



# CLIMATE AND NATURE RELATED RISKS AND OPPORTUNITIES REPORT 2024

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fark yarat

TCFD | TASK FORCE ON  
CLIMATE-RELATED  
FINANCIAL  
DISCLOSURES



CEZ GROUP

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## About the Report



### Materiality Approach

A materiality approach has been adopted in accordance with the International Sustainability Standards Board (ISSB) guidelines and Global Reporting Initiative (GRI) impact materiality processes. Based on available data, impacts and dependencies on nature have been assessed and risks and opportunities have been identified accordingly. In addition, disclosures have been harmonised with Target 15 of the Global Biodiversity Framework.

Akenerji's nature and climate issues are supported by the Sustainability Policy and Energy Management Policy and integrated into business strategies. Potential benefits and the significance of risks are assessed in line with corporate strategic criteria, including metrics related to reputation, compliance, strategic, operational and financial risks.

### Scope of the statement

This report aims to respond to the main recommendations of the Task-force on Climate-related Financial Disclosures (TCFD) and the Task-force on Nature-related Financial Disclosures (TNFD) in an integrated reporting format. Akenerji aims to gradually expand not only its own activities, but also both upstream and downstream value chain assessments in the following reporting periods.

### Location-specificity of climate and nature-related dependencies, impacts, risks and opportunities

Akenerji recognises that climate and environmental issues may vary regionally and acknowledges the need to implement a region-specific strategy when addressing these issues. Accordingly, most of the analyses in the report focus on environmental issues in the areas of operation. Natural capital assessments take into account the impacts on ecosystem services in the areas of operation.

### Integration with other sustainability-related disclosures

Akenerji's disclosures on climate and nature are in line with other sustainability disclosures. Sustainability Reports on environmental impacts, risks and opportunities are a holistic report that utilises both TCFD and TNFD frameworks to provide additional context to Integrated Reports and Carbon Disclosure Project (CDP) reports.

### Reporting year and date of issue considered

This report is based on data for 2023 and includes Akenerji's status and future strategies to increase its resilience against climate change.

### Publication date

November 2024

### Stakeholder engagement

The fundamental principle of Akenerji is to adopt a transparent, accountable, fair and responsible management approach towards its stakeholders in compliance with legal regulations. The Company has established an accessible and open communication platform with all stakeholders. The Company conducted a stakeholder analysis to determine the impacts of climate-related risks and opportunities and how they are perceived by stakeholders.



## About the Company

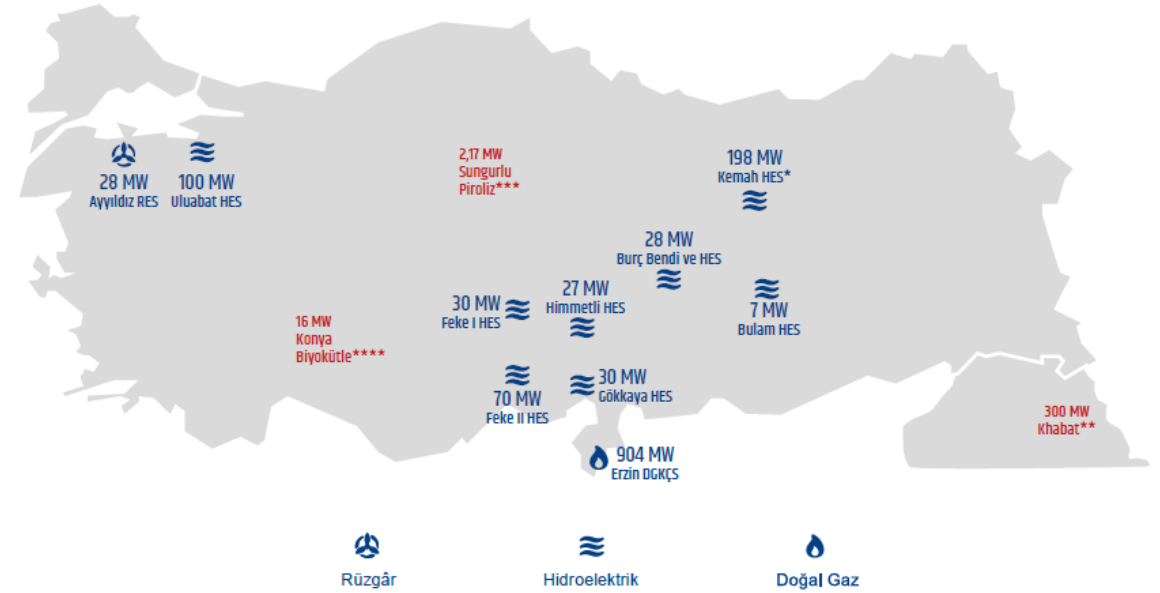
Akenerji is the first company from Turkey to become a member of the European Energy Exchange. Akenerji, which started its operations as an autoproducer group within the Akkök Group of Companies in 1989, has been operating in the sector as an independent electricity generation company since 2005.

The Company, a 50%-50% strategic partnership between Akkök Holding and CEZ Group, one of Europe's leading energy companies, has the capacity to meet approximately 2.5% of Turkey's energy demand with an installed capacity of 1,224 MW. With 35 years of know-how and a pioneering stance, the Company sets an example in the sector and aims to maintain its balanced portfolio structure in order to maintain its strong position in the sector and make electricity supply even more secure.

Akenerji, one of Turkey's most established companies with 35 years of experience in the energy sector, continued to optimally operate its existing power plants and develop new renewable energy projects that will create added value in 2023. By the end of 2023, renewable energy sources will account for 26% of Akenerji's installed capacity, with 7 hydroelectric and 1 wind power plant with a total capacity of 320 MW, which were commissioned gradually.

## Our Sustainability Vision

To be a pioneering company that leads the sector by utilising the opportunities and risks arising from economic, environmental and social developments by ensuring the best use of renewable resources in the transition to a carbon-free economy.



\*Kemah is in the project stage.

\*\*Khabat - Operation and Maintenance Services

\*\*\*Sungurlu - Construction Management, Operation and Maintenance Services

\*\*\*\*Konya - Construction Management, Operation and Maintenance Services

## Our Sustainability Mission

To create value for all stakeholders by managing our environmental, economic and social impacts.

## Sustainability-Oriented Corporate Culture and Values

Our corporate culture is managed with a structure that keeps our organisation together by integrating with our sustainability approach and enables us to fulfil our environmental, social and economic responsibilities. This culture is based on common beliefs and values.

## Management Oversight and Role in Climate and Nature Issues

The Board of Directors determines the strategic goals of the Company, provides the labour and financial resources it will need and supervises the performance of the management. It oversees the compliance of the Company's activities with the legislation, Articles of Association, internal regulations and established policies. It also reviews the level of achievement of the Company's targets, its activities and past performance.

Akenerji supports corporate governance practices with management systems.

Integrated Management Systems:

- ISO 9001:2015 Quality Management System
- ISO 14001: 2015 Environmental Management System
- ISO 45001: 2018 Occupational Health and Safety Management System
- ISO 27001:2022 Information Security Management System
- ISO 50001: 2018 Energy Management System
- ISO 27019:2020: Energy Infrastructure Information Security

The Board of Directors is authorised to establish risk management systems and information systems that will minimise the effects of risks, taking into account the opinions of the relevant Board committees. Within the scope of risk management, necessary systems are established, actions are taken, and monitoring activities are carried out in order to ensure that risks and opportunities that may affect the Company's objectives are identified, evaluated and managed within the framework of the policies determined by the Board of Directors. Risks with high-risk scores are monitored at the Board of Directors level, detailed action plans are created, and a risk owner is assigned for each risk.

