

# Welcome to your CDP Climate Change Questionnaire 2022

## C0. Introduction

### C0.1

#### **(C0.1) Give a general description 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 1,156 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 the most efficient power plant of 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, has 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. It increased its efficiency level to 61 percent 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 2021 was 7,349 billion kWh.

The project designing of the new power plant has been concluded to fulfill the requirements of the 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 HEAS renovation project. The gas turbines at the facility are air cooled; therefore, no water consumption is of concern. The plant has been furnished by dry Heller type cooling towers for cooling of water-steam cycle. Also two generators are cooled by hydrogen to save water consumption for cooling process. Special environmental management procedures specific to HEAŞ have been established for the purpose of creating minimum environmental impact in the site works and

defining and following control measures in 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 fulfillment of the located legal requirements. Prior to 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, waste water and water management issues, greenhouse gas emission monitoring, reporting and third party verification.

The foundations of energy efficiency transformation of HEAŞ was said in 2015 via renovation project with the high awareness of energy efficient.

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 of 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.

HEAS has calculated, monitored and verified his category 1.1. Direct GHG Emission from sanitary combustion process since 2014.

## C0.2

**(C0.2) State the start and end date of the year for which you are reporting data.**

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1, 2021	December 31, 2021	Yes	3 years

## C0.3

**(C0.3) Select the countries/areas in which you operate.**

Turkey

## C0.4

**(C0.4) Select the currency used for all financial information disclosed throughout your response.**

EUR

## C0.8

**(C0.8) 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
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## C1. Governance

### C1.1

**(C1.1) Is there board-level oversight of climate-related issues within your organization?**

Yes

### C1.2

**(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.**

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO) ☞ <sub>1</sub>	Managing climate-related risks and opportunities ☞ <sub>2</sub>	More frequently than quarterly

☞<sub>1</sub>CEO is a member of HEAS Sustainability Committee.

☞<sub>2</sub>CEO is the decision maker for HEAS carbon 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. HEAS publishes Sustainability Report periodically and updating the sustainability map conducted with the HEAS and Limak Group of Companies Sustainability Committee periodically. Sustainability activities and targets are prioritized and discussed on board of management meetings on more frequently than quarterly period.

### C1.3

**(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?**

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	<p>HEAS has a commitment to encourage to all team members to decrease the environmental impact and GHG emission on his environmental policy. There are no dedicated monetary reward program for the achievement of the related targets.</p> <p>for non-monetary reward program, HEAS has personal performance monitoring system for his 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.</p> <p>To comply with any legislation and standard requirements, during planning and execution of their activities is assigned for president and all managers.</p> <p>Reduction of GHG emission target is assigned to general manager, operation, maintenance and Asst. HSE, administrative service manager on annually personal targets.</p> <p>Employee awareness campaign and training program target are assigned on HSE and human resources manager.</p>

## C2. Risks and opportunities

### C2.1

**(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?**

No

### C2.2g

**(C2.2g) Why does your organization not have a process in place for identifying, assessing, and responding to climate-related risks and opportunities, and do you plan to introduce such a process in the future?**

	Primary reason	Please explain
Row 1	We are planning to introduce a climate-related risk management process in the next two years	<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. 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</p>

		<p>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 climate related risks and opportunities are addressed 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.</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 and opportunity assessment study will be finalized in 2022 according to CDP expectation.</p>
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### C2.3

**(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?**

No

### C2.3b

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

	Primary reason	Please explain
Row 1	Evaluation in process	HEAS has climate-related risks on current and emerging regulations, especially Turkey's carbon mechanism, which is outcome of European Green Deal and Paris Agreement, evaluation process is in progress to enlarge the current study scope which is parallel in CDP expectation.

### C2.4

**(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes, we have identified opportunities but are unable to realize them

## C2.4b

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

	Primary reason	Please explain
Row 1	Opportunities exist, but we are unable to realize them	HEAS has climate-related opportunities on current and emerging regulations, especially Turkey's carbon mechanism, which is outcome of European Green Deal and Paris Agreement, evaluation process is in progress to enlarge the current study scope which is parallel in CDP expectation..

## C3. Business Strategy

### C3.1

**(C3.1) Does your organization's strategy include a transition plan that aligns with a 1.5°C world?**

Row 1

#### Transition plan

No, but our strategy has been influenced by climate-related risks and opportunities, and we are developing a transition plan within two years

#### Explain why your organization does not have a transition plan that aligns with a 1.5°C world and any plans to develop one in the future

HEAS has calculated and monitored his GHG emission since 2018 for his new power plant to generate transition plan in very well manner. We are working on contributing Limak Holding climate strategy. HEAS will be announced his climate policy and road map to decrease GHG emission within two years.

