

## W0. Introduction

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### W0.1

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

The Hamitabat Power Plant (HPP) is Turkey's first natural gas combined cycle power plant operating since 1986 with a total operational capacity of 1156 MW was privatized by the Privatization Administration in May 2013 and the transfer agreement with Limak Natural Gas Electricity Generation Inc. (hereinafter called LIMAK) was mutually signed on August 1, 2013. LIMAK has transformed HPP into one of the most efficient power plants in Turkey and the electricity generation will be carried out by Hamitabat Electricity Generation and Trade Inc. (hereinafter called HEAŞ), which is the affiliating company of LIMAK.

HEAŞ and his French associate called Inframed, have ensured availability at full capacity as of September 2017 with 2 SIEMENS H class combined cycle blocks replacing the plant with old technology by the rehabilitation project that has been initiated in March 2015 with a budget of 520 million Euros. The design efficiency level has been increased to %61 with the investment made, thereby causing a significant improvement in natural resource consumption as well as a reduction in energy import bills as a country. HEAŞ has taken its place among the limited power plants of both Turkey and Europe with respect to construction period, efficiency and alignment with environmental standards. HEAŞ, with its 1,156 MW installed power, contributed to the energy supply after the completion of the renovation project in 2017. Serving as an assurance for power supply in the Marmara Region with its strategic location and high reliability and availability, HEAŞ increased its installed power to 1220 MW in 2018. Existing old and aged technology has been demolished in the operation. The production amount in 2022 was 3.189 billion kWh.

The project design of the new power plant has been concluded to fulfil the requirements of local legislation and international standards. The main goal of HEAŞ is to sustain its existence within Turkey's energy market with high efficiency and environmental awareness in the upcoming years. EIA and ESIA reports have been prepared for the HEAS renovation project. The gas turbines at the facility are air-cooled; therefore, no water consumption is of concern. The plant has been furnished with dry Heller-type cooling towers for cooling the water-steam cycle. Also, two generators are cooled by hydrogen to save water consumption for the cooling process. Special environmental management procedures were specific to HEAŞ have been established for the purpose of creating minimum environmental impact in the site works and defining and following control measures to satisfactory standards. Procedures have been established by taking the IFC (International Finance Company) and Equator Principles as references to comply with the good environmental standards and practices regulated for the fulfilment of the located legal requirements. Prior to the initiation of operations in the renovation project area, an ecological field study has been conducted with flora, fauna and aquatic life experts, the existence of endemic species within the project impact area has been investigated and the ecological characteristics of the project have been identified. Although no endemic species have been identified accordingly.

The following indicators are monitored and followed within the scope of the sustainability activities and environmental performance such as energy consumption and production, waste generation amounts based on waste types, wastewater and water management issues, greenhouse gas emission monitoring, reporting and third-party verification.

Energy Management Acting with the awareness of the importance of utilization of energy efficiently as a power plant generating power, the foundations of energy efficiency transformation of HEAŞ was said in 2015 via a renovation project.

HEAŞ established the Zero Waste Management System within the scope of the "Zero Waste Project" verified by the Ministry of Environment, Urbanization and Climate Change of the Turkish Republic. HEAŞ, which continues its production activities with minimum impact by considering today's resources and tomorrow's needs, has ISO 27001: 2013 Information Security Management System Standard in 2016, ISO 27019: 2017 Information Security in Electricity Production Distribution Systems and Corporate Information Assets Standard and ISO 9001:2015 Quality Management System, ISO 14001:2015 Environmental Management System and ISO 45001:2018 Occupational Health and Safety Management System certification. Being the first natural gas combined cycle power plant in Turkey, HEAŞ continues to operate as a symbol of Kırklareli since 1986 and will continue to operate in the energy market of Turkey with high efficiency and environmental awareness in line with the United Nations Sustainable Development Goals in the coming years.

## W-EU0.1a

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

Electricity generation

## W-EU0.1b

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(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	0	0	0
Lignite	0	0	0
Oil	0	0	0
Gas	1220	100	9076.8
Biomass	0	0	0
Waste (non-biomass)	0	0	0
Nuclear	0	0	0
Fossil-fuel plants fitted with carbon capture and storage	0	0	0
Geothermal	0	0	0
Hydropower	0	0	0
Wind	0	0	0
Solar	0	0	0
Marine	0	0	0
Other renewable	0	0	0
Other non-renewable	0	0	0
Total	1220	100	9076.8

## 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.

EUR

## 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?

No

## 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

## 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	<p>For direct use; Hamitabat Natural Gas Combined Cycle Power Plant has good quality well water and is used as a water source after treatment at the plant area. HEAS uses water directly for electrical energy production on a steam turbine. Water is of vital importance for full capacity power generation availability on steam production, closed-loop cooling process and other auxiliary systems. Therefore, the need for water will always be necessary and vital for energy production now and in the future.</p> <p>For indirect use; water is used for WASH purposes by the site team but compared with power plant direct consumptions the amount is less than the direct usage.</p>
Sufficient amounts of recycled, brackish and/or produced water available for use	Vital	Not very important	<p>For direct use; Hamitabat Natural Gas Combined Cycle Power Plant has good quality well water and is used as a water source after treatment at the plant area. HEAS uses water directly for electrical energy production on a steam turbine. Water is of vital importance for full capacity power generation availability on steam production, closed-loop cooling process and other auxiliary systems. Therefore, the need for water will always be necessary and vital for energy production now and in the future.</p> <p>HEAS has started to reuse the sampling water from HRSG and the water treatment plant quality monitoring system to feed the water-steam cycle since January 2022. The amount of reused water is 16.000m<sup>3</sup> demineralized water/year, it is equal to almost 20.000m<sup>3</sup> raw water/year.</p> <p>HEAŞ is working on a recycling project on the HRSG blowdown wastewater with the target of almost 50.000m<sup>3</sup> demineralized water reusing.</p> <p>Also, HEAŞ works to assess any opportunities to recycle and reuse industrial and domestic treated wastewater for irrigation consumption.</p> <p>For indirect use; water is used for WASH purposes by the site team but compared with power plant direct consumptions the amount is less than the direct usage.</p>

**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	Flowmeter is furnished on all water wells.	HEAS has four water wells at the site and 100% of all water withdrawals from the source and the total volume of the water used in the process are monitored online and reported within the power plant on a daily basis.
Water withdrawals – volumes by source	100%	Continuously	Flowmeter is furnished on all water wells.	We have four water wells at the site and 100% of all water withdrawals are regularly measured and monitored by separate measurement equipment located on the sources and the consumer's basis. The water drawn from the wells is used for different purposes in the facility. These are domestic water usage (cooking, WC,), cooling water, process water and other needs (like landscaping).
Entrained water associated with your metals & mining and/or coal sector activities - total volumes [only metals and mining and coal sectors]	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Produced water associated with your oil & gas sector activities - total volumes [only oil and gas sector]	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Water withdrawals quality	100%	Continuously	-on-line sampling monitoring system -accredited third party laboratories. -internal water and waste water laboratory analyses	<p>The water drawn from the wells passes through the UF system and is served as domestic water.</p> <p>According to the Regulation on the Protection of Groundwater against Pollution and Deterioration, the quality of the well water quality is monitored by accredited laboratories monthly basis.</p> <p>Groundwater quality monitoring parameters are as follows; ammonium, copper, BOD, mercury, zinc, dissolved oxygen, conductivity, cadmium, COD, lead, nickel, nitrate, nitrite, oxygen saturation, pH, temperature, total phosphorus and TKN.</p> <p>Consumption of the steam generation and cooling water process is supplied after being purified by passing through appropriate process steps; ultrafiltration (UF), reverse osmosis (RO), and electrode ionization (EDI) respectively. Treated water quality has been monitored to ensure process technical specification requirements on Cation Conductivity, Sodium, Silica, Dissolved Oxygen, and pH via an online sample system by DCS screens.</p>
Water discharges – total volumes	100%	Continuously	-flowmeter	<p>We have three types of water discharge lines domestic, industrial wastewater and rainwater discharge. Domestic and industrial wastewater resources are regularly measured and monitored on a separate line for each one.</p> <p>Rainwater is separately collected from the other wastewater lines around the site and discharged to the stream directly without any treatment.</p> <p>We have a treated wastewater discharge permit document prepared by the Ministry of Environment, Urbanization and Climate Change for domestic and effluent wastewater. All wastewater collection underground lines reach the related treatment plants separately and the discharge points on the riverside.</p> <p>Mechanical flow meters have been installed at the wastewater discharge points to monitor the amounts on a daily basis.</p> <p>Installation of a flowmeter on the industrial wastewater discharge line is a regulatory requirement but the monitoring of domestic wastewater amount is our internal requirement to manage and control the water mass balance.</p>
Water discharges – volumes by destination	100%	Continuously	-flowmeter	All treated wastewater, such as domestic and industrial, are discharged into the Bağlar Stream which is close to the HEAS site. Upstream and downstream samples are taken from the HEAS's discharge point on Bağlar Stream, twice a year to monitor the stream water chemical and microbiological quality as to whether any impact of HEAS's treated wastewater. All discharge lines are furnished with a flowmeter.

