ZORLU ENERJİ ELEKTRİK ÜRETİM A.Ş.

2024 CDP Corporate Questionnaire 2024

Word version

Important: this export excludes unanswered questions
This document is an export of your organization's CDP questionnaire response. It contains all data points for questions that are answered or in progress. There may be questions or data points that you have been requested to provide, which are missing from this document because they are currently unanswered. Please note that it is your responsibility to verify that your questionnaire response is complete prior to submission. CDP will not be liable for any failure to do so.
Terms of disclosure for corporate questionnaire 2024 - CDP

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09/30/2024, 05:52 am

Contents

C1. Introduction

(1.3) Provide an overview and introduction to your organization.

(1.3.2) Organization type

Select from:

☑ Publicly traded organization

(1.3.3) Description of organization

Zorlu Enerji is a vertically integrated energy company operating across Electricity Generation, Transmission & Distribution, Trading, and Gas Transmission & Distribution business lines. This report covers the company's activities from Jan 1 to Dec 31, 2023. Key Assets: Electricity Generation: Geothermal (GPP), Hydro, Wind, Natural Gas, and Thermal Power Plants. Electricity Trading. Smart Energy Systems: Including EV charging infrastructure. Zorlu Enerji's climate strategy targets net-zero emissions from power generation, promoting a low-carbon economy through investments in only in renewable sources and smart systems like EV charging. Over 88% of the company's emissions are from GPP, with 100% of its electricity generated from renewable sources. Company Overview: Founded in 1993, Zorlu Enerji (ZE) is a leading player in Turkey's energy sector, engaging in electricity generation, sales, trade, distribution, solar panel installations, and EV services. In 2023, ZE employed 2,801 people and reported a consolidated revenue of 27.3 billion TL. ZE was the first energy company in Turkey to calculate and disclose its carbon footprint, holding the ISO 14064-1 Greenhouse Gas Emission Standard Certificate. The company is also a signatory of the UN Global Compact and the Women's Empowerment Principles. Net-Zero Commitment: Zorlu Enerji is committed to achieving net-zero greenhouse gas (GHG) emissions across its value chain by 2040. The company has set ambitious near- and long-term targets for Scope 1, 2, and 3 emissions, validated by the Science Based Targets initiative (SBTi). Near-Term Targets by 2030: Scope 1: 73.71% reduction in GHG emissions from electricity and heat generation (per MWh) from a 2021 base year. Scope 2: 42% reduction in absolute GHG emissions. Scope 1 and 3: 73.71% reduction in emissions from all sold electricity (per MWh). Scope 3: 25% reduction in all other emissions. Long-Term Targets by 2040: Scope 1: 97.7% reduction in GHG emissions from electricity and heat generation (per MWh). Scope 2: 90% reduction in absolute GHG emissions. Scope 1 and 3: 97.8% reduction in fuel and energy-related emissions (per MWh). Scope 3: 90% reduction in all other emissions. GHG Emissions Inventory: In 2021, Zorlu Enerji reported 5,311,219 tCO_2e in emissions, reduced to 4,549,260 tCO_2e in 2022, reflecting their active decarbonization efforts. In 2021, 83.31% of Scope 3 emissions stemmed from fuel and energy-related activities, underlining the significance of transitioning to cleaner energy. Zorlu Enerji's emissions inventory complies fully with SBTi standards, covering 100% of Scope 1 and 2 emissions, and over 99% of Scope 3 emissions. Renewable Energy and Clean Technologies: Zorlu Enerji is committed to increasing its renewable energy share, aiming for 100% renewable electricity by 2030. By the end of 2023, Zorlu Enerji had a total installed capacity of 996 MW, 87% of which in Turkey came from renewable sources. The company is a key player in geothermal energy, contributing over 20% of Turkey's total geothermal output. Beyond Turkey, Zorlu Enerji has expanded its renewable energy portfolio, with wind and solar power projects in Pakistan and Palestine. These investments are aligned with its strategy to promote decarbonization globally. Smart Energy Systems: Launched in 2018, Zorlu Energy Solutions (ZES) focuses on digital and smart energy systems. As of 2023, the company operated 1,789 EV charging stations with 2,840 sockets nationwide. The energy used for charging is certified by I-REC, ensuring it comes from renewable sources. Zorlu Enerji's investments in EV systems and smart energy management reflect its commitment to clean technologies and the energy transition. Zorlu Enerji's climate change and decarbonization strategy, backed by validated science-based

targets, demonstrates its leadership in the global energy transition. With its focus on renewable energy and smart technologies, the company is well-positioned to achieve net-zero by 2040 while promoting sustainability at a global level.
[Fixed row]

(1.4) State the end date of the year for which you are reporting data. For emissions data, indicate whether you will be providing emissions data for past reporting years.

(1.4.1) End date of reporting year

12/30/2023

(1.4.2) Alignment of this reporting period with your financial reporting period

Select from:
☑ Yes

(1.4.3) Indicate if you are providing emissions data for past reporting years

Select from:
☑ Yes

(1.4.4) Number of past reporting years you will be providing Scope 1 emissions data for

Select from:
☑ 2 years

(1.4.5) Number of past reporting years you will be providing Scope 2 emissions data for

Select from:
☑ 2 years

(1.4.6) Number of past reporting years you will be providing Scope 3 emissions data for

Select from:

☑ 1 year
[Fixed row]

(1.5) Provide details on your reporting boundary.

	Is your reporting boundary for your CDP disclosure the same as that used in your financial statements?
	Select from: ☑ Yes

[Fixed row]

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

ISIN code - bond

(1.6.1) Does your organization use this unique identifier?

Select from:
☑ Yes

(1.6.2) Provide your unique identifier

TRSZORN52526

ISIN code - equity

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ Yes

(1.6.2) Provide your unique identifier

TRAZOREN91L8

CUSIP number

(1.6.1) Does your organization use this unique identifier?

Select from:
☑ No

Ticker symbol

(1.6.1) Does your organization use this unique identifier?

Select from:
☑ Yes

(1.6.2) Provide your unique identifier

ZOREN.IS

SEDOL code

(1.6.1) Does your organization use this unique identifier?

Select from:
☑ No

LEI number

(1.6.1) Does your organization use this unique identifier?

Select from:
☑ No

D-U-N-S number

(1.6.1) Does your organization use this unique identifier?

Select from:
☑ No

Other unique identifier

(1.6.1) Does your organization use this unique identifier?

Select from:
☑ No
[Add row]

(1.16.1) For your electricity generation activities, provide details of your nameplate capacity and electricity generation specifics for each technology employed.

Coal - Hard

(1.16.1.1) Own or control operations which use this power generation source

Select from:
☑ No

(1.16.1.5) Comment

n/a

Lignite

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☑ No

(1.16.1.5) Comment

n/a

Oil

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☑ No

(1.16.1.5) Comment

n/a

Gas

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☑ Yes

(1.16.1.2) Nameplate capacity (MW)

379.3

(1.16.1.3) Gross electricity generation (GWh)

0

(1.16.1.4) Net electricity generation (GWh)

0

(1.16.1.5) Comment

These figures cover our natural gas power plants operating in the reporting year: 83.3 MW comes from the Lüleburgaz plant in Turkey. 295.28 MW comes from the partnership in Israel, proportional to the partnership percentage. we did not generate electricity from natural gas in Lüleburgaz, 2023.

Sustainable biomass

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☑ No

(1.16.1.5) Comment

n/a

Other biomass

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☑ No

(1.16.1.5) Comment

n/a

Waste (non-biomass)

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☑ No

(1.16.1.5) Comment

n/a

Nuclear

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☑ No

(1.16.1.5) Comment

n/a

Fossil-fuel plants fitted with carbon capture and storage

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☑ No

(1.16.1.5) Comment

n/a

Geothermal

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☑ Yes

(1.16.1.2) Nameplate capacity (MW)

305

(1.16.1.3) Gross electricity generation (GWh)

1910.56

(1.16.1.4) Net electricity generation (GWh)

1552.44

(1.16.1.5) Comment

These figures cover all our geothermal power plants operating in the reporting year: Alaşehir, Kızıldere I, Kızıldere II and Kızıldere III.

Hydropower

(1.16.1.1) Own or control operations which use this power generation source

Select from:
☑ Yes

(1.16.1.2) Nameplate capacity (MW)

118.9

(1.16.1.3) Gross electricity generation (GWh)

330.3

(1.16.1.4) Net electricity generation (GWh)

309

(1.16.1.5) Comment

These figures cover all our hydroelectric power plants operating in the reporting year: Ataköy, Beyköy, Çıldır, İkizdere, Kuzgun, Mercan, Tercan

Wind

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☑ Yes

(1.16.1.2) Nameplate capacity (MW)

191.4

(1.16.1.3) Gross electricity generation (GWh)

444.3

(1.16.1.4) Net electricity generation (GWh)

444.3

(1.16.1.5) Comment

We have wind power plants in Turkey and Pakistan, as Gökçedağ, and Pakistan.

Solar

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☑ Yes

(1.16.1.2) Nameplate capacity (MW)

1.5

(1.16.1.3) Gross electricity generation (GWh)

2.9

(1.16.1.4) Net electricity generation (GWh)

2.9

(1.16.1.5) Comment

We have a solar power plant in Palestine.

Marine

(1.16.1.1) Own or control operations which use this power generation source

Select from:
☑ No

(1.16.1.5) Comment

n/a

Other renewable

(1.16.1.1) Own or control operations which use this power generation source

Select from:
☑ No

(1.16.1.5) Comment

n/a

Other non-renewable

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☑ No

(1.16.1.5) Comment

n/a

Total

(1.16.1.1) Own or control operations which use this power generation source

Select from:

☑ Yes

(1.16.1.2) Nameplate capacity (MW)

996.1

(1.16.1.3) Gross electricity generation (GWh)

2685.23

(1.16.1.4) Net electricity generation (GWh)

2327

(1.16.1.5) Comment

These figures cover all our natural gas, wind, hydroelectric, and geothermal power plants operating in the reporting year.
[Fixed row]

(1.24) Has your organization mapped its value chain?

(1.24.1) Value chain mapped

Select from:

☑ Yes, we have mapped or are currently in the process of mapping our value chain

(1.24.2) Value chain stages covered in mapping

Select all that apply

☑ Upstream value chain

(1.24.3) Highest supplier tier mapped

Select from:

☑ Tier 1 suppliers

(1.24.4) Highest supplier tier known but not mapped

Select from:

☑ Tier 2 suppliers

(1.24.7) Description of mapping process and coverage

Zorlu Enerji employs a comprehensive supplier mapping process to ensure effective oversight of its upstream value chain, focusing on sustainability, risk management, and compliance. The process is driven by the Supplier Assurance System (SAS), which identifies critical suppliers based on a cost threshold of over 1,000,000 TRY and strategic importance, such as suppliers involved in the procurement of main equipment and TurnKey project providers. The mapping process evaluates suppliers' compliance with key international standards, including ISO 26000 (Social Responsibility) and ISO 14001 (Environmental Management). This ensures that suppliers align with Zorlu Enerji's commitment to ethical business practices and environmental stewardship. Data collected during the mapping process includes suppliers' environmental performance, social responsibility initiatives, and overall risk profile. This data is captured through a combination of supplier self-assessments, audits, and third-party certifications, ensuring a thorough evaluation of suppliers' contributions to Zorlu Enerji's sustainability goals. The mapping also integrates digital tools, such as supplier management software, to track and monitor supplier performance across various stages of the value chain. These tools enable Zorlu Enerji to have real-time insights into supplier operations and facilitate proactive risk management. Additionally, the coverage of this mapping includes Tier 1 suppliers, with ongoing efforts to extend visibility into Tier 2 suppliers to ensure deeper transparency across the supply chain. Zorlu Enerji's supplier mapping is not only full in its scope but also an evolving process, regularly updated to reflect changes in supplier operations, industry standards, and emerging environmental risks. The company ensures continuous engagement with its suppliers to maintain high standards in sustainability and to identify areas for improvement, fostering long-term partnerships aligned with the company's net-zero ambitions.
[Fixed row]

(1.24.1) Have you mapped where in your direct operations or elsewhere in your value chain plastics are produced, commercialized, used, and/or disposed of?