The Company's Risk Appetite Statement, approved by the Akenerji Board of Directors and updated in line with sectoral and corporate developments, is used as a guide for the implementation of risk mitigation activities in all business units. The Board of Directors reviews the effectiveness of risk management and internal control systems at least once a year.



In 2023, the Board of Directors convened 5 times and assessed that the Company has achieved its operational and financial performance targets for 2023.

Duties and working principles of the committees responsible for the management of climate risks Committees are determined by the Board of Directors. These committees are the Audit Committee, Corporate Governance Committee, Early Detection of Risk Committee and Sustainability Committee.

### Akenerji Sustainability Committee



### Sustainability Committee

The Sustainability Committee was established by the Board of Directors in order to carry out Environmental, Social and Corporate Governance (ESG) activities, to establish and monitor the necessary policies, and to carry out activities in accordance with the Sustainability Principles Compliance Framework. It has been decided that the Committee will be led by the Assistant General Manager of Production and the committee members will consist of the managers of Sustainability, Occupational Health and Safety, Strategic Planning and Risk, Operations and Maintenance, Human Resources, Corporate Communications, Treasury and Finance, Trade Optimisation, Asset Management and Special Products, Electricity Trade, Natural Gas Trade, Energy Services and Purchasing Departments.

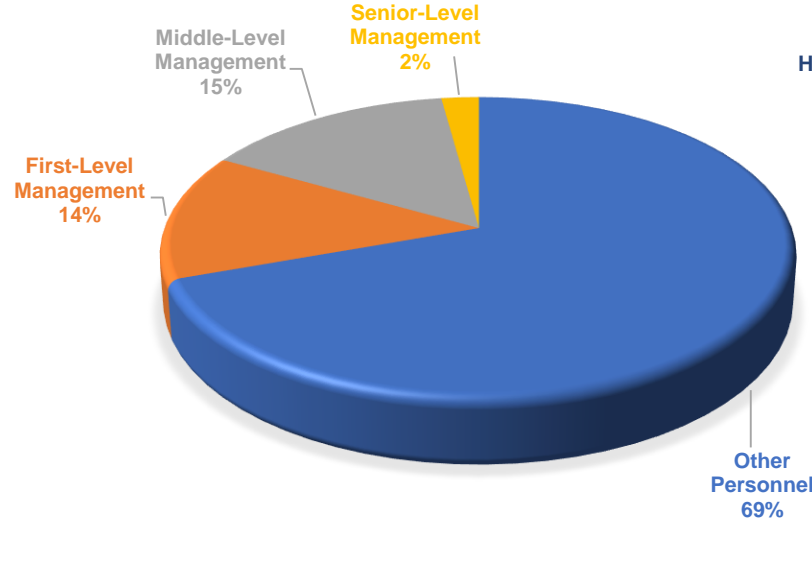
## Stakeholder Engagement

At Akenerji, human resources are managed with a modern Human Resources Policy based on equal opportunities and respect for human rights.

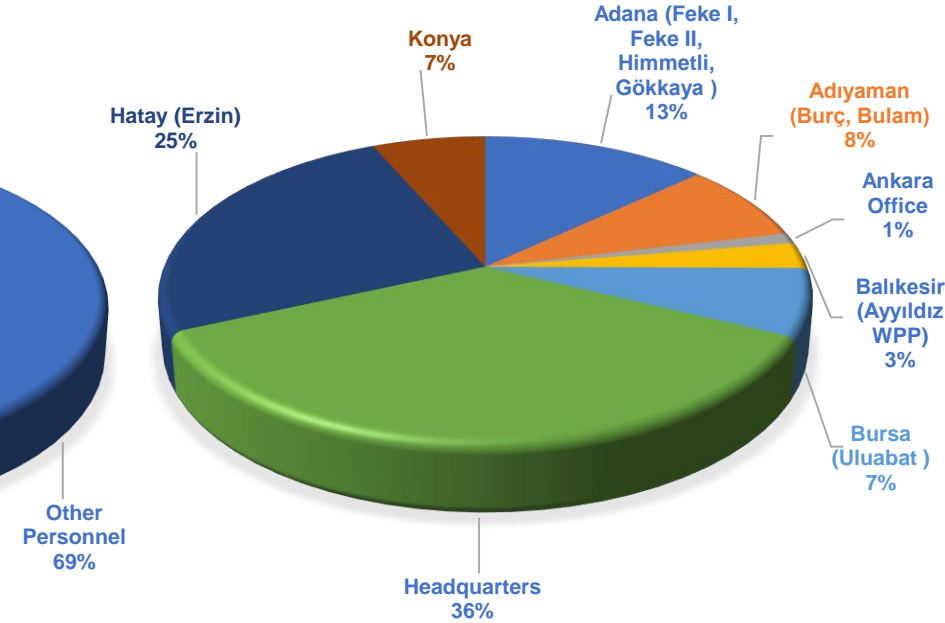
Stakeholders were analysed through a survey conducted with the participation of Akenerji executives and the key stakeholders of the company were identified in two groups. As of 2022, the aim is to review key stakeholders every two years and develop communication platforms in this direction. The sustainability priorities identified through Akenerji's stakeholder engagement activities support the UN Sustainable Development Goals.

In addition to the prioritisation assessment, 183 people participated in the stakeholder assessment conducted this year to ensure stakeholder participation in the management of climate and nature-related risks and opportunities, and to receive opinions, suggestions and expectations. Among the participants, 2% were senior management, 15% middle management, 14% first line management and 69% other employees. Stakeholders assessed physical and transition risks and provided opinions on their likelihood and impact. As a result of these assessments, stakeholder views on physical risks, such as water stress, heat waves, severe storms and forest fires, and transition risks, such as raw material cost increases, market uncertainties and carbon pricing schemes, were gathered and incorporated into Akenerji's risk management strategic decision-making processes. These stakeholder contributions supported the creation of a holistic risk management approach that also takes into account the financial impacts of physical and transition risks.

### GROUP-BASED SURVEY PARTICIPATION



### LOCATION-BASED SURVEY PARTICIPATION



Participant Group	2024 Number of Participants	2024 Participant Rate	2023 Number of Participants	2023 Participant Rate
Senior Management (CEO, Assistant General Manager, Director)	4	2,2	2	0.82
Middle Management (Manager, Coordinator, Counsellor)	26	14.2	26	10.7
First Level Management (Assistant Manager, Supervisor)	25	13.7	18	7.41
Other Personnel (Senior Expert, Expert, Assistant Expert, Assistant Consultant, Assistant, Engineer, Operator, Technician, Supervisor, Support Personnel)	128	69.9	197	81.07
<b>Number of Participants</b>	<b>183</b>	<b>100,0</b>	<b>243</b>	<b>100</b>

## Strategy

### Akenerji's Approach to Climate and Nature Risks and Opportunities

Akenerji conducted dependency, impact, risk and opportunity assessments in order to comply with international standards and integrate climate and nature-based risk and opportunity analyses into processes in addition to corporate risk analyses.

Climate change and loss of nature are expected to affect Akenerji's operations in the short, medium and long term. The maturities determined by the Company for risks and opportunities related to climate and nature are given below.

Maturity	Time Period (Year)	Years
Short	0-2	2023-2025
Centre	3-5	2026-2039
Long	6-20	2040-2055

In parallel with the TCFD (Task Force on Climate-related Financial Disclosures) and TNFD (Task Force on Nature-related Financial Disclosures) reporting framework, an inclusive dependency, impact, risk and opportunity inventory was created, and a workshop was organised accordingly. Within the scope of the workshop, a total of 10 risks, two physical and eight transition risks, were analysed together with risk maturity, risk category, existing controls, financial impact assessments and action plans. Nature-related dependencies and impacts on nature were analysed in the Strategy section, specific to power plants. Details of physical and transition risks and existing controls are given under each risk heading.