	% of sites/facilities/operations	Frequency of measurement	Method of measurement	Please explain
Water discharges – volumes by treatment method	100%	Continuously	-flowmeter	HEAS has two separate wastewater treatment plants, one of them for domestic wastewater and the other one for industrial wastewater. The treatment plants project document has been approved by the Ministry of Environment, Urbanization and Climate Change (EUCC) for their capability, ability and efficiency of the treatment process to comply with the Turkish Water Pollution Control Regulation requirements. The domestic wastewater is treated at the Biological Package Wastewater Treatment Plant as a secondary treatment type and discharged to Bağlar Stream. The industrial wastewater is treated at the Chemical Wastewater Treatment Plant as a secondary treatment type and discharged to Bağlar Stream.
Water discharge quality – by standard effluent parameters	100%	Other, please specify (on a monthly basis for industrial wastewater and on a bimonthly basis for domestic wastewater )	-online pH meter on industrial WWTP -accredited third party laboratories. -internal waste water laboratory analyses such as COD, TSS, pH and conductivity on weekly basis for domestic and industrial WWTP and SVI for domestic WWTP	The discharge samples are taken and analysed on a monthly basis for industrial wastewater and on a bimonthly basis for domestic wastewater by accredited laboratories. Responsible parameters and taken period of samples are determined by the Ministry of EUCC according to Turkish Water Pollution Control Regulation requirements. HEAS has an environmental permit for wastewater discharge and stack emissions which are held by the Ministry of EUCC. Industrial wastewater discharge parameters are as follows; conductivity, dissolved oxygen, oxygen saturation, temperature, COD, TKN, chloride, sulphate, pH, ZSF, iron, oil, total phosphorus, hydrazine and settleable solid. The domestic wastewater discharge parameters are as follows; conductivity, dissolved oxygen, oxygen saturation, temperature, TSS, BOD, COD, pH. On-line pH analyser has been furnished on the industrial water treatment discharge pit to shut off the discharge process if occur any noncompliance on limit value.
Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances)	100%	Other, please specify (on industrial waste water analysis on a monthly basis by third-party and on a bi-yearly period at the domestic treated wastewater discharge line)	-accredited third party laboratories.	TKN and total phosphorus are two of the following parameters on industrial waste water analysis on a monthly basis by third-party accredited analysis. All third-party analyses are reported to the Ministry of EUCC by third-party accredited laboratory.  The Total Phosphorus and Total N on a bi-yearly period at the domestic treated wastewater discharge line as an internal requirement. These parameters are not the obligation to follow up according to local regulatory requirements.
Water discharge quality – temperature	100%	Continuously	via on-line temperature transmitter on plant control system	The water-steam cycle is cooled down by Heller Type closed-cycle cooling towers to avoid freshwater consumption and any discharge with high-temperature cooling water. HRSG blowdown wastewater is cooled by a heat exchanger before receiving it at the industrial wastewater treatment plant to decrease the temperature of untreated wastewater. The treated wastewater discharge temperature is set to below 35oC and it monitors via the plant control system. It is not a regulational obligation, it is an internal requirement of HEAS, which is referenced according to the Turkish Waste Water Pollution Control Regulation's requirement for coal thermal power plants
Water consumption – total volume	100%	Continuously	via flowmeters	We regularly measure and monitor the 100% of our water withdrawals and discharges at HEAS. Therefore, water consumption is regularly measured and monitored by 100%.
Water recycled/reused	1-25	Continuously	via volumetric measurement	The water-steam cycle is cooled down by Heller Type closed-cycle cooling towers so approximately 4000m3 water is recycled in the cooling system at all times except during maintenance activities on the cooling system. The online steam-water cycle quality sampling module demineralized water is reused as 1000m3/year. The online demineralized water quality sampling module water is reused as 15.000m3/year.
The provision of fully-functioning, safely managed WASH services to all workers	100%	Monthly	-on-line chlorine monitoring -monthly basis third party analyses -quarterly basis local authority analyses	HEAS services the tap water from the groundwater, after the ultrafiltration of raw water. The water quality monitors monthly basis from taps at different points (such as the dining hall, main control room, kitchen, and office building kitchen) and the results of the analyses are shared with all site for their information. Tap water is analysed on chemical and biological parameters according to the Regulation Related to Water Used for Human Consumption by the accredited laboratory. The raw water tank inlet point is furnished with online free chlorine analysis equipment. Additionally, Public Health Center Laboratory takes the sample on a quarterly basis. The bottled water was used for drinking purposes. The treated and disinfected tap water is used for cooking and washing purposes. Tap water consumption is monitored via a mechanical flow meter. HEAS has a domestic wastewater treatment plant and the domestic wastewater collection system is separate from the other wastewater lines.

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	195.96	Much lower	Increase/decrease in business activity	About the same	Increase/decrease in business activity	HEAS threshold can be explained as about the same: ± 0-5%, lower-higher: ±5-25%, much lower - much higher: > ±25%. HEAS has a mechanical flow meter on four water wells for each one. All flow meters have been monitored on a daily basis with the daily water production report also all withdrawals can be monitored on the water treatment plant DCS. HEAS had much lower water withdrawal (-46.5%) compared with the previous year's withdrawal amount. 79% of the all-water withdrawals are consumed by the steam generation process and the rest of the amount is for human usage and other necessities in 2022. The power generation amount is much lower (-57%) than the previous year due to a forced outage on both units, so the water withdrawal amount was decreased accordingly. HEAS returned to the normal operation period after the completion of the forced outage period at the beginning of 2023. The total water withdrawal will be about the same (estimated +2% higher) previous last year. HEAS makes a great effort to reuse the different process wastewater. Almost 50% demineralized water reduction is one of 2024's targets compared with 2022 consumption via the 2023 process water recovery program.
Total discharges	109.44	Much lower	Increase/decrease in business activity	Higher	Increase/decrease in business activity	HEAS threshold can be explained as about the same: ± 0-5%, lower-higher: ±5-25%, much lower - much higher: > ±25%. HEAS's effluent discharged amount decrease (-50%) due to the low operation time and also more maintenance activities, compared with the previous year. Total discharge covers domestic and industrial wastewater discharge amount. Industrial waste water is monitored via a mechanical flow meter on plant DCS. Domestic wastewater discharge line has been furnished via a mechanical flowmeter and the readings are reported on a weekly basis with Daily Water Production Report. HEAS returned to the normal operation period after the completion of the forced outage period at the beginning of 2023. The total discharge will be much higher (estimated +10 % higher) previous last year. HEAS is working on reused the treat waste water for any landscape activity opportunities.
Total consumption	86.5	Much lower	Increase/decrease in business activity	Lower	Investment in water-smart technology/process	HEAS's water consumption amount decreased (41%) due to the low operation time compared with the previous year. Consumption has been calculated via withdrawals minus the discharge amount. In the reporting year, the power generation amount is lower than the previous year so the withdrawal amount was decreased accordingly. Corrective and preventative maintenance has been conducted on HRSRG tube and valves against water leakage.