(1.24.1.1) Plastics mapping

Select from:

☑ No, and we do not plan to within the next two years

(1.24.1.5) Primary reason for not mapping plastics in your value chain

Select from:

☑ Judged to be unimportant or not relevant

(1.24.1.6) Explain why your organization has not mapped plastics in your value chain

According to our business model, plastics usage is relatively quite less and there is no input of plastics in our process. Also in the category of purchased goods, plastics have less than 1%.
[Fixed row]

C2. Identification, assessment, and management of dependencies, impacts, risks, and opportunities

(2.1) How does your organization define short-, medium-, and long-term time horizons in relation to the identification, assessment, and management of your environmental dependencies, impacts, risks, and opportunities?

Short-term

(2.1.1) From (years)

0

(2.1.3) To (years)

1

(2.1.4) How this time horizon is linked to strategic and/or financial planning

Zorlu Enerji defines the short-term horizon as a 0 to 1-year period, focusing on immediate risks and opportunities that could impact our operations. This time frame is critical for addressing acute physical risks, such as extreme weather events—storms, droughts, floods—that may directly affect our infrastructure and supply chain. These risks require swift mitigation strategies to ensure operational resilience and business continuity. In addition to physical risks, we closely monitor emerging local and international regulations related to climate change and environmental compliance. This includes policy changes, carbon pricing mechanisms, and industry-specific environmental mandates that could affect our short-term financial planning and operational decisions. By maintaining a proactive stance, we can adjust swiftly to new regulatory developments and incorporate them into our business models. Short-term planning forms the backbone of our financial and operational strategies, ensuring our business targets are aligned with environmental sustainability. This period allows us to allocate resources effectively, setting the stage for budget allocation, risk mitigation, and meeting near-term operational goals. It also provides a foundation for building long-term resilience and adapting our business in a rapidly evolving regulatory and environmental landscape.

Medium-term

(2.1.1) From (years)

2

(2.1.3) To (years)

4

(2.1.4) How this time horizon is linked to strategic and/or financial planning

The medium-term horizon for Zorlu Enerji spans 2 to 4 years, aligned with the company's business strategy review and update cycles. This period is critical for implementing board-level strategies and decisions that drive the transition to a low-carbon economy. It encompasses strategic initiatives focused on sustainability, decarbonization, and resource efficiency, reflecting the company's commitment to long-term environmental goals. During this time frame, we prioritize investments and projects that align with our financial forecasts and sustainability targets, including expanding renewable energy generation and enhancing energy efficiency. The medium term also allows for the identification and capitalization of emerging opportunities, particularly in sectors such as electric vehicle (EV) infrastructure, which we expect to play a significant role in our future growth. Our periodic review of risks and opportunities ensures that we remain agile and responsive to evolving market conditions, regulatory changes, and technological advancements. As part of our medium-term outlook, we are particularly focused on scaling our EV charging station network, which represents a key opportunity to contribute to the low-carbon transition while strengthening our market position.

Long-term

(2.1.1) From (years)

5

(2.1.2) Is your long-term time horizon open ended?

Select from:

☑ Yes

(2.1.4) How this time horizon is linked to strategic and/or financial planning

Zorlu Enerji's long-term horizon spans beyond 5 years and is crucial for our strategic planning, guiding decisions on customer behavior, evolving market dynamics, and shifting production models. This period allows us to implement significant changes in asset management, long-term investment strategies, and innovative product development that align with our vision for a sustainable future. It also plays a key role in achieving our decarbonization targets as part of the broader energy transition process. In this time frame, the full impact of climate change is expected to become more pronounced, influencing not just our operations but also the wider industry landscape. We anticipate that long-term risks and opportunities will be shaped by technological advancements, pushing us to stay at the forefront of innovation. Research and development (R&D) will be critical in this regard, as breakthroughs in renewable energy, energy storage, and smart grid technologies will define our ability to meet and exceed our sustainability goals. Additionally, the long-term horizon reflects our commitment to addressing systemic changes in customer expectations and regulatory environments. This enables us to prepare for shifts in demand, adopt emerging technologies, and explore new markets. It also aligns with our focus on integrating advanced digital solutions and fostering collaborative partnerships to ensure a resilient and future-ready business model.
[Fixed row]

(2.2) Does your organization have a process for identifying, assessing, and managing environmental dependencies and/or impacts?

	Process in place	Dependencies and/or impacts evaluated in this process
	Select from: ☑ Yes	*Select from:* ☑ Both dependencies and impacts

[Fixed row]

(2.2.1) Does your organization have a process for identifying, assessing, and managing environmental risks and/or opportunities?

	Process in place	Risks and/or opportunities evaluated in this process	Is this process informed by the dependencies and/or impacts process?
	Select from: ☑ Yes	*Select from:* ☑ Both risks and opportunities	*Select from:* ☑ Yes

[Fixed row]

(2.2.2) Provide details of your organization's process for identifying, assessing, and managing environmental dependencies, impacts, risks, and/or opportunities.

Row 1

(2.2.2.1) Environmental issue

Select all that apply

☑ Climate change

(2.2.2.2) Indicate which of dependencies, impacts, risks, and opportunities are covered by the process for this environmental issue

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(2.2.2.3) Value chain stages covered

Select all that apply

☑ Direct operations

☑ Upstream value chain

☑ Downstream value chain

(2.2.2.4) Coverage

Select from:

☑ Full

(2.2.2.5) Supplier tiers covered

Select all that apply

☑ Tier 1 suppliers

(2.2.2.7) Type of assessment

Select from:

☑ Qualitative and quantitative

(2.2.2.8) Frequency of assessment

Select from:

☑ More than once a year

(2.2.2.9) Time horizons covered

Select all that apply

☑ Short-term

☑ Medium-term

☑ Long-term

(2.2.2.10) Integration of risk management process

Select from:

☑ Integrated into multi-disciplinary organization-wide risk management process

(2.2.2.11) Location-specificity used

Select all that apply

☑ Site-specific

☑ Local

☑ Sub-national

☑ National

(2.2.2.12) Tools and methods used

Commercially/publicly available tools

☑ IBAT for Business

☑ TNFD – Taskforce on Nature-related Financial Disclosures

Enterprise Risk Management

☑ COSO Enterprise Risk Management Framework

☑ Enterprise Risk Management
☑ Internal company methods
☑ ISO 31000 Risk Management Standard
☑ Risk models

International methodologies and standards
☑ Environmental Impact Assessment
☑ IPCC Climate Change Projections
☑ ISO 14001 Environmental Management Standard

Databases
☑ Nation-specific databases, tools, or standards
☑ Regional government databases

Other
☑ Scenario analysis
☑ Desk-based research
☑ External consultants
☑ Materiality assessment
☑ Internal company methods
☑ Partner and stakeholder consultation/analysis

(2.2.2.13) Risk types and criteria considered

Acute physical
☑ Drought
☑ Avalanche
☑ Landslide
☑ Wildfires
☑ Heat waves
☑ Cold wave/frost
☑ Heavy precipitation (rain, hail, snow/ice)
☑ Flood (coastal, fluvial, pluvial, ground water)
☑ Storm (including blizzards, dust, and sandstorms)

Chronic physical

☑ Heat stress
☑ Soil erosion
☑ Water stress
☑ Changing wind patterns
☑ Temperature variability
☑ Precipitation or hydrological variability
☑ Increased severity of extreme weather events
☑ Water availability at a basin/catchment level
☑ Changing temperature (air, freshwater, marine water)
☑ Changing precipitation patterns and types (rain, hail, snow/ice)

Policy

☑ Carbon pricing mechanisms
☑ Changes to national legislation
☑ Poor coordination between regulatory bodies
☑ Poor enforcement of environmental regulation
☑ Increased difficulty in obtaining operations permits
☑ Changes to international law and bilateral agreements
☑ Lack of mature certification and sustainability standards

Market

☑ Uncertainty in the market signals

Reputation

☑ Increased partner and stakeholder concern and partner and stakeholder negative feedback
☑ Negative press coverage related to support of projects or activities with negative impacts on the environment (e.g. GHG emissions, deforestation & conversion, water stress)
☑ Stigmatization of sector

Technology

☑ Transition to lower emissions technology and products
☑ Unsuccessful investment in new technologies

Liability

☑ Exposure to litigation
☑ Non-compliance with regulations
☑ Other liability, please specify **:**Fin services. kredi süreçleri ve bankaların sorgulaması.

(2.2.2.14) Partners and stakeholders considered

Select all that apply

☑ NGOs
☑ Customers
☑ Employees
☑ Investors
☑ Suppliers
☑ Regulators
☑ Local communities
☑ Other, please specify **:Shareholders. (Zorlu)**

(2.2.2.15) Has this process changed since the previous reporting year?

Select from:

☑ No

(2.2.2.16) Further details of process

Risks, opportunities, impacts, and dependencies related to climate change, biodiversity, and water are identified and prioritized through double materiality studies within the scope of corporate risk management efforts, with the participation of relevant stakeholders (partners, customers, employees, investors, regulators, financiers, local communities, suppliers). The outcomes are compared with the company's sustainability strategy, providing opportunities for strategy review. The value chain, including direct operations as well as downstream and upstream processes, is incorporated into the scope. Qualitative and quantitative methods are used to evaluate risks, opportunities, impacts, and dependencies, with time horizons set as short, medium, and long-term depending on the magnitude of the issues. Feedback and inputs from all stakeholders are evaluated quantitatively across environmental and social impacts (X-axis) and financial impacts (Y-axis) using a methodology co-developed with the Risk Management Directorate, and priorities are determined accordingly. This work is carried out organization-wide in a multi-disciplinary manner, including critical suppliers, and is prioritized based on site-specific, local, sub-national, and national considerations. The assessment process involves extensive desk-based research, field studies, and the use of external consultants, applying standards, guidelines, and methodologies specific to the subject (e.g., IBAT, WWF, IUCN Red List for biodiversity risks, IPCC projections, EIAs, ISO 14064, ISO 14046, WRI tools, and databases for climate and water risks). The process includes determining the magnitude of risks, oppourtunities and impacts such as physical, chronic, and transition risks. The priority topics resulting from the study are reviewed and fine-tuned by the sustainability committee, which reports to the Board of Directors. The study is managed by the Assistant General Manager of Risk Management at Zorlu Holding, the Sustainability Director of Zorlu Enerji, and the Assistant General Manager of Finance.