## C4. Targets and performance

### C4.1

**(C4.1) Did you have an emissions target that was active in the reporting year?**

No target

### C4.1c

**(C4.1c) Explain why you did not have an emissions target, and forecast how your emissions will change over the next five years.**

Primary reason	Five-year forecast	Please explain
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Row 1	We are planning to introduce a target in the next two years	HEAS has monitored his carbon intensity since 2018. We set carbon cap as 0,400 tCO2e/MWh for scope 1 emission. Emission intensity is 0,381 tonCO2e/Mhw in 2018, 0,350 tonCO2e/Mhw in 2019, 0,340 tonCO2e/Mhw in 2020, 0,337 tonCO2e/Mhw in 2021 respectively. HEAS is working on installation of solar project to provide his internal electricity consumption from this source, through we will reduce our internal use by fossil fuel.	HEAS has monitored his carbon intensity since 2018. We set carbon cap as 0,400 tCO2e/MWh for scope 1 emission. Emission intensity is 0,381 tonCO2e/Mhw in 2018, 0,350 tonCO2e/Mhw in 2019, 0,340 tonCO2e/Mhw in 2020, 0,337 tonCO2e/Mhw in 2021 respectively. HEAS is working on installation of solar project to provide his internal electricity consumption from this source, through we will reduce our internal use by fossil fuel.
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## C4.2

**(C4.2) Did you have any other climate-related targets that were active in the reporting year?**

No other climate-related targets

## C4.3

**(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.**

Yes

## C4.3b

**(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.**

### Initiative category & Initiative type

Waste reduction and material circularity

Other, please specify

Waste management activities - disposal category changed landfill to anaerobic digestion

### Estimated annual CO2e savings (metric tonnes CO2e)

6.02

### Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 3 category 5: Waste generated in operations

### Voluntary/Mandatory

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

0

**Investment required (unit currency – as specified in C0.4)**

0

**Payback period**

<1 year

**Estimated lifetime of the initiative**

<1 year

**Comment**

HEAS has changed the disposal method for garden waste. Annual monetary saving has been reported as 0 due to the disposal contract condition for payment.

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**Initiative category & Initiative type**

Transportation

Other, please specify

Site good and personnel transport activity - mobile combustion fossil fuel reduction

**Estimated annual CO2e savings (metric tonnes CO2e)**

17.67

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

5,065

**Investment required (unit currency – as specified in C0.4)**

0

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

HEAS uses the electrical tricycle instead of fossil fuel cars to transport of employee and goods in site area.



## C5. Emissions methodology

### C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

Yes

### C5.2

(C5.2) Provide your base year and base year emissions.

#### Scope 1

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**Base year start**

January 1, 2021

**Base year end**

December 31, 2021

**Base year emissions (metric tons CO<sub>2</sub>e)**

2,528,689.63

**Comment**

The emissions has been calculated and reported according to ISO 14064-1:2018 Greenhouse gases — Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals.

#### Scope 2 (location-based)

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**Base year start**

January 1, 2021

**Base year end**

December 31, 2021

**Base year emissions (metric tons CO<sub>2</sub>e)**

1,729.12

**Comment**

Scope 2 emission was calculated for electricity import from the national energy grid system. Internal electricity need is feed by on his power generation system. Electircity counsumption amount multiplied by location based emission factor is defined by Republic of Türkiye of Ministry of Energy and Natural Resources for Turkish grid system.

#### Scope 2 (market-based)

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**Base year start**

### **Base year end**

### **Base year emissions (metric tons CO2e)**

### **Comment**

Scope 2 emission was calculated for electricity import from the national energy grid system. Internal electricity need is feed by on his power generation system. Electircity counsumption amount multiplied by location based emission factor is defined by Republic of Türkiye of Ministry of Energy and Natural Resources for Turkish grid system. Market based emission has not been calculated.

