

Welcome to your CDP Water Security Questionnaire 2023

W0. Introduction

W0.1

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

Our company started its energy activities in 1989 affiliated with Akkök Group of Companies. Akenerji, which has been operating as an independent electricity generation company since 2005, became one of the leading companies in Turkey's energy sector as of the end of 2022. Akenerji, which is an example in the energy sector with more than 33 years of knowledge, with 1 natural gas combined cycle, 1 wind power plant and 7 hydroelectric power plants has created portfolio diversity in terms of source and geography. As of the end of 2022, 26% of our total installed power, which is 1,224 MW, consists of renewable energy sources. All our active plants are administratively operating under the Generation Assistant Manager under the name of Akenerji Elektrik Üretim A.Ş.. All our power plants except for Erzin Power Plant carry out electricity generation activities from renewable energy sources.

Being aware of the importance of renewable energy for the future of the world, Akenerji has put the goal of; continuing renewable energy investments in the future, at the top of its main strategic goals. In this context, all activities are carried out by prioritizing renewable investments and following a sustainable business model.

Akenerji's Sustainability Approach: Sustainability is integrated into increasing number of decision making mechanisms within the company in line with the UN Global Compact Sustainability Development Goals. As a tool for managing and maintaining the efforts to reach sustainability, Akenerji gives importance to monitor quality performance in its services together with stakeholder engagement performance.

As a part of monitoring the environmental sustainability performance, Akenerji launched the "Carbon Management Project" which includes regular monitoring of the company's GHG emissions. GHG inventory of Erzin Natural Gas Power Plant is monitored, reported and verified in ISO 14064 standard since 2016.

We benefit from a variety of dialogue platforms to learn about the sustainability expectations of our stakeholders including employees, customers, creditors, investors, regulatory bodies,

suppliers, local communities, local authorities, society, and media as well as to give them information on these issues. The communication channels are integrated management systems, “We Are the Energy” Employee Suggestion System, Customer satisfaction surveys, Environmental Impact Assessment (EIA) reports, workshops/events etc. Moreover, Akenerji participates to CDP Climate Change program since 2010; prepares annual sustainability reports according to GRI Standards since 2012. As a part of our communication channels with our stakeholders, we also benefit from sustainability reports. Sustainability Report has been prepared in accordance with the GRI Standards: Core option principles taking United Nations Sustainable Development Goals into account. Akenerji's all power plants have ISO 9001:2015 Quality, ISO 45001:2018 Occupational Health and Safety and the ISO 14001: 2015 Environment Management Systems and ISO 50001:2018 Energy Management System since 2010.

We have been listed on “BIST Sustainability Index” which lists the companies that are traded at Borsa İstanbul and that have highest corporate sustainability performance ratings. Our Borsa İstanbul Sustainability Index score was determined as “B”.

Moreover, as of 2015, CDP Water Program has been initiated in our country. We have been among the pioneer companies that started to report to the program in its initial year and conveyed our water management system. Carbon Disclosure Project (CDP) Turkey 2017 Water Leadership Award granted to us as the result of the steps we have taken about water.

in 2021, we prepared our Corporate Sustainability Management handbook. We determined our sustainability performance indicators and our sustainability strategies covering the years 2021-2025. We have established our goals in line with the United Nations Sustainable Development Goals. We transparently inform our stakeholders about our activities and successes, along with the challenges we face. Every year, we publish a comprehensive report on our progress, goals and efforts. Within the scope of the Corporate Governance Communiqué and Sustainability Principles Harmonization Framework of the Capital Markets Board; A Sustainability Committee composed of Executives was formed by our Board of Directors for Environmental, Social, Corporate Governance (ESG) extensions, collection and monitoring of related policies and documents, the Company's Security Policy was approved, the internet files were also disclosed to the public, and a statement was made on the Public Disclosure Platform (Public Disclosure Platform). Our Sustainability Report has started to be published as an Integrated Annual Report as of the 2021 activity year.

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	904	74	3,153.25
Biomass			
Waste (non-biomass)			
Nuclear			
Fossil-fuel plants fitted with carbon capture and storage			
Geothermal			
Hydropower	292	24	668.36
Wind	28	2	82.98
Solar			
Marine			
Other renewable			
Other non-renewable			
Total	1,224	100	

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, 2022	December 31, 2022

W0.3

(W0.3) Select the countries/areas in which you operate.

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
Ankara Office	We have a very small office with only 4 employees located in Ankara. It has a very low environmental impact in terms of carbon and water footprint. It has very small amount of water consumption and very limited environmental footprint. Therefore, the environmental impact of Ankara Office is negligible.

W0.7

(W0.7) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization.	Provide your unique identifier
Yes, an ISIN code	TRAAKENR91L9

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	Neutral	For direct use; water is vital for our operations. Especially at Hydroelectric Power Plants (HEPP) electricity can be generated by means of water. The potential energy of water is transformed to mechanical energy so as to generate electricity.

			Therefore, availability of water (water quantity) is vital for our operations. Besides; we have a natural gas combined cycle power plant (NGCCPP) and significant volume of water is necessary for cooling purposes. The importance will be kept and increase in the future. For indirect use; water is used for WASH purposes by our contractors and sub-contractors currently and in the future.
Sufficient amounts of recycled, brackish and/or produced water available for use	Vital	Not very important	About direct use of water: Cooling, process and other usage water is provided from Mediterranean Sea in Erzin natural gas combined cycle power plant (NGCCPP). Significant amount of seawater is used for cooling purpose in condenser and discharged to the sea; small amount of this source is used for process and WASH water in the plant. Water quality and quantity are both important for these operations currently and in the future. Cooling water technology is recirculating or closed-loop systems, which reuse cooling water rather than immediately releasing it back to the sea. Such systems withdraw comparatively small amounts of water but lose most of it to evaporation. For indirect use; water is used for WASH purposes by our contractors and sub-contractors currently and in the future.

W1.2

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

	% of sites/facilities/operations	Frequency of measurement	Method of measurement	Please explain
Water withdrawals – total volumes	100%	Continuously	It is measured by estimation based on the number of people working in HEPPs and WPPs. It is measured with meters in our Erzin power plant.	100% of all water withdrawals are regularly measured and monitored at all sites. We have different types of power plants

				<p>and 100% of water withdrawals are regularly measured and monitored: At our Erzin Natural Gas Combined Cycle Power Plant (NGCCPP) Cooling, process, WASH and other usage waters in Erzin NGCCPP is provided from Mediterranean Sea and we are monitoring water withdrawals. In HEPP's; potential energy of water is transformed into mechanical energy and this process electricity generates. Water withdrawals in all HEPPs are used only for domestic use (cooking, WC, etc., garden irrigation). We measure and monitor water</p>
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				withdrawals volume by sources at all sites.
Water withdrawals – volumes by source	100%	Continuously	<p>It is measured by estimation based on the number of people working in HEPPs and WPPs.</p> <p>It is measured with meters in our Erzin power plant.</p>	<p>We have different types of power plants and 100% of water withdrawals are regularly measured and monitored: At our Erzin Natural Gas Combined Cycle Power Plant (NGCCPP) Cooling, process, WASH and other usage waters in Erzin NGCCPP is provided from Mediterranean Sea and we are monitoring water withdrawals. In HEPP's; potential energy of water is transformed into mechanical energy and this process electricity generates. Water withdrawals in</p>

				all HEPPs are used only for domestic use (cooking, WC, etc., garden irrigation). We measure and monitor water withdrawals volume by sources at all sites.
Water withdrawals quality	76-99	Continuously	We monitor these parametres in Erzin NGCCGT : Oil And Grease, Fecal Coliform , Nh3, Suspended Solids, Dissolved Oxygen, Boi5, Ph, Saltiness, Total P ,Total Coliform, Temparature. Water quality is not monitored in HEPPs and WPP.	in HEPPs we do not need quality data, because we use only the potential energy of water is transformed to mechanical energy. İn Erzin NGCCGT Water Supply and Water Quality: Water requirement during operation is met by treating sea water with reverse osmosis system. The wastewater during operation is disposed though permanent treatment

				<p>plant and is discharged to sea in accordance with legislations. Seawater is used as the cooling water in the process. The water used in high-pressure steam and tribunes is drawn from the sea with the reverse osmosis method and used as cooling water in the process through a high-tech treatment plant. So we monitor and control seawater quality in withdrawal and discharge</p>
Water discharges – total volumes	100%	Continuously	<p>Akenerji Erzin NGCCPP has a remote wastewater monitoring station in the plant and the discharge water is monitored simultaneously by the Ministry of Environment, Urbanization and Climate Change.</p>	<p>100% of total volumes of water discharged by destination is regularly measured and monitored at all sites. At</p>

				<p>Erzin NGCCPP wastewater is discharged into the Mediterranean Sea. One of the Erzin Plant's environmental permit's index is the monitoring of the deep-sea discharges. Therefore, we always measure and monitor this parameter with Continuous Air Emission Monitoring System and Continuous Waste Water Monitoring System. The Ministry of Environmental, Urbanization and Climate Change has monitored these system as well. In HEPPs; domestic wastewater is collected in septic tanks and transported with sewage</p>
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				trucks to municipal treatment plants. Therefore, this parameter is measured and monitored.
Water discharges – volumes by destination	100%	Continuously	Akenerji Erzin NGCCPP has a remote wastewater monitoring station in the plant and the discharge water is monitored simultaneously by the Ministry of Environment, Urbanization and Climate Change.	100% of total volumes of water discharged by destination is regularly measured and monitored at all sites. At Erzin NGCCPP wastewater is discharged into the Mediterranean Sea. One of the Erzin Plant's environmental permit's index is the monitoring of the deep-sea discharges. Therefore, we always measure and monitor this parameter. In HEPPs; domestic wastewater is collected in septic tanks and transported

				with sewage trucks to municipal treatment plants. Therefore, this parameter is measured and monitored.
Water discharges – volumes by treatment method	76-99	Continuously	Akenerji Erzin NGCCPP has a remote wastewater monitoring station in the plant and the discharge water is monitored simultaneously by the Ministry of Environment, Urbanization and Climate Change	100% of total volumes of water discharged by treatment method is regularly measured and monitored at all sites. At Erzin NGCCPP wastewater is discharged into the Mediterranean Sea. One of the Erzin Plant's environmental permit's index is the monitoring of the deep-sea discharges. Therefore, we regularly measure and monitor this parameter. In HEPPs; domestic wastewater is collected in septic tanks

				and transported with sewage trucks to municipal treatment plants. Therefore, this parameter is measured and monitored.
Water discharge quality – by standard effluent parameters	100%	Continuously	Akenerji Erzin NGCCPP has a remote wastewater monitoring station in the plant and the discharge water is monitored simultaneously by the Ministry of Environment, Urbanization and Climate Change	99.98% of total volumes of water discharged is regularly measured and monitored by water quality by standard effluent parameters. As Erzin is a Natural Gas Combined Cycle Power Plant, it needs high amount of water for cooling process and for that reason 99.98% of our total volumes of water discharged sourced from Erzin NGCCPP. Erzin NGCCPP wastewater is discharged

				<p>into the Mediterranean Sea. One of the Erzin Plant's environmental permit's index is the monitoring of the water quality by standard effluent parameters. Therefore, we regularly measure and monitor this parameter. In HEPPs; domestic wastewater is collected in septic tanks and transported with sewage trucks to municipal treatment plants. Therefore, waste water quality by standard effluent parameters is not monitored. But it is 0.02% by volume and source is domestic use.</p>
Water discharge quality –	76-99	Continuously	Akenerji Erzin NGCCPP has a remote wastewater monitoring station in the	99.98% of total volumes of water