**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%	Much lower	Increase/decrease in business activity	About the same	Increase/decrease in efficiency	WWF Water Risk Filter	HEAS uses the WWF Water Risk Filter tool to assess the basin and operational risk and scenarios in detail. We supply all water from four separate water wells in one basin for all kinds of consumption. HEAS has one site for electricity generation so this site location coordinate is entered on the tool. The water is vital for the steam cycle process. According to WWF Water Risk Filter tool; the basin Water Scarcity Risk is high with 3,8 and HEAS has much lower water withdrawal (-46.5%) compared with the previous year withdrawal amount. HEAS uses water to power generation on two steam turbines. The power generation amount is much lower (-57%) than the previous year due to a forced outage on both units, so the water withdrawal amount was decreased accordingly. HEAS returned to the normal operation period after the completion of the forced outage period at the beginning of 2023. The total water withdrawal will be about the same (estimated +2% higher) previous last year.

**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	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	We don't use fresh surface water, including rainwater, water from wetlands, rivers, and lakes.
Brackish surface water/Seawater	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	We don't use Brackish surface water/Seawater.
Groundwater – renewable	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	We don't use Groundwater – renewable
Groundwater – non-renewable	Relevant	195.96	Much lower	Increase/decrease in business activity	HEAS threshold can be explained as about the same: $\pm 0\text{-}5\%$ , lower-higher: $\pm 5\text{-}25\%$ , much lower - much higher: $> \pm 25\%$ . We supply necessary water for consumption from four non-renewable groundwater wells. All wells are furnished with mechanical flow meters and are monitored on a daily basis. HEAS has a mechanical flow meter on four water wells for each one. All flow meters have been monitored on a daily basis with the daily water production report also all withdrawals can be monitored on the water treatment plant DCS. HEAS had much lower water withdrawal (-46,5%) compared with the previous year's withdrawal amount. The power generation amount is much lower (-57%) than the previous year due to a forced outage on both units, so the water withdrawal amount was decreased accordingly. HEAS returned to the normal operation period after the completion of the forced outage period at the beginning of 2023. The total water withdrawal will be about the same (estimated +2% higher) previous last year.
Produced/Entrained water	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	
Third party sources	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	

**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	Relevant	109.44	Much lower	Increase/decrease in business activity	HEAS threshold can be explained as about the same: $\pm 0\text{-}5\%$ , lower-higher: $\pm 5\text{-}25\%$ , much lower - much higher: $> \pm 25\%$ . HEAS's effluent discharged amount decrease (-50%) due to the low operation time and also more maintenance activities, compared with the previous year. Total discharge covers domestic and industrial wastewater discharge amount. Industrial waste water is monitored via a mechanical flow meter on plant DCS. Domestic wastewater discharge line has been furnished via a mechanical flowmeter and the readings are reported on a weekly basis with Daily Water Production Report. HEAS returned to the normal operation period after the completion of the forced outage period at the beginning of 2023. The total discharge will be much higher (estimated +50% higher) previous last year. HEAS is working on reused the treat waste water for any landscape activity opportunities.
Brackish surface water/seawater	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	
Groundwater	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	
Third-party destinations	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	

**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 Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	
Secondary treatment	Relevant	109.44	Much lower	Increase/decrease in business activity	100%	HEAS has two separate wastewater treatment plants, one of them for domestic wastewater and the other one for industrial wastewater. The treatment plants project document has been approved by the Ministry of Environment, Urbanization and Climate Change (EUCC) for their capability, ability and efficiency of the treatment process to comply with the Turkish Water Pollution Control Regulation requirements. The domestic wastewater is treated at the Biological Package Wastewater Treatment Plant as a secondary treatment type and discharged to Bağlar Stream. The industrial wastewater is treated at the Chemical Wastewater Treatment Plant as a secondary treatment type and discharged to Bağlar Stream. 6% of the total discharge amount shows the domestic waste water amount.
Primary treatment only	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	
Discharge to the natural environment without treatment	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	
Discharge to a third party without treatment	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	
Other	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	

**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(les) of substances included	List the specific substances included	Please explain
Row 1	2.1	Nitrates Phosphates	<Not Applicable>	Industrial wastewater discharge parameters are followed on a monthly basis by a third-party accredited laboratory; conductivity, dissolved oxygen, oxygen saturation, temperature, COD, TKN, chloride, sulphate, pH, ZSF, iron, oil, total phosphorus, hydrazine and settleable solid. The domestic wastewater discharge parameters are followed on a bimonthly basis by a third-party accredited laboratory; conductivity, dissolvePhosphatesd oxygen, oxygen saturation, temperature, TSS, BOD, COD, pH. HEAS has calculated the nitrates and phosphate parameters by using the conversion factor for TKN and total phosphorus. Nitrates and Phosphate concentration are multiplied by the discharge amount. In the reporting year 2t/year residual Nitrates and 0.1 t/year residual Phosphates discharged into the surface water after treated the waste water. HEAS reports its emissions to the Ministry of EUCC to air, soil, and water according to local regulation which is aimed to comply with Regulation (EC) No 166/2006 of the European Parliament and of the Council of 18 January 2006 European Pollutant Release and Transfer Register.

**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		195.96	<Calculated field>	HEAS returned to the normal operation period after the completion of the forced outage period at the beginning of 2023. The total water withdrawal will be about the same (estimated +2% higher) previous last year.

**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
0.06	Total water withdrawals	MWh	Much higher	HEAS threshold can be explained as about the same: ± 0-5%, lower-higher: ±5-25%, much lower - much higher: > ±25%. Due to the major outage, low generation amount against standard water consumption such as site test activities and domestic needs caused high water intensity (increased 20.5% compared with previous year).

## W1.4

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

	Products contain hazardous substances	Comment
Row 1	No	HEAS does not use any substances classified as hazardous by a regulatory authority. The plant's water-steam chemistry cycle concept has been changed to the oxygenated treatment is not required to reduce agents such as hydrazine or another oxygen scavenger. HEAS has Control of Substances Hazardous to Health and Environment Procedure for all site and its suppliers. Related commitments are in place about the no consumption of hazardous chemicals and pesticides in the project Environmental and Social Impact Assessment study. If necessary, the non-usage obligations of substances classified as hazardous are merged into the related supplier contract, especially pest and herbicide control contractor.

## W1.5

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

	Engagement	Primary reason for no engagement	Please explain
Suppliers	No	We are planning to do so within the next two years	HEAS has a special supplier management process and procedure to evaluate its capability according to HEAS's environment impact management policy. At the beginning of the candidate supplier assessment process is conducted via a supplier assessment questionnaire form which is generated by HEAS's procurement, sustainability, and quality management departments is comply with HEAS's internal and any other regulations, standards, and good application requirements. The candidate supplier has marked its performance on the environmental impact management process. This evaluation process is under development through collective works with different parties of HEAS and Limak Group of Companies' bodies. After the completion of the development of the supplier evaluation process, all supplier will be informed Limak's sustainability policy and precaution and implementation of water consumption program and supplier's responsibilities.
Other value chain partners (e.g., customers)	Yes	<Not Applicable>	<Not Applicable>

## 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 (stakeholders)

#### Type of engagement

Education / information sharing

#### Details of engagement

Share information about your products and relevant certification schemes

#### Rationale for your engagement

HEAS informs their stakeholders, site visitor and contractor about water consumption efficiency for their site activities and improve their awareness of daily routine personal water consumption issue. All site contractors must attend the site induction before starting activities. In 2022, 350 contractor employees have been informed about HEAS's water management policy and their responsibility.

HEAS have a role to improve awareness of the water risk issue in the local area. In 2022, 80 students who were coming from the university, high school and primary school visited the plant and were informed about plant technology. HEAS attends the university and school career day to present the power plant and impact mitigation application during its operations periods.

HEAS have two dedicated contractors at the site one of them for housekeeping and landscaping activities and the other one for catering activities. Two specific consumer points are monitored via flowmeters to compare the weekly average amount for any improvement opportunities on losses or exceeding the target value.

#### Impact of the engagement and measures of success

HEAS has a suggestion management system and also a maintenance management system. In 2022, twelve water leakages have been reported by the site contractor to the maintenance department for fixing the problems.