This report integrates climate and nature explanations and summarises dependencies, impacts, risks and opportunities under the following five categories. As the dependencies and impacts of hydroelectric, wind and natural gas combined cycle power plants differ, dependencies and impacts have been assessed separately for each type of power plant.

Maturity	Time Period (Year)
<b>Dependency</b>	Environmental resources and ecosystem services that the organisation needs to sustain its activities.
<b>Impacts</b>	Qualitative or quantitative changes in the state of nature can affect the capacity of nature to provide social and economic services. These changes may occur directly, indirectly or cumulatively.
<b>Physical Risks</b>	Acute risks (heat waves, floods) Chronic risks (long-term chronic trends, e.g. temperature, precipitation)
<b>Transition Risks</b>	Policy and Legislation Market Technology Reputation Liability (Legal)
<b>Opportunities</b>	The use of substitutes for natural resources represents new opportunities for improved business performance arising from activities that support ecosystem protection and restoration.

Climate-related Physical Risks and Existing Controls				
Risk Description	Risk Maturity	TCFD Risk Category	Risk Rating	Existing Controls
Physical risks such as disruptions/stoppages of operations, damage to facilities, and impacts on employees (increased health problems, deterioration of physical working conditions, etc.) due to disasters such as river floods and floods caused by extreme weather events such as storms or heavy rains	Long	Acute	Very Low	<ul style="list-style-type: none"> <li>Regular maintenance and inspection work is carried out to prevent equipment breakdowns against extreme weather conditions.</li> <li>Flood barriers and drainage systems are implemented for river flooding and rain management.</li> <li>Emergency Response Plans are in place for severe weather events.</li> <li>Training programmes are organised for employees on safety protocols during extreme weather conditions.</li> <li>Continuous monitoring of weather forecasts and early warning systems are used.</li> <li>Co-operation with local authorities for coordinated disaster response.</li> </ul>
Decrease in the amount of HEPP production due to extreme heat and drought	Long	Chronic	Low	<ul style="list-style-type: none"> <li>The commercial department carries out regular monitoring of water levels, wind, weather conditions and seasonal transitions. In this context, monitoring and forecasting activities are carried out.</li> <li>In line with the weekly water flow forecasts, the annual plans are revised according to the changes during the year.</li> <li>During rainy periods, the production capacity of hydroelectric power plants (HPPs) reaches maximum levels and energy supply increases significantly. During these periods, the high generation capacity of HEPPs reduces the demand for natural gas power plants. In order to maintain this balance in the energy generation portfolio, natural gas power plants adapt to demand by reducing their production. Thus, alternative energy sources are activated against possible production decreases in HEPPs, ensuring continuity in energy supply.</li> </ul>
Climate-related Transition Risks and Existing Controls				
Being subject to a possible carbon pricing mechanism (Emission Trading System (ETS), carbon tax, etc.) and incurring high financial costs	Short	Policy and Legislation	Middle	<p>The projections for the ETS, which is due to come into operation in 2026, are being assessed in the context of the Turkish electricity market. In the early stages of the system, certain free allocations will be provided to power plants and factories in parallel with the practices in Europe. Pricing is based on current EUA futures market prices. Moreover, carbon prices are expected to reach European levels over time. Carbon pricing has been included in long-term electricity price forecasts since 2012.</p> <p>Although carbon costs are an important cost item for Erzin Natural Gas Combined Cycle Power Plant, it is taken into consideration that fossil fuel power plants in Turkey, especially lignite and imported coal power plants have higher carbon emissions compared to natural gas power plants. This situation is foreseen that carbon costs will be reflected in market prices and the revenues of Erzin Power Plant will increase relatively in parallel with this.</p>



## Climate-related Transition Risks and Existing Controls

Risk Description	Risk Maturity	TCFD Risk Category	Risk Rating	Existing Controls
<b>Changing investor/lender expectations to be sensitive to climate change (difficulty in accessing capital/financing) and failure to meet expectations</b>	Long	Market	Very Low	<p>The financing of the Company's current investments has been realised under the most favourable conditions and no adverse situation is expected to affect the financing of future investments. Although fund providers may emphasise the renewable energy condition for new projects, the current investments and financing structure are not affected by this situation.</p> <p>However, the introduction of a renewable energy obligation in the financing of planned investments has the potential to have a negative impact on costs. However, such risks are closely monitored, and the company's financial strategies are managed to adapt to these changing expectations.</p>
<b>Increase in insurance costs due to climate change</b>	Short	Market	Very Low	<p>With the existing controls, Akenerji aims to maximise operational safety and meet insurance requirements. The following control mechanisms minimise various risks at power plants, protect against the adverse effects of climate change and ensure the reliability of power plants in the eyes of insurance companies.</p> <p><b>For Natural Gas Combined Cycle Power Plants (NGCCPP):</b></p> <ul style="list-style-type: none"> <li>• Active protection is provided by using instrument and control systems against gas leakage and fire risks in gas turbines.</li> <li>• Regular maintenance and controls of fire detection and protection systems are carried out in accordance with the relevant procedures.</li> <li>• Explosion-proof equipment is used for explosive atmospheres and periodic maintenance of this equipment is carried out.</li> <li>• Periodic inspections of the sea water intake structures are carried out by divers.</li> <li>• Gas turbine air intake filters are periodically checked to prevent excessive contamination due to desert dust storms.</li> </ul> <p><b>For Hydroelectric Power Plants (HPP):</b></p> <ul style="list-style-type: none"> <li>• Incoming water flows are continuously monitored with the existing flow observation stations.</li> <li>• Water levels of regulators and dam structures are monitored 24 hours a day.</li> <li>• Production plans are dynamically updated according to the amount of incoming water.</li> <li>• Slope movements are regularly monitored through inclinometer wells against landslide risk.</li> </ul>

## Climate-related Transition Risks and Existing Controls

Risk Description	Risk Maturity	TCFD Risk Category	Risk Rating	Existing Controls
<b>Increasing insurance costs due to climate change (continued)</b>	Short	Market	Very Low	<p><b>For Wind Power Plants (WPP):</b></p> <ul style="list-style-type: none"> <li>• Copper cap systems on the wing tips provide protection against lightning and are regularly checked.</li> <li>• Turbines and blades are periodically subjected to comprehensive inspections.</li> <li>• The system includes mechanisms that measure the intensity of lightning strikes on the turbine blade and give an alarm.</li> </ul> <p><b>In general, in all power plants:</b></p> <ul style="list-style-type: none"> <li>• Annual inspections and measurements of lightning rods protecting power plant buildings and transformers are carried out regularly.</li> <li>• All power plants are monitored by 7/24 camera systems.</li> <li>• Regular site visits are made by the staff and security checks are provided.</li> <li>• Emergency Action Plans are detailed on power plant basis and prepared in accordance with the requirements.</li> <li>• Emergency drills are carried out at regular intervals.</li> <li>• Regular maintenance activities are monitored and tracked by the Maximo maintenance programme.</li> <li>• There are drainage systems and culverts in the power plants for the discharge of rainwater, and these systems are regularly inspected.</li> </ul>
<b>High costs that may be incurred to decarbonise the portfolio in line with low carbon energy demand</b>	Middle	Market	Very Low	<p>Kemah Hydroelectric Power Plant, battery investments in existing facilities and hybrid Solar Energy Systems projects aim to balance the portfolio and ensure energy supply security. The budgets allocated for decarbonisation projects are meticulously planned and managed. In this context, a proactive approach is adopted against high-cost risks by applying detailed financial analyses and budgeting processes.</p> <p>Comprehensive evaluation and feasibility analyses are carried out to select the most appropriate projects, taking into account cost-effectiveness, potential returns and risk profile, in order to ensure the financial sustainability of the projects. All relevant business units and employees are regularly informed and trained on the importance and potential risks of decarbonisation projects.</p> <p>In addition, legislation and policies related to renewable energy projects and decarbonisation efforts are continuously monitored and complied with. Energy efficiency is improved and costs reduced through the integration of new technologies and innovative solutions.</p> <p>Expenditure on emissions (carbon) management accounted for 43.23% of total environmental expenditure in 2023. These control mechanisms aim to minimise high-cost risks and ensure that the company achieves its sustainability goals.</p>