Row 2

(2.2.2.1) Environmental issue

Select all that apply

☑ Water

(2.2.2.2) Indicate which of dependencies, impacts, risks, and opportunities are covered by the process for this environmental issue

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(2.2.2.3) Value chain stages covered

Select all that apply

☑ Direct operations

☑ Upstream value chain

☑ Downstream value chain

(2.2.2.4) Coverage

Select from:

☑ Full

(2.2.2.5) Supplier tiers covered

Select all that apply

☑ Tier 1 suppliers

(2.2.2.7) Type of assessment

Select from:

☑ Qualitative and quantitative

(2.2.2.8) Frequency of assessment

Select from:

☑ More than once a year

(2.2.2.9) Time horizons covered

Select all that apply

☑ Short-term

☑ Medium-term

☑ Long-term

(2.2.2.10) Integration of risk management process

Select from:

☑ Integrated into multi-disciplinary organization-wide risk management process

(2.2.2.11) Location-specificity used

Select all that apply

☑ Site-specific

☑ Local

☑ Sub-national

☑ National

(2.2.2.12) Tools and methods used

Commercially/publicly available tools

☑ IBAT for Business

☑ SEDEX

☑ TNFD – Taskforce on Nature-related Financial Disclosures

☑ WRI Aqueduct

☑ WWF Water Risk Filter

Enterprise Risk Management

☑ Risk models
☑ Stress tests
☑ Internal company methods
☑ Enterprise Risk Management
☑ ISO 31000 Risk Management Standard
☑ COSO Enterprise Risk Management Framework

International methodologies and standards

☑ Environmental Impact Assessment
☑ IPCC Climate Change Projections
☑ ISO 14001 Environmental Management Standard
☑ ISO 14046 Environmental Management – Water Footprint
☑ Other international methodologies and standards, please specify :WWF Biodiversity Risk Filter (xx)

Databases

☑ Nation-specific databases, tools, or standards
☑ Regional government databases

Other

☑ Scenario analysis
☑ Desk-based research
☑ External consultants
☑ Materiality assessment
☑ Internal company methods
☑ Partner and stakeholder consultation/analysis

(2.2.2.13) Risk types and criteria considered

Chronic physical

☑ Water stress
☑ Saline intrusion
☑ Precipitation or hydrological variability
☑ Increased severity of extreme weather events

☑ Groundwater depletion
☑ Temperature variability
☑ Water quality at a basin/catchment level
☑ Water availability at a basin/catchment level

Policy

☑ Changes to national legislation
☑ Regulation of discharge quality/volumes
☑ Limited or lack of river basin management
☑ Poor coordination between regulatory bodies
☑ Poor enforcement of environmental regulation
☑ Increased difficulty in obtaining operations permits
☑ Changes to international law and bilateral agreements
☑ Lack of mature certification and sustainability standards
☑ Increased difficulty in obtaining water withdrawals permit
☑ Statutory water withdrawal limits/changes to water allocation

Market

☑ Uncertainty in the market signals

Reputation

☑ Increased partner and stakeholder concern and partner and stakeholder negative feedback
☑ Negative press coverage related to support of projects or activities with negative impacts on the environment (e.g. GHG emissions, deforestation & conversion, water stress)
☑ Stakeholder conflicts concerning water resources at a basin/catchment level
☑ Stigmatization of sector

Technology

☑ Dependency on water-intensive energy sources

Liability

☑ Exposure to litigation
☑ Non-compliance with regulations

(2.2.2.14) Partners and stakeholders considered

Select all that apply

☑ NGOs
☑ Regulators

☑ Customers
☑ Employees
☑ Investors
☑ Suppliers
☑ Local communities
☑ Water utilities at a local level
☑ Other water users at the basin/catchment level

(2.2.2.15) Has this process changed since the previous reporting year?

Select from:
☑ No

(2.2.2.16) Further details of process

Risks, opportunities, impacts, and dependencies related to climate change, biodiversity, and water are identified and prioritized through double materiality studies within the scope of corporate risk management efforts, with the participation of relevant stakeholders (partners, customers, employees, investors, regulators, financiers, local communities, suppliers). The outcomes are compared with the company's sustainability strategy, providing opportunities for strategy review. The value chain, including direct operations as well as downstream and upstream processes, is incorporated into the scope. Qualitative and quantitative methods are used to evaluate risks, opportunities, impacts, and dependencies, with time horizons set as short, medium, and long-term depending on the magnitude of the issues. Feedback and inputs from all stakeholders are evaluated quantitatively across environmental and social impacts (X-axis) and financial impacts (Y-axis) using a methodology co-developed with the Risk Management Directorate, and priorities are determined accordingly. This work is carried out organization-wide in a multi-disciplinary manner, including critical suppliers, and is prioritized based on site-specific, local, sub-national, and national considerations. The assessment process involves extensive desk-based research, field studies, and the use of external consultants, applying standards, guidelines, and methodologies specific to the subject (e.g., IBAT, WWF, IUCN Red List for biodiversity risks, IPCC projections, EIAs, ISO 14064, ISO 14046, WRI tools, and databases for climate and water risks). The process includes determining the magnitude of risks, oppourtunities and impacts such as physical, chronic, and transition risks. The priority topics resulting from the study are reviewed and fine-tuned by the sustainability committee, which reports to the Board of Directors. The study is managed by the Assistant General Manager of Risk Management at Zorlu Holding, the Sustainability Director of Zorlu Enerji, and the Assistant General Manager of Finance.
[Add row]

(2.2.7) Are the interconnections between environmental dependencies, impacts, risks and/or opportunities assessed?

(2.2.7.1) Interconnections between environmental dependencies, impacts, risks and/or opportunities assessed

Select from:
☑ Yes

(2.2.7.2) Description of how interconnections are assessed

At Zorlu Enerji, assessing the interconnections between environmental dependencies, impacts, risks, and opportunities is integral to our sustainability framework. As a vertically integrated energy company, we operate across the entire energy value chain—from generation to transmission, distribution, and trading—requiring a comprehensive approach to environmental factors. We apply a multi-layered process to evaluate how various environmental aspects interact. For example, the interconnection between climate change, water resources, and energy production is critically analyzed. Our geothermal and hydropower plants depend heavily on water availability, making them vulnerable to climate change or regulatory shifts. To manage these risks, we assess trade-offs between water conservation and energy generation goals. This assessment process is supported by cross-functional teams across sustainability, operations, and risk management. We align with international standards such as the Global Reporting Initiative (GRI) and the Task Force on Climate-related Financial Disclosures (TCFD). These standards help us identify both risks and synergies. For instance, increasing renewable energy strengthens our decarbonization goals and boosts resilience to market shifts. The assessment is integrated into our environmental risk evaluations and business planning cycles, which are reviewed by senior management. These assessments also inform our financial forecasting, helping evaluate long-term impacts of environmental interdependencies on performance. Technology plays a key role in mitigating risks and capturing opportunities. Our investments in smart systems, such as electric vehicle (EV) charging infrastructure, reduce GHG emissions while supporting the low-carbon transportation transition. This highlights the interconnection between environmental impacts and business opportunities. Zorlu Enerji continuously assesses synergies and trade-offs between environmental factors. For example, the increasing frequency of extreme weather events due to climate change has led to improved asset management strategies. We assess how these dependencies affect infrastructure, leading to investments in climate resilience and innovative renewable technologies. Challenges in assessing interconnections, such as conflicting environmental impacts, are addressed by prioritizing our long-term sustainability goals. By engaging with stakeholders, including regulators and communities, we mitigate risks while enhancing positive contributions. This dynamic approach helps balance immediate risks with long-term opportunities, ensuring Zorlu Enerji's resilience in a changing environmental landscape.
[Fixed row]

(2.3) Have you identified priority locations across your value chain?

(2.3.1) Identification of priority locations

Select from:

☑ Yes, we have identified priority locations

(2.3.2) Value chain stages where priority locations have been identified

Select all that apply

☑ Direct operations

(2.3.3) Types of priority locations identified

Sensitive locations

☑ Areas important for biodiversity

(2.3.4) Description of process to identify priority locations

To assess risks related to biodiversity and water crises, we utilize the WWF Biodiversity Risk Filter and WWF Water Risk Filter. Both tools are designed to provide a broad overview of potential biodiversity and water-related risks across various geographical locations. It helps us to understand our potential impacts and dependencies on natural resources, enabling us to identify high-risk areas and prioritize actions to mitigate these risks. The WWF Risk Filter is particularly useful for its ability to offer a macro-level assessment, which is essential for strategic decision-making and prioritization. Zorlu Enerji uses these tools for dependency-related assessment for both biodiversity and water. In addition to the WWF Risk Filter, we employ the Integrated Biodiversity Assessment Tool (IBAT) for more detailed and impact-related risks assessments. IBAT provides essential information on globally recognized areas of biodiversity importance, such as protected areas and key biodiversity areas (KBAs). This tool allows us to evaluate the potential impacts of our operations on these sensitive areas at a granular level, facilitating informed 11 decisions to minimize adverse effects on biodiversity. The detailed insights from IBAT are crucial for project-specific assessments and ensuring compliance with international biodiversity standards.

(2.3.5) Will you be disclosing a list/spatial map of priority locations?

Select from:

☑ Yes, we will be disclosing the list/geospatial map of priority locations

(2.3.6) Provide a list and/or spatial map of priority locations

Zorlu Enerji_Biodiversity_Report_2507.pdf
[Fixed row]

(2.4) How does your organization define substantive effects on your organization?

Risks

(2.4.1) Type of definition

Select all that apply

☑ Qualitative

☑ Quantitative

(2.4.2) Indicator used to define substantive effect

Select from:

☑ Revenue

(2.4.3) Change to indicator

Select from:

☑ % decrease

(2.4.4) % change to indicator

Select from:

☑ Less than 1%

(2.4.6) Metrics considered in definition

Select all that apply

☑ Frequency of effect occurring

☑ Time horizon over which the effect occurs

☑ Likelihood of effect occurring

(2.4.7) Application of definition

Substantive effects at Zorlu Enerji are defined as circumstances that significantly impact our business operations and influence our strategic and financial decision-making. A substantive effect occurs when a financial event or risk materially affects our performance, business continuity, or long-term objectives. We define a significant financial impact as any situation where the effect exceeds 0.1% of our net income, directly linked to our revenue streams. This threshold allows us to prioritize the most relevant financial indicators that directly reflect our business health. Our risk management framework prioritizes risks based on their financial impacts, ensuring we allocate resources effectively to mitigate critical risks. By categorizing risks systematically, we align our risk management strategies to match the potential consequences of each risk. This proactive approach helps us address risks before they escalate and impact our operations or strategic targets. For the reporting year, Zorlu Enerji has established clear quantitative thresholds to classify financial impacts from risks and opportunities into low, medium, and high categories, allowing us to evaluate the severity and urgency of each risk: Low impact: Financial consequences of less than TL 30 million. Medium impact: Financial consequences between TL 30 million and TL 300 million. High impact: Financial consequences of TL 300 million or more. These categories offer a structured framework for evaluating financial risks and opportunities. Low-impact risks are managed through routine operational measures, while medium- and high-impact risks demand strategic intervention and board-level attention. This structured approach also ensures that even small risks are identified and addressed early, preventing their escalation into more substantial challenges. In addition to immediate financial risks, we also assess long-term risks related to market dynamics, regulatory changes, and environmental factors, which may not have an immediate impact but could significantly affect our financial performance over time. This comprehensive approach allows Zorlu Enerji to remain resilient and adaptive in a rapidly changing energy landscape, supporting sustainable growth while minimizing negative financial effects.

