Welcome to your CDP Water Security Questionnaire 2020

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 46 countries. Working with human resources comprising more than 20,000 and a machinery park of more than 3.700 pieces, ENKA has succeeded in making its services available everywhere in the world.

2019 is the third CDP reporting year for ENKA. The report chapters entitled Energy Efficiency and Climate Change and Water Management cover the activities of ENKA Headquarters, three 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 technology.

	Nameplate capacity (MW)	% of total nameplate capacity	Gross electricity generation (GWh)
Coal – hard			
Lignite			
Oil			
Gas	3,380	100	7,480,232.83
Biomass			
Waste (non-biomass)			
Nuclear			
Fossil-fuel plants fitted with carbon capture and storage			
Geothermal			
Hydropower			
Wind			
Solar			
Marine			
Other renewable			
Other non-renewable			
Total	3,380	100	7,480,232.83

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, 2019	December 31, 2019

W0.3

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

Iraq
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
ENKA has many other businesses other than electricity generation in numerous countries. Exclusions are; -Power plant, infrastructure and civil 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 logistics companies located in Turkey -Two schools in Adapazarı and İstanbul	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. Excluded sources have minimum water use/dependence. Only major water consuming locations/facilities have been prioritized. Boundary of reporting is planned to be expanded in future reporting years..

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
Sufficient amounts of good quality freshwater available for use	Vital	Important	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 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 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 (Turkish Water Pollution Control Directive). Also, a station exits at the discharge point for continuous wastewater 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 exits at the discharge point for continuous wastewater 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
Total withdrawals	9,519.29	Much lower	Most of the withdrawn (87.1%) water is sea water used in cooling of Izmir power plant. Due to the ending of the natural gas purchasing agreement between the Ministry of Energy and Natural Resources and ENKA Power, the natural gas combined cycle plants ran in very limited capacity in 2019 compared to 2018.
Total discharges	7,226.25	Much lower	Most of the withdrawn (87.1%) water is sea water used in cooling of Izmir power plant. Due to the ending of the natural gas purchasing agreement between the Ministry of Energy and Natural Resources and ENKA Power, the natural gas combined cycle plants ran in very limited capacity in 2019 compared to 2018.
Total consumption	2,293.04	Much lower	Most of the withdrawn (87.1%) water is sea water used in cooling of Izmir power plant. Due to the ending of the natural gas purchasing agreement between the Ministry of Energy and Natural Resources and ENKA Power, the natural gas combined cycle plants ran in very limited capacity in 2019 compared to 2018.

W1.2d

(W1.2d) Indicate whether water is withdrawn from areas with water stress and provide the proportion.

	Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Identification tool	Please explain
Row 1	Yes	76-99	Much lower	WRI Aqueduct	Considering sea water withdrawal, 98.69% of our water withdrawals are from high water stressed areas. As seawater withdrawal makes up 87.1% of our total water withdrawals, this is an important issue. Taken into consideration only fresh water sources, 89.83% of all water consumption is from water stressed areas. The reason for the reduction is the limited operation of ENKA Power's natural gas combined cycle plants. The power

					plants are the major source for water withdrawal. Izmir natural Gas Power plant is located in a high-water stress location and uses seawater demineralization for cooling. All our facilities in Iraq, most our facilities in Turkey and Russia's Moscow region are classified as high risk. Our facilities in Russia's Tatarstan region and some facilities in Turkey are classified as medium to low risk. Quantity of water withdrawn for all facilities are monitored constantly.

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	12.08	Much higher	Samawa Combined Cycle Power Plant project was taken into the scope of reporting in 2019. Only Cimtas Pipe's rainwater consumption was taken into account in 2018, therefore our withdrawal figures compared to 2018 is much higher.
Brackish surface water/Seawater	Relevant	8,291.09	Much lower	Sea water is used for cooling demand in Izmir NG Power Plant. Due to the ending of the natural gas purchasing agreement between the Ministry of Energy and Natural Resources, our power plants operated in limited capacity in 2019.
Groundwater – renewable	Relevant	114.77	Much 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. Due to the ending of the natural gas purchasing agreement between the Ministry of Energy and Natural Resources, our power plants operated in limited capacity in 2019.