## Climate-related Transition Risks and Existing Controls

Risk Description	Risk Maturity	TCFD Risk Category	Risk Rating	Existing Controls
<b>Decline in market share, decrease in revenues and increase in costs due to tightening of legislation related to climate change</b>	Middle	Market	Very Low	<p>By diversifying the energy generation portfolio, the impacts of the tightening of legislation related to climate change are minimised. This diversification is achieved by integrating renewable energy sources into the portfolio. Akenerji has a legal and compliance team that closely monitors legislative changes and adopts a proactive approach to legal compliance. The relevant unit regularly monitors legislative changes and ensures that the Company quickly adapts to these changes.</p> <p>As natural gas plays an important role in energy production, potential gas supply problems and changes in government policy are constantly monitored. The necessary measures are also being taken to facilitate the transition to renewable energy sources. Effective control mechanisms minimise the potential negative impact on the company of tightening legislation and government policies related to climate change. Expenditure to comply with legislation in 2023 represents 21.5% of total environmental expenditure.</p>
<b>Failure to effectively manage human resources and difficulties in the transformation of personnel with the introduction of new technologies in the transition to low-carbon production</b>	Middle	Market	Very Low	<p>Depending on its main strategies, Akenerji takes various actions in recruitment, talent management, internal communication, organisational design, budget management and training &amp; development planning processes. Accordingly, the following controls are implemented:</p> <ol style="list-style-type: none"> <li>1. Norm Staff (HC) Planning: Creating the budget, carrying out the recruitment process of the needed talents, orientation programme and onboarding practices ensure the adaptation of new employees to the corporate culture and business processes.</li> <li>2. Competency Identification and Development: Competencies for blue-collar and white-collar employees are determined and evaluated in alignment with Akkök Holding and Akenerji's values as well as the requirements of the respective positions. Training and development plans are created based on these processes and implemented with the motto of continuous development. Specially designed programs are organised for the leadership development of the entire organisation, target and competency-based performance management, talent management and succession plans are made and regularly reviewed.</li> <li>3. Employee Value Proposition (EVP) Approach: Every year, action plans are reviewed and implemented to maximise the experience of both current employees and potential candidates in order to create an employer brand. This process is measured through surveys and focus group studies and process improvements are designed.</li> </ol>

## Climate-related Transition Risks and Existing Controls

Risk Description	Risk Maturity	TCFD Risk Category	Risk Rating	Existing Controls
<b>Failure to meet reporting expectations in sharing data with the public, failure to ensure consistency between the data and information in the reports</b>	Long	Reputation	Very Low	<p>Activities to ensure that public disclosures made through the Public Disclosure Platform (KAP) are shared in a timely, accurate, complete, understandable and interpretable manner have increased. In this process, it was ensured that all shareholders were equally and simultaneously informed about the developments.</p> <p>Data management processes are monitored in a digital environment. This approach increases consistency by minimising the risk of human error in data collection, processing and reporting. In addition, each unit within the Sustainability Committee collaborates to strengthen communication and increase data consistency. This co-operation ensures the coordination of reporting processes and enables data to be integrated accurately. While finalising the reporting, feedback is received from all units and cross-checks are carried out.</p> <p>Occupational health and safety (OHS) and sustainability and based reporting are among the standard agenda items at the Board of Directors meetings held at least five times a year, and these issues are discussed at every meeting. Standard requirements for transparent reporting and meeting reporting expectations are accurately determined, internal information meetings are organised through trainings when necessary, and cooperation is established with experts in their fields.</p> <p>In addition, when necessary, third-party consultancy services are obtained to inform the Board of Directors on climate change and sustainability issues. These controls increase the effectiveness of reporting processes and enhance the reliability and consistency of data sharing with the public.</p>
<b>Exposure to climate and nature-related litigation or regulatory legal sanctions</b>	Long	Policy and Legislation	Very Low	<p>Opinions on draft legislation received from the associations of which the Company is a member, and the relevant Ministries are submitted, and these opinions are integrated into the Company's internal procedures. The Company closely monitors legislative changes by regularly following the official gazette and legislation subscription services.</p> <p>A comprehensive risk assessment process is carried out to identify and manage potential legal risks. In this process, close follow-up is ensured with in-house experts in environmental legislation, and cooperation is made with environmental consultants and legal advisors specialised in legal issues when necessary. In this way, it is aimed to ensure legal compliance and minimise the risk of exposure to climate-related lawsuits or other legal sanctions.</p> <p>Akenerji also adopts a proactive approach and takes necessary precautions on issues such as non-compliance with laws, non-governmental organisations and individual applications, collective lawsuits against fossil fuel power plants, and the possible repercussions of lawsuits filed against public institutions providing licenses on power plants. There were no lawsuits filed against the Company in 2023 that may affect its financial position or operations; in addition, no administrative or judicial sanctions were imposed on Akenerji or the members of the Board of Directors due to practices contrary to the provisions of the legislation.</p>

## Dependency Assessments (ENCORE, 2023)

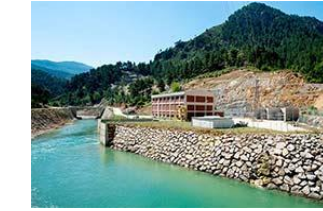
	Activity	Category	Description
<b>Dependencies</b>	Operation and water retention	Water Flow and Availability	A stable water supply is vital for the initial water retention of reservoirs created by dam construction and for the continuous efficiency of hydroelectric power plants.
	Operation	Climate Regulation	The operation of hydropower plants is dependent on climatic conditions, which affect water cycles and weather conditions.
	Operation	Ecosystem Services	Hydroelectric power plants depend on healthy ecosystems to maintain the quality and quantity of water. For example, forests in river basins help regulate water flow and filter sediments and pollutants that can damage equipment.
	Operation	Soil Stability	The integrity of the land around hydropower plants is critical to maintain the structural stability of dams and other infrastructure.

## Impact Assessments (ENCORE, 2023) Potential impacts of organisations operating as electricity utilities and energy producers

Activity	Cause of Nature Change	Cause of Impact	Impact Assessment
<b>Operation</b>	Change of land and freshwater use	Utilisation of freshwater and terrestrial ecosystems:	Hydroelectric power plants, due to their generation technology, may lead to sediment changes due to water use, which may increase the likelihood of erosion and sedimentation or cause eutrophication.  Hydroelectric power plants can affect the amount of water in a catchment by influencing the flow of water. In some cases, this can increase the likelihood of drought downstream or raise the water level.
		Changes in water and sediment flows	
	Change of land and freshwater use	Blockages in the river and upstream can lead to habitat fragmentation due to the expansion of the river into the pond or alteration of watercourses due to water retention/reduction.	Habitat fragmentation particularly affects aquatic species whose movements upstream and downstream are impeded; migratory and habitat-limited species are a priority group to be assessed.
	Resource Utilisation	Water Utilisation: Some hydroelectric projects may result in diversion of water	Water diversions can lead to unsustainable water withdrawals. Hydroelectric power plants can significantly reduce water flows, which in some cases can increase the likelihood of drought on a localised basis.
	Pollution/Pollution Removal	Water Pollutants Temperature	Hydroelectric projects can cause water pollution by altering temperature balances, water chemistry and increasing sedimentation.