Opportunities

(2.4.1) Type of definition

Select all that apply

☑ Qualitative

☑ Quantitative

(2.4.2) Indicator used to define substantive effect

Select from:

☑ Market share

(2.4.3) Change to indicator

Select from:

☑ % increase

(2.4.4) % change to indicator

Select from:

☑ 1-10

(2.4.6) Metrics considered in definition

Select all that apply

☑ Frequency of effect occurring

☑ Time horizon over which the effect occurs

☑ Likelihood of effect occurring

(2.4.7) Application of definition

Substantive effects in terms of opportunities are defined as circumstances where an increase in market share by 1% or more, has a significant impact on the company's competitive position and overall business operations. This threshold is particularly important in sectors where market dynamics are sensitive to shifts in

consumer demand, regulatory changes, or technological advancements. For Zorlu Enerji, an increase in market share by at least 1% signals a substantive opportunity. This gain can arise from enhanced competitiveness due to our investments in renewable energy technologies, smart energy solutions, and electric vehicle infrastructure. In this context, our ability to capture additional market share may lead to increased revenue streams and strengthened positioning within the energy sector. Such an opportunity aligns with our medium- and long-term strategic goals for expanding our sustainable energy offerings. The likelihood of this effect occurring is regularly assessed based on market trends, customer demand for sustainable energy solutions, and our ongoing efforts to innovate and adapt to new technologies. The time horizon for realizing such an increase in market share typically spans the medium-term (2-4 years), reflecting the time needed to fully implement new projects and integrate advanced energy solutions into our service offerings. The frequency of this effect is monitored through periodic market assessments, allowing us to identify shifts in demand and competitive positioning. By keeping a close watch on market movements and customer behavior, we are able to respond quickly to emerging opportunities and leverage our expertise in clean energy technologies. In summary, Zorlu Enerji views a 1% or greater increase in market share as a substantive effect because it represents a significant opportunity to grow our business, enhance financial performance, and further advance our sustainability goals. By focusing on these opportunities, we are able to solidify our position as a leader in the transition to a low-carbon economy.
[Add row]

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

(2.5.1) Identification and classification of potential water pollutants

Select from:

☑ Yes, we identify and classify our potential water pollutants

(2.5.2) How potential water pollutants are identified and classified

The discharged water is domestic wastewater. Therefore, it does not have a pesticides or related pollution impact. An accredited laboratory analyzes our treated wastewater periodically to comply with the Turkish Water Pollution Control Regulation. BOD, COD, TSS, and pH parameters are analyzed periodically.
[Fixed row]

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

Row 1

(2.5.1.1) Water pollutant category

Select from:

☑ Other nutrients and oxygen demanding pollutants

(2.5.1.2) Description of water pollutant and potential impacts

The discharged water has BOD, COD, TSS, and pH pollutant load. Since the water is treated before discharge, the pollutant load is decreased under regulation limits.

(2.5.1.3) Value chain stage

Select all that apply

☑ Direct operations

(2.5.1.4) Actions and procedures to minimize adverse impacts

Select all that apply

☑ Water recycling

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

(2.5.1.5) Please explain

The discharged water is domestic wastewater. Therefore, it does not have a significant pollution impact. However the pollutant parameters (BOD, COD, TSS, and pH) are monitored ana analyzed by an third party laboratory periodically. The pollutant parameter loads in the treated wastewater must be below the limit values specified in the regulation.
[Add row]

C3. Disclosure of risks and opportunities

(3.1) Have you identified any environmental risks which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future?

Climate change

(3.1.1) Environmental risks identified

Select from:

☑ Yes, both in direct operations and upstream/downstream value chain

Water

(3.1.1) Environmental risks identified

Select from:

☑ Yes, both in direct operations and upstream/downstream value chain

Plastics

(3.1.1) Environmental risks identified

Select from:

☑ No

(3.1.2) Primary reason why your organization does not consider itself to have environmental risks in your direct operations and/or upstream/downstream value chain

Select from:

☑ Environmental risks exist, but none with the potential to have a substantive effect on our organization

(3.1.3) Please explain

According to our business model, plastics usage is relatively quite less and there is no input of plastics in our process. Also in the category of purchased goods, plastics have less than 1%.
[Fixed row]

(3.1.1) Provide details of the environmental risks identified which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future.

Climate change

(3.1.1.1) Risk identifier

Select from:
☑ Risk1

(3.1.1.3) Risk types and primary environmental risk driver

Chronic physical
☑ Increased severity of extreme weather events

(3.1.1.4) Value chain stage where the risk occurs

Select from:
☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply
☑ Pakistan
☑ Turkey

(3.1.1.9) Organization-specific description of risk

In order to calculate the financial impact of extreme weather events on our operations, Zorlu Enerji utilizes scenario analyses. We model weather conditions based on the IEA's 1.5C Special Report as a critical variable for projecting future impacts. These scenarios help us understand how increasing storm intensity, floods, and other severe weather patterns affect our infrastructure, particularly wind and hydroelectric power plants. The maximum financial impact is often associated with significant damage to our switchyards and the interruption of electricity transmission caused by wind turbine malfunctions. Damage to transmission lines or substations results in prolonged downtime, leading to operational and revenue losses. Coordination with TEİAŞ (Turkish Electricity Transmission Company) is essential for repairing damaged infrastructure and minimizing downtime. Given that these events are expected to intensify in the long-term, we have prioritized investments in more resilient infrastructure and climate-proofing measures to mitigate these risks.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Closure of operations

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Long-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Likely

(3.1.1.14) Magnitude

Select from:

☑ Medium-low

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

In the long term, the increased severity of extreme weather events, particularly storms and floods, is anticipated to cause significant disruptions to Zorlu Enerji's financial performance. Damage to wind turbines and transmission infrastructure can lead to operational downtime, reducing electricity production and interrupting revenue streams. Repair costs for damaged switchyards and lines will strain operational budgets, leading to increased maintenance expenses and potentially higher insurance premiums. This will impact cash flows by increasing operational costs and lowering the generation capacity during periods of repair, resulting in reduced financial performance. Over time, these risks may require greater investment in resilient infrastructure, putting additional pressure on capital expenditures.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.23) Anticipated financial effect figure in the long-term – minimum (currency)

10000000

(3.1.1.24) Anticipated financial effect figure in the long-term – maximum (currency)

100000000

(3.1.1.25) Explanation of financial effect figure

The financial impact of extreme weather events is anticipated to range from USD 10 million to USD 100 million in the long term. This wide range reflects the severity of potential damages to Zorlu Enerji's wind turbines, transmission lines, and switchyards caused by storms, floods, or other extreme conditions. The minimum figure of USD 10 million accounts for isolated events with manageable repair costs and short-term operational downtime. In contrast, the maximum figure of USD 100 million represents large-scale, widespread damages affecting multiple assets and prolonged operational interruptions. Coordination with TEİAŞ for infrastructure repairs will contribute to minimizing financial losses but may still result in significant operational and financial disruptions.

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending

☑ Other infrastructure, technology and spending, please specify **:**Implement Climate Change Adaptation measures to increase resiliency of assets.

(3.1.1.27) Cost of response to risk

20000000

(3.1.1.28) Explanation of cost calculation

The cost of USD 20 million reflects investments in climate change adaptation measures, such as upgrading infrastructure to withstand extreme weather, enhancing early warning systems, and reinforcing transmission and distribution networks. This estimate includes both direct costs of infrastructure improvement and indirect costs, such as training and maintenance for resilience systems.

(3.1.1.29) Description of response

Zorlu Enerji is investing in climate change adaptation measures to increase the resilience of its critical infrastructure, particularly wind turbines, hydroelectric plants, and transmission systems. These measures include upgrading switchyards, enhancing the physical durability of transmission lines, and implementing state-of-the-art monitoring and early-warning systems to minimize downtime during extreme weather events. Additionally, the company is working closely with TEİAŞ to coordinate repairs and streamline recovery processes. By proactively reinforcing its assets, Zorlu Enerji aims to mitigate the financial impact of increasingly severe storms and floods, which are expected to intensify over the long term. These efforts not only reduce operational risks but also protect revenue streams and enhance the long-term sustainability of the company's assets.

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk2

(3.1.1.3) Risk types and primary environmental risk driver

Chronic physical

☑ Water stress

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Turkey

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Tigris & Euphrates

(3.1.1.9) Organization-specific description of risk

Water stress poses a significant risk to Zorlu Enerji's hydroelectric power plants, as it directly impacts our ability to generate electricity. A decline in water availability in key river basins, particularly the Tigris & Euphrates basin where our plants are located, can lead to reduced generation capacity. This risk is particularly pronounced in the medium and long-term as climate change is expected to exacerbate water shortages in Turkey. The reduced water flow not only affects the immediate generation output but also limits long-term operational efficiency and profitability. To mitigate this risk, we are developing water management strategies, which include investing in water-efficient technologies and enhancing our monitoring of hydrological conditions. Furthermore, we are engaging with local authorities and other stakeholders to explore solutions for sustainable water usage in the region.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Disruption in production capacity

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Medium-term

☑ Long-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Likely

(3.1.1.14) Magnitude

Select from:

☑ Medium-low

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Water stress in both the medium- and long-term is expected to reduce the generation capacity of Zorlu Enerji's hydroelectric power plants. In the medium-term, moderate water shortages will decrease energy output, leading to lower revenues and reduced profitability. As water scarcity worsens in the long term, these challenges will become more pronounced, significantly reducing hydroelectric generation capacity. This will affect cash flows as operational costs increase due to the need for additional mitigation efforts, such as investments in water-efficient technologies. Financial performance will be impacted by prolonged periods of decreased output, reducing the ability to meet market demand and leading to potential contractual penalties if energy delivery obligations cannot be met.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.21) Anticipated financial effect figure in the medium-term – minimum (currency)

5000000

(3.1.1.22) Anticipated financial effect figure in the medium-term – maximum (currency)

30000000

(3.1.1.23) Anticipated financial effect figure in the long-term – minimum (currency)

10000000

(3.1.1.24) Anticipated financial effect figure in the long-term – maximum (currency)

75000000

(3.1.1.25) Explanation of financial effect figure

In the medium-term, water stress is expected to have a financial impact ranging from USD 5 million to USD 30 million. This accounts for moderate reductions in water availability that will limit electricity generation from hydroelectric plants, leading to lower revenue and increased operational costs for mitigation efforts such as water-efficient technologies. In the long-term, the financial impact is projected to increase, ranging from USD 10 million to USD 75 million. This higher range reflects more severe water shortages, especially in critical river basins like the Tigris & Euphrates, which will significantly curtail hydroelectric output and require substantial investments in water conservation technologies and operational adjustments, further impacting Zorlu Enerji's financial position.

(3.1.1.26) Primary response to risk

Policies and plans

☑ Use risk transfer instruments

(3.1.1.27) Cost of response to risk

10000000

(3.1.1.28) Explanation of cost calculation

The USD 10 million figure includes costs associated with risk transfer instruments, such as purchasing insurance coverage for hydroelectric production disruptions, as well as water efficiency projects aimed at minimizing the operational impact of reduced water availability.