<p>emissions to water (nitrates, phosphates, pesticides, and/or other priority substances)</p>			<p>plant and the discharge water is monitored simultaneously by the Ministry of Environment, Urbanization and Climate Change</p>	<p>discharged is regularly measured and monitored by water quality by standard effluent parameters. As Erzin is a Natural Gas Combined Cycle Power Plant, it needs high amount of water for cooling process and for that reason 99.98% of our total volumes of water discharged sourced from Erzin NGCCPP. Erzin NGCCPP wastewater is discharged into the Mediterranean Sea. One of the Erzin Plant's environmental permit's index is the monitoring of the water quality by standard effluent parameters. Therefore, we regularly</p>
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				<p>measure and monitor this parameter. In HEPPs; domestic wastewater is collected in septic tanks and transported with sewage trucks to municipal treatment plants. Therefore, waste water quality by standard effluent parameters is not monitored. But it is 0.02% by volume and source is domestic use.</p>
Water discharge quality – temperature	76-99	Continuously	<p>Akenerji Erzin NGCCPP has a remote wastewater monitoring station in the plant and the discharge water is monitored simultaneously by the Ministry of Environment, Urbanization and Climate Change</p>	<p>Akenerji has both a NGPP and HEPPs in its portfolio. For Erzin NGCCPP, seawater is the source for withdrawal and discharge. Inline with Erzin NGCCPP's environmental permit; the relevant KPIs should be measured,</p>

				monitored and expected to be met in certain limits (Eg; monitoring the standard effluent parameters, temperature rise in water discharge).
Water consumption – total volume	100%	Continuously	Measurements are made with meters.	We regularly measure and monitor the 100% of our water withdrawals and discharges at all sites. Therefore, water consumption is regularly measured and monitored by 100%.
Water recycled/reused	76-99	Continuously	Measurements are made with meters.	Cooling water technology is recirculating or closed-loop systems, which reuse cooling water rather than immediately releasing it back to the sea.
The provision of fully-functioning, safely managed	76-99	Other, please specify see the description	see the description:Measurements are made with meters.We monitor these parametres:	Erzin NGCCPP; water for facilities providing

WASH services to all workers			Oil And Grease, Fecal Coliform , Nh3, Suspended Solids, Dissolved Oxygen, Boi5, Ph, Saltiness, Total P ,Total Coliform, Temperature	fully-functioning WASH services for all workers is not measured separately. Therefore, water aspects could not regularly be measured and monitored only 1 of 7 power plants for WASH services.
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W-EU1.2a

(W-EU1.2a) For your hydropower operations, what proportion of the following water aspects are regularly measured and monitored?

	% of sites/facilities/operations measured and monitored	Please explain
Fulfilment of downstream environmental flows	100%	Akenerji analysed and monitored 100% of its hydro power plant flows in Turkey. Environmental flow which is the minimum amount of water that must be left in the riverbed along the penstock according to environmental regulations, it is monitored in online system by the Ministry of Environment, and Urbanization and Climate Change.
Sediment loading	100%	The potential accumulation of sediments upstream of the reservoir is regularly monitored as part of the operating standards used for hydroelectric power plants. Sediments collect behind dam when its loading. For example sediment collecting was completed at water intake structure for Himmetli HEPP and lake area cleaning for Feke I HEPP to increase water flow in 2020. There is no sediment loading in 2022.
Other, please specify	Not relevant	n/a

W1.2b

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

	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Five-year forecast	Primary reason for forecast	Please explain
Total withdrawals	12,812.96	Lower	Increase/decrease in business activity	About the same	Increase/decrease in efficiency	The total withdrawals is decreased by 19% in comparison to the last year and it is lower than last year
Total discharges	10,779	Lower	Increase/decrease in business activity	About the same	Increase/decrease in efficiency	Trend thresholds are applied consistently to all our businesses: anything under +/- 4% is "about the same", anything over +/- 4% is 'Higher'/'Lower' compared to the previous year, and anything +/- 20% is 'Much higher'/'Much lower'. The total volume of water consumed is

						decreased by 17.15 % in comparison to the last year. it is lower than last year
Total consumption	2,034.32	Much lower	Increase/decrease in business activity	About the same	Increase/decrease in efficiency	<p>Trend thresholds are applied consistently to all our businesses: anything under +/- 4% is "about the same", anything over +/- 4% is 'Higher'/'Lower' compared to the previous year, and anything +/- 20% is 'Much higher'/'Much lower'.</p> <p>The total volume of water consumed is decreased by 25 % in comparison to the last year. it is much lower than last year.</p>

W1.2d

(W1.2d) Indicate whether water is withdrawn from areas with water stress, provide the proportion, how it compares with the previous reporting year, and how it is forecasted to change.

	Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Five-year forecast	Primary reason for forecast	Identification tool	Please explain
Row 1	Yes	100%	About the same	Increase/decrease in business activity	About the same	Increase/decrease in efficiency	WRI Aqueduct	We use WRI Aqueduct Water Risk Atlas tool to identify overall water risks, baseline water stress, projected change in water stress, flood occurrence, drought severity, groundwater stress, etc. By using the tool, we assessed the water stress risk level for each of our locations

								by entering their coordinates on the tool and identifying the basin they are located at. Feke 1, Feke 2, Himmetli, Gökkaya HEPP, Erzin NGCCPP and Head Office in Turkey are listed as having Extremely High Water Stress Levels >80% and withdrawn water level is %99.86 of our total withdrawn. Burç HEPP and Bulam HEPP are listed in Low Water Stress Levels >10% and withdrawn water level is %0.01 of our total withdrawn.
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								Uluabat HEPP and Ayyıldız WPP are listed in High Water Stress Levels 40-80% and withdrawn water level is %0.13 of our total withdrawn. This is our first time of measurement.
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W1.2h

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	0.09	Higher	Increase/decrease in business activity	Trend thresholds are applied consistently to all our businesses: anything under +/- 4% is "about the same", anything over +/- 4% is 'Higher'/'Lower' compared to the previous year, and anything +/-

					20% is 'Much higher'/'Much lower'. Fresh surface water withdrawals are increased by 5 % in comparison to the last year
Brackish surface water/Seawater	Relevant	12,804	Lower	Increase/decrease in business activity	Trend thresholds are applied consistently to all our businesses: anything under +/- 4% is "about the same", anything over +/- 4% is 'Higher'/'Lower' compared to the previous year, and anything +/- 20% is 'Much higher'/'Much lower'. brackish surface water withdrawals are decreased by 19 % in comparison to the last year
Groundwater – renewable	Relevant	3.36	Higher	Increase/decrease in business activity	Trend thresholds are applied consistently to all our businesses: anything under +/- 4% is

					<p>"about the same", anything over +/- 4% is 'Higher'/'Lower' compared to the previous year, and anything +/- 20% is 'Much higher'/'Much lower'.</p> <p>Ground water renewable are increased by 12 % in comparison to the last year</p>
Groundwater – non-renewable	Not relevant				Not relevant
Produced/Entrained water	Not relevant				Not relevant
Third party sources	Relevant	5.84	About the same	Increase/decrease in business activity	<p>Trend thresholds are applied consistently to all our businesses: anything under +/- 4% is "about the same", anything over +/- 4% is 'Higher'/'Lower' compared to the previous year, and anything +/- 20% is 'Much higher'/'Much lower'.</p> <p>Third party sources withdrawals</p>

					are increased %1
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W1.2i

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Please explain
Fresh surface water	Not relevant				We do not discharge to fresh surface water
Brackish surface water/seawater	Relevant	10,778	Lower	Increase/decrease in business activity	<p>Trend thresholds are applied consistently to all our businesses: anything under +/- 4% is "about the same", anything over +/- 4% is 'Higher'/'Lower' compared to the previous year, and anything +/- 20% is 'Much higher'/'Much lower'.</p> <p>We discharge the water to deep sea in line with the environmental permit at Erzin NGCCPP.</p> <p>According to the reporting year figures; 99% of our withdrawal is sourced from our Erzin NGCCPP.</p>

					It is decreased 17,15 % according to the last year.
Groundwater	Not relevant				We do not discharge to groundwater.
Third-party destinations	Relevant	0.94	Much lower	Increase/decrease in efficiency	<p>Trend thresholds are applied consistently to all our businesses: anything under +/- 4% is "about the same", anything over +/- 4% is 'Higher'/'Lower' compared to the previous year, and anything +/- 20% is 'Much higher'/'Much lower'.</p> <p>In HEPPs and Ayyıldız WPP; domestic wastewater is collected in septic tanks and transported with sewage trucks to municipal treatment plants. Head Office AKHAN also discharge to municipal wastewater treatment plant. Discharge is decreased 40.93 % than the last year.</p>

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W1.2j

(W1.2j) Within your direct operations, indicate the highest level(s) to which you treat your discharge.

	Relevance of treatment level to discharge	Volume (megaliters/year)	Comparison of treated volume with previous reporting year	Primary reason for comparison with previous reporting year	% of your sites/facilities/operations this volume applies to	Please explain
Tertiary treatment	Not relevant					Not relevant
Secondary treatment	Relevant	1,095.4	Lower	Increase/decrease in business activity	1-10	We discharge the water to deep sea in line with the environmental permit at Erzin . NGCCPP. We have a wastewater treatment plant, both industrial wastewater, domestic wastewater and rain water are treated. TSS included in the treatment, neutralization, and WTP also include the treated wastewater information. According to the reporting year figures; 99% of

						our discharge is sourced from our Erzin NGCCPP.
Primary treatment only	Relevant	90.7	Much higher	Increase/decrease in business activity	1-10	We discharge the water to deep sea in line with the environmental permit at Erzin . NGCCPP. We have a wastewater treatment plant, both industrial wastewater, domestic wastewater and rain water are treated. TSS included in the treatment, neutralization, and WTP also include the treated Contains information on rainwater mixed with oil included in the treatment.According to the reporting year figures; 99% of our discharge is sourced from our Erzin NGCCPP
Discharge to the natural environment without	Relevant	9,591.6	Lower	Increase/decrease in business activity	81-90	Includes Erzin cooling water information.

treatment						
Discharge to a third party without treatment	Relevant	0.94	Much lower	Increase/decrease in business activity	Less than 1%	In HEPPs and Ayyıldız WPP; domestic wastewater is collected in septic tanks and transported with sewage trucks to municipal treatment plants. Head Office AKHAN also discharge to municipal wastewater treatment plant.
Other	Not relevant					Not relevant

W1.2k

(W1.2k) Provide details of your organization's emissions of nitrates, phosphates, pesticides, and other priority substances to water in the reporting year.

	Emissions to water in the reporting year (metric tonnes)	Category(ies) of substances included	List the specific substances included	Please explain
Row 1	45.03	Priority substances listed under the EU Water Framework Directive	We monitor these parameters: COD, Oil And Grease, Fecal Coliform, Nh3, Suspended Solids, Dissolved Oxygen, BOD5, Ph, Saltiness, Total P, Total Coliform, Temperature, Total CN ⁻ , Zn, Free Cl	100% of total volumes of water discharged by destination is regularly measured and monitored at all sites. At Erzin NGCCPP wastewater is discharged into the Mediterranean Sea. One of the Erzin Plant's environmental permit's index is the monitoring of the deep-sea discharges. Therefore, we always measure and monitor this parameter.

W1.3

(W1.3) Provide a figure for your organization's total water withdrawal efficiency.

	Revenue	Total water withdrawal volume (megaliters)	Total water withdrawal efficiency	Anticipated forward trend
Row 1		12,813		Our main business is to generate and trade electricity. The revenue generated from the electricity generation is correlated with the installed capacity of the power plant. Therefore, it is assumed that the proportion of financial value that could be affected at river basin level is correlated with the installed capacity.