Groundwater – non-renewable	Not relevant			All groundwater sources utilized by ENKA are considered renewable sources.
Produced/Entrained water	Relevant	0.14	This is our first year of measurement	Minor amounts of produced water is used in our construction operations in Samawa, Iraq.
Third party sources	Relevant	1,101.21	Higher	Water demand in schools, shopping centers and headquarters operations are supplied through municipal water mains networks. A 15% increase in total water withdrawals from municipal sources were observed, mostly due to increased operations.

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	84.1	Much higher	Samawa Combined Cycle Power Plant project was taken into the scope of reporting in 2019, therefore our discharge figures compared to 2018 is much higher.
Brackish surface water/seawater	Relevant	6,038.65	Much lower	Seawater used for cooling has reduced significantly because of the reduced cooling demand in İzmir NG Power plant. Due to the ending of the natural gas purchasing agreement between the Ministry of Energy and Natural Resources, our power plants operated in limited capacity in 2019 and eventually suspended operations.
Groundwater	Not relevant			There are no direct discharges to groundwater.

Third-party destinations	Relevant	1,095.3	Lower	Water discharges to third-party destinations were 9.5% lower than in 2018.

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	Comparison with previous reporting year	Please explain
0.03	Other, please specify demineralized water consumption in m3	MWh	Higher	Actual value is 0.0274. For Izmir Power plant, intensity target has been defined as 0.020 m3 demineralized water /MWh. Due to the suspension process of the plant, the electricity generation activities were sanctioned by the Turkish State Electricity Generation Company and Turkish State Electricity Transmission Company. Due to numerous shutdown and start-ups, generators were taken online and offline numerous times, resulting in reduced efficiency and increased water intensity.
0.02	Other, please specify water cons. in m3	MWh	About the same	Actual value is 0.016. For Gebze and Adapazarı 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 2019, ENKA has reviewed its material issues and conducted in person interviews and sent online questionnaires to its key stakeholders including the Sustainability Committee, customers, NGOs and suppliers. Additionally, the scope of environmental expectations of EGVN (ENKA Global Vendor Network) for vendors was widened. In 2019, 1,438 suppliers were assessed in terms of sustainability indicators. 24.4% of all suppliers were directly evaluated in terms of many issues including environmental and water management. 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.

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. In 2019, 24.4% of ENKA's suppliers were directly evaluated in terms of sustainability criteria including environmental and water management. As a result of this assessment, no cases of environmental non-compliance was encountered.
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?

Yes, fines, enforcement orders or other penalties but none that are considered as significant

W2.2a

(W2.2a) Provide the total number and financial value of all water-related fines.

Row 1

Total number of fines

1

Total value of fines

500

% of total facilities/operations associated

6.67

Number of fines compared to previous reporting year

Higher

Comment

One residential facility received a minor fine for water discharge quality parameters in Russia.

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, sulfate, grease and temperature parameters are monitored and reported. For internal monitoring, analyses are made as per table 9.6 of (Turkish Water Pollution Control Directive) (“SKKY”) from water intake points.
Each quarter, samples from discharge points are analyzed 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 wastewater monitoring station installed for monitoring instant values and recording defined parameters.
Wastewater 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 discarge 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, cloride , 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

More than once a year

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Tools on the market
Databases
Other

Tools and methods used

WRI Aqueduct
WWF Water Risk Filter
Regional government databases
Other, please specify
CLIMAHYDRO Database of Min. of For/ Wate

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 raw materials and waste 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

More than once a year

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 raw materials and waste 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

More than once a year

How far into the future are risks considered?