(3.1.1.29) Description of response

To mitigate the financial risks associated with water stress, Zorlu Enerji has implemented a dual strategy. First, the company has secured insurance policies to protect against losses stemming from reduced hydroelectric production due to water shortages. These policies help offset potential revenue declines caused by periods of low water availability. Second, Zorlu Enerji is investing in water-efficient technologies for its hydroelectric plants, including advanced monitoring systems to track real-time water usage and optimize electricity generation. These measures ensure that the company can maintain operations even in periods of drought, preserving financial stability and maintaining compliance with water usage regulations. By transferring risk through insurance and improving water efficiency, Zorlu Enerji is proactively managing both short-term and long-term water scarcity risks.

Climate change

(3.1.1.1) Risk identifier

Select from:

☑ Risk3

(3.1.1.3) Risk types and primary environmental risk driver

Policy

☑ Carbon pricing mechanisms

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Turkey

(3.1.1.9) Organization-specific description of risk

With Türkiye's upcoming Emissions Trading System (ETS) and the potential introduction of mandatory carbon pricing, Zorlu Enerji faces financial risks associated with increased operational costs. As part of our commitment to reducing our carbon footprint, we are preparing for these regulatory changes by aligning our operations with international mitigation and reporting standards. However, the introduction of carbon pricing could substantially raise costs for our thermal and natural gas power generation facilities, making them less competitive compared to renewable energy alternatives. This would result in a decrease in profit margins and potentially necessitate additional investments in cleaner technologies to remain compliant. To mitigate this risk, we are exploring opportunities for carbon credit trading and expanding our portfolio of low-carbon energy sources, such as wind and solar power.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Increased indirect [operating] costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Medium-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Very likely

(3.1.1.14) Magnitude

Select from:

☑ Low

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

In the medium term, the introduction of carbon pricing mechanisms will directly increase Zorlu Enerji's operating costs, particularly for its thermal and natural gas power generation assets. Mandatory carbon pricing is anticipated to reduce profit margins as operational costs rise due to increased carbon taxes and reporting obligations. This will negatively affect cash flows by raising the overall cost structure, potentially making some assets less competitive in the energy market. Financial performance may also be impacted if the company is required to make significant investments in carbon mitigation technologies or shift its energy portfolio more aggressively towards renewables to remain compliant with regulatory standards.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.21) Anticipated financial effect figure in the medium-term – minimum (currency)

3000000

(3.1.1.22) Anticipated financial effect figure in the medium-term – maximum (currency)

50000000

(3.1.1.25) Explanation of financial effect figure

The financial impact of carbon pricing mechanisms is estimated to range between USD 3 million and USD 50 million in the medium-term. The introduction of mandatory carbon pricing will increase operational costs, particularly for Zorlu Enerji's carbon-intensive thermal and natural gas power plants. The lower end of the range (USD 3 million) reflects modest carbon pricing and minor operational adjustments, while the higher end (USD 50 million) represents more aggressive pricing scenarios, requiring significant investments in emissions mitigation and low-carbon technologies. The financial burden will also depend on Türkiye's Emissions Trading System (ETS) and other regulatory changes, impacting both short-term cash flows and long-term profitability.

(3.1.1.26) Primary response to risk

Policies and plans

☑ Develop a climate transition plan

(3.1.1.27) Cost of response to risk

5000000

(3.1.1.28) Explanation of cost calculation

The USD 5 million reflects the initial implementation costs of Zorlu Enerji's climate transition plan, including consulting fees, technology investments, and internal process adjustments to comply with carbon pricing regulations and emissions mitigation.

(3.1.1.29) Description of response

Zorlu Enerji has developed a comprehensive climate transition plan to address the risks associated with carbon pricing mechanisms, such as Türkiye's Emissions Trading System (ETS). This plan includes initiatives to reduce emissions across the company's portfolio, particularly from its carbon-intensive thermal and natural gas power plants. The plan focuses on increasing the share of renewable energy in Zorlu Enerji's production mix, investing in energy efficiency measures, and exploring carbon credit trading opportunities. Additionally, the plan provides a framework for continuous emissions monitoring and reporting, ensuring that Zorlu Enerji remains compliant with evolving regulations. The company is also actively engaging in policy discussions to stay ahead of regulatory changes, allowing it to adapt its strategy as new carbon pricing mechanisms are introduced.

Climate change

(3.1.1.1) Risk identifier

Select from:

☑ Risk4

(3.1.1.3) Risk types and primary environmental risk driver

Technology

☑ Unsuccessful investment in new technologies

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Turkey

(3.1.1.9) Organization-specific description of risk

Zorlu Enerji's commitment to innovation and clean technology development includes substantial investments in renewable energy technologies and smart systems, such as energy storage and electric vehicle (EV) infrastructure. However, there is a risk that these technologies may not perform as expected, leading to potential financial losses. For instance, if energy storage solutions do not achieve the required efficiency or if EV adoption rates are slower than projected, this could impact our anticipated return on investment. Additionally, the failure of these technologies to meet regulatory or market standards could result in sunk costs. To mitigate this, we conduct thorough due diligence and partner with leading technology providers to ensure our investments align with industry best practices and emerging trends. We also adopt a flexible approach to innovation, allowing us to pivot strategies if certain technologies fail to deliver the expected benefits.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Increased production costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Medium-term

☑ Long-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ More likely than not

(3.1.1.14) Magnitude

Select from:

☑ Low

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

In the medium- and long-term, unsuccessful investments in new technologies, such as energy storage systems or electric vehicle infrastructure, could result in financial losses for Zorlu Enerji. In the medium-term, failure of these technologies to perform as expected will reduce anticipated revenue streams and limit returns on investment, negatively affecting financial performance. In the long term, the impact on cash flows will be more severe if these technologies do not achieve widespread adoption or fail to meet regulatory standards. This could result in stranded assets and sunk costs, increasing capital expenditure without corresponding returns, thereby reducing the company's overall financial position.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.21) Anticipated financial effect figure in the medium-term – minimum (currency)

1000000

(3.1.1.22) Anticipated financial effect figure in the medium-term – maximum (currency)

20000000

(3.1.1.23) Anticipated financial effect figure in the long-term – minimum (currency)

5000000

(3.1.1.24) Anticipated financial effect figure in the long-term – maximum (currency)

30000000

(3.1.1.25) Explanation of financial effect figure

In the medium-term, the financial impact of unsuccessful investments in new technologies, such as energy storage or electric vehicle infrastructure, is projected to range between USD 1 million and USD 20 million. The lower bound reflects minor setbacks or underperformance of small-scale projects, while the higher figure represents significant investments in large-scale technologies that fail to meet expectations. In the long-term, the financial impact could increase to USD 5 million to USD 30 million. This wider range reflects the potential for larger technology projects to not deliver the expected return on investment, particularly if the technologies

do not achieve market adoption or fail to comply with regulatory standards. The costs of adjusting to failed investments will further strain capital expenditures and affect financial performance.

(3.1.1.26) Primary response to risk

Diversification

☑ Develop new products, services and/or markets

(3.1.1.27) Cost of response to risk

15000000

(3.1.1.28) Explanation of cost calculation

The USD 15 million represents the expected costs for developing and launching new products, services, and markets in response to potential technological failures. This includes R&D expenses, marketing efforts, and strategic partnerships aimed at commercializing new technologies.

(3.1.1.29) Description of response

Zorlu Enerji is diversifying its portfolio by developing new products and services to respond to the risk of unsuccessful investments in technologies such as energy storage and electric vehicle infrastructure. The company is allocating resources to R&D efforts aimed at improving the performance of clean technologies and identifying new market opportunities. In parallel, Zorlu Enerji is expanding its partnerships with technology firms and research institutions to ensure that its innovations align with global market trends and regulatory standards. To hedge against technological failures, Zorlu Enerji is also exploring alternative business models, such as licensing its technology to third-party developers and entering new markets that can capitalize on existing competencies in clean energy production. This approach reduces the financial risk associated with stranded investments and enhances the company's long-term growth prospects.

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk5

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical

☑ Drought

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Turkey

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Tigris & Euphrates

(3.1.1.9) Organization-specific description of risk

Drought conditions pose a serious risk to the operational capacity of Zorlu Enerji's hydroelectric power plants. Prolonged periods of drought reduce water levels in the Tigris & Euphrates river basins, limiting the availability of water needed to generate electricity. This risk is particularly acute in the short-term, as periodic droughts can lead to a sudden and substantial decrease in production capacity. To address this, we have invested in advanced forecasting systems to better predict drought patterns and adjust operations accordingly. Furthermore, we are exploring alternative water sources and storage systems to ensure continuous operation during dry periods. Additionally, drought management strategies are integrated into our broader climate resilience planning, helping us to maintain operational stability and minimize financial losses in the face of water shortages.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Disruption in production capacity

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Likely

(3.1.1.14) Magnitude

Select from:

☑ Medium-high

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

In the short-term, drought conditions will lead to an immediate reduction in Zorlu Enerji's hydroelectric power production, decreasing revenue due to lower generation capacity. Prolonged droughts will increase operational costs as the company invests in alternative water sources or storage systems to mitigate the impact on production. Cash flows will be strained by these increased costs and reduced revenues, impacting financial performance. If drought conditions persist, the company may face challenges in meeting its energy delivery commitments, potentially resulting in penalties or loss of market share. This could weaken Zorlu Enerji's financial position, especially in regions where hydroelectric power is a significant component of its energy portfolio.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

2000000

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

20000000

(3.1.1.25) Explanation of financial effect figure

The financial impact of drought conditions on Zorlu Enerji's hydroelectric power plants is estimated to range from USD 2 million to USD 20 million in the short term. The lower figure represents moderate droughts with temporary reductions in energy generation, while the higher figure reflects severe, prolonged droughts leading to substantial declines in hydroelectric output. Reduced water availability in critical river basins, such as the Tigris & Euphrates, will lead to lower revenue and increased operational costs as the company invests in alternative water sourcing and storage systems. These additional expenses and operational disruptions will strain Zorlu Enerji's cash flows, negatively impacting short-term financial performance.

(3.1.1.26) Primary response to risk

Policies and plans

☑ Increase insurance coverage

(3.1.1.27) Cost of response to risk

3000000

(3.1.1.28) Explanation of cost calculation

The USD 3 million figure reflects the cost of increasing insurance coverage for Zorlu Enerji's hydroelectric assets, which are particularly vulnerable to droughts. This cost includes premium increases and additional insurance policy features.

(3.1.1.29) Description of response

Zorlu Enerji is mitigating the financial risks posed by drought conditions through increased insurance coverage for its hydroelectric plants. This additional coverage protects the company against revenue losses caused by reduced water availability in critical river basins like the Tigris & Euphrates. The insurance policies cover both short-term disruptions in electricity generation and long-term reductions in production capacity due to prolonged droughts. In addition to insurance, Zorlu Enerji is implementing water conservation initiatives to reduce the impact of drought on its operations. This includes investments in water storage systems, advanced drought forecasting technologies, and partnerships with local water authorities to ensure sustainable water use. Together, these measures provide Zorlu Enerji with financial protection while minimizing operational disruptions.
[Add row]

(3.1.2) Provide the amount and proportion of your financial metrics from the reporting year that are vulnerable to the substantive effects of environmental risks.