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/denominator)	Numerator: water aspect	Denominator	Comparison with previous reporting year	Please explain
3.28	Total water withdrawals	Other, please specify GWh	Higher	Based on total water withdrawn intensity of our electricity generation activities is 3.07 Megaliters / GWh for 2021 and 3.28 Megaliters / GWh for 2022. 2022 intensity is increased 6.77% higher than 2021 Trend thresholds are applied consistently to all our businesses: anything under +/- 4% is "about the same", anything over +/- 4% is 'Higher'/'Lower' compared to the previous year, and

				anything +/-20% is 'Much higher'/'Much lower'.
0.52	Total water consumption	Other, please specify GWh	About the same	<p>Based on total water consumption intensity of our electricity generation activities is 0.53 Megaliters / GWh for 2021 and 0.52 Megaliters / GWh for 2022. It is decreased 2.16 % nearly the same 2021.</p> <p>Trend thresholds are applied consistently to all our businesses: anything under +/- 4% is "about the same", anything over +/- 4% is 'Higher'/'Lower' compared to the previous year, and anything +/-20% is 'Much higher'/'Much lower'.</p>
2.76	Other, please specify total water discharge	Other, please specify GWh	Higher	<p>Based on total water discharge intensity of our electricity generation activities is 2.54 Megaliters / GWh for 2021 and 2.76 Megaliters / GWh for 2022. It is increased 8,64 % higher than 2021.</p> <p>Trend thresholds are applied consistently to all our businesses: anything under +/- 4% is "about the same", anything over +/- 4% is 'Higher'/'Lower' compared to the previous year, and anything +/-20% is 'Much higher'/'Much lower'.</p>

W1.4

(W1.4) Do any of your products contain substances classified as hazardous by a regulatory authority?

Products contain hazardous substances	Comment
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Row 1	No	Our product is electricity. Electricity doesn't contain hazardous substances
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W1.5

(W1.5) Do you engage with your value chain on water-related issues?

	Engagement
Suppliers	Yes
Other value chain partners (e.g., customers)	Yes

W1.5a

(W1.5a) Do you assess your suppliers according to their impact on water security?

Row 1

Assessment of supplier impact

No, we do not assess the impact of our suppliers and have no plans to do so within the next two years

Please explain

We have environmental terms and conditions in general procurement agreement. In addition to that; we do not request our suppliers to report on their water use, risks and management at the moment, but some water relevant issues are evaluated during the supplier audits.

Raising Awareness of Local Communities:

In locations where Akenerji power plants operate, we aim to raise awareness and provide information to local communities about our operations. Through our video training on electricity generation, environmental and OHS regulations, we inform contractors, visitors, or interns who come to visit our power plants.

W1.5b

(W1.5b) Do your suppliers have to meet water-related requirements as part of your organization's purchasing process?

	Suppliers have to meet specific water-related requirements
Row 1	Yes, suppliers have to meet water-related requirements, but they are not included in our supplier contracts

W1.5c

(W1.5c) Provide details of the water-related requirements that suppliers have to meet as part of your organization's purchasing process, and the compliance measures in place.

Water-related requirement

Complying with going beyond water-related regulatory requirements

Mechanisms for monitoring compliance with this water-related requirement

Fines and penalties

Response to supplier non-compliance with this water-related requirement

Exclude

Comment

According to Procurement Procuder If the suppliers do not complain with water related regulatory requirements we exclude from approved supplier list .

Water-related requirement

Providing fully-functioning, safely managed WASH services to all workers

Mechanisms for monitoring compliance with this water-related requirement

Community-based monitoring

Response to supplier non-compliance with this water-related requirement

Retain and engage

Comment

Our wash water is monitored by public health directorate in periodic term. If analyse report is not comply with regulation we review clor dosage system.

W1.5d

(W1.5d) Provide details of any other water-related supplier engagement activity.

Type of engagement

Information collection

Details of engagement

Collect water quality information at least annually from suppliers (e.g., discharge quality, pollution incidents, hazardous substances)

% of suppliers by number

Less than 1%

Rationale for your engagement

Erzin NGCCGT Water Supply and Water Quality: Water requirement during operation is met by treating sea water with reverse osmosis system. The wastewater during operation is disposed though permanent treatment plant and is discharged to sea in accordance with legislations. Seawater is used as the cooling water in the process. The water used in high-pressure steam and tribunes is drawn from the sea with the reverse

osmosis method and used as cooling water in the process through a high-tech treatment plant. So we monitor and control seawater quality in withdrawal and discharge.

One of the Erzin Plant's environmental permit's index is the monitoring of the water quality by standard effluent parameters. Therefore, we regularly measure and monitor this parameter. According to regulation we must study with an analyse lab that accredited by Ministry

Impact of the engagement and measures of success

comply with regulation

Comment

According to regulation we must study with an analyse lab that accredited by Ministry .

Type of engagement

Information collection

Details of engagement

Collect WASH information at least annually from suppliers

% of suppliers by number

Less than 1%

Rationale for your engagement

Erzin NGCCPP; water for facilities providing fully-functioning WASH services for all workers is not measured separately. Therefore, water aspects could not regularly be measured and monitored only 1 of 7 power plants for WASH services. Our wash water is monitored by public health directorate in periodic term. If analyse report is not comply with regulation we review clor dosage system.

Impact of the engagement and measures of success

comply with regulation

Comment

According to regulation we must study with the public health directorates.

W1.5e

(W1.5e) Provide details of any water-related engagement activity with customers or other value chain partners.

Type of stakeholder

Other, please specify
raise awareness

Type of engagement

Education / information sharing

Details of engagement

Other, please specify

describing the operation of hydroelectric power plants and the personal safety measures that students should take in their daily lives were held .

Rationale for your engagement

In order to raise awareness among the local people in the region where HEPP are located, HEPP Information Presentations describing the operation of hydroelectric power plants and the personal safety measures that students should take in their daily lives were held . Since 2013, a total of 10,350 students and 669 teachers have been provided with our information presentations. . 303 posters and 3624 brochures were delivered to villages and schools, while awareness activities concerning the dangers of hydroelectric power plants continued to take place.

In 2022, 526 students and 73 teachers were trained.

Impact of the engagement and measures of success

Number of educated people: Since 2013, a total of 10,350 students and 669 teachers have been provided with our information presentations. . 303 posters and 3624 brochures were delivered to villages and schools, while awareness activities concerning the dangers of hydroelectric power plants continued to take place.

In 2022, 526 students and 73 teachers were trained.

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?

	Water-related regulatory violations	Comment
Row 1	No	

W3. Procedures

W3.1

(W3.1) Does your organization identify and classify potential water pollutants associated with its activities that could have a detrimental impact on water ecosystems or human health?

	Identification and classification of potential water pollutants	How potential water pollutants are identified and classified
Row 1	Yes, we identify and classify our potential water pollutants	

W3.1a

(W3.1a) Describe how your organization minimizes the adverse impacts of potential water pollutants on water ecosystems or human health associated with your activities.

Water pollutant category

Oil

Description of water pollutant and potential impacts

If the oils formed from our power plants as a result of the process are mixed with the receiving environment, it cuts off the contact of the environment with oxygen. It causes the death of living things in soil, water, etc. and causes pollution.

Value chain stage

Other, please specify
 waste from electricity generation

Actions and procedures to minimize adverse impacts

Industrial and chemical accidents prevention, preparedness, and response
 Discharge treatment using sector-specific processes to ensure compliance with regulatory requirements
 Other, please specify
 compliance with national legislation, storage, disposal/recovery methods

Please explain

Efforts are being made to reduce the waste oil generated as a result of electricity generation in our power plants, primarily by reusing them in the processes. Even a small amount of waste oil is stored at our waste sites in accordance with the waste management regulations, and then sent to licensed recycling companies for processing. In addition, in our Erzin power plant, the water mixed with the rainwater is separated and discharged in our industrial wastewater treatment plants. In addition, drills and

environmental accident reporting processes are carried out for oil spill and leakage situations at our power plants.

Water pollutant category

Pathogens

Description of water pollutant and potential impacts

In Erzin, the waste water from the domestic wastewater treatment plant, cooling water bluff, industrial wastewater treatment plant, seawater reverse osmosis system is collected in a discharge pit and discharged within the parameter limit values of deep sea discharge. In addition, Akenerji has a remote wastewater monitoring station in the plant and the discharge water is monitored simultaneously by the Ministry of Envr. and Urbanization. We monitor deep sea water according to regulations for analyses total coliform on human friendly region, fecal coliform, floating matter, pH, temperature, colour and turbidity, suspended solids, dissolved oxygen, organic pollutants, crude petroleum and petroleum products, toxicity , heavy metals (Ni, Zn, Hg,Pb, Cr,..), radioactivity.

Value chain stage

Direct operations

Other, please specify

DELIVERY OF WASTE WATER TO THE RECIPIENT ENVIRONMENT

Actions and procedures to minimize adverse impacts

Discharge treatment using sector-specific processes to ensure compliance with regulatory requirements

Other, please specify

compliance with national legislation and discharge methods

Please explain

Waste (deep sea) water analyses: Monitor deep sea water according to regulations for analyses total coliform on human friendly region, fecal coliform, floating matter, pH, temperature, colour and turbidity, suspended solids, dissolved oxygen, organic pollutants, crude petroleum and petroleum products, toxicity , heavy metals (Ni, Zn, Hg,Pb, Cr,...), radioactivity. According to Erzin's environmental permit, environmental law and regulations to perform analysis of waste water of Erzin Power Plant. We have to monitor sixty one (61) parameters in different periods in a year.

Seawater Quality Analysis:We monitor these parametres:

Oil And Grease, Fecal Coliform , Nh3, Suspended Solids, Dissolved Oxygen, Boi5, Ph, Saltiness, Total P ,Total Coliform, Temperature

To perform analysis of waste water of Erzin Power Plant. We have to monitor twice a year.

PS: For direct use; water is vital for our operations. Especially at Hydroelectric Power Plants (HEPP) electricity can be generated by means of water. The potential energy of water is transformed to mechanical energy so as to generate electricity. Therefore, availability of water (water quantity) is vital for our operations. Besides; we have a

natural gas combined cycle power plant (NGCCPP) and significant volume of water is necessary for cooling purposes. The importance will be kept and increase in the future. For indirect use; water is used for WASH purposes by our contractors and sub-contractors currently and in the future.

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.

Value chain stage

Direct operations

Coverage

Full

Risk assessment procedure

Water risks are assessed as part of an established 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

Enterprise risk management
Databases

Tools and methods used

Enterprise Risk Management
Regional government databases

Contextual issues considered

Water availability at a basin/catchment level
Stakeholder conflicts concerning water resources at a basin/catchment level
Water regulatory frameworks
Status of ecosystems and habitats

Stakeholders considered

Employees

Local communities
NGOs
Regulators
Water utilities at a local level
Other water users at the basin/catchment level

Comment

Akenerji has an established Enterprise Risk Management (ERM) system to identify, assess and effectively manage the risks, including the water related risks.

Akenerji ERM Procedure outlines the process and related roles and responsibilities in detail for identifying threats (risks) to Akenerji's success (downside) of reaching its targets, analysing and managing risks by considering the possible opportunities for benefit (upside), both at a company level and asset level.

Akenerji, having the hydroelectric power plants in current generation portfolio, water-related risks also have an important place in this Enterprise Risk management framework.

Value chain stage

Supply chain

Coverage

Partial

Risk assessment procedure

Water risks are assessed as part of an established 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

Enterprise risk management

Tools and methods used

Enterprise Risk Management

Contextual issues considered

Water availability at a basin/catchment level
Stakeholder conflicts concerning water resources at a basin/catchment level
Water regulatory frameworks
Status of ecosystems and habitats

Stakeholders considered

- Local communities
- NGOs
- Regulators
- Suppliers
- Water utilities at a local level

Comment

W3.3b

(W3.3b) 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.