This assessment of the Akenerji hydropower plants aims to identify strategies to ensure sustainable power generation by minimising the water resources and environmental impacts of the facilities, based on TNFD's Locate, Evaluate, Assess and Prepare (LEAP) approach.

**Locate (Positioning):** River basins, water resources and surrounding ecosystems where HEPPs are located were identified. At this stage, the potential impacts of HEPPs on water regime and biodiversity were geographically mapped.  
**Evaluate:** The dependence of HEPPs on water use and their possible impacts on river ecosystems were analysed. The effects of changes in water flows on energy production and aquatic ecosystems were evaluated.  
**Assess:** Water scarcity, climate change and regulatory risks were analysed. The effects of water management strategies on energy production were analysed, strategic plans were created and opportunity areas were identified.  
**Prepare:** Operational strategies that will optimise water use and not harm the ecosystem have been prepared and integrated into HEPP operations.



**Bulam HEPP**

**Burç HEPP**

**Fekeler I HEPP**

**Fekeler II HEPP**

**Himmetli HEPP**

**Gökkaya HEPP**

**Uluabat HEPP**

**Installed Power :** 7.11 MW

**Installed Power :** 27.33MW

**Installed Power :** 29.40MW

**Installed Power :** 69.35MW

**Installed Power :** 26.98MW

**Installed Power :** 28.54MW

**Installed Power :** 100MW

**Annual Average Production Capacity:** 28GWH

**Annual Average Production Capacity:** 96GWH

**Average Annual Generation Capacity:** 91.5GWH

**Average Annual Generation Capacity:** 167GWH

**Annual Average Production Capacity:** 86GWH

**Annual Average Production Capacity:** 90GWH

**Annual Average Production Capacity:** 440GWh

**Location:** Adiyaman

**Location:** Adiyaman

**Location:** Adana

**Location:** Adana

**Location:** Adana

**Location:** Adana

**Location:** Bursa

**Ecosystem and Biome:** Eastern Anatolia Biome, river ecosystems

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**Ecosystem and Biome:** Mediterranean Biome, river ecosystems

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**Ecosystem and Biome:** Mediterranean Biome, river ecosystems

**Ecosystem and Biome:** Black Sea Forest Biome, wetlands and river ecosystems

**Drought Risk:** Moderate

**Drought Risk:** Moderate

**Drought Risk:** High, the region is vulnerable to drought risk

**Drought Risk:** High, the region is vulnerable to drought risk

**Drought Risk:** High, the region is vulnerable to drought risk

**Drought Risk:** High, the region is vulnerable to drought risk

**Drought Risk:** Moderate, sensitive to water regime changes

**Natural Resources:** Rivers, agricultural land, biodiversity

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**Natural Resources:** Rivers, agricultural land, biodiversity

**Natural Resources:** Water resources, areas rich in biodiversity.

**Assessment:** Water use and management is critical for the protection of agriculture and ecosystems in the region. Water management measures should be taken during drought periods.

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**Assessment:** Drought and reduced water resources can have serious impacts on agriculture and ecosystems. Water management strategies should be developed.

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**Assessment:** The area around Uluabat Lake is an important habitat for waterbirds. Therefore, water use and management should be carefully monitored. Drought and water regime changes may have negative impacts on the ecosystem.

# Natural Gas Combined Cycle Power Plant (NGCCPP)



## Addiction Assessments (ENCORE, 2023)

	Activity	Category	Description
<b>Dependencies</b>	Cooling	Water Supply	A stable and reliable water supply is critical for cooling processes, which guarantees efficient operation and uninterrupted power supply.
	Operation	Climate Regulation (rainfall, storms, floods)	The operational continuity of power plants and services is dependent on ecosystem services such as rainfall regulation or mitigation of extreme weather events such as floods.
	Operation	Soil Retention	The functionality of power generation facilities can depend to a large extent on the ecosystem service of soil retention provided by vegetation and other environmental assets. Through soil retention, the effects of landslides and erosion are mitigated.

## Impact Assessments (ENCORE, 2023) Potential impacts of organisations operating as electricity utilities and energy producers

Activity	Cause of Nature Change	Cause of Impact	Impact Assessment
<b>Operation</b>	Resource Utilisation	Water utilisation: Significant amounts of water are required for routine operating processes such as steam generation and cooling processes	Water abstraction can lead to degradation of aquatic habitats and species and reduced water supply for other users.
	Pollution/Pollution Removal	Water pollutants Hot water discharge	Thermal pollution may occur, and aquatic life may be affected due to temperature increase of more than 2°C up to 3 km from the discharge point.

This assessment of the Akenerji natural gas-fired power plant is based on TNFD's LEAP approach and aims to identify strategies to ensure sustainable energy production by minimising the environmental impact of the plant.

**Locate (Positioning):** The area and supply chain of the natural gas power plant are determined. At this stage, the plant's dependence on natural gas supply for power generation and potential impacts on the local ecosystem are geographically mapped.

**Evaluate:** The impacts of the power plant's carbon emissions and dependency assessments, including the supply chain, are carried out. The consequences of emissions on the local and global environment are assessed.

**Assess:** Carbon pricing, climate change and regulatory risks are analysed in detail. The impacts of these risks on the plant's operations and long-term energy production are analysed, strategic plans are created and opportunity areas are identified.

**Prepare:** Operational strategies to reduce emissions and increase energy efficiency are prepared and integrated into natural gas cycle power plant operations.



**Installed Power :** 904 MW

**Average Annual Generation Capacity:** 5500 GWH

**Location:** Hatay

**Ecosystem and Biome:** Mediterranean Biome, marine and terrestrial ecosystems

**Drought Risk:** Low, use of sea water

**Natural Resources:** Sea water, biodiversity

**Assessment:** Seawater use and discharge can affect marine ecosystems. For water management and protection of marine ecosystems monitoring and management strategies should be implemented.



Dependency Assessments (ENCORE, 2023)			
	Activity	Category	Description
Dependencies	Operation and water retention	Wind Availability	Wind power plants are directly dependent on the presence of wind for energy production. Climate regulation can change wind patterns and speeds and is important for the performance of these systems.
	Operation	Climate Regulation	Temperature fluctuations can affect the efficiency of wind turbines. Extremely cold or hot weather can limit the performance of turbine mechanics, which increases the dependence of systems on weather conditions.
	Installation	Land Use	Wind power plants can require significant amounts of land, which can affect local ecosystems and biodiversity. The siting of turbines should take into account wildlife habitats, migration routes and vegetation.
Impact Assessments (ENCORE, 2023) Potential impacts of organisations operating as electricity utilities and energy producers			
Activity	Cause of Nature Change	Cause of Impact	Impact Assessment
Operation	Change of land and freshwater use	Land ecosystem utilisation: With inappropriate site selection, more than 10 million hectares of natural land worldwide could be cleared for wind and solar energy development.	Organisations should consider not only the area being converted or to be used, but also whether this area and supporting infrastructure fragments any habitats. This land use change can have a domino effect on ecosystem services.
	Pollution/Pollution Removal	Environmental response	Local communities and tourism may be affected by wind turbines installed close to settlements.
		Environmental intervention : Noise Pollution	Noise pollution caused by wind farms during the operational phase is moderate and affects marine mammals, fish and turtles. Impact on breeding and foraging birds has been recorded up to 800 metres around a single wind turbine.
Installation	Change of land and freshwater use	Impact Collision with Turbine Blade	Casualties (injury or death) from collisions with turbine blades are common, particularly for birds (including sensitive species groups such as vultures, raptors, wading birds, seabirds and many migratory species) and bats (collision and barotrauma). Turbine construction can disrupt the breeding and feeding behaviour of birds and lead to habitat destruction when installed in unsuitable locations.
		Utilisation of terrestrial ecosystems: The construction of wind farms leads to habitat changes on land, including habitat fragmentation and degradation.	Organisations should consider the footprint of wind turbines as well as the space between turbines. They should also assess these impacts in the context of the surrounding habitat and local communities.