More than 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 sufficiency 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, stakeholder's 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. For example, in the highway project undertaken in Serbia, flooding risks were taken into account and necessary precautions were taken. Extensive erosion protection was necessary due to the large floodplain of the specific river. Flood prevention measures, long river diversions, dykes and the construction of a new riverbed were amongst measures taken.
Implications of water on your key commodities/raw materials	Relevant, always included	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. 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.
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. Regulations, especially for effluent discharge are monitored extensively due to Power plant and other industrial operations. Effluent parameters are monitored as necessary in the regulations. Apart from these groundwater withdrawals are monitored 7/24 to make sure limits set by regulatory bodies are adhered to
Status of ecosystems and habitats	Relevant, always included	Status of ecosystems and habitats, more specifically biodiversity is a material issue for ENKA especially from a reputational standpoint. ENKA either uses seawater, municipal water or groundwater for its processes. Ground water consumption is always kept below allocated limits due to efficiency measures and target settings. At all discharge points, relevant pollutant parameters are closely monitored as several points in discharge line to ensure compliance with local regulations and prevent damage to ecosystems. 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. For example, in the highway

		project undertaken in Serbia, flooding risks were taken into account and necessary precautions were taken. Extensive erosion protection was necessary due to the large floodplain of the specific river. Flood prevention measures, long river diversions, dykes and the construction of a new riverbed were amongst measures taken.
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 owners and financiers. 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. In addition, biodiversity issues are considered by investors and ENKA as highly material due to Power Generation and Construction activities. Ground water consumption is always kept below allocated limits due to efficiency measures and target settings. At all discharge points, relevant pollutant parameters are closely monitored as several points in discharge line to ensure compliance with local regulations and prevent damage to ecosystems.
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 and local stakeholders are always consulted. For example, in the highway project undertaken in Serbia, flooding risks were taken into account and necessary precautions were taken. Extensive erosion protection was necessary due to the large floodplain of the specific river. Flood prevention measures, long river diversions, dykes and the construction of a new riverbed were amongst measures taken. Another example is the commitment made to find solutions with local stakeholders and experts for maintaining the quality of the vineyards where endemic grape species are grown within 100 meters of the dam reservoir. Similarly, to ensure the local fishery businesses are not negatively impacted during construction and operation phases, another commitment was made to relocate fish species to upstream locations within the river.
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	Just like local communities, statutory special interest groups are considered and always included where available in our projects when water-related risks are apparent. So far, we did not have the opportunity to interact with any special interest groups at a local level in any of our projects, however, all local stakeholders are always considered in Environmental and Social Risk Management Plans for our construction projects. Another example is the commitment made to find solutions with local stakeholders and experts for maintaining the quality of the vineyards where endemic grape species are grown within 100 meters of the dam reservoir. Similarly, to ensure the local fishery businesses are not negatively impacted during construction and operation phases, another commitment was made to relocate fish species to upstream locations within the river.
Suppliers	Relevant, always included	In some sectors ENKA is active, supplier risks directly impact 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 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. If the project includes any environmental and social risk including water-related risks, an Environmental and Social Risk Management Plan is designed, implemented and monitored continuously during the lifetime of the project.

We implement extensive water risk assessments for our construction projects, especially for projects financed by IFIs.

For example, in the highway project undertaken in Serbia, flooding risks were taken into account and necessary precautions were taken. Extensive erosion protection was necessary due to the large floodplain of the specific river. Flood prevention measures, long river diversions, dykes and the construction of a new riverbed were amongst measures taken.

Extensive Environment and Social Risk Assessment studies are conducted with the help of external consultants in especially in hydro power tenders where both environmental and social impacts of water needs to be considered in great detail.

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.

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	14	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. 15 facilities have been included in water risk assessment. 14 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 financial or strategic impact on your business, and what is the potential business impact associated with those facilities?