	Rationale for approach to risk assessment	Explanation of contextual issues considered	Explanation of stakeholders considered	Decision-making process for risk response
Row 1	Akenerji has an established Enterprise Risk Management (ERM) system to identify, assess and effectively manage the risks, including water related risks. ERM Procedure outlines the process, related roles and responsibilities in detail for identifying threats/risks to Akenerji’s success of reaching its targets, analysing and managing risks by considering the possible opportunities for benefit, both at a company level and asset level. Risk Management at Akenerji is an integral part of the organizational structure. Parties who	For direct use; water is vital for our operations. Especially at Hydroelectric Power Plants (HEPP) electricity can be generated by means of water. The potential energy of water is transformed to mechanical energy so as to generate electricity. Therefore, availability of water (water quantity) is vital for our operations. Besides; we have a natural gas combined cycle power plant (NGCCPP) and significant volume of water is necessary for cooling purposes. The importance will be kept and increase in the future. For	Followings are taken into consideration while identifying circumstances that may negatively impact company activities, including water related circumstances; Company’s main business operations, strategic goals, physical environment, corporate culture, employees, 3rd parties, past experiences (losses or failures), external factors (environmental, economic, government policies and regulations for both Global and Turkey), technological developments, market forecasts, findings of audits, etc.	During medium and long term and Company Level risk assessments, we use; reputable tools on the market such as WRI Aqueduct, WWF-DEG Water Risk Filter; and regional government databases to define risk probabilities and risk impact levels. The first step is to identify water related data for the sites/ facilities by using WRI Aqueduct Water Risk Atlas which gives Physical Risk Quantities (e.g. water stress, water depletion, inter annual variability, seasonal variability, groundwater table decline, riverine flood risk, coastal flood risk, drought risk etc.)

<p>take roles and responsibilities in ERM process are; Board of Directors, Early Detection of Risk Committee, Risk Management Committee, Strategic Planning and Risk Department, Risk Owner, Business Unit Risk Responsible, etc. Risk Responsible assigned for each Business Unit is responsible for identifying specific risks that would prevent their business units from achieving their stated objectives and document them on functional based risk registers. Risk impact is assessed for 5 categories, Reputation, Compliance, Strategic, Operational, Financial. Akenerji, having the hydroelectric power plants in current generation portfolio, water-related risks have an important place in this ERM framework. Regarding the electricity generation from hydro sources, direct operations have more weight compared to supply chain related water risks. In this context, full coverage of direct operations</p>	<p>indirect use; water is used for WASH purposes by our contractors and sub-contractors currently and in the future. Today, hydraulics such as many dams and HEPPs with the establishment of structures, the aquatic ecosystem fish passages to minimize damage is of great importance. We have fish passages in all HEPPs, minimizing the impact on the habitat.</p>		<p>The amount of expense or fall in revenue arising out of a water scarcity, water quality, change in market conditions, failure of a product, operational failure in power plants or other events, matters in defining the substantive financial impact to our business.</p> <p>Risks at both the company level and asset level are prioritized according to net risk score and risk response options, accept-mitigate-avoid-transfer, are examined by taking into account Akenerji's risk appetite. Risks with net risk score 15 and more are called as Key Risks.</p> <p>In addition, the ISO 14001 compliance program is used at all power plants to ensure that a sound environmental management system is in place to address water-related risks. All power plants have environmental impact dimension analysis which includes water consumption and enviromental impacts so we know water</p>
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and partial coverage of supply chain are evaluated for water related risks.			consumption level by section of the power plant.
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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?

Akenerji is an electricity generation and trading company and we are operating a NGCCPP, 7 HEPPs and a WPP. Particularly for natural gas and hydroelectric power plants, which generates 99% of our production, water risks could have significant effects on our business, operations, revenue, market value, and expenditures.

While generating electricity, we utilize the different features of water. Erzin NGCCPP is important for generating high amount of electricity continuously. For NGPPs; considerable amount of water is needed for cooling purposes. For Erzin NGCCPP, we preferred to use the seawater in order to minimize our effect on environment and also to minimize the water availability risk. We invested in a desalination facility to make the seawater appropriate for our use. For those reasons; availability of water in appropriate conditions is very crucial for our operations and growth strategy. Lack of sufficient water means disruption or closure of production and it has a huge opportunity cost. Hence, 73.9% of our installed capacity with 904 MW is from Erzin NGCCPP, which has a total generation capacity of approximately 7.4 TWh, (approximately 3% of total Turkey's overall electricity demand),the opportunity cost of not generating electricity due to water risk is huge.

On the other hand, we operate 7 HEPPs and we use the potential energy of water to generate electricity.If there isn't sufficient amount of water, we couldn't operate at HEPPs.Therefore, availability of water directly affects our electricity generation.Our production and growth strategy is fully depended on availability of water. Lack of sufficient water means disruption or closure of production and it has a huge opportunity cost. Hence, 23.9% of our installed capacity with 292 MW is from HEPPs and considering the total generation capacity of HEPPs is approximately 0,85 TWh, the revenue loss due to water risk is high.

We are aware that Akenerji is also open to physical water risks.Until now, Akenerji has invested US\$ 700 million in renewable energy.The investment done to be prevented from detrimental effects of the floods are in that figure, however it is not possible to separate the relevant

amount spend on that purpose. Besides, approximately US\$ 900 million has been invested in Erzin NGCCPP. If we add company level risks like reputational risks, the cumulative effect of the risk could be huge.

In Akenerji, risks are evaluated based on certain assumptions and criteria. The risks are categorized under five headings;

- Reputation risks
- Compliance risks
- Strategic risks
- Operational risks
- Financial risks

Scoring for each of these risk categories is done using a 5-scale scoring table. Impact Criteria from 1 to 5 for each of the above categories are written in detail in our internal risk procedure, so that anyone can identify the impact level based on the clearly stated situations, for each scoring from 1 to 5.

Financial impact range is also identified in the internal risk procedure. Based on the risk appetite, the highest impact level, which is 5, corresponds to financial impact of higher than 4 mio USD. Likelihood is also identified based on 5-scale table (i.e. 1-very low likelihood, which may only occur in exceptional circumstances. and 5-very high likelihood, which is expected to occur in most circumstances)

Accordingly, a substantive financial or strategic impact is defined if the impact and likelihood multiplication is higher than 15. (i.e. the financial impact is higher than 4 mio USD (Impact: 5) and the probability is medium (Likelihood: 3)

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	10	100	All of our power plants and head office water risks are exposed.

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
Seyhan

Number of facilities exposed to water risk

4

% company-wide facilities this represents

1-25

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

1-25

% company's total global revenue that could be affected

11-20

Comment

Feke I, Feke II, Himmetli, Gökkaya HEPPs are built on Göksu River and they are in Seyhan River Basin. The proportions of total operations are calculated according to the installed capacities of our power plants.

Our main business is to generate and trade electricity. The revenue generated from the electricity generation is correlated with the installed capacity of the power plant.

Therefore, it is assumed that the proportion of financial value that could be affected at river basin level is correlated with the installed capacity

Country/Area & River basin

Turkey
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

1-25

% company's total global revenue that could be affected

1-10

Comment

Burç HEPP is built on Burç Stream and Bulam HEPP is built on Bulam Stream. They are in Tigris & Euphrates River Basin. The proportions of total operations are calculated according to the installed capacities of our power plants.

Our main business is to generate and trade electricity. The revenue generated from the

electricity generation is correlated with the installed capacity of the power plant.
Therefore, it is assumed that the proportion of financial value that could be affected at river basin level is correlated with the installed capacity.

Country/Area & River basin

Turkey
Other, please specify
Susurluk

Number of facilities exposed to water risk

2

% company-wide facilities this represents

1-25

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

1-25

% company's total global revenue that could be affected

1-10

Comment

Uluabat Lake - Çınarcık Dam is in Susurluk River Basin. Ayyıldız Wind Power Plant is in Susurluk River Basin (As it is a Wind Power Plant its water footprint is negligible.)
The proportions of total operations are calculated according to the installed capacities of our power plants.
Our main business is to generate and trade electricity. The revenue generated from the electricity generation is correlated with the installed capacity of the power plant.
Therefore, it is assumed that the proportion of financial value that could be affected at river basin level is correlated with the installed capacity.

Country/Area & River basin

Turkey
Other, please specify
Mediterranean

Number of facilities exposed to water risk

1

% company-wide facilities this represents

51-75

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

76-99

% company's total global revenue that could be affected

71-80

Comment

Erzin Natural Gas Combined Cycle Power Plant is in Mediterranean River Basin. The proportions of total operations are calculated according to the installed capacities of our power plants.

Our main business is to generate and trade electricity. The revenue generated from the electricity generation is correlated with the installed capacity of the power plant.

Therefore, it is assumed that the proportion of financial value that could be affected at river basin level is correlated with the installed capacity.

Country/Area & River basin

Turkey

Other, please specify

Marmara

Number of facilities exposed to water risk

1

% company-wide facilities this represents

Less than 1%

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

Less than 1%

% company's total global revenue that could be affected

Less than 1%

Comment

Istanbul AKHAN Head Office is in Marmara River Basin. The proportions of total operations are calculated according to the installed capacities of our power plants.

Our main business is to generate and trade electricity. The revenue generated from the electricity generation is correlated with the installed capacity of the power plant.

Therefore, it is assumed that the proportion of financial value that could be affected at river basin level is correlated with the installed capacity.

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
Seyhan

Type of risk & Primary risk driver

Acute physical
Drought

Primary potential impact

Reduced revenues from lower sales/output

Company-specific description

With the possibility of drought occurring specifically in the East Mediterranean of Turkey, which covers the Seyhan River Basin, Akenerji's four hydroelectric power plants Feke I, Feke II, Himmekli and Gokkaya located on this basin would face the risk of interrupted operation due to lowered/lack of water inflow. This could adversely affect the generation output.

Timeframe

4-6 years

Magnitude of potential impact

High

Likelihood

More likely than not

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

5,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

20% deviation in generation of these hydroelectric power plants located in Seyhan River Basin could lead to around US\$ 5 million loss on Akenerji's revenues.

Primary response to risk

Other, please specify

Water management incentives

Description of response

Energy is a vital source for the development of our country and to maintain the modern life style of human beings. Our prior goal is to provide continuous power supply on that purpose.

We manage the water by adapting generation plan in accordance with the inflow data, weather forecasts and the water level on dams. We diversify the electricity generation sources located in different regions of Turkey.

Weather related historical data and forecasts, such as temperature, precipitation, rainflow, snowfall, and also inflow data of Akenerji plants and the data taken from the related Authorities are used for generation forecasts. We are evaluating the potential use of weather derivatives as insurance instruments.

Cost of response

15,000

Explanation of cost of response

The management of this risk is currently a part of our daily business as we evaluate within the short-term time horizon. Therefore, apart from the supporting tools for weather forecasting, which roughly has a cost of US\$ 15,000 pa, there is no other additional cost on top of the current OPEX. However, considering that the patterns are likely to change more in the future, Akenerji is studying the long-term affects of this risk on Akenerji's current assets.

Country/Area & River basin

Turkey

Tigris & Euphrates

Type of risk & Primary risk driver

Acute physical

Drought

Primary potential impact

Reduced revenues from lower sales/output

Company-specific description

With the possibility of drought occurring specifically in the South-East of Turkey, which covers the Tigris & Euphrates River Basin, Akenerji's two hydroelectric power plants Burç and Bulam located on this basin would face the risk of interrupted operation due to lowered/lack of water inflow. This could adversely affect the generation output.

Timeframe

4-6 years

Magnitude of potential impact

Medium

Likelihood

More likely than not

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

1,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

20% deviation in generation of these hydroelectric power plants located in Tigris & Euphrates River Basin could lead to min. more than US\$ 1 million loss on Akenerji's revenues.

Primary response to risk

Other, please specify
Water management incentives

Description of response

Energy is a vital source for the development of our country and to maintain the modern life style of human beings. Our prior goal is to provide continuous power supply on that purpose.

We manage the water by adapting generation plan in accordance with the inflow data, weather forecasts and the water level on dams. We diversify the electricity generation sources located in different regions of Turkey.

Weather related historical data and forecasts, such as temperature, precipitation, rainflow, snowfall, and also inflow data of Akenerji plants and the data taken from the related Authorities are used for generation forecasts. We are evaluating the potential use of weather derivatives as insurance instruments.

Cost of response

15,000

Explanation of cost of response

The management of this risk is currently a part of our daily business as we evaluate within the short-term time horizon. Therefore, apart from the supporting tools for weather forecasting, which roughly has a cost of US\$ 15,000 pa, there is no other additional

cost on top of the current OPEX. However, considering that the patterns are likely to change more in the future, Akenerji is studying the long-term affects of this risk on Akenerji's current assets.