## 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	Fines, enforcement orders, and/or other penalties	Comment
Row 1	No	<Not Applicable>	

## 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	Please explain
Row 1	Yes, we identify and classify our potential water pollutants	HEAS has prepared an Environmental and Social Impact Assessment (ESIA) study before starting the project construction phase. A risk-based study has been applied as a collective work with different groups of stakeholders which is the governance and non-governance organization in light of HEAS's Public Consultation and Disclosure Plan. The project's ESIA complies with Equator Principle, IFC and EBRD's requirements. HEAS specified the water impact in terms of quantity and quality in this documents and control measures for decreased footprints. Pollution Prevention Plan is one of the environmental impact analyses studies with the aim of (PPP) setting out the requirements for the management of environmental impacts, particularly with regard to the prevention of pollution to land, air and water during the implementation stage of the Project. The National Water Pollution Control Regulation, Regulation on Control of Soil Pollution and Point Source Contaminated Lands and International such as European Union (EU) Directives, guidance and standards are used as a guide to identify and classify the project-related pollutants and control mitigation.	<Not Applicable>

### 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

During maintenance activities or standard plant operations activities oil leakage is possible to occur from the working area and machinery groups. HEAS discharge the wastewater after being treated into the neighbour creek. If the oil water spreads over the surface in a thin layer on the surface water, that stops oxygen getting to the animals that live in the water.

#### Value chain stage

Direct operations

#### Actions and procedures to minimize adverse impacts

Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience  
Implementation of integrated solid waste management systems  
Industrial and chemical accidents prevention, preparedness, and response  
Discharge treatment using sector-specific processes to ensure compliance with regulatory requirements

#### Please explain

HEAS has a special procedure for hazardous chemical and waste pollution control spill prevention and emergency case management. Additionally, a preventative maintenance management system has been prepared for oil leakage and follow-up very strictly. All pumps and machinery groups are periodically checked against any spill occurrence at all shifts and internal audits. The spill kits are placed in all site areas to control any incident by a dedicated spill control emergency team member. All oil-water sources especially, the maintenance and machinery group areas are connected to the plant's oil-water separator (OWS) and its outlet passes through the industrial wastewater treatment plant (IWWTP). The discharge samples are taken from the IWWTP on a monthly basis and analysed by an accredited third-party laboratory and reported to the authority. The visual check is conducted at all shifts on IWWTP for any oil layer presence which is escaped from the OWS. The periodical maintenance program is in place for oil water separators to keep the maximum efficiency. Internal SOP, especially quality control and test procedures are in place for domestic and industrial wastewater treatment plants. The discharge waste water quality compliance analyses are conducted under the supervision of the plant chemical engineer.

#### Water pollutant category

Inorganic pollutants

#### Description of water pollutant and potential impacts

Treatment of wastewater originating from process regeneration, backwashing and boiler blowdown are collected in the industrial wastewater treatment plant and their relevant pollutant concentrations are brought below the discharge limits. Iron in water can cause discoloration. Excessive levels of sulfate can have adverse effects. High concentrations of sulfate can have a corrosive effect on water systems. Chloride is a key component of salinity, which refers to the concentration of dissolved salts in water. Monitoring chloride levels helps assess the salinity of water bodies. Excessive chloride concentrations can indicate high salinity, which can have adverse effects on freshwater ecosystems. High chloride levels in water bodies can have detrimental effects on aquatic organisms and ecosystems. Exceeding chloride limits can lead to physiological stress, impaired reproduction, and reduced biodiversity. Internal SOP, especially quality control and test procedures are in place for domestic and industrial wastewater treatment plants. The discharge waste water quality compliance analyses are conducted under the supervision of the plant chemical engineer.

#### Value chain stage

Direct operations

#### **Actions and procedures to minimize adverse impacts**

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

#### **Please explain**

HEAS has an industrial wastewater treatment plant and the industrial wastewater collection system is separate from the other wastewater lines and rainy water. The treatment plant has been designed and commissioned according to wastewater quality to treat the wastewater with high efficiency in light of national and international legislation requirements.

Iron, sulfate and chloride are the following parameters on industrial treated discharged water analysis on a monthly basis by third-party accredited analysis. All third-party analyses are reported to the Ministry of EUCC by themselves. Pollution Prevention Plan is one of the environmental impact analyses studies with the aim of (PPP) setting out the requirements for the management of environmental impacts, particularly with regard to the prevention of pollution to land, air and water during the implementation stage of the Project. The National namely, Water Pollution Control Regulation, Regulation on Control of Soil Pollution and Point Source Contaminated Lands and international such as European Union (EU) Directives, guidance and standards are used as a guide to identify and classify the project-related pollutants and control mitigation. Internal SOP, especially quality control and test procedures are in place for domestic and industrial wastewater treatment plants. The discharge waste water quality compliance analyses are conducted under the supervision of the plant chemical engineer.

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#### **Water pollutant category**

Other nutrients and oxygen demanding pollutants

#### **Description of water pollutant and potential impacts**

Oxygen-demanding pollutants such as; TSS, COD, BOD.

Biochemical oxygen demand, which is a measure of the determination of organic substances in wastewater, is the oxidation of biodegradable organic substances by microorganisms under aerobic conditions. It is an expression of the amount of oxygen required for decomposition. COD, on the other hand, refers to the oxygen required for the decomposition/decomposition of chemically oxidisable organic substances in wastewater. Total Suspended Solids (TSS) refers to the measure of solid particles suspended in water that do not dissolve or settle out easily. These particles can include sediment, organic matter, inorganic matter, and other fine solids. TSS is an important parameter used to assess the water quality and the level of particulate pollution in a body of water. Internal SOP, especially quality control and test procedures are in place for domestic and industrial wastewater treatment plants. The discharge waste water quality compliance analyses are conducted under the supervision of the plant chemical engineer.

#### **Value chain stage**

Direct operations

#### **Actions and procedures to minimize adverse impacts**

Implementation of integrated solid waste management systems

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

#### **Please explain**

HEAS has an industrial wastewater treatment plant and the industrial wastewater collection system is separate from the other wastewater lines and rainy water. The treatment plant has been designed and commissioned according to wastewater quality to treat the wastewater with high efficiency in light of national and international legislation requirements.

Iron, sulfate and chloride are the following parameters on industrial treated discharged water analysis on a monthly basis by third-party accredited analysis. All third-party analyses are reported to the Ministry of EUCC by themselves. Pollution Prevention Plan is one of the environmental impact analyses studies with the aim of (PPP) setting out the requirements for the management of environmental impacts, particularly with regard to the prevention of pollution to land, air and water during the implementation stage of the Project. The National namely, Water Pollution Control Regulation, Regulation on Control of Soil Pollution and Point Source Contaminated Lands and international such as European Union (EU) Directives, guidance and standards are used as a guide to identify and classify the project-related pollutants and control mitigation. Internal SOP, especially quality control and test procedures are in place for domestic and industrial wastewater treatment plants. The discharge waste water quality compliance analyses are conducted under the supervision of the plant chemical engineer.

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#### **Water pollutant category**

Nitrates

#### **Description of water pollutant and potential impacts**

Treatment of wastewater originating from process regeneration, backwashing and boiler blowdown are collected in the industrial wastewater treatment plant and their relevant pollutant concentrations are brought below the discharge limits. If TKN enters the water in high concentrations, nitrate can contribute to excessive algae and plant growth in aquatic ecosystems.

#### **Value chain stage**

Direct operations

#### **Actions and procedures to minimize adverse impacts**

Implementation of integrated solid waste management systems

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

#### **Please explain**

HEAS has an industrial wastewater treatment plant and the industrial wastewater collection system is separate from the other wastewater lines and rainy water. The treatment plant has been designed and commissioned according to wastewater quality to treat the wastewater with high efficiency in light of national and international legislation requirements.

Sulfate, TKN and total phosphorus are the following parameters on industrial treated discharged water analysis on a monthly basis by third-party accredited analysis. All third-party analyses are reported to the Ministry of EUCC by themselves. Pollution Prevention Plan is one of the environmental impact analyses studies with the aim of (PPP) setting out the requirements for the management of environmental impacts, particularly with regard to the prevention of pollution to land, air and water during the implementation stage of the Project. The National namely, Water Pollution Control Regulation, Regulation on Control of Soil Pollution and Point Source Contaminated Lands and international such as European Union (EU) Directives, guidance and standards are used as a guide to identify and classify the project-related pollutants and control mitigation. Internal SOP, especially quality control and test procedures are in place for domestic and industrial wastewater treatment plants. The discharge waste water quality compliance analyses are conducted under the supervision of the plant chemical engineer.