Country/Area & River basin

Turkey

Other, please specify

Marmara

Number of facilities exposed to water risk

5

% company-wide facilities this represents

26-50

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

Not applicable

% company's total global revenue that could be affected

61-70

Comment

ENKA İnşaat HQ
Enka Pazarlama
ENKA Schools Kocaeli
Çimtaş Steel
Çimtaş Pipe

Country/Area & River basin

Turkey
Other, please specify
Gediz

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

51-75

% company's total global revenue that could be affected

1-10

Comment

ENKA Power İzmir

Country/Area & River basin

Russian Federation

Volga

Number of facilities exposed to water risk

4

% company-wide facilities this represents

26-50

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

Not applicable

% company's total global revenue that could be affected

1-10

Comment

City Center Investment
Moskva Krasnye Holmy
ENKA TC
Nizhnekamsk Project

Country/Area & River basin

Turkey
Sakarya

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

26-50

% company's total global revenue that could be affected

1-10

Comment

ENKA Power Gebze

ENKA Power Adapazarı

Country/Area & River basin

Iraq

Tigris & Euphrates

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

Not applicable

% company's total global revenue that could be affected

1-10

Comment

Samawa Project

Dhi Qar Project

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/Area & River basin

Turkey

Other, please specify

Marmara

Type of risk & Primary risk driver

Physical

Increased water scarcity

Primary potential impact

Increased operating costs

Company-specific description

ENKA Headquarters buildings, ENKA Pazarlama, ENKA Schools Kocaeli, and Çimtaş Pipe and Steel plants are located in the Marmara basin. The Marmara basin has a medium to high risk of water scarcity that may impact our operations. Çimtaş production facilities are impacted from low quality water in the basin which mandates investment in further treatment technologies or supplying water from other (more expensive sources).

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)

277,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

Due to low quality water availability in the region, Çimtaş plants supply water from more expensive sources. Financial impact figure indicates the total revenues of Çimtaş.

Primary response to risk

Adopt water efficiency, water reuse, recycling and conservation practices

Description of response

Çimtaş Pipe has implemented the following water management responses: Increasing rainwater collection, efficient irrigation monitoring, daily monitoring of all consumptions leading to quick identification of leaks.

Cost of response

3,500

Explanation of cost of response

Total cost of operational and capital expenses for description of response

Country/Area & River basin

Turkey

Sakarya

Type of risk & Primary risk driver

Physical

Increased water scarcity

Primary potential impact

Increased operating costs

Company-specific description

Gebze and Adapazarı Power plants are located in the Sakarya basin. High water risk in the region 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)

100,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

Financial impact was given as the total of our Gebze and Adapazarı power plants. High risk of water scarcity in this 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 reuse, recycling and conservation practices

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 observed.

Country/Area & River basin

Turkey

Other, please specify

Gediz

Type of risk & Primary risk driver

Physical

Increased water scarcity

Primary potential impact

Increased operating 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)

220,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation 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 reuse, recycling and conservation practices

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, negating the risk for water scarcity in the region.

Cost of response

3,500,000

Explanation of cost of response

CAPEX for the desalination investment.

Country/Area & River basin

Russian Federation

Volga

Type of risk & Primary risk driver

Physical

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)

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (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

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/Area & River basin

Iraq

Tigris & Euphrates

Stage of value chain

Supply chain

Type of risk & Primary risk driver

Physical

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 one year

Magnitude of potential 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

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

Increase as percentage of total operational expenses.

Primary response to risk

Supplier engagement

Other, please specify

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?

Yes, we have identified opportunities, and some/all are being realized

W4.3a

(W4.3a) Provide details of opportunities currently being realized that could have a substantive financial or strategic impact on your business.

Type of opportunity

Efficiency

Primary water-related opportunity

Improved water efficiency in operations

Company-specific description & strategy to realize opportunity

Due to low quality water availability in the region, Çimtaş production facilities monitor their water impacts constantly. Çimtaş Pipe was able to realize cost saving efficiency opportunities through robust water management practices by increasing the scope and efficiency of the rainwater collection system, increasing the efficiency of the irrigation systems, daily monitoring of water consumptions and leaks.

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

25,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

Amount of water saved in 2019 multiplied by the water purchasing price.

W5. Facility-level water accounting

W5.1

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

Facility reference number

Facility 1

Facility name (optional)

Çimtaş Çelik İmalat Montaj ve Tesisat A.Ş.

Country/Area & River basin

Turkey

Other, please specify

Marmara

Latitude

40.411346

Longitude

29.099122

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Not applicable

Total water withdrawals at this facility (megaliters/year)

41.33

Comparison of total withdrawals with previous reporting year

Much higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

39.34

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

1.99

Total water discharges at this facility (megaliters/year)

15

Comparison of total discharges with previous reporting year

Much higher

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

15

Discharges to groundwater

0

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

26.33

Comparison of total consumption with previous reporting year

Higher

Please explain

Çimtaş Steel’s water consumption has increased in 2019 due to increased operational capacity.