Country/Area & River basin

Turkey
Other, please specify
Susurluk

Type of risk & Primary risk driver

Acute physical
Drought

Primary potential impact

Reduced revenues from lower sales/output

Company-specific description

With the possibility of drought occurring specifically in the Marmara Region of Turkey, which covers the Susurluk River Basin, Akenerji's hydroelectric power plant Uluabat located on this basin would face the risk of interrupted operation due to lowered/lack of water inflow. This could adversely affect the generation output.

Timeframe

4-6 years

Magnitude of potential impact

High

Likelihood

About as likely as not

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

3,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

20% deviation in generation of these hydroelectric power plant located in Susurluk River Basin could lead to minimum more than min. US\$ 3 million loss on Akenerji's revenues.

Primary response to risk

Other, please specify

Water management incentives

Description of response

Energy is a vital source for the development of our country and to maintain the modern life style of human beings. Our prior goal is to provide continuous power supply on that purpose.

We manage the water by adapting generation plan in accordance with the inflow data, weather forecasts and the water level on dams. We diversify the electricity generation sources located in different regions of Turkey.

Weather related historical data and forecasts, such as temperature, precipitation, rainflow, snowfall, and also inflow data of Akenerji plants and the data taken from the related Authorities are used for generation forecasts. We are evaluating the potential use of weather derivatives as insurance instruments.

Cost of response

15,000

Explanation of cost of response

The management of this risk is currently a part of our daily business as we evaluate within the short-term time horizon. Therefore, apart from the supporting tools for weather forecasting, which roughly has a cost of US\$ 15,000 pa, there is no other additional cost on top of the current OPEX. However, considering that the patterns are likely to change more in the future, Akenerji is studying the long-term affects of this risk on Akenerji's current assets.

Country/Area & River basin

Turkey

Other, please specify

Mediterranean

Type of risk & Primary risk driver

Acute physical

Flood (coastal, fluvial, pluvial, groundwater)

Primary potential impact

Reduced revenues from lower sales/output

Company-specific description

With the possibility of flooding occurred specifically in the location of Akenerji's natural gas power plant of Erzin, we could face the risk of interrupted operation due to flood, which causes stoppage of the power plant until the access water is discharged, and any damage on equipments caused by the flooding water is repaired.

Timeframe

More than 6 years

Magnitude of potential impact

High

Likelihood

Unlikely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

1,500,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

2 weeks power plant's stop could create generation loss, market risk, repair works of damages, which altogether would have a high impact on Akenerji's revenues. Although it is not easy to give a specific figure, we can say that it could lead to around US\$ 1.5 million.

Primary response to risk

Develop flood emergency plans

Description of response

Akenerji develops flood emergency plans, assesses precipitation regimes; engages and strengthen links with community.

Cost of response

0

Explanation of cost of response

The management of this risk is currently a part of our daily business, without any additional cost. Erzin power plant designed and built considering the possible floods, and the weather daily. We consider studying in the future on extreme weather events and their effects to our power plants.

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

Turkey

Other, please specify
Seyhan

Stage of value chain

Supply chain

Type of risk & Primary risk driver

Acute physical
Flood (coastal, fluvial, pluvial, groundwater)

Primary potential impact

Supply chain disruption

Company-specific description

If there is flooding, then our suppliers may face inadequate access to water sanitation and hygiene. Consequently, their employee well-being and health may be affected adversely and this may lead to disruption in their services or production. This may lead to decrease or disruption in production or services.

Timeframe

More than 6 years

Magnitude of potential impact

Low

Likelihood

About as likely as not

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

If we consider, supply for any equipment parts delayed for a maintenance period, which would have a delay on the maintenance schedule for 1 week, 1 week loss of generation would result in loss of revenue.

Primary response to risk

Supplier engagement
Other, please specify
Supplier diversification

Description of response

Engagement with suppliers, Supplier diversification, and also Supplier audits on QHSE. Akenerji develops and conducts sustainability strategies and policies. In line with its sustainability strategy, Akenerji manages the topic in its value chain as well. In 2015, Akenerji also started supplier audits and in 2016 rapidly increased the number of suppliers audited on Occupational Health & Safety, Quality and Environment. We also put effort to train and inform our suppliers. Supplier audits are performed by both from HQ employees and employees from our power plants.

In order to raise awareness among the local people in the region where HEPP are located, HEPP Information Presentations describing the operation of hydroelectric power plants and the personal safety measures that students should take in their daily lives were held. Since 2013, a total of 10,350 students and 669 teachers have been provided with our information presentations. 303 posters and 3624 brochures were delivered to villages and schools, while awareness activities concerning the dangers of hydroelectric power plants continued to take place.

In 2022, 526 students and 73 teachers were trained.

Cost of response

0

Explanation of cost of response

The management of this risk is currently a part of our daily business at no additional cost on top of the current OPEX.

Country/Area & River basin

Turkey
Tigris & Euphrates

Stage of value chain

Supply chain

Type of risk & Primary risk driver

Acute physical
Flood (coastal, fluvial, pluvial, groundwater)

Primary potential impact

Supply chain disruption

Company-specific description

If there is flooding, then our suppliers may face inadequate access to water sanitation and hygiene. Consequently, their employee well-being and health may be affected adversely and this may lead to disruption in their services or production. This may lead to decrease or disruption in production or services.

Timeframe

More than 6 years

Magnitude of potential impact

Low

Likelihood

About as likely as not

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

we do not have this figure

Primary response to risk

Supplier engagement

Other, please specify

Supplier diversification

Description of response

Engagement with suppliers, Supplier diversification, and also Supplier audits on QHSE. Akenerji develops and conducts sustainability strategies and policies. In line with its sustainability strategy, Akenerji manages the topic in its value chain as well. In 2015, Akenerji also started supplier audits and in 2016 rapidly increased the number of suppliers audited on Occupational Health & Safety, Quality and Environment. We also put effort to train and inform our suppliers. Supplier audits are performed by both from HQ employees and employees from our power plants.

In order to raise awareness among the local people in the region where HEPP are located, HEPP Information Presentations describing the operation of hydroelectric power plants and the personal safety measures that students should take in their daily lives were held. Since 2013, a total of 10,350 students and 669 teachers have been provided with our information presentations. 303 posters and 3624 brochures were delivered to villages and schools, while awareness activities concerning the dangers of hydroelectric power plants continued to take place.

In 2022, 526 students and 73 teachers were trained.

Cost of response

0

Explanation of cost of response

The management of this risk is currently a part of our daily business at no additional cost on top of the current OPEX.

Country/Area & River basin

Turkey
Other, please specify
Susurluk

Stage of value chain

Supply chain

Type of risk & Primary risk driver

Acute physical
Flood (coastal, fluvial, pluvial, groundwater)

Primary potential impact

Supply chain disruption

Company-specific description

If there is flooding, then our suppliers may face inadequate access to water sanitation and hygiene. Consequently, their employee well-being and health may be affected adversely and this may lead to disruption in their services or production. This may lead to decrease or disruption in production or services.

Timeframe

More than 6 years

Magnitude of potential impact

Medium-low

Likelihood

About as likely as not

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

we do not have this figure

Primary response to risk

Supplier engagement
Other, please specify
Supplier diversification

Description of response

Engagement with suppliers, Supplier diversification, and also Supplier audits on OHSE. Akenerji develops and conducts sustainability strategies and policies. In line with its sustainability strategy, Akenerji manages the topic in its value chain as well. In 2015, Akenerji also started supplier audits and in 2016 rapidly increased the number of suppliers audited on Occupational Health & Safety and Environment. We also put effort to train and inform our suppliers. Supplier audits are performed by both from HQ employees and employees from our power plants.

In order to raise awareness among the local people in the region where HEPP are located, HEPP Information Presentations describing the operation of hydroelectric power plants and the personal safety measures that students should take in their daily lives were held. Since 2013, a total of 10,350 students and 669 teachers have been provided with our information presentations. 303 posters and 3624 brochures were delivered to villages and schools, while awareness activities concerning the dangers of hydroelectric power plants continued to take place.

In 2022, 526 students and 73 teachers were trained.

Cost of response

0

Explanation of cost of response

The management of this risk is currently a part of our daily business at no additional cost on top of the current OPEX.

Country/Area & River basin

Turkey
Other, please specify
Mediterranean

Stage of value chain

Supply chain

Type of risk & Primary risk driver

Acute physical
Flood (coastal, fluvial, pluvial, groundwater)

Primary potential impact

Supply chain disruption

Company-specific description

If there is flooding, then our suppliers may face inadequate access to water sanitation and hygiene. Consequently, their employee well-being and health may be affected adversely and this may lead to disruption in their services or production. This may lead to decrease or disruption in production or services.

Timeframe

More than 6 years

Magnitude of potential impact

Low

Likelihood

About as likely as not

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

we do not have this figure

Primary response to risk

- Supplier engagement
- Other, please specify
 - Supplier diversification

Description of response

Engagement with suppliers, Supplier diversification, and also Supplier audits on QHSE. Akenerji develops and conducts sustainability strategies and policies. In line with its sustainability strategy, Akenerji manages the topic in its value chain as well. In 2015, Akenerji also started supplier audits and in 2016 rapidly increased the number of suppliers audited on Occupational Health & Safety, Quality and Environment. We also put effort to train and inform our suppliers. Supplier audits are performed by both from HQ employees and employees from our power plants.

In order to raise awareness among the local people in the region where HEPP are located, HEPP Information Presentations describing the operation of hydroelectric power plants and the personal safety measures that students should take in their daily lives were held. Since 2013, a total of 10,350 students and 669 teachers have been provided with our information presentations. 303 posters and 3624 brochures were delivered to villages and schools, while awareness activities concerning the dangers of

hydroelectric power plants continued to take place.

In 2022, 526 students and 73 teachers were trained.

Cost of response

0

Explanation of cost of response

The management of this risk is currently a part of our daily business at no additional cost on top of the current OPEX.

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

Products and services

Primary water-related opportunity

Increased sales of existing products/services

Company-specific description & strategy to realize opportunity

With the increased cost of energy, and increased concerns on climate effect of energy generation, energy efficiency became very important. In this context, Akenerji starte to provide "Energy Services" to its customers to increase their efficiency and reduce their electricity consumption, helping them to achieve their energy and environmental goals. "Energy Services" includes such as energy analysis and audits, energy management, maintenance and operation, monitoring and evaluation of savings, etc.

"Energy Services" also provides project design service, turnkey construction and roof top solar power plant installation, operation and maintenance services with the build-operate-transfer model.

Together with the rising extreme weather events, and energy cuts experienced as a result of these extreme events, importance of the use of energy will rise considerably, and the Government will support more energy efficiency projects and introduce new regulations/restrictions on the use of energy. This would have a positive impact on Akenerji's energy services business.

Akenerji Energy Services has achieved an average efficiency of 44% in electrical energy and 55% in natural gas, with the projects it has carried out since 2015, without making any additional investments in the businesses.

Within the scope of "Energy Services", studies have also been initiated in the field of Hybrid Power Plant, which is planned to be realized in coming years in the existing power plants owned by Akenerji. In addition, Akenerji Enerji Services provided guidance to its stakeholders so that they are able to optimize their energy costs and own their own production facilities, in light of the support mechanisms provided in the Unlicensed Electricity Generation Regulation published on May 12, 2019. For this purpose, in order to provide services on Solar Power Plant Projects as well, it shared project proposals with a total capacity of approximately 80 Mwp, and took the first steps to initiate contract negotiations.

Estimated timeframe for realization

4 to 6 years

Magnitude of potential financial impact

Low-medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

360,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

Financial impact of the "Energy Services" business line strongly depends on the future market developments such as pricing and tariff structure in the country and also the efficiency supporting incentives of the government.

In medium term, it is assumed that the efficiency investments will be incentivized by the government and the tariff structure for the industrial and commercial customers will also support the efficiency efforts. If on average 20 customers with 1500 USD monthly additional margin is assumed, the potential financial impact figure will be 360,000 USD.