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#### **Water pollutant category**

Phosphates

#### **Description of water pollutant and potential impacts**

Excessive phosphorus in surface water can cause explosive growth of aquatic plants and algae. This can lead to a variety of water-quality problems, including low dissolved oxygen concentrations, which can cause fish kills and harm other aquatic life.

#### **Value chain stage**

Direct operations

#### 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

#### Please explain

HEAS has an industrial wastewater treatment plant and the industrial wastewater collection system is separate from the other wastewater lines and rainy water. The treatment plant has been designed and commissioned according to wastewater quality to treat the wastewater with high efficiency in light of national and international legislation requirements.

Total phosphorus are the following parameters on industrial treated discharged water analysis on a monthly basis by third-party accredited analysis. All third-party analyses are reported to the Ministry of EUCC by themselves. Pollution Prevention Plan is one of the environmental impact analyses studies with the aim of (PPP) setting out the requirements for the management of environmental impacts, particularly with regard to the prevention of pollution to land, air and water during the implementation stage of the Project. The National namely, Water Pollution Control Regulation, Regulation on Control of Soil Pollution and Point Source Contaminated Lands and international such as European Union (EU) Directives, guidance and standards are used as a guide to identify and classify the project-related pollutants and control mitigation. Internal SOP, especially quality control and test procedures are in place for domestic and industrial wastewater treatment plants. The discharge waste water quality compliance analyses are conducted under the supervision of the plant chemical engineer.

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### W3.3

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

Yes, water-related risks are assessed

### W3.3a

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

##### Value chain stage

Direct operations

##### Coverage

Partial

##### Risk assessment procedure

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

##### Frequency of assessment

Annually

##### How far into the future are risks considered?

More than 6 years

##### Type of tools and methods used

Enterprise risk management

International methodologies and standards

##### Tools and methods used

Enterprise Risk Management

ISO 31000 Risk Management Standard

Environmental Impact Assessment

ISO 14001 Environmental Management Standard

##### Contextual issues considered

Water availability at a basin/catchment level

Stakeholder conflicts concerning water resources at a basin/catchment level

Implications of water on your key commodities/raw materials

Water regulatory frameworks

Access to fully-functioning, safely managed WASH services for all employees

##### Stakeholders considered

Customers

Employees

Investors

Local communities

NGOs

Regulators

##### Comment

HEAS uses WWF Water Risk Filter to assess the basin and operational risk, scenarios in detailed.

HEAS has conducted risk assessment studies according to his enterprise risk management procedure with risk assessment and management team on annually basis. HSE and related responsible white-collar team member and their manager such as operation, maintenance, finance and administrative are the body of the team. Asst. HSE Manager is lead of the risk assessment and management team and sustainability committee such as Social People, Healthy Planet and Inclusive Development. Enterprise risk management procedure has coverage the risk, threat, weakness and strength, opportunities in a wide range and perspective.

In the light of the risk-based thinking process management approached, for the water related risks are assessed address their financial, operational, regulation, customer satisfaction, reputation and the public detrimental impact on site specific. All risk management process with assessment and planning the mitigation activities, identifying the necessary action to decrease the risk categories as acceptable, has been described with HEAS Integrated Management System Risk Assessment Procedure. The risk prioritizing has been divided by five categories according to result of multiplying with its likelihood, impact and importance level.

The risk management process is conducted in comply with the ISO 9001 Quality Management Standard and the ISO 31000 Risk Management Standard and also ISO 14001 Environmental Management Standard requirement and expectation.

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**(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	<p>HEAS uses WWF Water Risk Filter to assess the basin and operational risk, scenarios in detailed.</p> <p>HEAS has conducted risk assessment studies according to his enterprise risk management procedure with risk assessment and management team on annually basis. Enterprise risk management procedure has coverage the risk, threat, weakness and strength, opportunities in a wide range and perspective.</p> <p>The risk management process is conducted in comply with the ISO 9001 Quality Management Standard and the ISO 31000 Risk Management Standard and also ISO 14001 Environmental Management Standard requirement and expectation.</p> <p>EIA and ESIA benefit are to be identified the potential impacts of the project may have on the environment and water-related risks the project may cause during pre-construction, commissioning, operation and also decommissioning phase.</p> <p>The EIA embraces all the studies to be carried out for the determination of potential positive and adverse impacts of the planned projects on the environment, for the determination and the evaluation of the measures to be taken to prevent or minimise the adverse impacts to an extent not to damage the environment through the determination and assessment of the selected locations and technology alternatives and for the monitoring and control of the project implementation.</p>	<p>In the light of the risk-based thinking process management approach the water-related risks are addressed their financial, operational, regulation, customer satisfaction, reputation and the public detrimental impact on site-specific.</p>	<p>Public Consultation and Disclosure Plan has been prepared to conduct the stakeholder analysis for Different Phases of the Project according to IFC and World Bank’s Environmental, Social Guidelines, EBRD, Equator Principle and International Finance Institutions requirement and expectation on environmental and social issues. In the light of the output of the plan, all risks has been determined and planned the control measures. The Public Consultation and Disclosure Plan is a combination of the activities that are enable the stakeholders that might have an influence on the Project (such as Public, governmental organizations, Non Governmental Organizations (NGO) to incorporate each phases of the Project.</p>	<p>Sustainability &amp; HSE team and related responsible white-collar team member and their managers such as operation, maintenance, finance and administration are the body of the risk assessment team. General Manager (GM) is the lead of the risk assessment and management team and sustainability committees such as Social People, Healthy Planet and Inclusive Development. All risk management process with assessment and planning the mitigation activities, identifying the necessary action to decrease the risk categories as acceptable, has been described with HEAS Integrated Management System Risk Assessment Procedure. The risk prioritizing has been divided into five categories according to the result of multiplying with its likelihood, impact and importance level. The Plant Risk and Mitigation Plan is one of the Board of Meeting topic to discuss and determine the road map by outcome of the study.</p>

**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?**

No

**W4.1a**

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

HEAS uses WWF Water Risk Filter to assess the basin and operational risk, scenarios in detailed.

HEAS is working to conduct direct operation process risk assessment studies according his enterprise risk management procedure with risk assessment and management team on annually basis. HSE and related responsible white-collar team member and their manager such as operation, maintenance, finance and administrative are the body of the team. General Manager is leader of the risk assessment and management team and sustainability committee such as Social People, Healthy Planet and Inclusive Development. Enterprise risk management procedure has coverage the risk, threat, weakness and strength, opportunities in a wide range and perspective.

In the light of the risk-based thinking process management approached, for the water related risks are asses address their financial, operational, regulation, customer satisfaction, reputation and the public detrimental impact on site specific. All risk management process with assessment and planning the mitigation activities, identifying the necessary action to decrease the risk categories as acceptable, has been described with HEAS Integrated Management System Risk Assessment Procedure. The risk prioritizing has been divided by five categories according to result of multiplying with its likelihood, impact and importance level.

The risk management process is conducted in comply with the ISO 9001 Quality Management Standard and the ISO 31000 Risk Management Standard and also ISO 14001 Environmental Management Standard requirement and expectation. Detailed risk assessment study will be finalized in 2023 according to CDP expectation coverage by physical, regulatory, reputation & markets and technology for both of operation and value chain. According to pre-review study on operational risk, tighter regulatory standards, Drought, water stress, water scarcity will be at the center of the conclusion report.