Facility reference number

Facility 2

Facility name (optional)

Çimtaş Pipe İmalat Montaj ve Tesisat A.Ş.

Country/Area & River basin

Turkey

Other, please specify

Marmara

Latitude

40.407436

Longitude

29.109001

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Not applicable

Total water withdrawals at this facility (megaliters/year)

27.35

Comparison of total withdrawals with previous reporting year

Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

27.35

Total water discharges at this facility (megaliters/year)

27.35

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

27.35

Total water consumption at this facility (megaliters/year)

0

Comparison of total consumption with previous reporting year

Lower

Please explain

Çimtaş Pipe’s water consumption was reduced with water efficiency projects implemented in 2019.

Facility reference number

Facility 3

Facility name (optional)

ENKA Pazarlama İhracat İthalat A.Ş.

Country/Area & River basin

Turkey

Other, please specify

Marmara

Latitude

40.83389

Longitude

29.321671

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Not applicable

Total water withdrawals at this facility (megaliters/year)

7.3

Comparison of total withdrawals with previous reporting year

About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

7.3

Total water discharges at this facility (megaliters/year)

7.11

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

7.11

Total water consumption at this facility (megaliters/year)

0.19

Comparison of total consumption with previous reporting year

About the same

Please explain

Water consumption at ENKA Pazarlama remained very similar to 2018 due to the nature of its operations (sanitary purposes in offices)

Facility reference number

Facility 4

Facility name (optional)

ENKA Hedquarters Offices

Country/Area & River basin

Turkey

Other, please specify

Marmara

Latitude

41.058568

Longitude

29.016148

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Not applicable

Total water withdrawals at this facility (megaliters/year)

13.34

Comparison of total withdrawals with previous reporting year

Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

13.34

Total water discharges at this facility (megaliters/year)

13.34

Comparison of total discharges with previous reporting year

Higher

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

13.34

Total water consumption at this facility (megaliters/year)

0

Comparison of total 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. Total amount of water withdrawn and discharged has increased slightly in 2019 due to increase in operations..

Facility reference number

Facility 5

Facility name (optional)

Kocaeli ENKA Okulları

Country/Area & River basin

Turkey

Other, please specify

Marmara

Latitude

40.836506

Longitude

29.544027

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Not applicable

Total water withdrawals at this facility (megaliters/year)

10.1

Comparison of total withdrawals with previous reporting year

Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

10.1

Total water discharges at this facility (megaliters/year)

10.1

Comparison of total discharges with previous reporting year

Higher

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

10.1

Total water consumption at this facility (megaliters/year)

0

Comparison of total consumption with previous reporting year

About the same

Please explain

Discharge is considered equal to water withdrawn in ENKA Kocaeli Schools. This is because ENKA Kocaeli Schools 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 uses. Total amount of water withdrawn and discharged has increased slightly in 2019 due to increase in operations.

Facility reference number

Facility 6

Facility name (optional)

İzmir Elektrik Üretim Ltd. Şti.

Country/Area & River basin

Turkey

Other, please specify

Gediz

Latitude

38.746445

Longitude

26.95805

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Gas

Total water withdrawals at this facility (megaliters/year)

8,317.22

Comparison of total withdrawals with previous reporting year

Much lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

8,291.09

Withdrawals from groundwater - renewable

26.13

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

0

Total water discharges at this facility (megaliters/year)

6,091.02

Comparison of total discharges with previous reporting year

Much lower

Discharges to fresh surface water

7.3

Discharges to brackish surface water/seawater

6,023.65

Discharges to groundwater

0

Discharges to third party destinations

60.07

Total water consumption at this facility (megaliters/year)

2,226.2

Comparison of total consumption with previous reporting year

Much lower

Please explain

İzmir NG Power plant utilizes seawater for cooling and groundwater for regular everyday sanitary purposes. Our water consumption was much lower in 2019 because of limited operations due to the ending of the natural gas purchasing agreement between the Min. of Energy and Nat. Resources and ENKA Power.