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)

Feke 1 HEPP

Country/Area & River basin

Turkey

Other, please specify

Seyhan

Latitude

37

Longitude

35

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Hydropower

Total water withdrawals at this facility (megaliters/year)

0.62

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

0.62

Total water discharges at this facility (megaliters/year)

0.2

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

0.2

Total water consumption at this facility (megaliters/year)

0.42

Comparison of total consumption with previous reporting year

Much higher

Please explain

Water withdrawal in Feke1 HEPP is increased by 9 %. Water discharge in Feke1 HEPP is decreased by 14 %. Water consumption is increased by 25 %. Measurements have been done by Governmental organization which is Adana Water and Sewerage Administration .

Trend thresholds are applied consistently to all our businesses: anything under +/- 4% is "about the same", anything over +/- 4% is 'Higher'/'Lower' compared to the previous year, and anything +/-20% is 'Much higher'/'Much lower'.

Facility reference number

Facility 2

Facility name (optional)

Feke II HEPP

Country/Area & River basin

Turkey

Other, please specify

Seyhan

Latitude

37

Longitude

35

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Hydropower

Total water withdrawals at this facility (megaliters/year)

0.26

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

0.26

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)

0.07

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

0

Discharges to third party destinations

0.07

Total water consumption at this facility (megaliters/year)

0.2

Comparison of total consumption with previous reporting year

About the same

Please explain

Water withdrawal in Feke2 HEPP is decreased by 12 % because one of the department did not need withdrawal anymore. Water discharge in Feke2 HEPP is decreased by 35 %. Water consumption is decreased by 1% about the same .

Trend thresholds are applied consistently to all our businesses: anything under +/- 4% is "about the same", anything over +/- 4% is 'Higher'/'Lower' compared to the previous year, and anything +/-20% is 'Much higher'/'Much lower'.

Facility reference number

Facility 3

Facility name (optional)

Himmetli HEPP

Country/Area & River basin

Turkey

Other, please specify

Seyhan

Latitude

37

Longitude

35

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Hydropower

Total water withdrawals at this facility (megaliters/year)

4.21

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

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

4.21

Total water discharges at this facility (megaliters/year)

0.37

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

0.37

Total water consumption at this facility (megaliters/year)

3.84

Comparison of total consumption with previous reporting year

Much higher

Please explain

Water withdrawal in Himmetli HEPP is increased by 48 %. Water discharge in Himmetli HEPP is increased by 37 %. Water consumption is increased by 49%.

Trend thresholds are applied consistently to all our businesses: anything under +/- 4% is "about the same", anything over +/- 4% is 'Higher'/'Lower' compared to the previous year, and anything +/-20% is 'Much higher'/'Much lower'

Facility reference number

Facility 4

Facility name (optional)

Gökkaya HEPP

Country/Area & River basin

Turkey
Other, please specify
Seyhan

Latitude

37

Longitude

35

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Hydropower

Total water withdrawals at this facility (megaliters/year)

1.01

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

1.01

Total water discharges at this facility (megaliters/year)

0.12

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

0.12

Total water consumption at this facility (megaliters/year)

0.89

Comparison of total consumption with previous reporting year

Higher

Please explain

Water withdrawal in Gökkaya HEPP is increased by 19 %. Water discharge in Gökkaya HEPP is increased by 39 %. Water consumption is increased by 17%. Measurements have been done by Governmental organization which is Adana Water and Sewage Administration . Because of manpower.

Trend thresholds are applied consistently to all our businesses: anything under +/- 4% is "about the same", anything over +/- 4% is 'Higher'/'Lower' compared to the previous year, and anything +/-20% is 'Much higher'/'Much lower'.

Facility reference number

Facility 5

Facility name (optional)

Burç HEPP

Country/Area & River basin

Turkey

Tigris & Euphrates

Latitude

38

Longitude

38

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Hydropower

Total water withdrawals at this facility (megaliters/year)

0.17

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

0.17

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)

0.01

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

0

Discharges to third party destinations

0.01

Total water consumption at this facility (megaliters/year)

0.16

Comparison of total consumption with previous reporting year

Lower

Please explain

Burç HEPP reported lower %18 total water withdrawal volume, much lower %23 total discharge volume and %18 lower total consumption volumes compared to the previous reporting year.

Facility reference number

Facility 6

Facility name (optional)

Bulam HEPP

Country/Area & River basin

Turkey

Tigris & Euphrates

Latitude

38

Longitude

38

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Hydropower

Total water withdrawals at this facility (megaliters/year)

0.09

Comparison of total withdrawals with previous reporting year

Higher

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

0.09

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

0

Total water discharges at this facility (megaliters/year)

0.01

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

0.01

Total water consumption at this facility (megaliters/year)

0.08

Comparison of total consumption with previous reporting year

Higher

Please explain

Bulam HEPP reported %5 higher total water withdrawal volume, %9 higher total discharge volume and %5 higher total consumption volumes compared to the previous reporting year. Because of manpower

Facility reference number

Facility 7

Facility name (optional)

Uluabat HEPP

Country/Area & River basin

Turkey

Other, please specify

susurluk

Latitude

40

Longitude

28

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Hydropower

Total water withdrawals at this facility (megaliters/year)

2.84

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

2.84

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)

0.13

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

0.13

Total water consumption at this facility (megaliters/year)

2.71

Comparison of total consumption with previous reporting year

Higher

Please explain

Water withdrawal in Uluabat HEPP is increased by 19 %. Water discharge in Uluabat HEPP is increased by 42 %. Water consumption is increased by 18 %. Because of manpower

Trend thresholds are applied consistently to all our businesses: anything under +/- 4% is "about the same", anything over +/- 4% is 'Higher'/'Lower' compared to the previous year, and anything +/-20% is 'Much higher'/'Much lower'.

Facility reference number

Facility 8

Facility name (optional)

Erzin NGCCPP

Country/Area & River basin

Turkey

Other, please specify

Mediterranean River Basin

Latitude

39

Longitude

37

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)

12,804

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

12,804

Withdrawals from groundwater - renewable

0

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)

10,778

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

10,778

Discharges to groundwater

0

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

2,026

Comparison of total consumption with previous reporting year

Much lower

Please explain

Water withdrawal in Erzin NGCCPP is decreased %19 and is lowerer . Water discharge in Erzin NGCCPP is %17 lower. Water consumption is decreased by 25%. Because of decreasing production.

Trend thresholds are applied consistently to all our businesses: anything under +/- 4% is "about the same", anything over +/- 4% is 'Higher'/'Lower' compared to the previous year, and anything +/-20% is 'Much higher'/'Much lower'.

Facility reference number

Facility 9

Facility name (optional)

Ayyıldız WPP

Country/Area & River basin

Turkey
Other, please specify
Susurluk

Latitude

40

Longitude

27

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Wind

Total water withdrawals at this facility (megaliters/year)

0.09

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

0.09

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)

0.04

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

0.04

Total water consumption at this facility (megaliters/year)

0.05

Comparison of total consumption with previous reporting year

Lower

Please explain

Water withdrawal in Ayyıldız WPP is decreased by 12 % . Water discharge in Ayyıldız WPP is decreased by 12 % the same as last year. Water consumption is decreased by 19 % and is lower.

Trend thresholds are applied consistently to all our businesses: anything under +/- 4% is "about the same", anything over +/- 4% is 'Higher'/'Lower' compared to the previous year, and anything +/-20% is 'Much higher'/'Much lower'

Facility reference number

Facility 10

Facility name (optional)

Head Office (AKHAN)

Country/Area & River basin

Turkey

Other, please specify

Marmara River Basin

Latitude

41

Longitude

28

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)

1.3

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

1.3

Total water discharges at this facility (megaliters/year)

0.65

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

0.65

Total water consumption at this facility (megaliters/year)

0.65

Comparison of total consumption with previous reporting year

Lower

Please explain

Water withdrawal in Head Office is decreased by 13,5 %, lower. Water discharge in Head Office is decreased by 13,5 %, lower. Water consumption is decreased by 13 % and lower.

W5.1a

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

Water withdrawals – total volumes

% verified

Not verified

Please explain

As Erzin is a Natural Gas Combined Cycle Power Plant, it needs high amount of water for cooling process and for that reason 99.98% of our total volumes of water withdrawal and discharged sourced from Erzin NGCCPP. Erzin NGCCPP water is withdrawaled and discharged into the Mediterranean Sea. So Power Plants have not been verified since their water consumption is negligible. Therefore, we do not have any water foot print

Water withdrawals – volume by source

% verified

Not verified

Please explain

As Erzin is a Natural Gas Combined Cycle Power Plant, it needs high amount of water for cooling process and for that reason 99.98% of our total volumes of water withdrawal and discharged sourced from Erzin NGCCPP. Erzin NGCCPP water is withdrawaled and discharged into the Mediterranean Sea. So Power Plants have not been verified since their water consumption is negligible. Therefore, we do not have any water foot print

Water withdrawals – quality by standard water quality parameters

% verified

Not verified

Please explain

As Erzin is a Natural Gas Combined Cycle Power Plant, it needs high amount of water for cooling process and for that reason 99.98% of our total volumes of water withdrawal and discharged sourced from Erzin NGCCPP. Erzin NGCCPP water is withdrawaled and discharged into the Mediterranean Sea. So Power Plants have not been verified since their water consumption is negligible. Therefore, we do not have any water foot print

Water discharges – total volumes

% verified

Not verified

Please explain

As Erzin is a Natural Gas Combined Cycle Power Plant, it needs high amount of water for cooling process and for that reason 99.98% of our total volumes of water withdrawal and discharged sourced from Erzin NGCCPP. Erzin NGCCPP water is withdrawaled and discharged into the Mediterranean Sea. So Power Plants have not been verified since their water consumption is negligible. Therefore, we do not have any water foot print

Water discharges – volume by destination

% verified

Not verified

Please explain

As Erzin is a Natural Gas Combined Cycle Power Plant, it needs high amount of water for cooling process and for that reason 99.98% of our total volumes of water withdrawal and discharged sourced from Erzin NGCCPP. Erzin NGCCPP water is withdrawaled and discharged into the Mediterranean Sea. So Power Plants have not been verified since their water consumption is negligible. Therefore, we do not have any water foot print

Water discharges – volume by final treatment level

% verified

Not verified

Please explain

As Erzin is a Natural Gas Combined Cycle Power Plant, it needs high amount of water for cooling process and for that reason 99.98% of our total volumes of water withdrawal and discharged sourced from Erzin NGCCPP. Erzin NGCCPP water is withdrawaled and discharged into the Mediterranean Sea. So Power Plants have not been verified since their water consumption is negligible. Therefore, we do not have any water foot print

Water discharges – quality by standard water quality parameters

% verified

Not verified

Please explain

As Erzin is a Natural Gas Combined Cycle Power Plant, it needs high amount of water for cooling process and for that reason 99.98% of our total volumes of water withdrawal and discharged sourced from Erzin NGCCPP. Erzin NGCCPP water is withdrawaled and discharged into the Mediterranean Sea. So Power Plants have not been verified since their water consumption is negligible. Therefore, we do not have any water foot print

Water consumption – total volume

% verified

Not verified

Please explain

As Erzin is a Natural Gas Combined Cycle Power Plant, it needs high amount of water for cooling process and for that reason 99.98% of our total volumes of water withdrawal and discharged sourced from Erzin NGCCPP. Erzin NGCCPP water is withdrawn and discharged into the Mediterranean Sea. So Power Plants have not been verified since their water consumption is negligible. Therefore, we do not have any water foot print