### **Scope 3 category 1: Purchased goods and services**

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#### **Base year start**

January 1, 2021

#### **Base year end**

December 31, 2021

#### **Base year emissions (metric tons CO2e)**

809.35

#### **Comment**

### **Scope 3 category 2: Capital goods**

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#### **Base year start**

January 1, 2021

#### **Base year end**

December 31, 2021

#### **Base year emissions (metric tons CO2e)**

46,583.03

#### **Comment**

### **Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)**

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#### **Base year start**

January 1, 2021

#### **Base year end**

December 31, 2021

#### **Base year emissions (metric tons CO2e)**

430,509.4

**Comment**

**Scope 3 category 4: Upstream transportation and distribution**

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**Base year start**

January 1, 2021

**Base year end**

December 31, 2021

**Base year emissions (metric tons CO2e)**

24,048.96

**Comment**

**Scope 3 category 5: Waste generated in operations**

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**Base year start**

January 1, 2021

**Base year end**

December 31, 2021

**Base year emissions (metric tons CO2e)**

18.53

**Comment**

**Scope 3 category 6: Business travel**

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**Base year start**

January 1, 2021

**Base year end**

December 31, 2021

**Base year emissions (metric tons CO2e)**

23.4

**Comment**

**Scope 3 category 7: Employee commuting**

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**Base year start**

January 1, 2021

**Base year end**

December 31, 2021

**Base year emissions (metric tons CO2e)**

38.61

**Comment**

**Scope 3 category 8: Upstream leased assets**

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**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3 category 9: Downstream transportation and distribution**

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**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3 category 10: Processing of sold products**

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**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3 category 11: Use of sold products**

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**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3 category 12: End of life treatment of sold products**

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**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3 category 13: Downstream leased assets**

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**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3 category 14: Franchises**

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**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

### Scope 3 category 15: Investments

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**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

### Scope 3: Other (upstream)

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**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

### Scope 3: Other (downstream)

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**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

## **C5.3**

**(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.**

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

ISO 14064-1

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

The Greenhouse Gas Protocol: Scope 2 Guidance

## C6. Emissions data

### C6.1

**(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO<sub>2</sub>e?**

#### Reporting year

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**Gross global Scope 1 emissions (metric tons CO<sub>2</sub>e)**

2,528,687.203

**Start date**

January 1, 2021

**End date**

December 31, 2021

**Comment**

#### Past year 1

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**Gross global Scope 1 emissions (metric tons CO<sub>2</sub>e)**

1,984,311.81

**Start date**

January 1, 2020

**End date**

December 31, 2020

**Comment**

In 2020, energy generation amount has been effected negatively due to the COVID-19 pandemic reasons so GHG emission has been reported less than 2021.

#### Past year 2

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**Gross global Scope 1 emissions (metric tons CO<sub>2</sub>e)**

1,043,136.15

**Start date**

January 1, 2019

**End date**

December 31, 2019

**Comment**

In 2019, HEAS'S one combine cycle block was in forced outage so GHG amounts is less than previous year.

**Past year 3**

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**Gross global Scope 1 emissions (metric tons CO2e)**

2,238,857.72

**Start date**

January 1, 2018

**End date**

December 31, 2018

**Comment**

## C6.2

**(C6.2) Describe your organization's approach to reporting Scope 2 emissions.**

**Row 1**

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**Scope 2, location-based**

We are reporting a Scope 2, location-based figure

**Scope 2, market-based**

We have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

**Comment**

Scope 2 emission was calculated for electricity import from the national energy grid system. Internal electricity need is feed by on his power generation system. Electircity counsumption amount multiplied by location based emission factor which is defined by Republic of Türkiye of Ministry of Energy and Natural Resources for Turkish grid system. HEAS has no special electricity purchase contract with other parties.

## C6.3

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

**Reporting year**

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**Scope 2, location-based**

1,729.12

**Start date**

January 1, 2021



**End date**

December 31, 2021

**Comment**

HEAS supply the electricity from his plant and national grid system for his internal consumption. HEAS has used national emission factor which was announced by Republic of Türkiye Ministry of Energy and Natural Resources for scope 2 emission calculation.

**Past year 1**

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**Scope 2, location-based**

3,856.6

**Start date**

January 1, 2020

**End date**

December 31, 2020

**Comment**

HEAS has used national emission factor which was announced by Republic of Türkiye Ministry of Energy and Natural Resources for scope 2 emission calculation. This emission factor has been announced in 2021 which is the represented 2020 year.

**Past year 2**

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**Scope 2, location-based**

5,826.04

**Start date**

January 1, 2019

**End date**

December 31, 2019

**Comment**

**Past year 3**

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**Scope 2, location-based**

5,651.36

**Start date**

January 1, 2018

**End date**

December 31, 2018

**Comment**

## C6.5

**(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.**

### **Purchased goods and services**

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**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO<sub>2</sub>e)**

19,678.47

**Emissions calculation methodology**

Spend-based method

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

0

**Please explain**

GHG Protocol Quantis-suite has been used to calculate scope 3 emissions. HEAS uses supplier bills to determine the purchase amount of goods and services.