Facility reference number

Facility 7

Facility name (optional)

Gebze Elektrik Üretim Ltd. Şti.

Country/Area & River basin

Turkey

Sakarya

Latitude

40.863926

Longitude

30.397573

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Gas

Total water withdrawals at this facility (megaliters/year)

32.87

Comparison of total withdrawals with previous reporting year

Much lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

32.87

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

0

Total water discharges at this facility (megaliters/year)

32.87

Comparison of total discharges with previous reporting year

Much lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

32.87

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

0

Comparison of total consumption with previous reporting year

Much lower

Please explain

Groundwater is used for both cooling and WASH services in Gebze NG Combined Cycle Power Plant. Due to the ending of the natural gas purchase agreement, the plant ran at limited capacity in 2019, leading to a much-reduced water withdrawal figure compared to 2018. All water withdrawn is discharged back to the groundwater source.

Facility reference number

Facility 8

Facility name (optional)

Adapazarı Elektrik Üretim Ltd. Şti.

Country/Area & River basin

Turkey
Sakarya

Latitude

40.863926

Longitude

30.397573

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Gas

Total water withdrawals at this facility (megaliters/year)

16.43

Comparison of total withdrawals with previous reporting year

Much lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

16.43

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

0

Total water discharges at this facility (megaliters/year)

16.43

Comparison of total discharges with previous reporting year

Much lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

16.43

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

0

Comparison of total consumption with previous reporting year

Much lower

Please explain

Groundwater is used for both cooling and WASH services in Adapazarı NG Power Plant. Due to the ending of the natural gas purchase agreement, the plant ran at limited capacity and eventually suspended its activities within 2019, leading to a much-reduced water withdrawal figure compared to 2018. All water withdrawn is discharged back to the groundwater source.

Facility reference number

Facility 9

Facility name (optional)

City Center Investment B.V.

Country/Area & River basin

Russian Federation

Volga

Latitude

55.746968

Longitude

37.536749

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Not applicable

Total water withdrawals at this facility (megaliters/year)

194.71

Comparison of total withdrawals with previous reporting year

About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

194.71

Total water discharges at this facility (megaliters/year)

194.71

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

194.71

Total water consumption at this facility (megaliters/year)

0

Comparison of total 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 10

Facility name (optional)

ENKA TC Limited Liability Company

Country/Area & River basin

Russian Federation

Volga

Latitude

55.746686

Longitude

37.536488

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Gas

Total water withdrawals at this facility (megaliters/year)

573.9

Comparison of total withdrawals with previous reporting year

Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

573.9

Total water discharges at this facility (megaliters/year)

565.7

Comparison of total discharges with previous reporting year

Much higher

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

565.7

Total water consumption at this facility (megaliters/year)

8.2

Comparison of total consumption with previous reporting year

Much lower

Please explain

Mains water is used for WASH services in ENKA TC shopping malls. Water withdrawals and discharges has increased in 2019 due to increases in the number of visitors. However, total water consumption was much lower because of the utilization of a rainwater collection system that was implemented within ENKA TC.

Facility reference number

Facility 11

Facility name (optional)

Moskva Krasnye Holmy

Country/Area & River basin

Russian Federation

Volga

Latitude

55.733032

Longitude

37.644102

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Not applicable

Total water withdrawals at this facility (megaliters/year)

62.95

Comparison of total withdrawals with previous reporting year

Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

62.95

Total water discharges at this facility (megaliters/year)

62.95

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

62.95

Total water consumption at this facility (megaliters/year)

0

Comparison of total consumption with previous reporting year

About the same

Please explain

Discharge is considered equal to water withdrawn in Moskva Krasyne Holmy because it is impossible to monitor discharges in real time. Therefore W+C = D formula is utilized. An investment to change water lines into glycol lines was made, leading to a reduction in water consumption in 2019.