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		<p>Akenerji publishes its Sustainability Report in GRI standards, and made its sustainability policies publicly announced since 2013.</p> <p>Our policy is comply with all applicable water use laws and regulations, with the objective of advancing water resource management beyond compliance to create or protect value, including climate change, and continuously adapt strategies and plans to address these issues; engage local and other relevant stakeholders when addressing water issues including those related to operational changes, development of strategic plans.</p> <p>Besides, Akenerji has a company-wide risk & opportunity evaluation procedure also including water management dimension. Akenerji has both a NGPP and HPPs in its portfolio. For Erzin NGCCPP, seawater is the source for withdrawal and discharge. In line with Erzin NGCCPP's environmental permit; the relevant KPIs should be measured, monitored and expected to be met in certain limits (Eg; monitoring the standard effluent parameters, temperature rise in water discharge). Similarly, HEPPs have certain KPIs to be met about water management (environmental flow: the minimum amount of water to be released from dams). Akenerji aims to raise awareness and provide information to local communities about its operations. For the sake of informing the</p>

			local communities living where the HPPs are, HPP informative presentations also including how clean energy is generated
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W6.2

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

Yes

W6.2a

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

Position of individual or committee	Responsibilities for water-related issues
Chief Executive Officer (CEO)	<p>Water quality does not affect Akenerji's electricity generation activities directly. In Akenerji's risk register, water risks and opportunities are assessed and analysed in a quantitative way.</p> <p>Akenerji Risk Management Committee analyses all risks monthly. Key risks and opportunities are reported bimonthly to the Early Determination of Risk Committee and, then to the BoD.</p> <p>Key risks could include risks and opportunities related to water management and climate change associated impacts.</p> <p>In BoD, CEO has the highest level of responsibility of execution, including the responsibility for water-related issues.</p>

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	Other, please specify Scheduled - monthly	<p>Monitoring implementation and performance</p> <p>Overseeing acquisitions, mergers, and divestitures</p> <p>Overseeing major capital expenditures</p> <p>Providing employee incentives</p>	<p>In Akenerji's risk register water risks and opportunities are assessed and analysed in a quantitative way. Water quality does not affect Akenerji's electricity generation activities directly. Akenerji Risk Management Committee analyses all risks monthly. Key risks and opportunities are reported bimonthly to the Early Determination of Risk Committee and, then to the BoD. Key risks could include risks and opportunities related to water management and climate change associated impacts.</p>

		Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding corporate responsibility strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing innovation/R&D priorities Setting performance objectives	
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W6.2d

(W6.2d) Does your organization have at least one board member with competence on water-related issues?

	Board member(s) have competence on water-related issues	Criteria used to assess competence of board member(s) on water-related issues
Row 1	Yes	Independent Member of the Board of Directors is initially coordinated the donor supported program “Environment for Europe”. Subsequently as the director of the World Bank/Swiss “National JI/CDM Strategy Study program (NSS). As a non-political expert, He was appointed in September 2006 as the Minister of the Environment in the Czech Government. During later 2007-2013, he had been acting as the advisor to three prime ministers, several ministers including environment and agriculture. As a member of the international organizations including the World Energy Council, he also acts as the vicepresident of the Czech branch of the World Business Council for Sustainable Development. Since 2014, He chairs the Committee for Sustainable Energy within the Governmental Council for Sustainable development under auspices of the Prime Minister.

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)

Risk committee

Water-related responsibilities of this position

Assessing water-related risks and opportunities

Managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

In Akenerji's risk register water risks and opportunities are assessed and analysed in a quantitative way. Akenerji has a Risk Management Committee formed by CEO, Directors and Strategic Planning and Risk Manager. The Risk Management Committee meets on monthly basis to manage, monitor and coordinate the ERM process based on the risk appetite and ERM Procedure that are approved by the BoD. The key risks (such as climate change related) monitored closely on monthly RMC meetings and the strategy for dealing with those risks are discussed and identified during the meeting. The Committee approves and monitors the effectiveness and performance of all business units' methods of approaching, planning and processing risks and opportunities.

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

Other, please specify

The Early Detection of Risk Committee

Water-related responsibilities of this position

Assessing water-related risks and opportunities

Managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

Quarterly and as important matters arise. In Akenerji's risk register water risks and opportunities are assessed and analysed in a quantitative way. Water quality does not affect Akenerji's electricity generation activities directly. Akenerji Risk Management Committee analyses all risks monthly.

Key risks and opportunities are reported bimonthly to the Early Determination of Risk Committee and, then to the BoD. Early Determination of Risk Committee consists of the

independent BoD members.

Key risks and opportunities could include risks and opportunities related to water management and climate change associated impacts.

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

Chief Executive Officer (CEO)

Water-related responsibilities of this position

Assessing water-related risks and opportunities

Managing water-related risks and opportunities

Setting water-related corporate targets

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

CEO is also a member of Board of Directors.

CEO has the highest level of responsibility of execution, including the responsibility for water-related issues; risks, opportunities and company targets.

Specified risks and opportunities, including the water-related ones, are reported to Board of Directors bimonthly.

Besides risk reporting, corporate targets are identified with the related departments and announced by CEO throughout the whole company.

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

Other, please specify

Sustainability Committee

Water-related responsibilities of this position

Assessing water-related risks and opportunities

Managing water-related risks and opportunities

Setting water-related corporate targets

Monitoring progress against water-related corporate targets

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

Within the scope of the Capital Markets Board's Corporate Governance Communiqué and Sustainability Principles Compliance Framework, the Sustainability Committee, consisting of the managers of the departments, was established by our Board of Directors to carry out

environmental, Social and Corporate Governance (ESG) studies, to create and follow up the relevant policies and documents. The Sustainability Committee monitors sustainability issues throughout the year and tries to make performance indicators a part

of sustainability management by including them in the tracking systems. It reports the evaluations made at the meetings held regularly and takes action according to the emerging needs. It carries out studies to ensure that our targets are met and the sustainability approach is widespread throughout our Company. The committee also aims to improve the sustainability strategy and implementation tools by evaluating risks and opportunities,

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	please see at W6.4a

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	Contribution of incentives to the achievement of your organization's water commitments	Please explain
Monetary reward	Board/Executive board Corporate executive team Chief Executive Officer (CEO) Chief Financial Officer (CFO) Chief Operating Officer (COO) Other, please specify All employees/ HSEQ Department	Improvements in water efficiency – direct operations	Board of Directors has the ultimate responsibility about the overall performance of Akenerji and bonus is delivered inline with the achievements of the targets at the year end. Particularly, achievement of water related target and increase of efficiency are of important targets for the Board. A performance based compensation is available for EQ Department staff based on the pre-determined targets. In terms of water management performance, Water Management Project is one of the key considerations for bonus determination for the Environment and Quality (EQ) Manager and	

			<p>environmental engineer in the EQ Department.</p> <p>All employees have personal performance indicators as well and are rewarded when they reached the target. All employees can suggest improvements to reduce the environmental footprint of the company through filling out questionnaires to be submitted to their supervisors and to EQ directly. There is an opportunity for the employees especially for the ones working at the power plants to receive monetary reward, in case their suggestions are considered to have a significant improvement in the company's environmental performance, and are implemented following the evaluation.</p>	
Non-monetary reward	<p>Corporate executive team</p> <p>Chief Executive Officer (CEO)</p> <p>Chief Financial Officer (CFO)</p> <p>Chief Operating Officer (COO)</p> <p>Other, please specify</p> <p>Environment/Sustainability managers</p>	<p>Improvements in water efficiency – direct operations</p> <p>Implementation of water-related community project</p> <p>Other, please specify</p> <p>Reduction of product water intensity, Behavior change related indicator</p>	<p>Board of Directors has the ultimate responsibility about the overall sustainability performance of Akenerji. The pioneer role of Akenerji in Turkish energy sector could be realized with the vision of the Board.</p> <p>EQ Manager leads the Sustainability Team of Akenerji and encourages all employees for reduction of water intensity, efficiency project, water related community project. Beyond achievement of KPIs and monetary rewards; recognition among Akenerji,</p>	

			Akkök Group, ČEZ Group, Turkish energy sector, and energy sector, and worldwide via energy, sustainability dimensions have great importance especially for Environment & Sustainability Managers.	
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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

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?

Akenerji publishes its Sustainability Report in GRI standards and made its sustainability policies publicly announced since 2013. Besides, Akenerji has a company-wide risk & opportunity evaluation procedure also including water management dimension. Akenerji has both a NGPP and HPPs in its portfolio. For Erzin NGPP, seawater is the source for withdrawal and discharge. In line with Erzin NGPP's environmental permit; the relevant KPIs should be measured, monitored and expected to be met in certain limits (ie. monitoring the standard effluent parameters, temperature rise in water discharge). Similarly, HPPs have certain KPIs to be met about water management (ie. environmental flow: the minimum amount of water to be released from dams). Akenerji aims to raise awareness and provide information to local communities about its operations. HPP informative presentations, including how clean energy is generated via HPPs, were realized. Consequently, within the scope of these training processes, since 2013, total of 10,350 students and 669 teachers have been provided with our information presentations. 303 posters and 3624 brochures were delivered to villages and schools, while awareness activities concerning the dangers of hydroelectric power plants continued to take place. In 2022, 526 students and 73 teachers were trained. Akenerji takes an active part in the environment and energy work groups established by TÜSİAD, endorsing the sectorial growth by fighting the climate change.

W6.6

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

Yes (you may attach the report - this is optional)

 Akenerji_Integrated Annual Report_2022.pdf

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	5-10	We identify and assess relevant near and long-term water issues in support of strategic planning, risk management, capital expenditures and business planning, including consideration of geographic water stressed regions, with a focus on ensuring the availability of water and its effective use.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	5-10	For the long term efficiency objectives defined by our company, water related risks and planned investments are integrated.
Financial planning	Yes, water-related issues are integrated	5-10	We have water efficiency plans for the long term, which require investments and hence added to business plan of the company.

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)

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

Water-related OPEX (+/- % change)

21.6

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

55

Please explain

Water related Opex was increased by %21.6 because the minimum price list determined by the ministry has been increased twice in 2022. it will be increased 55% in 2022 because of Turkey's economical conditions.

Opex include the following expenses ;

- Within the scope of our water management, all legal requirements are being fulfilled. There is a remote wastewater monitoring station in our power plant, and the discharge water is being monitored. Also Deep Sea Discharge” environmental permit, internal wastewater monitoring.
- Sea Usage Permit for Erzin

W7.3

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

	Use of scenario analysis	Comment
Row 1	Yes	<p>The fifth assessment report of IPCC states that this change is extremely likely due to human activities. Based on different scenarios, climate scientists estimate increases between 1.5 and 4.5 oC by the end of the present century.</p> <p>Turkey has a total of 35,000 MW hydroelectricity potential. The present installed power is about 20,000 MW, so it has 15,000 MW more potential to utilize. The future climate change projections indicate reductions in water potentials of the major basins of Turkey, such as Euphrates and Tigris, which will adversely affect the power generation from hydraulic resources in the future.</p> <p>Akenerji also has an investment plan for 198 MW renewable power plant; Kemah Dam and Hydroelectric Power Plant. Kemah HEPP project has particular importance for our company. The investment studies for the plant, with an anticipated electricity generation figure of 560 GWh per year, are still in progress.</p>

W7.3a

(W7.3a) Provide details of the scenario analysis, what water-related outcomes were identified, and how they have influenced your organization’s business strategy.