This assessment of the Akenerji wind power plant, based on TNFD's LEAP approach, aims to identify strategies to ensure sustainable energy production by minimising the environmental impact of the plant.

**Locate:** The area where the wind farm is installed and the surrounding ecosystems are determined. At this stage, the potential impacts of the turbines on local habitats, flora and fauna are geographically mapped.

**Evaluate:** The impacts of the turbines on the local ecosystem, especially on the migration routes of species such as birds and bats, are analysed. The impacts of wind turbines on biodiversity in the region and dependencies on ecosystem services are assessed.

**Assess (Determination):** The impacts of the wind farm on the local ecosystem and potential risks to biodiversity are analysed and ecosystem protection strategies are developed. In addition, climate change and regulatory risks are also taken into account and strategic plans are created and opportunity areas are identified.

**Prepare:** Operational strategies that will protect biodiversity and not harm the local ecosystem are prepared and integrated into wind power plant operations.



**Installed Power :** 28.2 MW  
**Annual Average Production Capacity:** 85GWH  
**Location:** Balıkesir  
**Ecosystem and Biome:** Aegean Biome, wind fields.  
**Drought Risk:** Low, water use is minimal.  
**Natural Resources:** Wind energy, bird migration routes.  
**Assessment:** WPP projects have potential impacts on bird migration routes. Bird observation and monitoring programmes should be established.



## Mapping Climate and Nature Risks

The Water Risk Filter is a tool designed by the World Wide Fund for Nature (WWF) that assesses three types of water risk (physical, transitional, reputational) in combination. The risk filter is aligned with the United Nations Global Compact CEO Water Mandate framework and shows the overall water risk in a world similar to common socio-economic development trends (SSP2) and mid-level greenhouse gas emissions. The risk scale ranges from very low risk to very high risk. TNFD recommends that companies assess their local water risks using WWF's Water Risk Filter. The units evaluated in the tables in Annex-1 are active generation plants of Akenerji. In addition to the use of the Water Risk Filter, the WWF Biodiversity Risk Filter was applied to identify risks related to biodiversity that are important for Akenerji.

- ***While the physical water risk for Ayyıldız WPP is at high level, this risk is at medium-high level for Erzin Natural Gas Combined Cycle Power Plant and Uluabat HEPP. Burç HEPP, Feka 1 HEPP, Feka 2 HEPP, Gökkaya HEPP, Bulam HEPP and Himmetli HEPP have moderate physical water risk.***
- ***While the nominal water risk for Ayyıldız WPP is at low level, this risk is at medium level for Erzin Natural Gas Combined Cycle Power Plant, Uluabat HEPP, Burç HEPP, Feka 1 HEPP, Feka 2 HEPP, Gökkaya HEPP, Bulam HEPP and Himmetli HEPP.***
- ***All Power Plants have very low risk in the category of transition risks.***
- ***Ayyıldız WPP, Erzin Natural Gas Combined Cycle Power Plant, Burç HEPP, Feka 1 HEPP, Feka 2 HEPP, Bulam HEPP and Gökkaya HEPP are assessed at very high level in terms of biodiversity risks. While Uluabat HEPP has a high biodiversity risk, for Himmetli HEPP this risk is at the high to very high level.***
- Risk maps of all power plants are given in **Annex 1 - Climate and Nature Related Risk Maps**.

## Climate and Nature Opportunities

Opportunity Category	Akenerji Management Approach
<b>Energy</b>	<p>Prioritising wind power plant projects in terms of diversity as a precaution against dry seasons.</p> <p>Increasing investments in solar and wind energy systems, especially in Central Anatolia, and operating existing systems in an integrated manner.</p> <p>Establishment of a solar energy panel production facility.</p> <p>Realisation of the hydrogen production plant.</p>
<b>Productivity</b>	<p>Ensuring that the personnel receive training on current technologies about the structure and installation of solar panels, so that they can install solar panels at the power plant sites.</p> <p>Cooperation with battery production companies for electric vehicles and the establishment of facilities for the disposal or recycling of these batteries.</p> <p>Taking steps towards the establishment of facilities that convert seawater into drinking water against the inevitable water scarcity that will inevitably occur in the future due to climate change.</p>
<b>Reputation</b>	Supporting non-governmental organisations carrying out projects on climate change.
<b>Financing</b>	Developing business partnerships on agri-food supply, due to the worldwide shift from traditional agriculture to landless and less water-dependent farming methods.

## Scenario Analysis and Business Strategy Resilience

Top-down 'Normative' Scenario Analysis in line with TCFD climate scenario guidance		
Script Type	Description	Impacts of Climate Risk
<b>Net Zero Emissions (NZE) by 2050</b>	Provides a roadmap to limit the increase in global average temperature to 1.5°C above pre-industrial levels.	Renewable energy plants play an important role in achieving this goal. The use of natural gas will be reduced over time and replaced by renewable energy sources. In terms of climate risks, in this scenario, the company's adaptation capabilities will become critical. Extreme weather events, water scarcity and changing climatic conditions may increase the operating costs of hydroelectric power plants. In addition, the performance of wind power plants may be affected by changes in wind patterns caused by climate change. In this scenario, the company may need to shape its future energy transformation strategies and move towards climate-friendly investments.
<b>Specified Policies Scenario</b> <b>(The Stated Policies Scenario, STEPS)</b>	Reflects current policy and declining emissions over time; global average temperature increases by 2.4°C by 2100.	Investments in renewable energy sources will increase. However, natural gas is expected to remain an important energy source. In terms of climate risks, this may create uncertainties regarding the regulation of fossil fuels, which may affect costs. In addition, extreme weather conditions may create difficulties for the operation of renewable energy plants. In the longer term, the company may need to review its sustainability strategies as climate policies become more stringent.

## Bottom-up 'Exploratory' Scenario Analysis in line with TNFD nature scenario guidance

### Scenario 1 - Ahead of the Game

Positive progress is made on carbon and climate. This progress accelerates the establishment of a policy and macro-priority environment with positive consequences for nature. Actual losses from nature degradation are expected to be low. In this scenario, Akenerji achieves positive results in both environmental and financial terms.

### Scenario 2 - Go Fast or Go Home

In a nature crisis environment, immediate and material business risks are commonly experienced. Threshold effects increase the pressure for more rapid and systematic action. Public attention and policy focus shifts to nature.

In this scenario, urgent and effective steps need to be taken for nature.

### Scenario 3 - Sand in the Gears

Represents a scenario where policy and financing move very slowly and regulatory complexity is high, while environmental assets deteriorate rapidly. In this scenario, severe operational and financial impacts are expected and cost increases to prevent acute business disruptions would be inevitable.

### Scenario 4 - Back of the List

It is a scenario where nature falls back on the list of priorities. Meaningful progress on carbon reduction becomes a stronger magnet for finance, technology and corporate action as a relatively effective way of making indirect progress on nature. Organisations move towards a strategy of reducing short-term damage to environmental assets and away from long-term planning.

Exploratory scenario analysis was conducted in a workshop with internal stakeholders. This session focused on qualitative scenarios addressing the impacts of ecosystem, market and non-market forces on nature and climate. Stakeholders had the opportunity to assess the contribution of these factors to environmental impacts.