Facility reference number

Facility 12

Facility name (optional)

Nizhnekamskneftekhim Combined Cycle Gas Turbine Thermal Power Plant Project

Country/Area & River basin

Russian Federation

Volga

Latitude

55.613807

Longitude

51.947535

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Not applicable

Total water withdrawals at this facility (megaliters/year)

24

Comparison of total withdrawals with previous reporting year

This is our first year of measurement

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

24

Total water discharges at this facility (megaliters/year)

18

Comparison of total discharges with previous reporting year

This is our first year of measurement

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

18

Total water consumption at this facility (megaliters/year)

6

Comparison of total consumption with previous reporting year

This is our first year of measurement

Please explain

2019 was the first year of measurement for this new construction project.

Facility reference number

Facility 13

Facility name (optional)

Samawa Combined Cycle Power Plant Project

Country/Area & River basin

Iraq

Tigris & Euphrates

Latitude

31.275885

Longitude

45.223035

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Not applicable

Total water withdrawals at this facility (megaliters/year)

90.8

Comparison of total withdrawals with previous reporting year

This is our first year of measurement

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

11.5

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

79.3

Total water discharges at this facility (megaliters/year)

76.8

Comparison of total discharges with previous reporting year

This is our first year of measurement

Discharges to fresh surface water

76.8

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

14

Comparison of total consumption with previous reporting year

This is our first year of measurement

Please explain

2019 was the first year of measurement for this new construction project.

Facility reference number

Facility 14

Facility name (optional)

Dhi Qar Combined Cycle Power Plant Project

Country/Area & River basin

Iraq

Tigris & Euphrates

Latitude

31.034657

Longitude

46.20207

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Gas

Total water withdrawals at this facility (megaliters/year)

55.33

Comparison of total withdrawals with previous reporting year

This is our first year of measurement

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

55.33

Total water discharges at this facility (megaliters/year)

35.01

Comparison of total discharges with previous reporting year

This is our first year of measurement

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

35.01

Total water consumption at this facility (megaliters/year)

20.32

Comparison of total consumption with previous reporting year

This is our first year of measurement

Please explain

2019 was the first year of measurement for this new construction project.

W5.1a

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

Water withdrawals – total volumes

% verified

Not verified

Water withdrawals – volume by source

% verified

Not verified

Water withdrawals – quality

% verified

Not verified

Water discharges – total volumes

% verified

Not verified

Water discharges – volume by destination

% verified

76-100

What standard and methodology was used?

Water discharges are continuously monitored in ENKA Power Plants. Standard effluent parameter analyses performed by external accredited laboratories according to the Turkish Water Pollution Control Regulation (SKKY) are sent to the Ministry every three months. Total water discharges from ENKA Power Plants makes up approximately 85% of all water discharges of ENKA.

Water discharges – volume by treatment method

% verified

76-100

What standard and methodology was used?

Water discharges are continuously monitored in ENKA Power Plants. Standard effluent parameter analyses performed by external accredited laboratories according to the Turkish Water Pollution Control Regulation (SKKY) are sent to the Ministry every three months. Total water discharges from ENKA Power Plants makes up approximately 85% of all water discharges of ENKA.

Water discharge quality – quality by standard effluent parameters

% verified

76-100

What standard and methodology was used?

Water discharges are continuously monitored in ENKA Power Plants. Standard effluent parameter analyses performed by external accredited laboratories according to the Turkish Water Pollution Control Regulation (SKKY) are sent to the Ministry every three months. Total water discharges from ENKA Power Plants makes up approximately 85% of all water discharges of ENKA.

Water discharge quality – temperature

% verified

76-100

What standard and methodology was used?

Water discharges are continuously monitored in ENKA Power Plants. Standard effluent parameter analyses performed by external accredited laboratories according to the Turkish Water Pollution Control Regulation (SKKY) are sent to the Ministry every three months. Total water discharges from ENKA Power Plants makes up approximately 85% of all water discharges of ENKA.