Type of scenario analysis used	Parameters, assumptions, analytical choices	Description of possible water-related outcomes	Influence on business strategy
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<p>Row 1</p>	<p>Water-related Climate-related Other, please specify Nationally determined contributions (NDCs)</p>	<p>During medium and long term and Company Level risk assessments, we use; reputable tools on the market such as WRI Aqueduct, WWF-DEG Water Risk Filter; and regional government databases to define risk probabilities and risk impact levels. The first step is to identify water related data for the sites/ facilities by using WRI Aqueduct Water Risk Atlas which gives Physical Risk Quantities (e.g. water stress, water depletion, inter annual variability, seasonal variability, groundwater table decline, riverine flood risk, coastal flood risk, drought risk etc.).</p> <p>By using the tool WRI Aqueduct, we assessed the water stress risk level for each of our locations by entering their coordinates on the tool and identifying the basin they are located at. Feke 1, Feke 2, Himmetli, Gökkaya HEPP, Erzin NGCCPP and Head Office in Turkey are listed as having Extremely High Water Stress Levels >80% and withdrawn water level is %99.86 of our total withdrawn. Burç HEPP and Bulam</p>	<p>The fifth assessment report of IPCC states that this change is extremely likely due to human activities. Based on different scenarios, climate scientists estimate increases between 1.5 and 4.5 oC by the end of the present century. Turkey has a total of 35,000 MW hydroelectricity potential. The present installed power is about 20,000 MW, so it has 15,000 MW more potential to utilize. The future climate change projections indicate reductions in water potentials of the major basins of Turkey, such as Euphrates and Tigris, which will adversely affect the power generation from hydraulic resources in the future.</p> <p>Akenerji also has an investment plan for 198 MW renewable power plant; Kemah Dam and Hydroelectric Power Plant. Kemah HEPP project has particular importance for our company. The investment studies for the plant, with an anticipated electricity generation figure of 560 GWh per year, are still in progress.</p>	<p>The fifth assessment report of IPCC states that this change is extremely likely due to human activities. Based on different scenarios, climate scientists estimate increases between 1.5 and 4.5 oC by the end of the present century. Turkey has a total of 35,000 MW hydroelectricity potential. The present installed power is about 20,000 MW, so it has 15,000 MW more potential to utilize. The future climate change projections indicate reductions in water potentials of the major basins of Turkey, such as Euphrates and Tigris, which will adversely affect the power generation from hydraulic resources in the future. Akenerji also has an investment plan for 198 MW renewable power plant; Kemah Dam and Hydroelectric Power Plant. Kemah HEPP project has particular importance for our company. The investment studies for the plant, with an anticipated electricity generation figure of 560 GWh per year, are still in progress.</p>
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		HEPP are listed in Low Water Stress Levels >10% and withdrawn water level is %0.014 of our total withdrawn. Uluabat HEPP and Ayyıldız WPP are listed in High Water Stress Levels 40-80% and withdrawn water level is %0.13 of our total withdrawn.		
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W7.4

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

Row 1

Does your company use an internal price on water?

Yes

Please explain

Akenerji has been paying, since 2013 , a tax called Financial Compensation for the Use of Sea Water Resources was charged for the use of the Mediterranean Sea water for Erzin NGCCPP. Also River Basin Hydrological Monitoring Assessment and Controlling Services fee based on annual generation of HEPPs is charged by State Hydraulic Works (DSI) on annual basis.

W7.5

(W7.5) Do you classify any of your current products and/or services as low water impact?

	Products and/or services classified as low water impact	Definition used to classify low water impact	Please explain
Row 1	Yes	In HEPP's; potential energy of water is transformed into mechanical energy and this process electricity generates. Water withdrawals in all HEPPs are used only for domestic use (cooking, WC, etc., garden irrigation).	in HEPPs we do not need quality data, because we use only the potential energy of water is transformed to mechanical energy so they are having a lower detrimental impact on water resources, water quality and ecosystems.

W8. Targets

W8.1

(W8.1) Do you have any water-related targets?

Yes

W8.1a

(W8.1a) Indicate whether you have targets relating to water pollution, water withdrawals, WASH, or other water-related categories.

	Target set in this category	Please explain
Water pollution		
Water withdrawals		
Water, Sanitation, and Hygiene (WASH) services		
Other	No, and we do not plan to within the next two years	<p>Akenerji's risks and opportunities will lead us to a much more comprehensive and long-term strategic planning and targets. in 2021, Committee prepared our Corporate Sustainability Management handbook and determined our sustainability performance indicators and our sustainability strategies covering the years 2021-2025 . We have established our goals in line with the United Nations Sustainable Development Goals, is to produce energy for a better life. Within this frame of reference, we have integrated the United Nations (UN) Sustainable Development Goals (SDG) into our business processes and identified 9 SDG.</p> <p>The output of the Performance Management System is channeled into the development planning, talent management, career and substitute planning, remuneration and rewarding processes of the Human Resources Department. Akenerji's Performance Management System is a process that aims to ensure that individuals adopt our corporate goals and that reinforces our common corporate culture.</p>

W8.1b

(W8.1b) Provide details of your water-related targets and the progress made.

Target reference number

Target 1

Target coverage

Company-wide (direct operations only)

Quantitative metric

Year target was set

2020

Base year

2019

Base year figure

Target year

2030

Target year figure

Reporting year figure

% of target achieved relative to base year

Target status in reporting year

Please explain

Seminars to raise the awareness of students and teachers about possible hazards and warnings about HEPPs in schools
HEPP information trainings, which are regularly given around hydroelectric power plants, . Since 2013, a total of 10,350 students and 669 teachers have been provided with our information presentations. . 303 posters and 3624 brochures were delivered to villages and schools, while awareness activities concerning the dangers of hydroelectric power plants continued to take place. In 2022, 526 students and 73 teachers were trained.

Target reference number

Target 2

Target coverage

Company-wide (direct operations only)

Quantitative metric

Year target was set

2020

Base year

2019

Base year figure

Target year

2030

Target year figure

Reporting year figure

% of target achieved relative to base year

Target status in reporting year

Please explain

Public awareness seminars planned in Adana, Adıyaman and Bursa within the scope of DSI Environmental Protection and Security Measures could not be held due to the Covid19 pandemic in 2020-2021. It will continue in 2022

In order to raise awareness among the local people in the region where HEPP are located, HEPP Information Presentations describing the operation of hydroelectric power plants and the personal safety measures that students should take in their daily lives were held. Since 2013, a total of 10,350 students and 669 teachers have been provided with our information presentations. 303 posters and 3624 brochures were delivered to villages and schools, while awareness activities concerning the dangers of hydroelectric power plants continued to take place.

In 2022, 526 students and 73 teachers were trained.

Target reference number

Target 5

Target coverage

Company-wide (direct operations only)

Quantitative metric

Year target was set

2020

Base year

2017

Base year figure

Target year

2030

Target year figure

Reporting year figure

% of target achieved relative to base year

Target status in reporting year

Please explain

All of the power plants achieved the goal of zero permit non-compliances

Target reference number

Target 6

Target coverage

Company-wide (direct operations only)

Quantitative metric

Year target was set

2018

Base year

2017

Base year figure

Target year

2030

Target year figure

Reporting year figure

% of target achieved relative to base year

Target status in reporting year

Please explain

1 of 9 power plants each had at least one preventable reportable spill event. Totally, 6 spill event were reported in 2022 and 1 spill event reported in 2021 and we increased in 2022 due to the increase in reporting awareness in the fields with the training provided.

Target reference number

Target 7

Target coverage

Site/facility

Quantitative metric

Year target was set

2020

Base year

2019

Base year figure

Target year

2030

Target year figure

Reporting year figure

% of target achieved relative to base year

Target status in reporting year

Please explain

This is a year-on-year rolling target that was active in 2020. All discharge tests and samples have been tested to be in line with national legal standards, meaning the % achievement rate was 100%, we achieved in 2022. In Erzin, the waste water from the domestic wastewater treatment plant, cooling water bluff, industrial wastewater treatment plant, seawater reverse osmosis system is collected in a discharge pit and discharged within the parameter limit values of deep sea discharge. In addition, Akenerji has a remote wastewater monitoring station in the plant and the discharge water is monitored simultaneously by the Ministry of Env. and Urbanization. We monitor deep sea water according to regulations for analyses total coliform on human friendly region, fecal coliform, floating matter, pH, temperature, colour and turbidity, suspended solids, dissolved oxygen, organic pollutants, crude petroleum and petroleum products, toxicity, heavy metals (Ni, Zn, Hg,Pb, Cr,..), radioactivity.

Target reference number

Target 8

Target coverage

Company-wide (direct operations only)

Quantitative metric

Year target was set

2020

Base year

2019

Base year figure

Target year

2030

Target year figure

Reporting year figure

% of target achieved relative to base year

Target status in reporting year

Please explain

This is a year-on-year rolling target that was active in 2019 and we have achieved in 2022 as well. Our performance against this target was monitored monthly. All potable water tests results have been tested to be in line with legal standards for potable water, meaning the % achievement rate was 100%.

Target reference number

Target 9

Target coverage

Company-wide (direct operations only)

Quantitative metric

Year target was set

2020

Base year

2020

Base year figure

Target year

2030

Target year figure

Reporting year figure

% of target achieved relative to base year

Target status in reporting year

Please explain

This is a year-on-year rolling target that was active in 2020. There were no complaints in 2022, therefore 100% completion rate was determined for 2022

Target reference number

Target 10

Target coverage

Company-wide (direct operations only)

Quantitative metric

Other, please specify
water print verification

Year target was set

2022

Base year

2022

Base year figure

Target year

2025

Target year figure

Reporting year figure

% of target achieved relative to base year

Target status in reporting year

New

Please explain

Verification of water data of Erzin Natural Gas power plant according to ISO 14046 Standard.

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, we do not currently verify any other water information reported in our CDP disclosure

W10. Plastics

W10.1

(W10.1) Have you mapped where in your value chain plastics are used and/or produced?

	Plastics mapping	Value chain stage	Please explain
Row 1	Yes	Direct operations	Set out in November 2019 with the vision of realizing the circular plastics economy in Turkey; The Business Plastics Initiative (IPG), implemented in cooperation with Global Compact Turkey, SKD Turkey and TUSIAD, is the first and only multi-stakeholder initiative that supports the fight against plastic pollution. Akkök Holding declared on 20 November 2019 that it would announce its plastic commitments in 2021 by being included in the Business World Plastics Initiative. In addition, Global Compact Türkiye is one of the three founding institutions of IPG. Plastic commitments progress report is presented every year according to the date specified by IPG. Where it is used is indicated in this report.

W10.2

(W10.2) Across your value chain, have you assessed the potential environmental and human health impacts of your use and/or production of plastics?

	Impact assessment	Please explain
Row 1	Not assessed – and we do not plan to within the next two years	we do not plan to within the next two years

W10.3

(W10.3) Across your value chain, are you exposed to plastics-related risks with the potential to have a substantive financial or strategic impact on your business? If so, provide details.

	Risk exposure	Please explain
Row 1	Not assessed – and we do not plan to within the next two years	We are not exposed to plastics-related risks with the potential to have a substantive financial or strategic impact on our business

W10.4

(W10.4) Do you have plastics-related targets, and if so what type?

	Targets in place	Target type	Target metric	Please explain
Row 1	Yes	Waste management Other	Increase the proportion of recyclable plastic waste that is collected, sorted, and recycled in the community	Set out in November 2019 with the vision of realizing the circular plastics economy in Turkey; The Business Plastics Initiative (IPG), implemented in cooperation with Global Compact Turkey, SKD Turkey and TUSIAD, is the first and only multi-stakeholder initiative that supports the fight against plastic pollution. Akkök Holding declared on 20 November 2019 that it would announce its plastic commitments in 2021 by being included in the Business World Plastics Initiative. In addition, Global Compact Türkiye is one of the three founding institutions of IPG. Plastic commitments progress report is presented every year according to the date specified by IPG

W10.5

(W10.5) Indicate whether your organization engages in the following activities.

	Activity applies	Comment
Production of plastic polymers	No	We are electricity generation company. We dont produce plastic polymers
Production of durable plastic components	No	We are electricity generation company. We dont produce plastic components
Production / commercialization of durable plastic goods (including mixed materials)	No	We are electricity generation company. We dont produce commercialization of durable plastic goods (including mixed materials)
Production / commercialization of plastic packaging	No	We are electricity generation company. We dont commercialization of plastic packaging
Production of goods packaged in plastics	No	We are electricity generation company. We dont goods packaged in plastics
Provision / commercialization of services or goods that use plastic packaging (e.g., retail and food services)	No	not relavent

W11. Sign off

W-FI

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

W11.1

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

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

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please indicate your consent for CDP to share contact details with the Pacific Institute to support content for its Water Action Hub website.

Yes, CDP may share our Main User contact details with the Pacific Institute

Please confirm below

I have read and accept the applicable Terms