### **Capital goods**

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**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO<sub>2</sub>e)**

46,583.03

**Emissions calculation methodology**

Spend-based method

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

0

**Please explain**

GHG Protocol Quantis-suite has been used to calculate scope 3 emissions. HEAS uses supplier bills to determine the purchase amount of capital goods.

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

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**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO<sub>2</sub>e)**

430,509.04

**Emissions calculation methodology**

Fuel-based method

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

0

**Please explain**

HEAS uses supplier purchase bill to determine the consumption of fuel amount. DEFRA is used to obtain the related emissions factors.

**Upstream transportation and distribution**

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**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO2e)**

24,048.96

**Emissions calculation methodology**

Distance-based method

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

0

**Please explain**

DEFRA is used for emissions factors.

**Waste generated in operations**

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**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO2e)**

18.53

**Emissions calculation methodology**

Waste-type-specific method

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

0

**Please explain**

DEFRA is used for emissions factors.

**Business travel**

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**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO2e)**

23.4

**Emissions calculation methodology**

Distance-based method

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

0

**Please explain**

The hotel stays have been included in the business travel category. DEFRA is used for emissions factors.

**Employee commuting**

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**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO2e)**

38.61

**Emissions calculation methodology**

Distance-based method

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

0

**Please explain**

HEAS uses supplier purchase bill to determine the distance for employee commuting. DEFRA is used for emissions factors.

**Upstream leased assets**

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**Evaluation status**

Not relevant, explanation provided

**Please explain**

HEAS has no upstream leased assets emission in 2021.

**Downstream transportation and distribution**

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**Evaluation status**

Not relevant, explanation provided

**Please explain**

HEAS has no downstream transportation and distribution in 2021.

## Processing of sold products

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### Evaluation status

Not relevant, explanation provided

### Please explain

HEAS has no processing of sold products emission in the reporting year.

## Use of sold products

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### Evaluation status

Not relevant, explanation provided

### Please explain

HEAS is responsible to dispatch the electricity to the grid system so Use of sold products emission has not been calculated due the responsibilities area.

## End of life treatment of sold products

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### Evaluation status

Not relevant, explanation provided

### Please explain

HEAS is responsible to dispatch the electricity to the grid system so End of life treatment of sold products emission has not been applicable for HEAS

## Downstream leased assets

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### Evaluation status

Not relevant, explanation provided

### Please explain

HEAS is responsible to dispatch the electricity to the grid system.

## Franchises

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### Evaluation status

Not relevant, explanation provided

### Please explain

HEAS has no franchises bodies.

## Investments

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### Evaluation status

Not relevant, explanation provided

### Please explain

HEAS has no investments.

## Other (upstream)

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**Evaluation status**

Not relevant, explanation provided

**Please explain**

HEAS has calculated and reported all scope 3 emission in the related scope.

**Other (downstream)**

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**Evaluation status**

Not relevant, explanation provided

**Please explain**

HEAS has calculated and reported all scope 3 emission in the related scope.

## C6.5a

**(C6.5a) Disclose or restate your Scope 3 emissions data for previous years.**

**Past year 1**

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**Start date**

January 1, 2020

**End date**

December 31, 2020

**Scope 3: Purchased goods and services (metric tons CO2e)**

2,989.93

**Scope 3: Capital goods (metric tons CO2e)**

27.19

**Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)  
(metric tons CO2e)**

320,484

**Scope 3: Upstream transportation and distribution (metric tons CO2e)**

4.44

**Scope 3: Waste generated in operations (metric tons CO2e)**

9.5

**Scope 3: Business travel (metric tons CO2e)**

0

**Scope 3: Employee commuting (metric tons CO2e)**

28.61

**Scope 3: Upstream leased assets (metric tons CO2e)**

0

**Scope 3: Downstream transportation and distribution (metric tons CO2e)**

0

**Scope 3: Processing of sold products (metric tons CO2e)**

0

**Scope 3: Use of sold products (metric tons CO2e)**

0

**Scope 3: End of life treatment of sold products (metric tons CO2e)**

0

**Scope 3: Downstream leased assets (metric tons CO2e)**

0

**Scope 3: Franchises (metric tons CO2e)**

0

**Scope 3: Investments (metric tons CO2e)**

0

**Scope 3: Other (upstream) (metric tons CO2e)**

0

**Scope 3: Other (downstream) (metric tons CO2e)**

0

**Comment**

HEAS has calculated and verified at the first time in 2021 for scope 3 emission. 2020 scope 3 emission has been calculated by quantis scope 3 evaluator.