**W4.2b**

**(W4.2b) Why does your organization not consider itself exposed to water risks in its direct operations with the potential to have a substantive financial or strategic impact?**

	Primary reason	Please explain
Row 1	Evaluation in progress	<p>HEAS uses WWF Water Risk Filter to assess the basin and operational risk, scenarios in detailed.</p> <p>HEAS is working to conduct direct operation process risk assessment studies according his enterprise risk management procedure with risk assessment and management team on annually basis.</p> <p>HSE and related responsible white-collar team member and their manager such as operation, maintenance, finance and administrative are the body of the team. HSE team is lead of the risk assessment and management team and sustainability committee such as Social People, Healthy Planet and Inclusive Development. Enterprise risk management procedure has coverage the risk, threat, weakness and strength, opportunities in a wide range and perspective.</p> <p>In the light of the risk-based thinking process management approached, for the water related risks are assed address their financial, operational, regulation, customer satisfaction, reputation and the public detrimental impact on site specific. All risk management process with assessment and planning the mitigation activities, identifying the necessary action to decrease the risk categories as acceptable, has been described with HEAS Integrated Management System Risk Assessment Procedure. The risk prioritizing has been divided by five categories according to result of multiplying with its likelihood, impact and importance level.</p> <p>The risk management process is conducted in comply with the ISO 9001 Quality Management Standard and the ISO 31000 Risk Management Standard and also ISO 14001 Environmental Management Standard requirement and expectation. Detailed risk assessment study will be finalized in 2022 according to CDP expectation covered by physical, regulatory, reputation &amp; markets and technology for both of operation and value chain. According to pre-review study on operational risk, tighter regulatory standards, Drought, water stress, water scarcity will be at the center of the conclusion report.</p>

**W4.2c**

**(W4.2c) Why does your organization not consider itself exposed to water risks in its value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact?**

	Primary reason	Please explain
Row 1	Not yet evaluated	The water is vital for HEAS's direct operation on steam turbine electricity generation activities.

**W4.3**

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

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

**W4.3a**

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

**Type of opportunity**

Efficiency

**Primary water-related opportunity**

Improved water efficiency in operations

**Company-specific description & strategy to realize opportunity**

Demineralized water treatment plant and HRSG Steam-Water Sample System Reuse Project was completed in 2022 with more than 15,000 m3/year demineralised water saving.

In 2023, If the HRGS Hot Drains (included blowdowns and other condensates) Recovery Project is completed, 100,000 m3/year demineralised water will be reused in water-steam cycle.

**Estimated timeframe for realization**

Current - up to 1 year

**Magnitude of potential financial impact**

Low

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

0

**Potential financial impact figure – maximum (currency)**

10000

**Explanation of financial impact**

included decrease of chemical and energy consumption, life time management of equipment and humanpower.

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**Type of opportunity**

Efficiency

**Primary water-related opportunity**

Improved water efficiency in operations

**Company-specific description & strategy to realize opportunity**

In 2023, If the HRGS Hot Drains (included blowdowns and other condensates) Recovery Project is completed, 100,000 m3/year demineralised water will be reused in water-steam cycle.

**Estimated timeframe for realization**

Current - up to 1 year

**Magnitude of potential financial impact**

Low-medium

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

0

**Potential financial impact figure – maximum (currency)**

60000

**Explanation of financial impact**

included decrease of chemical and energy consumption, life time management of equipment and humanpower.

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## W6. Governance

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### W6.1

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

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

### W6.1a

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

Row	Scope	Content	Please explain
Row 1	Company-wide	Description of the scope (including value chain stages) covered by the policy Description of business dependency on water Description of business impact on water Commitment to align with international frameworks, standards, and widely-recognized water initiatives Commitment to prevent, minimize, and control pollution Commitment to reduce water withdrawal and/or consumption volumes in direct operations Commitment to reduce water withdrawal and/or consumption volumes in supply chain Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace Commitment to stakeholder education and capacity building on water security Commitment to the conservation of freshwater ecosystems Reference to company water-related targets	HEAS's policies.docx

**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
Board Chair	HEAS is a body of Limak Group of Companies. Board Chair is the decision maker for Limak Group of Companies' water policy. Acting with the principle of "fulfilling today's requirements without jeopardizing the capacity to fulfill the requirements of the future generations" in its entire operations and activities, HEAS follows and applies a balanced and minimum level of environmental-impact growth strategy in light of the Limak Group.
Director on board	HEAS's Director on Board is the member of Limak Group of Companies' Board. Director on Board is a mentor for preparing the HEAS water policy. Acting with the principle of "fulfilling today's requirements without jeopardizing the capacity to fulfill the requirements of the future generations" in its entire operations and activities, HEAS follows and applies a balanced and environmental-friendly growth strategy. Director on Board is responsible to approve any material, physical and human resources to actualize the improvements.
Other, please specify (General Manager)	General Manager is the decision maker for HEAS water policy and a leader to integrate into all business processes. Acting with the principle of "fulfilling today's requirements without jeopardizing the capacity to fulfill the requirements of the future generations" in its entire operations and activities, HEAS follows and applies a balanced and environmental-friendly growth strategy. General Manager is responsible to approve any material, physical and human resources to actualize the improvements. HEAS publishes Sustainability Report periodically and updates the sustainability map conducted with the HEAS and Limak Group of Companies Sustainability Committee periodically. Sustainability activities and targets are prioritized and discussed at the Board Meetings at least bimonthly period. The General Manager leads the HEAS Sustainability Committees namely, Inclusive Development, Social People and Healthy Planet. HEAS's Sustainability Target & Achievement Monthly Report is issued to the General Manager, Director on Board and all departments responsible to evaluate the realisation and determining any action or precaution by HEAS's Sustainability & HSE Department.
Other, please specify (Sustainability and HSE Manager)	Sustainability and HSE Manager is one of the attendance of the Board Meeting to informed the HEAS's Sustainability priority and targets-KPI's achievements and corrective-preventive action and road map revision necessities.

**W6.2b**

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

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - all meetings	Monitoring implementation and performance Monitoring progress towards corporate targets Overseeing and guiding public policy engagement Overseeing major capital expenditures Overseeing the setting of corporate targets Providing employee incentives 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	HEAS has special internal meetings to evaluate water-related risks with the risk management team at least yearly period. Additionally, if any regulation change, critical level water use and discharge according to Daily Water Production Report on a weekly basis is observed, the risk management team evaluate the situation and prepared the road map and also any request from the team. HEAS’s internal meetings outcomes are the input for the BOD meetings. Sustainability and HSE issues are one of the most important and standing items on the BoD meeting agenda. HEAS’s General Manager, Maintenance Manager, Sustainability & HSE Manager, CFO, Accounting Manager, Finance Manager, Contract and Procurement Manager and Director on Board and other BOD members are attendances of the meeting. Sustainability & HSE Manager briefs about taken action or cooperate opportunities with authority or other stakeholders on water-related risks and management improvements, goals and its current status with any revision requirements, and latest regulation responsibility update at the meeting for all bodies. Some of the examples were discussed and informed to the member at the meetings, such as the water treatment plant and heat recovery steam generator (HRSG) sample system water reuse project and were realised in the reporting year. The project’s overcome with decreased chemical and well water consumption amount, the project budget and any change of management issues such as the requirement of sources especially internal-external person-power, financial and infrastructure, authority permit or operational and management risks are identified, informed, evaluate at the meeting. The HRSG Blowdown Wastewater Reuse project was taken the HEAS’s Priority Project Program after discussion at the meetings. The participants informed special local regulation changes about the reuse suggestion of the discharged wastewater opportunities evaluation requirement. The water scarcity risk maps are generated by WWF and drought maps are prepared by the National Meteorological Service were reviewed at the meetings.

**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	Primary reason for no board-level competence on water-related issues	Explain why your organization does not have at least one board member with competence on water-related issues and any plans to address board-level competence in the future
Row 1	Yes	Limak Group of Companies Board Chairperson is regular participant to World Economic Forum’s (WEF) Annual Meetings in Davos/Switzerland, she also represents the Group at Bruegel, Brussels-based think tank, as the only representative from Turkey and Turkish business community. She is WWF Turkey’s Board of Trustees, membership at the Turkish Industry and Business Association (TÜSİAD) also Advisory Board of the Istanbul International Center for Private Sector in Development (IICPSD) of the UNDP.  HEAS’s Director on Board is member of the Board of the Turkish Electricity Industry Association (TESAB) and Board Member of World Energy Council Turkish National Committee.	<Not Applicable>	<Not Applicable>

**W6.3**

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

**Name of the position(s) and/or committee(s)**  
Other, please specify (General Manager)



#### Water-related responsibilities of this position

Assessing future trends in water demand  
Setting water-related corporate targets  
Integrating water-related issues into business strategy  
Managing annual budgets relating to water security  
Managing major capital and/or operational expenditures related to low water impact products or services (including R&D)  
Providing water-related employee incentives

#### Frequency of reporting to the board on water-related issues

More frequently than quarterly

#### Please explain

General Manager(GM) is the decision maker for HEAS water policy and a leader to integrate into all business processes. Acting with the principle of “fulfilling today's requirements without jeopardizing the capacity to fulfil the requirements of the future generations” in its entire operations and activities, HEAS follows and applies a balanced and environmental-friendly growth strategy. GM is responsible to approve any material, physical and human resources to actualize the improvements. Water is vital for HEAS plant availability and sustainable power generation with low operation cost, high efficiency and environment-friendly manner. GM is responsible to conduct, being a leader of the risk assessment committee, a risk assessment and mitigation plan with related parties. GM encourages the team continuously improvement, to decrease water consumption and allocate any sources of new investments for reuse/recycle projects. The GM reports to BoD.