### Strategy Resilience of Akenerji

Akenerji's existing controls and future plans to increase its resilience against climate and nature risks identified in normative and exploratory scenarios are discussed in detail in the sections Climate-related Physical Risks and Existing Controls and Climate-related Transition Risks and Existing Controls. Akenerji aims to reduce its emission intensity by 50% by 2030 based on 2017. In line with this objective, it is planned to develop calculation and mitigation methods by taking SBTi criteria into consideration.

## Risk Management

### Identifying, Assessing and Managing Dependencies, Impacts, Risks and Opportunities on Climate and Nature

An enterprise-wide risk inventory was created, and regular reporting and monitoring activities were initiated by defining the roles and responsibilities in the Corporate Risk Management (CRM) process. The Company's risk inventory is one of the most important monitoring tools used by Akenerji in its risk management activities. This inventory includes the Company's operational, financial, reputation, compliance and strategic risks. The risk owner appointed by the Board of Directors is responsible for managing the relevant risk within the framework of the agreed action plan. The Early Detection of Risk Committee ensures that the necessary measures are taken against the risks identified and that the risks are managed.

Akenerji Strategic Planning and Risk Management Department identifies and evaluates risks in coordination with the Unit Risk Officers assigned for each unit in line with the Company's risk procedures and limits. Risks are prioritised, reported and monitored in line with the Company's Risk Appetite. A Risk Management Committee has also been established.

The members of the Committee consist of the General Manager, Assistant General Managers, Directors and Strategic Planning and Risk Manager. The Committee meets monthly to discuss the risks that the Company is or may be exposed to in changing market conditions and ensures that necessary actions are taken.

At Akenerji, risks are assessed and monitored under five main headings:

- Reputational risks
- Compliance risks
- Strategic risks
- Operational risks
- Financial risks

### Integration of Climate and Nature into Corporate Risk and Opportunity Management

In 2023, a Climate Change Risks and Opportunities Survey was carried out, taking into account the TSRS S1 General Provisions for Disclosure of Sustainability-Related Financial Information and TSRS S2 Climate-Related Disclosures standards, which were published by the International Sustainability Standards Board (ISSB) under the International Financial Reporting Standards (IFRS) and will become mandatory in our country under the name of Turkish Sustainability Reporting Standards (TSRS) as of 1 January 2024. As a result of this study, prominent physical and transition risks were evaluated and actions were taken.

Water and wastewater management, air emissions and impacts on biodiversity are handled within the framework of corporate risk management, and risks and opportunities related to these issues are reviewed and evaluated quarterly. Sustainability strategies are constantly reviewed in order to prevent climate change risks arising from greenhouse gas emissions, to adapt the business model to the energy transformation and to maintain Akenerji's leading position in the sector by utilising the opportunities brought by this transformation. In line with these strategies, emission reduction and climate change targets are always prioritised.

The implementation of the Carbon Border Adjustment Mechanism, which will be implemented with developments such as the Paris Climate Agreement and the European Green Deal, in which Turkey is also included, increases the importance of adaptation studies carried out in this field and emphasises the key role of the energy sector in preventing climate change.

## Metrics and Targets

The metrics in this report have been selected to align with the TCFD and TNFD beta framework Version V1.0. In addition to the core global metrics of TCFD and TNFD, risk and opportunity metrics, response metrics and additional metrics have been identified. Data for 2023 are presented with reference to 2022 and all indicators are aligned with the Global Biodiversity Framework targets.

The Company's climate and nature-based targets are categorised under the following headings:

- Energy and Emissions (Carbon) Management
- Water Management
- Disaster Preparedness (Resilience) and Response
- Energy Supply Security
- System Efficiency

In 2023, the actions taken towards these targets are as follows:

**Energy and Emission Management:** Ayyıldız WPP capacity increase continued and the use of hybrid vehicles in the power plants continued. In addition, ISO 50001 energy management system studies continued.

**Water Management:** Reduction in water consumption was achieved. Especially due to the maintenance and shutdowns at Erzin power plant, total water consumption decreased as less work was carried out compared to previous years.

**Disaster Preparedness and Response:** Disaster drills were conducted regularly. Employees were trained on "Disaster Management in Industrial Facilities and Business Continuity Certificate Programme (Mini MBA)" and "Sustainability". Emergency Action Plan was revised.

**Energy Supply Security and System Efficiency:** Risk analyses of all power plants and the general directorate were revised. Power plant operations were carried out by experienced and well-equipped teams in accordance with international standards and procedures. In addition, all equipment was regularly maintained at certain frequencies according to international maintenance standards.

At Akenerji, sustainability priorities determined through stakeholder engagement activities support the sub-targets of the United Nations Sustainable Development Goals. The Sustainable Development Goals supported in the formulation of the targets are as follows:



The table below shows Akenerji's metrics and current status for 2023 in relation to TNFD key indicators. Greenhouse gas scope emissions are related to both TCFD and TNFD frameworks.

Key Global Metrics				
Category	TNFD/TCFD Indicator	Metric	Current Status (2023)	Reference year (2022)
Climate Change	Greenhouse Gas Emissions (tCO <sub>2</sub> e)	Scope 1	1,189,460.25	1,143,801
		Scope 2	9,713.51	9,675
		Scope 3	1,376,644.37	1,100,599.19
Pollution/ pollution removal	Wastewater Discharge (m <sup>3</sup> )	Discharged water volume	10,690,628.90	10,778,639.40
	Waste Generation (tonnes)	Hazardous Waste	96	101
	Waste Generation (tonnes)	Non-Hazardous Waste	31.1	36
	Waste Disposal (tonnes)		0.02	4.1
	Waste Recovery (tonnes)		127.1	132.9
Resource utilisation/renewal	Total water consumption and water	Water Consumption	1,304,026.30	2,034,320.50
Response Metrics				
Category	Metric (TNFD)	Quantity		
Dependency, impact, risk and opportunity management	Reuse and recycling rate of i) waste or ii) product/material outputs (%)	%99.99		
	Percentage of direct operational locations assessed	%100		
Participation	Participation in sector-wide and/or multi-stakeholder agreements (number of agreements; number of stakeholders and stakeholder groups covered)	2 (UN Global Compact and UN Principles for Responsible Investment - UNPRI)		

Risk and Opportunity Metrics		
Category.	Metric	Current Status
<b>Nature and Climate Risks</b>	Value of assets, liabilities, income and expenses that are assessed as sensitive to nature-related transition risks (TNFD)	The financial assessment of climate and nature-related transition risks is described in the Climate-related Transition Risks and Existing Controls section.  The assessment of assets vulnerable to climate and nature-related physical risks is described in the Mapping Climate and Nature-related Risks section.  None.
	Amount and scope of assets or business activities vulnerable to transition risks (TCFD)	
	The value of assets, liabilities, income and expenses assessed as sensitive to nature-related physical risks (TNFD)	
	Amount and scope of assets or business activities vulnerable to physical risks (TCFD)	
<b>Nature and Climate Opportunities and Capital</b>	Description and value of significant fines/sanctions or lawsuits filed during the year due to adverse impacts related to nature (TNFD)	
	Amount of capital expenditure, financing or investment in nature-related opportunities by type of opportunity (TNFD)	Distribution of Environmental Expenditures (Total 1,335,037 TL)  -Emission (Carbon) Management %43.23 -Waste Recycling %27.85 -Waste Disposal %0 -Consultancy %7.42 -Compliance with Legislation %21.5  2023 Technology Investments  -Feke-2 Secondary Frequency Control (SFC) Capacity Increase -Feke-2 Vibration Protection System Revision -Feke-2 SCADA Revision
	Proportion of income, assets or other business activities linked to climate-related opportunities (TCFD)	
Amount of capital expenditure, financing or investment for climate-related risks and opportunities (TCFD)		
<b>Pricing</b>	Ratio linked to climate assessments in senior executive remuneration (TCFD)	Akenerji offers financial incentives to senior management to manage environmental issues and fulfil commitments. Bonuses are calculated based on bonus base, company and individual performance; no distinction is made between climate change and water.