Climate change

(3.1.2.1) Financial metric

Select from:

☑ Revenue

(3.1.2.2) Amount of financial metric vulnerable to transition risks for this environmental issue (unit currency as selected in 1.2)

50000000

(3.1.2.3) % of total financial metric vulnerable to transition risks for this environmental issue

Select from:

☑ 1-10%

(3.1.2.4) Amount of financial metric vulnerable to physical risks for this environmental issue (unit currency as selected in 1.2)

100000000

(3.1.2.5) % of total financial metric vulnerable to physical risks for this environmental issue

Select from:

☑ 1-10%

(3.1.2.7) Explanation of financial figures

Extremum points (maximum figures) or sum of extremum points are used to provide the amounts of financial metric vulnerable to transition or physical risks. These amounts are then divided into our revenue figure reported in Module 1 to find the % of total financial metric vulnerable to transition and physical risks.

Water

(3.1.2.1) Financial metric

Select from:

☑ Revenue

(3.1.2.2) Amount of financial metric vulnerable to transition risks for this environmental issue (unit currency as selected in 1.2)

0

(3.1.2.3) % of total financial metric vulnerable to transition risks for this environmental issue

Select from:
☑ Less than 1%

(3.1.2.4) Amount of financial metric vulnerable to physical risks for this environmental issue (unit currency as selected in 1.2)

95000000

(3.1.2.5) % of total financial metric vulnerable to physical risks for this environmental issue

Select from:
☑ 1-10%

(3.1.2.7) Explanation of financial figures

Extremum points (maximum figures) or sum of extremum points are used to provide the amounts of financial metric vulnerable to transition or physical risks. These amounts are then divided into our revenue figure reported in Module 1 to find the % of total financial metric vulnerable to transition and physical risks.
[Add row]

(3.2) Within each river basin, how many facilities are exposed to substantive effects of water-related risks, and what percentage of your total number of facilities does this represent?

Row 1

(3.2.1) Country/Area & River basin

Turkey

☑ Other, please specify :Gediz Basin

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☑ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

1

(3.2.4) % of your organization's total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☑ 1-25%

(3.2.8) % organization's annual electricity generation that could be affected by these facilities

Select from:

☑ 1-25%

(3.2.10) % organization's total global revenue that could be affected

Select from:

☑ 1-10%

(3.2.11) Please explain

Alaşehir Geothermal Energy Power Plant is assessed as per electricity generation.

Row 2

(3.2.1) Country/Area & River basin

Turkey

☑ Tigris & Euphrates

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☑ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

2

(3.2.4) % of your organization's total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☑ 100%

(3.2.8) % organization's annual electricity generation that could be affected by these facilities

Select from:

☑ 1-25%

(3.2.10) % organization's total global revenue that could be affected

Select from:

☑ 1-10%

(3.2.11) Please explain

Erzurum Tercan & Tunceli Mercan HPPs are assessed in terms of their installed capacities and their contributions to our annual net electricity generation.
[Add row]

(3.3) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?

(3.3.1) Water-related regulatory violations

Select from:

☑ No

(3.3.3) Comment

Zorlu Enerji's Hydroelectric Power Plants, which are the only eligible assets for potential water-related fines, penalties, or enforcement orders, have not experienced any incidents that would result in such regulatory actions during the 2023 reporting year. We adhere to strict compliance with all water-related environmental regulations and continuously monitor operations to mitigate any risks. Our commitment to maintaining environmental standards ensures that we remain fully compliant with all water management laws and regulations.
[Fixed row]

(3.6) Have you identified any environmental opportunities which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future?

	Environmental opportunities identified
Climate change	*Select from:* ☑ Yes, we have identified opportunities, and some/all are being realized
Water	*Select from:* ☑ Yes, we have identified opportunities, and some/all are being realized

[Fixed row]

(3.6.1) Provide details of the environmental opportunities identified which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future.

Climate change

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp1

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Energy source

☑ Use of low-carbon energy sources

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Downstream value chain

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Turkey

(3.6.1.8) Organization specific description

Zorlu Energy generates 100% of its electricity from renewable sources such as geothermal, hydro, and wind power plants. As part of its strategy to support the global transition to a low-carbon economy, Zorlu is also expanding into new business lines, such as offering heat pumps in areas without gas distribution networks. This emerging business line is positioned to address the increasing consumer demand for energy-efficient, low-carbon heating solutions, particularly in regions where traditional gas infrastructure is unavailable. Heat pumps, which offer a clean and cost-effective alternative for heating, provide Zorlu with the opportunity to capture market share in residential and commercial sectors that are rapidly transitioning to electrified heating systems. With growing regulatory pressure to reduce emissions and achieve energy efficiency targets, Zorlu's heat pumps offer an attractive solution, helping customers lower their carbon footprints. This positions Zorlu as a key provider in both renewable energy generation and energy-efficient technologies, complementing its established renewable portfolio and enhancing its reputation in

the clean energy sector. The company can leverage its expertise in green technologies to further penetrate this market, while contributing to the decarbonization of regions without gas infrastructure. The potential for income from the increased demand for clean heating solutions represents a promising opportunity for growth in the coming years.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Increased revenues through access to new and emerging markets

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Medium-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Likely (66–100%)

(3.6.1.12) Magnitude

Select from:

☑ Medium-low

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

The introduction of heat pumps as a solution in regions without a gas distribution network is expected to positively impact Zorlu Enerji's financial position. As this business line is emerging, it provides new avenues for revenue generation, particularly in rural or semi-urban areas where alternatives are limited. With the growing demand for energy-efficient, renewable-powered heating solutions, we anticipate increased revenues in the medium-term through direct sales and installation services. Additionally, long-term service contracts for maintenance will provide a recurring revenue stream, positively affecting cash flows and enhancing financial predictability. In the medium-term, the success of heat pumps is expected to align with energy efficiency policies, potentially leading to further growth in market share and bolstered financial resilience.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ Yes

(3.6.1.19) Anticipated financial effect figure in the medium-term - minimum (currency)

20000000

(3.6.1.20) Anticipated financial effect figure in the medium-term - maximum (currency)

40000000

(3.6.1.23) Explanation of financial effect figures

The financial impact figures, ranging from 20 million to 40 million USD, are based on the anticipated expansion of Zorlu Enerji's emerging heat pump business line. This opportunity arises from areas where there is no gas distribution network, creating a significant market for energy-efficient heating solutions. Zorlu Enerji expects to capture substantial market share in these regions, leveraging its renewable energy expertise and growing public demand for environmentally friendly heating systems. The projected revenue includes both direct sales of heat pumps and potential long-term service contracts for maintenance and upgrades, which together drive medium-term financial growth. Additionally, the adoption of heat pumps aligns with regional energy efficiency initiatives and decarbonization strategies, enhancing overall market readiness.

(3.6.1.24) Cost to realize opportunity

150000

(3.6.1.25) Explanation of cost calculation

The cost to realize this opportunity includes investments in expanding Zorlu Enerji’s renewable energy generation infrastructure and obtaining the necessary certifications (such as I-REC). These certifications are critical to offering credible low-carbon energy solutions to our clients, particularly in areas with limited access to green energy options. The 150,000 USD includes the procurement of renewable energy certificates, consulting fees, and upgrading infrastructure to meet international standards.

(3.6.1.26) Strategy to realize opportunity

Zorlu Enerji plans to capitalize on the growing demand for renewable energy in areas lacking gas distribution networks by offering heat pumps as a viable, energy-efficient solution. Our strategy focuses on expanding our renewable energy portfolio to meet the increasing need for I-REC certified electricity. Additionally, we will actively market our heat pumps, specifically targeting regions where customers are seeking alternatives to gas for heating. By promoting the adoption of low-carbon technologies such as heat pumps and maintaining the credibility of our renewable energy certifications (including I-REC), we can attract new clients, particularly in

industrial sectors aiming to decarbonize. This approach will help increase both market penetration and customer loyalty, while contributing to the global energy transition.

Water

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp2

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Products and services

☑ Increased sales of existing products and services

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Downstream value chain

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Turkey

(3.6.1.6) River basin where the opportunity occurs

Select all that apply

☑ Tigris & Euphrates

(3.6.1.8) Organization specific description

Zorlu Energy derives 100% of its electricity generation from renewable resources such as geothermal, hydro, and wind power plants. This renewable focus aligns with growing public awareness surrounding climate change and the rising consumer demand for low-carbon energy solutions. By providing services and products based

on green energy, Zorlu Energy enjoys a competitive advantage, particularly among B2C companies striving for sustainability. Our strong commitment to environmental responsibility and a sustainable corporate approach enhances Zorlu's reputation among stakeholders, especially investors and customers. As regulations tighten and companies seek ways to offset their carbon emissions, the demand for I-REC Certification has grown substantially. Zorlu Energy is well-positioned to capitalize on this trend by offering certification and income from carbon credits. By doing so, we can create new revenue streams while continuing to lead in the renewable energy sector. This opportunity not only increases the demand for our clean energy products but also strengthens our leadership in the transition to a low-carbon economy.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Increased revenues resulting from increased demand for products and services

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

☑ Long-term

☑ The opportunity has already had a substantive effect on our organization in the reporting year

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Likely (66–100%)

(3.6.1.12) Magnitude

Select from:

☑ Low

(3.6.1.13) Effect of the opportunity on the financial position, financial performance and cash flows of the organization in the reporting period

As of today, increased sales of existing products and services driven by the growing demand for renewable energy have already had a substantial positive effect on Zorlu Enerji's revenue generation and overall financial performance. With heightened awareness of climate change and sustainability, businesses and consumers are actively shifting towards eco-friendly products, which has significantly boosted the sales of our renewable energy services. This shift has translated into increased

revenues and cash inflows, improving our financial stability. Additionally, our strengthened market presence and enhanced brand reputation, closely tied to our sustainability initiatives, have further contributed to these financial gains. In summary, this opportunity has improved our financial performance by creating new revenue streams and solidifying customer loyalty.

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

In the short-term, increased sales of existing products and services driven by the growing demand for renewable energy is anticipated to have a substantial positive effect on Zorlu Enerji's revenue generation and overall financial performance. With heightened awareness of climate change and sustainability, businesses and consumers are shifting towards eco-friendly products, boosting the sales of our renewable energy services. This trend will likely translate into increased revenues and cash inflows, improving financial stability. Additionally, a stronger market presence and brand reputation associated with sustainability initiatives will further drive financial gains. In summary, this opportunity will enhance our financial performance by creating new revenue streams and strengthening customer loyalty.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ Yes

(3.6.1.16) Financial effect figure in the reporting year (currency)

307498

(3.6.1.17) Anticipated financial effect figure in the short-term - minimum (currency)

1000000

(3.6.1.18) Anticipated financial effect figure in the short-term – maximum (currency)

3000000

(3.6.1.21) Anticipated financial effect figure in the long-term - minimum (currency)

19404000

(3.6.1.22) Anticipated financial effect figure in the long-term – maximum (currency)

19404000

(3.6.1.23) Explanation of financial effect figures

The increasing demand for I-REC Certification and revenues from carbon credits present another opportunity. In 2023, I-REC revenues reached 307,498 USD: a total of 342,149 MWh of electricity was certified from Kızıldere 3 GPP and Alaşehir GPP, generating a total income of 307,498 USD from these certificates. The financial impact estimate of 1 million to 3 million USD in short-term is based on the expected rise in demand for Zorlu Enerji's renewable energy products and services. This includes increased sales of I-REC certificates from renewable assets, driven by corporations and households seeking green energy options to meet sustainability goals. The range reflects the potential market share expansion within the medium term, considering both established and growing customer bases. Additionally, the figures include revenue growth from B2C companies that are increasingly adopting renewable energy sources. In addition to this, in the long-term we plan to sell carbon credits corresponding to 882,000 tonnes of CO2 reduction from our existing and planned facilities. When we assume a carbon credit price of 22 USD for 2030, the expected revenue will be 19,404,000 USD.