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

Risk committee

#### Water-related responsibilities of this position

Assessing future trends in water demand  
Assessing water-related risks and opportunities  
Managing water-related risks and opportunities  
Conducting water-related scenario analysis  
Managing public policy engagement that may impact water security  
Integrating water-related issues into business strategy  
Managing annual budgets relating to water security  
Managing water-related acquisitions, mergers, and divestitures

#### Frequency of reporting to the board on water-related issues

More frequently than quarterly

#### Please explain

The Risk Committee is responsible for generating water-related risk assessment and mitigation and action plan according to its enterprise risk management procedure. HEAS has special internal meetings to evaluate and review water-related risks with the risk management team at least a yearly period. Additionally, if any regulation change, critical level water use and discharge according to Daily Water Production Report on a weekly basis is observed, the risk management team evaluate the situation and prepared the road map and also any request from the team. The sustainability & HSE Manager and related responsible white-collar team member and their manager such as operation, maintenance, finance and administration are the body of the team. The risk committee reports to directly the general manager.

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

Sustainability committee

#### Water-related responsibilities of this position

Assessing future trends in water demand  
Managing water-related risks and opportunities  
Setting water-related corporate targets  
Monitoring progress against water-related corporate targets  
Managing public policy engagement that may impact water security  
Integrating water-related issues into business strategy  
Managing water-related acquisitions, mergers, and divestitures

#### Frequency of reporting to the board on water-related issues

More frequently than quarterly

#### Please explain

HEAS publishes Sustainability Report and updates the road map conducted with the HEAS and Limak Group of Companies Sustainability Committee (LGoCSC) periodically. HEAS has delegates to attend the (LGoCSC) meetings on a monthly period. HEAS's Sustainability activities and targets are prioritized and discussed at the BoD Meetings at least bimonthly period. The General Manager leads the HEAS Sustainability Committees namely, Inclusive Development, Social People and Healthy Planet. Limak Group of Companies Board Chair is the chairperson of the (LGoCSC). HEAS's Sustainability Target & Achievement Monthly Report is issued to the General Manager, BoD and all departments by HEAS's Sustainability & HSE department. The committee measures and reports environmental impact across all areas of activity and takes improvement actions. It develops projects to ensure the efficient use of water and to provide awareness to all stakeholders, starting with employees.

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

Business unit manager

#### Water-related responsibilities of this position

Assessing future trends in water demand  
Assessing water-related risks and opportunities  
Managing water-related risks and opportunities  
Conducting water-related scenario analysis

#### Frequency of reporting to the board on water-related issues

More frequently than quarterly

#### Please explain

All of responsibilities of the managers are mentioned on related parts below and above.

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

Other, please specify (Sustainability & Environment, Health and Safety Manager )

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**Water-related responsibilities of this position**

- Assessing future trends in water demand
- Assessing water-related risks and opportunities
- Managing water-related risks and opportunities
- Conducting water-related scenario analysis
- Setting water-related corporate targets
- Monitoring progress against water-related corporate targets
- Managing public policy engagement that may impact water security
- Managing value chain engagement on water-related issues
- Integrating water-related issues into business strategy
- Managing water-related acquisitions, mergers, and divestitures

**Frequency of reporting to the board on water-related issues**

More frequently than quarterly

**Please explain**

To follow up any climate adaption issue in the light of Limak and HEAS Sustainability Strategy, local and international legislation requirement, Paris Agreement, Green Deal and good practices in the sector. All of responsibilities of the Sustainability & HSE manager are mentioned on related parts above.

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

Safety, Health, Environment and Quality committee

**Water-related responsibilities of this position**

Managing water-related risks and opportunities

**Frequency of reporting to the board on water-related issues**

Not reported to board

**Please explain**

General Manager (as leader), operation, maintenance team foremen and supervisors, Sustainability & HSE team, HR manager, administrative responsible, health and safety expert are the member of the committee.

To raise the site blue collar awareness on water related issue, to bring up any opportunities to decrease water consumption and pollution control also improvement site WASH facilities condition.

**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	HEAS has a commitment to encourage to all team members to improve the environment and employee health conditions on his environmental and health safety policy. There are no dedicated monetary reward programs for the achievement of the related targets. For a non-monetary reward program, HEAS has a personal performance system for its all-level employees. Key performance indicator with related operational availability, environmental, social, health and safety issue has been assigned to parties on their responsibility areas. To comply with any legislation and standard requirements, during planning and execution of their activities are assigned to the president and all managers. Reduction of water consumption and withdrawal targets are assigned to operation, maintenance and Asst. HSE manager on annual personal targets. Employee awareness campaigns or training program targets are assigned to the general manager, Sustainability & HSE and human resources and all manager.

**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	No one is entitled to these incentives	<Not Applicable>	<Not Applicable>	
Non-monetary reward	Other, please specify (general manager, Sustainability & HSE and human resources and all manager.)	Reduction of water withdrawals – direct operations Reduction in water consumption volumes – direct operations Improvements in water efficiency – direct operations Improvements in wastewater quality – direct operations	encourage R&D activities, decrease the operational cost of the water treatment plant, decrease of chemical consumption	encourage R&D activities, decrease the operational cost of the water treatment plant, decrease of chemical consumption

**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?

HEAS publishes Sustainability Report since 2015 in compliance with GRI requirements and updates the sustainability map conducted with the HEAS and Limak Group of Companies sustainability team periodically. Sustainability activities and targets are prioritized and discussed at board meetings periodically. HEAS has integrated the UN Sustainability Development Goal (SDG) into its business plan. HEAS has an environmental permit for wastewater discharge and stack emissions which are held by the Ministry of EUCC. HEAS has a Pollution control Pollution Plan and discharged water quality is monitored via internal and third-party laboratory tests.

HEAS's Sustainability Target & Achievement Monthly Report is issued to the General Manager, Director on Board and all departments responsible to evaluate the realisation and determining any action or precaution by HEAS's Sustainability & HSE department.

## W6.6

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

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

## W7. Business strategy

### W7.1

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

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	No, water-related issues were reviewed but not considered as strategically relevant/significant	16-20	A detailed risk assessment study will be finalized in 2023 to comply with CDP expectation coverage by physical, regulatory, reputation & markets and technology. According to the pre-review study, tighter regulatory standards, Drought, water stress, and water scarcity will be at the centre of the conclusion report. The outcome of the study is, Long-term business objectives will be developed in parallel with Turkey's energy market and net zero emission targets.
Strategy for achieving long-term objectives	No, water-related issues were reviewed but not considered as strategically relevant/significant	16-20	A detailed risk assessment study will be finalized in 2023 to comply with CDP expectation coverage by physical, regulatory, reputation & markets and technology. According to the pre-review study, tighter regulatory standards, Drought, water stress, and water scarcity will be at the centre of the conclusion report. The outcome of the study is, Long-term business objectives will be developed in parallel with Turkey's energy market and net zero emission targets.
Financial planning	No, water-related issues were reviewed but not considered as strategically relevant/significant	16-20	A detailed risk assessment study will be finalized in 2023 to comply with CDP expectation coverage by physical, regulatory, reputation & markets and technology. According to the pre-review study, tighter regulatory standards, Drought, water stress, and water scarcity will be at the centre of the conclusion report. The outcome of the study is, Long-term business objectives will be developed in parallel with Turkey's energy market and net zero emission targets.