Water consumption – total volume

% verified

Not verified

Water recycled/reused

% verified

Not verified

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	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 2019 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 subsides have offered training in relevant topics including environment and sustainability issues. ENKA is a signatory of Global Compact and supports collective action through NGOs. 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 wastewater 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

		Company water targets and goals Commitment to align with public policy initiatives, such as the SDGs Commitments beyond regulatory compliance Commitment to water-related innovation Commitment to stakeholder awareness and education Commitment to water stewardship and/or collective action Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace Commitment to safely managed Water, Sanitation and Hygiene (WASH) in local communities Acknowledgement of the human right to water and sanitation Recognition of environmental linkages, for example, due to climate change	continuous research on reducing water consumption and uses suitable infrastructure systems and high-efficiency equipment to minimise water loss. 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. https://www.enka.com/sustainability/home/strategy/sustainability-goals/ 1, 2

[1]HSSE_POLICY_ENG.pdf

[2]ENKA_Sustainability_Report_2019.pdf

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	Monitoring implementation and performance	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

		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 Reviewing and guiding strategy Reviewing and guiding corporate responsibility strategy Reviewing innovation/R&D priorities Setting performance objectives	CEO on policies and performance against the ENKA 2027 Sustainability Goals, 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). Beginning in 2018, ENKA has set its 10 year sustainability targets, named ENKA 2027 Sustainability Goals, 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 is responsible for managing all projects related to the sustainability programs of ENKA Group and all its Subsidiaries. The Committee works towards identifying and assessing social and environmental risks and opportunities, including climate-related ones, monitors sustainability and climate-related developments and determines the sustainability strategy and targets. The committee meets quarterly and the outcomes from the Sustainability Committee meetings are reported to the Chairman of the Executive Committee and CEO by the Director of Quality, HSE and Integrity (DQHSEI).

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.

W6.4

(W6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?

	Provide incentives for management of water-related issues	Comment
Row 1	Yes	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. 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 behavior recognition.

W6.4a

(W6.4a) 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)?

	Role(s) entitled to incentive	Performance indicator	Please explain
Monetary reward	Other, please specify Management Group	Reduction of water withdrawals Reduction in consumption volumes Other, please specify Sustainability and climate change achievements	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.
Non-monetary reward	Other, please specify All Employees	Improvements in efficiency - direct operations Improvements in efficiency - supply 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 behavior recognition.

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, direct engagement with policy makers

Yes, trade associations

Yes, funding research organizations

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 round table. The round table 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 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. 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.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	11-15	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.
Financial planning	Yes, water-related issues are integrated	11-15	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. 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.

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)

0

Water-related OPEX (+/- % change)

-20

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

-20

Please explain

Approximately 85% of ENKA's water withdrawals are for ENKA Power Natural Gas Combined Cycle Power Plants. Due to the shutdown status of these plants, A conservative 20% decrease in water related OPEX is expected.

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	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; • 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 scenarios and models applied	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
Row 1	Business level specific targets and/or goals	Targets are monitored at the corporate level	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. 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.

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 strategiess

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

2019

% of target achieved

0

Please explain

Demineralized water consumption was 0.0274 m3/MWh in 2019. Due to the suspension process of the plant, the electricity generation activities were sanctioned by the Turkish State Electricity Generation Company and Turkish State Electricity Transmission Company. Due to numerous shutdown and start-ups, generators were taken online and offline numerous times, resulting in reduced efficiency and increased water intensity.

Target reference number

Target 2

Category of target

Product water intensity

Level

Business

Primary motivation

Climate change adaptation and mitigation strategiess

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

2019

Start year

2019

Target year

2019

% of target achieved

100

Please explain

Demineralized water consumption has been around 0.016 m3/MWh in 2019.

Target reference number

Target 3

Category of target

Product water intensity

Level

Business

Primary motivation

Climate change adaptation and mitigation strategiess

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

2019

% of target achieved

100

Please explain

Çimtaş' target of keeping domestic water consumption bellow 15 litres/man-hours was achieved in 2019. This is a rolling target that is renewed each year. Domestic water consumption was 14 litres/man-hours in 2019.

W9. Verification

W9.1

(W9.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1a)?

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

W10. 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.

W10.1

(W10.1) 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	Chief Executive Officer (CEO)

W10.2

(W10.2) 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 how your response should be handled by CDP

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

Please confirm below