(3.6.1.24) Cost to realize opportunity

200000

(3.6.1.25) Explanation of cost calculation

The cost includes infrastructure and logistical investments to increase Zorlu Enerji's renewable energy offerings, such as expanding the generation and certification of green energy. Additionally, expenses related to acquiring the necessary expertise and certifications (like I-REC and YEK-G) and covering consultant fees are included. As demand for decarbonized energy grows, Zorlu Enerji must consistently meet these standards, which is why a significant budget is allocated to cover the administrative and operational costs of maintaining the certifications.

(3.6.1.26) Strategy to realize opportunity

Zorlu Enerji will leverage its strong position in the renewable energy market by targeting B2C companies, which are increasingly focusing on reducing their carbon footprints. We plan to continue expanding our renewable energy capacity, particularly focusing on solar and wind power projects. Our strategy includes offering bundled services that combine energy solutions with I-REC certified energy, thus catering to businesses aiming to meet their sustainability goals. By maintaining compliance with the latest global sustainability trends, we will secure long-term contracts with customers who prioritize renewable energy, improving our market share and bolstering revenue streams.

Climate change

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp3

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Capital flow and financing

☑ Access to sustainability linked loans

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Upstream value chain

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Turkey

(3.6.1.8) Organization specific description

Zorlu Energy derives 100% of its electricity generation from renewable resources such as geothermal, hydro, and wind power plants. This strong focus on renewables aligns with growing public awareness of climate change and the increasing demand for low-carbon energy solutions. Our sustainability efforts are underpinned by scientifically validated climate targets through the Science Based Targets initiative (SBTi), further enhancing the credibility and transparency of our decarbonization goals. This validation strengthens Zorlu's competitive advantage, particularly in B2C markets, where consumers and businesses alike demand sustainable energy solutions. Zorlu's commitment to these validated climate goals, coupled with a sustainable corporate approach, increases our organization's reputation among stakeholders, particularly investors and customers. Furthermore, Zorlu Energy is positioned to capitalize on growing demand for I-REC Certification, offering additional revenue opportunities through income from carbon credits. As regulations tighten, Zorlu's robust climate targets and renewable energy portfolio ensure that we remain a leader in the transition to a low-carbon economy, building financial resilience while addressing global environmental challenges.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Increased access to capital

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

☑ Medium-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Virtually certain (99–100%)

(3.6.1.12) Magnitude

Select from:

☑ Medium-low

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

In the short-term, Zorlu Enerji's access to sustainability-linked loans is expected to bolster the company's financial position by providing favorable financing terms aligned with our sustainability targets. Given our validated SBTi targets and strong ESG performance, we anticipate securing low-interest loans, leading to reduced financial costs. This will enable Zorlu Enerji to finance its growth projects, improve capital structure, and lower borrowing costs. As a result, this opportunity is expected to improve cash flow in the short-term and positively impact our financial performance by freeing up capital for investment in renewable projects and innovation. Over the medium-term, this improved access to capital will continue supporting operational growth and sustainability efforts.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ Yes

(3.6.1.17) Anticipated financial effect figure in the short-term - minimum (currency)

15000000

(3.6.1.18) Anticipated financial effect figure in the short-term – maximum (currency)

25000000

(3.6.1.19) Anticipated financial effect figure in the medium-term - minimum (currency)

40000000

(3.6.1.20) Anticipated financial effect figure in the medium-term - maximum (currency)

60000000

(3.6.1.23) Explanation of financial effect figures

In the short term, Zorlu Enerji expects a financial impact ranging from 15 million to 25 million USD, which will arise from favorable loan terms, leading to lower financing costs. By reducing the interest burden on capital, Zorlu will improve its cash flow and profitability. In the medium term, the impact expands to 40 million to 60 million USD as sustainability-linked financing supports further investment in renewable energy projects and operational growth. The estimate includes both short-term gains from financial savings and medium-term revenue from capital raised to fund new sustainable energy initiatives.

(3.6.1.24) Cost to realize opportunity

500000

(3.6.1.25) Explanation of cost calculation

The cost includes investments in capital to develop new financing products linked to sustainability, as well as costs associated with marketing and promoting these products to potential clients. Additionally, fees paid to external consultants and institutions for validating the sustainability credentials of our loans are included in this figure. The funds are directed toward enhancing the financial structure and aligning it with the demand for sustainability-linked loans from environmentally-conscious investors.

(3.6.1.26) Strategy to realize opportunity

Zorlu Enerji is well-positioned to lead in providing sustainability-linked loans in the energy sector, particularly as it has already committed to SBTi-validated climate targets. To seize this opportunity, we will establish partnerships with financial institutions to create products that are tied to sustainability performance, offering favorable terms to businesses that commit to reducing their carbon emissions. By marketing these products to energy-intensive industries and public-sector clients, we can establish ourselves as a leader in sustainable financing. Furthermore, our commitment to transparency and robust ESG metrics will continue to attract investors, creating a new, steady revenue stream while fostering greater adoption of clean energy initiatives in the market.

Climate change

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp4

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Products and services

☑ Increased sales of existing products and services

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Downstream value chain

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Turkey

(3.6.1.6) River basin where the opportunity occurs

Select all that apply

☑ Unknown

(3.6.1.8) Organization specific description

With climate change driving a surge in demand for energy-efficient and low-carbon solutions, Zorlu Energy is poised to capitalize on the increased sales of its existing renewable energy services. The company's vertically integrated business model enables it to offer comprehensive clean energy solutions across multiple segments, including B2C and B2B markets. As governments and businesses ramp up efforts to achieve net-zero targets, Zorlu's portfolio of renewable energy services becomes increasingly attractive. Furthermore, the company is well-positioned to provide carbon offset solutions and renewable energy certificates to businesses seeking to reduce their carbon footprint. This increased demand for carbon-neutral energy sources and Zorlu's ability to meet these needs at scale creates a significant growth opportunity. By continuing to expand its green energy offerings, Zorlu ensures that it remains a competitive force in the evolving energy market.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Increased revenues resulting from increased production capacity

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Medium-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Likely (66–100%)

(3.6.1.12) Magnitude

Select from:

☑ Medium-low

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

The increased sales of existing products and services, particularly renewable energy solutions, are expected to have a favorable financial impact in the medium-term. As demand for sustainable energy solutions grows among businesses and households, Zorlu Enerji is well-positioned to capture this market growth. The opportunity will result in increased revenue streams, particularly from long-term contracts with commercial and industrial clients seeking to lower their carbon footprints. Furthermore, by expanding into new geographical markets and customer segments, the company anticipates an increase in cash flow, strengthened financial performance, and better operational margins due to economies of scale. The financial impact of this opportunity will improve Zorlu Enerji's financial outlook and contribute to the long-term sustainability of its business model.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ Yes

(3.6.1.19) Anticipated financial effect figure in the medium-term - minimum (currency)

40000000

(3.6.1.20) Anticipated financial effect figure in the medium-term - maximum (currency)

90000000

(3.6.1.23) Explanation of financial effect figures

The estimated financial impact of 40 million to 90 million USD reflects the anticipated increase in revenues from existing renewable energy products, such as electricity from geothermal, wind, and hydro sources. This estimate includes the expected rise in demand for sustainable energy as more corporate clients shift toward renewable options to achieve net-zero targets. The financial figures account for medium-term contracts and revenue from new customer acquisition, driven by enhanced market reputation, as well as operational efficiencies gained from economies of scale in renewable energy production.

(3.6.1.24) Cost to realize opportunity

20000

(3.6.1.25) Explanation of cost calculation

Zorlu Energy is committed to achieving net zero in Scope 1&2 emissions by ensuring the use of emission-free electricity in its operations. To achieve this, the company procures I-REC certified electricity, which guarantees the emissions-free nature of the energy. Additionally, Zorlu Energy has set a target to achieve net zero emissions in its supply chain network by 2040 and aims to have a positive impact on the network by being a distributor of PV technologies, thereby reducing its Scope 3 emissions. The company places great importance on aligning its actions with evolving consumer preferences that prioritize ecological awareness throughout its value chain. The demand for certified electricity, such as I-REC and YEK-G certificates, is growing as more industries focus on decarbonizing their Scope 2 emissions. Zorlu Energy started selling I-REC certified renewable energy in 2021 to meet this demand. In 2023, I-REC revenues amounted to 307,498 USD. The money we pay to relevant consultants for carbon credits and I-REC certifications is a cost to realize this opportunity.

(3.6.1.26) Strategy to realize opportunity

Zorlu Energy's strategy to maximize this opportunity includes scaling up our renewable energy infrastructure to meet the rising demand for certified green electricity. The strategy revolves around promoting I-REC certified energy, ensuring that we remain compliant with the highest international sustainability standards. We also plan to target the growing B2B market where customers increasingly seek eco-friendly solutions for their operations. By actively positioning ourselves as a reliable supplier of certified clean energy, we aim to boost our market share and generate long-term revenues from the sale of both renewable energy and associated carbon credits. Our outreach strategy includes collaborating with key industrial sectors that are looking to decarbonize, leveraging our established reputation and robust renewable energy capabilities.
[Add row]

(3.6.2) Provide the amount and proportion of your financial metrics in the reporting year that are aligned with the substantive effects of environmental opportunities.

Climate change

(3.6.2.1) Financial metric

Select from:

☑ Revenue

(3.6.2.2) Amount of financial metric aligned with opportunities for this environmental issue (unit currency as selected in 1.2)

190000000

(3.6.2.3) % of total financial metric aligned with opportunities for this environmental issue

Select from:

☑ 11-20%

(3.6.2.4) Explanation of financial figures

Extremum points (maximum figures) or sum of extremum points are used to provide the amounts of financial metric aligned with opportunities. These amounts are then divided into our revenue figure reported in Module 1 to find the % of total financial metric aligned with these opportunities.

Water

(3.6.2.1) Financial metric

Select from:

☑ Revenue

(3.6.2.2) Amount of financial metric aligned with opportunities for this environmental issue (unit currency as selected in 1.2)

19404000

(3.6.2.3) % of total financial metric aligned with opportunities for this environmental issue

Select from:

☑ 1-10%

(3.6.2.4) Explanation of financial figures

Extremum points (maximum figures) or sum of extremum points are used to provide the amounts of financial metric aligned with opportunities. These amounts are then divided into our revenue figure reported in Module 1 to find the % of total financial metric aligned with these opportunities.
[Add row]

C4. Governance

(4.1) Does your organization have a board of directors or an equivalent governing body?