## Annex 1 - Climate and Nature Related Risk Maps

### Annex 1.1 - Physical Water Risk Map

The physical risk layer of the Water Risk Filter represents both natural and man-made conditions of river basins. This layer includes four risk categories covering various aspects of physical risks (water scarcity, flooding, water quality and ecosystem services). Therefore, physical risks take into account situations where water is inadequate/surplus, unsuitable for use and/or the surrounding ecosystems are degraded and consequently negatively affect water ecosystem services.

While the physical water risk for Ayyıldız WPP is at high level, this risk is at medium-high level for Erzin Natural Gas Combined Cycle Power Plant and Uluabat HEPP. Burç HEPP, Feke 1 HEPP, Feke 2 HEPP, Gökkaya HEPP, Bulam HEPP and Himmetli HEPP have moderate physical water risk.

#### Map Legend

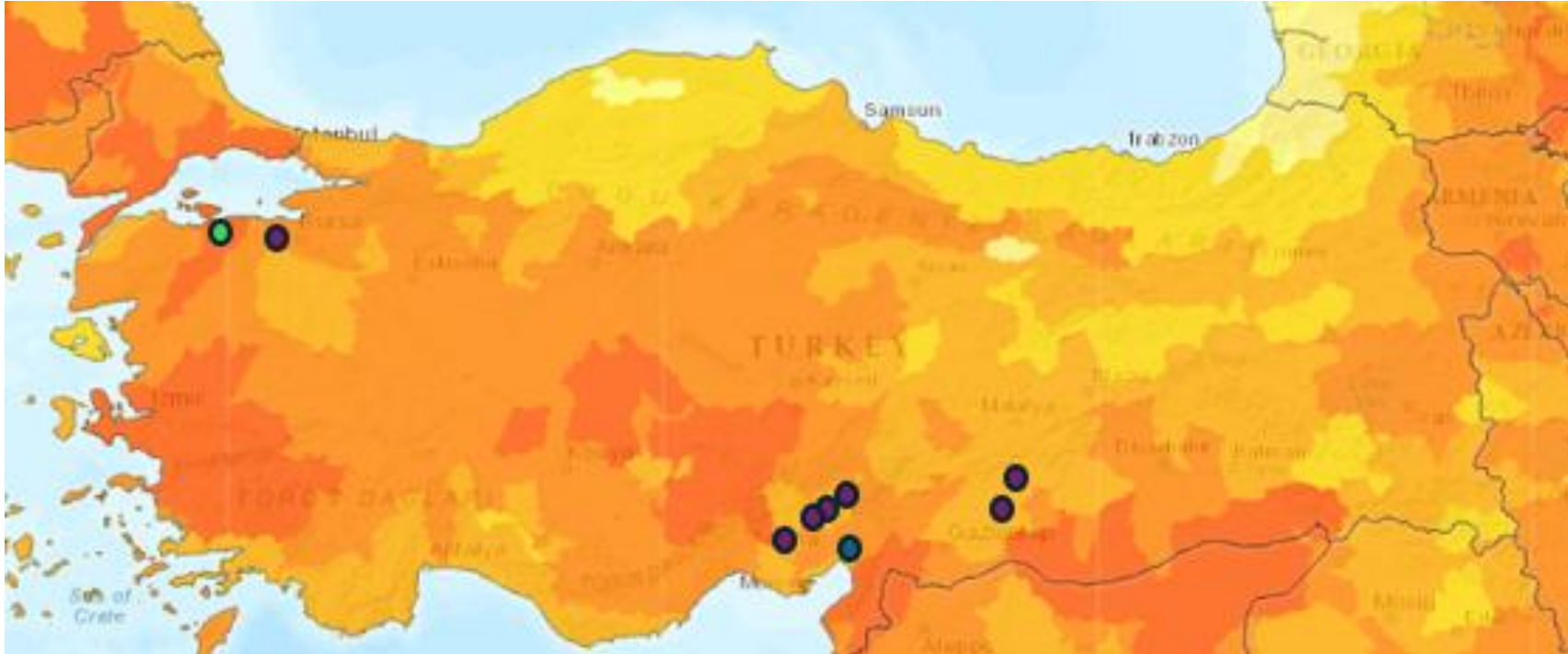


#### Production Plants

NGCCPP ●

HEPP ●

WPP ●





## Annex 1.2 - Water Risk Filter Reputational Risk Map

Water Risk Filter The reputational risk layer represents stakeholders' and local communities' perceptions of whether companies are doing business in a sustainable or responsible manner with respect to water. This layer includes four risk categories (cultural importance of water for local communities, importance of freshwater biodiversity, media scrutiny of water-related issues, and risk of hydro-political conflict in river basins).

While the nominal water risk for Ayyıldız WPP is at low level, this risk is at medium level for Erzin Natural Gas Combined Cycle Power Plant, Uluabat HEPP, Burç HEPP, Feka 1 HEPP, Feka 2 HEPP, Gökkaya HEPP, Bulam HEPP and Himmetli HEPP.



### Map Legend



### Production Plants

NGCCPP ●

HEPP ●

WPP ●

## Annex 1.3 - Water Risk Filter Transition Risk Map

The Water Risk Filter transition risk layer is tightly linked to the concept of good governance and emphasises that businesses thrive in a stable, effective and systematically implemented regulatory environment. This layer includes four risk categories in line with the United Nations Sustainable Development Goal 6.5 (SDG 6.5.1) framework. (enabling environment, institutions and governance, management tools and infrastructure & finance)

All Generation Plants have very low risk in the category of transition risks.



### Map Legend



### Production Plants

NGCCPP ●

HEPP ●

WPP ●

## Annex 1.4 - Biodiversity Physical Risk Map

The Biodiversity Physical Risk Map is used to identify the dependence of a business on nature and how land and marine areas are affected by both natural and man-made conditions. The map includes layers of risk to ecosystem services, regulating & supporting services - supporting and mitigating, cultural services and pressures on biodiversity. Physical risks therefore take into account the state of the ecosystem services on which companies or their suppliers depend.

Ayyıldız WPP, Erzin Natural Gas Combined Cycle Power Plant, Burç HEPP, Feka 1 HEPP, Feka 2 HEPP, Bulam HEPP and Gökkaya HEPP are assessed at very high level in terms of biodiversity risks. While Uluabat HEPP has a high biodiversity risk, for Himmetli HEPP this risk is at the high to very high level.



### Map Legend



### Production Plants

- NGCCPP ●
- HEPP ●
- WPP ●

## Annex 2 – Abbreviations

UN (United Nations)  
CDP (Carbon Disclosure Project)  
ESG (Environmental, Social and Corporate Governance)  
NGCCPP (Natural Gas Combined Cycle Power Plants)  
ETS (Emissions Trading System)  
GRI (Global Reporting Initiative)  
HEPP (Hydroelectric Power Plant)  
IFRS (International Financial Reporting Standards)  
OHS (Occupational Health and Safety)  
ISSB (International Sustainability Standards Board)  
KAP (Public Disclosure Platform)  
CRM (Enterprise Risk Management)  
LEAP (Locate, Evaluate, Assess, Prepare)  
NZE (Net Zero Emission)  
WPP (Wind Power Plant)  
SPP (Common Socioeconomic Pathways)  
STEPS (Specified Policies Scenario)  
TCFD (Task Force on Climate-related Financial Disclosure)  
TNFD (Task Force on Nature-related Financial Disclosure)  
TSRS (Turkish Sustainability Reporting Standards)  
UNPRI (UN Principles for Responsible Investment)  
WPP (Wind Power Plant)  
WWF (World Wide Fund for Nature)