### 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)

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

##### Please explain

Water-related capital expenditure (CAPEX) and operating expenditure (OPEX) are planned on a yearly basis by the related department's responsible employee and general manager. In the next reporting period, CAPEX and OPEX values will be specified after the completion of detailed follow-up studies.

### W7.3

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

	Use of scenario analysis	Comment
Row 1	No, but we anticipate doing so within the next two years	the National Meteorological Service drought maps and WWF Water Risk Filter are used to explore the current and future water physical, regulatory and reputational basin risks in detail and scenarios are used to inform the BoD and related parties to align HEAS's position. In 2023, scenario analysis will be finalized and influenced the business strategy totally.

## W7.4

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

#### Row 1

#### Does your company use an internal price on water?

No, but we are currently exploring water valuation practices

#### Please explain

The General Directorate of State Hydraulic Works issued a well water consumption permit with the restriction of yearly usage amount. HEAS has no payment process or policy for water. By being aware of the water value, reuse/recycling water and wastewater project is one of the most critical issues in its business plans.

## 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	Primary reason for not classifying any of your current products and/or services as low water impact	Please explain
Row 1	Yes	<p>Closed &amp; Dry Heller type cooling process on cooling tower for water-steam cycle against the surface water usage</p> <ul style="list-style-type: none"> <li>- Hydrogen cooling system on generator against the surface or sea water usage with the deep-sea discharge process</li> <li>-monitoring treated waste water quality to comply with the national discharge parameters.</li> <li>-low chemical consumption on demineralized water treatment plant with the ultrafiltration, reverse osmosis and EDI process comparing with the resin column system</li> <li>-waste water discharge temperature monitoring and control with the heat exchanger unit and treatment plant</li> <li>-preventative and corrective maintenance programme on water leakage and losses.</li> <li>-water reuse opportunities on demineralised and raw water is in place.</li> </ul>	<Not Applicable>	<p>Closed &amp; Dry Heller type cooling process on cooling tower for water-steam cycle against the surface water usage</p> <ul style="list-style-type: none"> <li>- Hydrogen cooling system on generator against the surface or sea water usage with the deep-sea discharge process</li> <li>-monitoring treated waste water quality to comply with the national discharge parameters.</li> <li>-low chemical consumption on demineralized water treatment plant with the ultrafiltration, reverse osmosis and EDI process comparing with the resin column system</li> <li>-waste water discharge temperature monitoring and control with the heat exchanger unit and treatment plant</li> <li>-preventative and corrective maintenance programme on water leakage and losses.</li> <li>-water reuse opportunities on demineralised and raw water is in place.</li> </ul>

## 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	Yes	<Not Applicable>
Water withdrawals	Yes	<Not Applicable>
Water, Sanitation, and Hygiene (WASH) services	Yes	<Not Applicable>
Other	Yes	<Not Applicable>

### W8.1b

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

##### Target reference number

Target 1

##### Category of target

Other, please specify (Water withdrawals )

##### Target coverage

Site/facility

##### Quantitative metric

Other, please specify (Decrease of water withdrawals for potable usage)

##### Year target was set

2020

**Base year**

2019

**Base year figure**

35895

**Target year**

2026

**Target year figure**

15000

**Reporting year figure**

23662

**% of target achieved relative to base year**

58.545106484805

**Target status in reporting year**

Underway

**Please explain**

HEAS has achieved reducing potable water usage from 35,895 m3/year to 23,662m3/year in the reporting period.

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**Target reference number**

Target 2

**Category of target**

Water recycling/reuse

**Target coverage**

Site/facility

**Quantitative metric**

Increase in water use met through recycling/reuse

**Year target was set**

2020

**Base year**

2019

**Base year figure**

0

**Target year**

2026

**Target year figure**

165000

**Reporting year figure**

9052

**% of target achieved relative to base year**

5.48606060606061

**Target status in reporting year**

Underway

**Please explain**

The HRSG blowdown reuse project has been commissioned in 2023. The flowmeter will be installed for the real-time monitoring of the reuse water amount from the HRSG blowdown.

In the reporting year, WTP and HRSG boiler's sampling system water reuse project has been commissioned.

The amount of the reuse water from the WTP and HRSG boiler's sampling system is linked with the operation hours of the plant.

The target year figure is an assumption, according to the target year plant's operation hours multiplied by WTP and HRSG boiler's sampling water amount. Also, the HRSG blowdown reuse amount is an estimation that is then added to the other reuse amount to reach the target year figure.

---

**Target reference number**

Target 3

**Category of target**

Water, Sanitation and Hygiene (WASH) services

**Target coverage**

Site/facility

**Quantitative metric**

Other, please specify (Comply with the related regulation on chemical and biological parametre)

**Year target was set**

2013

**Base year**

2014

**Base year figure**

0

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**Target year**

2030

**Target year figure**

100

**Reporting year figure**

100

**% of target achieved relative to base year**

100

**Target status in reporting year**

Achieved

**Please explain**

HEAS conducts monthly third-party biological and chemical parameters analysis to supply safe WASH at all site.

---

**Target reference number**

Target 4

**Category of target**

Water pollution

**Target coverage**

Site/facility

**Quantitative metric**

Reduction in concentration of pollutants

**Year target was set**

2016

**Base year**

2017

**Base year figure**

0

**Target year**

2030

**Target year figure**

100

**Reporting year figure**

100

**% of target achieved relative to base year**

100

**Target status in reporting year**

Achieved

**Please explain**

Industrial wastewater discharge parameters are as follows; conductivity, , dissolved oxygen, oxygen saturation, temperature, COD, TKN, chloride, sulphate, pH, ZSF, iron, oil, total phosphorus, hydrazine and settable solid.

The domestic wastewater discharge parameters are as follows; conductivity, dissolved oxygen, oxygen saturation, temperature, TSS, BOD, COD, pH.

Upstream and downstream samples are taken from the HEAS's discharge point on Bağlar Stream on chemical and biological parameters.

No limit exceed has been occurred in the reporting period.

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**Target reference number**

Target 5

**Category of target**

Product water intensity

**Target coverage**

Site/facility

**Quantitative metric**

Reduction per product

**Year target was set**

2020

**Base year**

2019

**Base year figure**

0.08

**Target year**

2026

**Target year figure**

0.05

**Reporting year figure**

0.06

**% of target achieved relative to base year**

66.666666666667

**Target status in reporting year**

Underway

Please explain

**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	Supply chain	HEAS uses plastic packaging which is covered the procured equipment. HEAS has a waste management plan for hazardous and non-hazardous waste which is prepared by waste sources and category. Plastic waste reuse/recycle requirement has been followed up by HEAS at all site and HEAS's waste management system has been approved and certified by the Ministry of Environmental, Urbanization and Climate Change. Reuse/recycle waste management contracts are in place with the licensed and certified company by the Ministry of Environmental, Urbanization and Climate Change.

**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	Value chain stage	Please explain
Row 1	Yes	Supply chain	HEAS has determined all environmental impact of its activities which comes from the operation, maintenance and administrative activities. HEAS has an impact assessment study that complies with the national and international environmental legislations and ISO 140001 Environmental Management system aspect assessment study on from the cradle to the grave basis for all activities.

**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	Value chain stage	Type of risk	Please explain
Row 1	Not assessed – but we plan to within the next two years	<Not Applicable>	<Not Applicable>	

**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	Increase the proportion of recyclable plastic waste that we collect, sort, and recycle	HEAS has a target of above 70% waste recycling rate which is caused by the usage of disposable plastic water bottles and any other plastic packaging. HEAS has located a water dispenser around all site to decrease the bottled water consumption amount.

**W10.5**

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

	Activity applies	Comment
Production of plastic polymers	No	
Production of durable plastic components	No	
Production / commercialization of durable plastic goods (including mixed materials)	No	
Production / commercialization of plastic packaging	No	
Production of goods packaged in plastics	No	
Provision / commercialization of services or goods that use plastic packaging (e.g., retail and food services)	No	

## 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	Sustainability and HSE Manager	Environment/Sustainability manager

## 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