity and also water intensity. New technology investments has enable reducing the emission intensity below target levels. Switching to sea water for cooling in ENKA Izmir power plant has reduced dependency on freshwater sources and increased efficiency of the plant which also reduces emission intensity.

W7.4

(W7.4) Does your company use an internal price on water?

Row 1

Does your company use an internal price on water?

No, but we are currently exploring water valuation practices

Please explain

W8. Targets

W8.1

(W8.1) Describe your approach to setting and monitoring water-related targets and/or goals.

Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
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Row 1	Business level specific targets and/or goals	Targets are monitored at the corporate level	<p>Main water use in ENKA group is due to energy generation in three power plants. ENKA has set water intensity targets for all three plants considering the available technologies, investment options and impact on revenues/efficiency of the plants. Prioritized technologies have been realized upon management decision.</p> <p>There are two other targets: Keeping domestic water use to below 15 liters/man-hours in Çimtaş and realizing at least 2 projects in ENKA Group for water recycling to reduce blue water footprint.</p>
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W8.1a

(W8.1a) Provide details of your water targets that are monitored at the corporate level, and the progress made.

Target reference number

Target 1

Category of target

Product water intensity

Level

Business

Primary motivation

Climate change adaptation and mitigation strategies

Description of target

For ENKA Izmir power plant, target for demineralized water consumption has been set as 0,020 m3/MWh.

Quantitative metric

% reduction per unit of production

Baseline year

2015

Start year

2015

Target year

2018

% achieved

100

Please explain

Demineralized water consumption has been around 0.006 m³/MWh in 2018.

Target reference number

Target 2

Category of target

Product water intensity

Level

Business

Primary motivation

Climate change adaptation and mitigation strategies

Description of target

For ENKA Adapazarı and Gebze power plants, target for demineralized water consumption has been set as 0.035 m³/MWh.

Quantitative metric

% reduction per unit of production

Baseline year

2015

Start year

2015

Target year

2018

% achieved

100

Please explain

Demineralized water consumption has been around 0.017 m3/MWh in 2018

Target reference number

Target 3

Category of target

Product water intensity

Level

Business

Primary motivation

Climate change adaptation and mitigation strategies

Description of target

For Çimtaş Steel, target for domestic water consumption has been set at 15 litres/man-hours.

Quantitative metric

Other, please specify

% reduction per FTE (man-hours)

Baseline year

2017

Start year

2017

Target year

2018

% achieved

0

Please explain

This target was not achieved. Domestic water consumption has been realized as 20 litres/man hours. Improvements initiatives for reducing this consumption below target are going to be implemented.

W9. Linkages and trade-offs

W9.1

(W9.1) Has your organization identified any linkages or tradeoffs between water and other environmental issues in its direct operations and/or other parts of its value chain?

Yes

W9.1a

(W9.1a) Describe the linkages or tradeoffs and the related management policy or action.

Linkage or tradeoff

Linkage

Type of linkage/tradeoff

Increased energy efficiency

Description of linkage/tradeoff

Due to water scarcity and quality of water in reservoir where the cooling water is sourced, cost of treatment for surface water has increased and access to sufficient cooling water has imposed risk on operational efficiency and continuity of electricity generation in the power plant.

Policy or action

Switching to sea water cooling system has secured continuous operation, ensured higher cooling and electricity generation efficiency and reduced emission intensity from electricity generation.

W10. Verification

W10.1

(W10.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1d)?

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

W11. Sign off

W-FI

(W-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.

W11.1

(W11.1) Provide details for the person that has signed off (approved) your CDP water response.

	Job title	Corresponding job category
Row 1	President and Chairman of the Executive Committee (CEO)	Chief Executive Officer (CEO)

W11.2

(W11.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate's Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].

Yes

Submit your response

In which language are you submitting your response?

English

Please confirm below