**Past year 2**

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**Start date**

**End date**

**Scope 3: Purchased goods and services (metric tons CO2e)**

**Scope 3: Capital goods (metric tons CO2e)**

**Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)  
(metric tons CO2e)**

**Scope 3: Upstream transportation and distribution (metric tons CO2e)**

**Scope 3: Waste generated in operations (metric tons CO2e)**

**Scope 3: Business travel (metric tons CO2e)**

**Scope 3: Employee commuting (metric tons CO2e)**

**Scope 3: Upstream leased assets (metric tons CO2e)**

**Scope 3: Downstream transportation and distribution (metric tons CO2e)**

**Scope 3: Processing of sold products (metric tons CO2e)**

**Scope 3: Use of sold products (metric tons CO2e)**

**Scope 3: End of life treatment of sold products (metric tons CO2e)**

**Scope 3: Downstream leased assets (metric tons CO2e)**

**Scope 3: Franchises (metric tons CO2e)**

**Scope 3: Investments (metric tons CO2e)**

**Scope 3: Other (upstream) (metric tons CO2e)**

**Scope 3: Other (downstream) (metric tons CO2e)**

**Comment**

HEAS has calculated and reported at the first time in 2021 for scope 3 emission.

**Past year 3**

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**Start date**

**End date**

**Scope 3: Purchased goods and services (metric tons CO2e)**



**Scope 3: Capital goods (metric tons CO2e)**

**Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)  
(metric tons CO2e)**

**Scope 3: Upstream transportation and distribution (metric tons CO2e)**

**Scope 3: Waste generated in operations (metric tons CO2e)**

**Scope 3: Business travel (metric tons CO2e)**

**Scope 3: Employee commuting (metric tons CO2e)**

**Scope 3: Upstream leased assets (metric tons CO2e)**

**Scope 3: Downstream transportation and distribution (metric tons CO2e)**

**Scope 3: Processing of sold products (metric tons CO2e)**

**Scope 3: Use of sold products (metric tons CO2e)**

**Scope 3: End of life treatment of sold products (metric tons CO2e)**

**Scope 3: Downstream leased assets (metric tons CO2e)**

**Scope 3: Franchises (metric tons CO2e)**

**Scope 3: Investments (metric tons CO2e)**

**Scope 3: Other (upstream) (metric tons CO2e)**

**Scope 3: Other (downstream) (metric tons CO2e)**

**Comment**

HEAS has calculated and reported at the first time in 2021 for scope 3 emission.

## C6.10

**(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO<sub>2</sub>e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.**

---

**Intensity figure**

0.337

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO<sub>2</sub>e)**

2,530,071.75

**Metric denominator**

megawatt hour generated (MWh)

**Metric denominator: Unit total**

7,503,453

**Scope 2 figure used**

Location-based

**% change from previous year**

0.8

**Direction of change**

Decreased

**Reason for change**

HEAS's scope 1+2 emission was 2,530,071.75 ton CO<sub>2</sub>e in 2021 and 1,988,168.41 ton CO<sub>2</sub>e in 2020. 2020 emission intensity was recorded as 0.340 tCO<sub>2</sub>e/Mwh which was higher than reporting year.

Due to the pandemic reason power generation amount decreased and internal electricity consumption amount has been increased which was feeded by national grid system in 2020.

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**Intensity figure**

0.00669

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO<sub>2</sub>e)**

2,530,071.75

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

378,201,834

**Scope 2 figure used**

Location-based

**% change from previous year**

15

**Direction of change**

Decreased

**Reason for change**

2021 HEAS's total revenue has been increased 33%, due to higher power generation amount than 2020.

## C7. Emissions breakdowns

### C7.9

**(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?**

Increased

## C8. Energy

### C8.2

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

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	No

## C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	13,096,788.21	13,096,788.21
Consumption of purchased or acquired electricity		0	3,929.82	3,929.82
Total energy consumption		0	13,100,718.03	13,100,718.03

## C12. Engagement

### C12.1

**(C12.1) Do you engage with your value chain on climate-related issues?**

Yes, our suppliers

### C12.2

**(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?**

Yes, climate-related requirements are included in our supplier contracts

## C16. Signoff

### C-FI

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

### C16.1

**(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.**

	Job title	Corresponding job category
Row 1	Assistant Environment, Health and Safety Manager	Environmental, health and safety manager

## Submit your response

**In which language are you submitting your response?**

English

**Please confirm how your response should be handled by CDP**

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

**Please confirm below**

I have read and accept the applicable Terms