(4.1.1) Board of directors or equivalent governing body

Select from:

☑ Yes

(4.1.2) Frequency with which the board or equivalent meets

Select from:

☑ More frequently than quarterly

(4.1.3) Types of directors your board or equivalent is comprised of

Select all that apply

☑ Executive directors or equivalent

☑ Non-executive directors or equivalent

☑ Independent non-executive directors or equivalent

(4.1.4) Board diversity and inclusion policy

Select from:

☑ Yes, and it is publicly available

(4.1.5) Briefly describe what the policy covers

Zorlu Enerji emphasizes the critical importance of inclusion, equality, and diversity as core drivers of innovation, development, and long-term business sustainability. These values are embedded within the company's broader Sustainability Strategy and are reflected in every aspect of its operations, from board-level governance to the day-to-day running of the business. The Board Diversity and Inclusion Policy ensures that diversity on the board is prioritized by establishing guidelines for the fair and unbiased selection of candidates based on gender, ethnicity, race, and other defining characteristics. This policy aims to promote a dynamic and representative board that fosters innovation through diverse perspectives. A significant target within the policy is to increase the representation of women in leadership roles, with a

goal of reaching 30% female participation in decision-making positions by 2030. The policy also advocates for equal opportunities for people from underrepresented groups, ensuring that board members come from a wide variety of backgrounds, beliefs, and expertise. Zorlu Enerji regularly tracks the progress of these initiatives and reports on them publicly to maintain transparency and accountability. This approach not only aligns with global sustainability standards but also strengthens Zorlu Enerji's competitive advantage by fostering an inclusive and forward-thinking corporate culture.

(4.1.6) Attach the policy (optional)

2.pdf
[Fixed row]

(4.1.1) Is there board-level oversight of environmental issues within your organization?

	Board-level oversight of this environmental issue
Climate change	*Select from:* ☑ Yes
Water	*Select from:* ☑ Yes
Biodiversity	*Select from:* ☑ Yes

[Fixed row]

(4.1.2) Identify the positions (do not include any names) of the individuals or committees on the board with accountability for environmental issues and provide details of the board's oversight of environmental issues.

Climate change

(4.1.2.1) Positions of individuals or committees with accountability for this environmental issue

Select all that apply

☑ Board chair

☑ Chief Executive Officer (CEO)

☑ Chief Financial Officer (CFO)

☑ Other, please specify :Sustainability Committee

(4.1.2.2) Positions' accountability for this environmental issue is outlined in policies applicable to the board

Select from:

☑ Yes

(4.1.2.3) Policies which outline the positions' accountability for this environmental issue

Select all that apply

☑ Other policy applicable to the board, please specify :Zorlu Enerji Environment Policy

(4.1.2.4) Frequency with which this environmental issue is a scheduled agenda item

Select from:

☑ Scheduled agenda item in some board meetings – at least annually

(4.1.2.5) Governance mechanisms into which this environmental issue is integrated

Select all that apply

☑ Reviewing and guiding annual budgets

☑ Overseeing and guiding scenario analysis

☑ Overseeing the setting of corporate targets

☑ Monitoring progress towards corporate targets

☑ Approving corporate policies and/or commitments

☑ Monitoring the implementation of a climate transition plan

☑ Overseeing and guiding the development of a business strategy

☑ Overseeing and guiding acquisitions, mergers, and divestitures

☑ Monitoring supplier compliance with organizational requirements

☑ Overseeing and guiding public policy engagement

☑ Approving and/or overseeing employee incentives

☑ Overseeing and guiding major capital expenditures

☑ Monitoring the implementation of the business strategy

☑ Overseeing reporting, audit, and verification processes

☑ Monitoring compliance with corporate policies and/or commitments

☑ Overseeing and guiding the development of a climate transition plan

☑ Reviewing and guiding the assessment process for dependencies, impacts, risks, and opportunities

(4.1.2.7) Please explain

The Sustainability Board, reporting to the Board of Directors, oversees Zorlu Enerji's climate-related performance, risks, opportunities, and ESG developments. It integrates these factors into the company's strategy and sets climate-related targets. The board, chaired by an independent member, meets at least annually, with the CEO, CFO, and sector president as key members. Their involvement ensures that climate issues are embedded in Zorlu Enerji's financial decisions, corporate strategy, and long-term planning, including emissions reduction targets and alignment with the IEA NZE 2050 scenario. The CEO and CFO play critical roles, ensuring climate goals are integrated into financial planning and corporate investments, including the development of Zorlu Enerji's climate transition plan. The CFO ensures budget allocations, capital expenditures, and M&A activities consider climate risks and opportunities. The Sustainability Board tracks progress towards corporate commitments, guiding the assessment of dependencies, impacts, and risks associated with climate change. Decisions made by the Sustainability Board are implemented through the Sustainability Directorate, which works with senior executives to apply these across the company. The CEO and CFO ensure alignment between climate goals and business operations, prioritizing investments in renewable energy, carbon capture technologies, and compliance with global climate initiatives like the Paris Agreement and SBTi. This helps Zorlu Enerji meet its decarbonization targets, adapt to regulatory shifts, and drive long-term value creation. The board also oversees scenario analysis, using models like IEA NZE 2050 to anticipate financial and operational impacts. These analyses inform strategic decisions such as investments in decarbonization, renewable energy assets, and mitigation of transition risks. By regularly reviewing climate scenarios, the board ensures Zorlu Enerji remains resilient in the face of evolving climate risks and opportunities. The CFO plays a key role in ensuring climate-related financial risks are incorporated into the company's broader financial strategy, while the CEO ensures that operational goals align with long-term sustainability objectives. The board monitors employee incentives tied to climate goals, ensuring accountability and fostering a culture of environmental responsibility. This governance approach positions Zorlu Enerji to lead the energy transition while building resilience and ensuring sustained business growth.

Water

(4.1.2.1) Positions of individuals or committees with accountability for this environmental issue

Select all that apply

☑ Board chair

☑ Chief Executive Officer (CEO)

☑ Chief Financial Officer (CFO)

☑ Other, please specify **:**Sustainability Committee

(4.1.2.2) Positions' accountability for this environmental issue is outlined in policies applicable to the board

Select from:

☑ Yes

(4.1.2.3) Policies which outline the positions' accountability for this environmental issue

Select all that apply

☑ Other policy applicable to the board, please specify **:**Zorlu Enerji Environmental Policy

(4.1.2.4) Frequency with which this environmental issue is a scheduled agenda item

Select from:

☑ Scheduled agenda item in some board meetings – at least annually

(4.1.2.5) Governance mechanisms into which this environmental issue is integrated

Select all that apply

☑ Reviewing and guiding annual budgets
☑ Overseeing the setting of corporate targets
☑ Monitoring progress towards corporate targets
☑ Approving corporate policies and/or commitments
☑ Overseeing and guiding public policy engagement
☑ Overseeing reporting, audit, and verification processes
☑ Monitoring the implementation of a climate transition plan
☑ Overseeing and guiding the development of a business strategy
☑ Overseeing and guiding acquisitions, mergers, and divestitures
☑ Monitoring compliance with corporate policies and/or commitments
☑ Overseeing and guiding public policy engagement
☑ Reviewing and guiding innovation/R&D priorities
☑ Approving and/or overseeing employee incentives
☑ Overseeing and guiding major capital expenditures
☑ Monitoring the implementation of the business strategy
☑ Overseeing and guiding the development of a climate transition plan

(4.1.2.7) Please explain

The Sustainability Board, reporting to the Board of Directors, oversees and monitors the company's performance in the areas of ESG, particularly focusing on water-related risks and opportunities. This includes the integration of water management into Zorlu Enerji's strategy, assessing potential risks related to water scarcity, quality, and regulatory changes that may impact geothermal and other water-dependent operations. The Sustainability Board sets clear water-related targets and integrates them into the overall environmental strategy of the company, ensuring alignment with global standards. Chaired by an independent board member, the Sustainability Board convenes at least once a year to evaluate progress on water-related initiatives and to address any emerging issues. The CEO and CFO are also engaged, ensuring that resource allocation and financial planning are aligned with the company's water management objectives. The Board further delegates

responsibility to the Sustainability Directorate, which coordinates implementation efforts across departments, ensuring that operational divisions have the resources and guidance to manage water usage efficiently, including the prioritization of water reuse systems, closed-loop processes, and innovation in water conservation technologies. Decisions taken by the Board are executed under the supervision of senior management, with clear reporting lines to ensure that water-related goals are met across the company's operations, from geothermal facilities to hydropower plants. Continuous tracking of performance against targets ensures that Zorlu Enerji remains resilient to water-related environmental risks while contributing to the sustainable use of water resources.

Biodiversity

(4.1.2.1) Positions of individuals or committees with accountability for this environmental issue

Select all that apply

☑ Board chair

☑ Chief Executive Officer (CEO)

☑ Chief Financial Officer (CFO)

☑ Other, please specify **:**Sustainability Committee

(4.1.2.2) Positions' accountability for this environmental issue is outlined in policies applicable to the board

Select from:

☑ Yes

(4.1.2.3) Policies which outline the positions' accountability for this environmental issue

Select all that apply

☑ Other policy applicable to the board, please specify **:**Zorlu Enerji Biodiversity Protection Policy

(4.1.2.4) Frequency with which this environmental issue is a scheduled agenda item

Select from:

☑ Scheduled agenda item in some board meetings – at least annually

(4.1.2.5) Governance mechanisms into which this environmental issue is integrated

Select all that apply

☑ Reviewing and guiding annual budgets

☑ Overseeing and guiding public policy engagement

☑ Overseeing and guiding scenario analysis
☑ Overseeing the setting of corporate targets
☑ Monitoring progress towards corporate targets
☑ Approving corporate policies and/or commitments
☑ Monitoring the implementation of the business strategy
☑ Overseeing reporting, audit, and verification processes
☑ Monitoring the implementation of a climate transition plan
☑ Overseeing and guiding the development of a business strategy
☑ Overseeing and guiding acquisitions, mergers, and divestitures
☑ Monitoring compliance with corporate policies and/or commitments
☑ Overseeing and guiding the development of a climate transition plan
☑ Reviewing and guiding the assessment process for dependencies, impacts, risks, and opportunities
☑ Overseeing and guiding public policy engagement
☑ Reviewing and guiding innovation/R&D priorities
☑ Approving and/or overseeing employee incentives
☑ Overseeing and guiding major capital expenditures

(4.1.2.7) Please explain

The Sustainability Board, reporting to the Board of Directors, monitors the company's performance, risks, opportunities, resource needs, and recent developments in the areas of ESG, climate, water, and biodiversity. It integrates these matters into the company's strategy and sets targets while tracking progress. Chaired by an independent board member, the Sustainability Board meets at least once a year, with the sector president serving as the other member. Decisions made by the Board are implemented across the company under the leadership of the Sustainability Directorate and through the relevant organizations reporting to senior executives.
[Fixed row]

(4.2) Does your organization’s board have competency on environmental issues?

Climate change

(4.2.1) Board-level competency on this environmental issue

Select from:
☑ Yes

(4.2.2) Mechanisms to maintain an environmentally competent board

Select all that apply

☑ Consulting regularly with an internal, permanent, subject-expert working group

☑ Engaging regularly with external stakeholders and experts on environmental issues

☑ Integrating knowledge of environmental issues into board nominating process

☑ Regular training for directors on environmental issues, industry best practice, and standards (e.g., TCFD, SBTi)

☑ Having at least one board member with expertise on this environmental issue

(4.2.3) Environmental expertise of the board member

Experience

☑ Executive-level experience in a role focused on environmental issues

☑ Management-level experience in a role focused on environmental issues

☑ Experience in an organization that is exposed to environmental-scrutiny and is going through a sustainability transition

☑ Active member of an environmental committee or organization

Water

(4.2.1) Board-level competency on this environmental issue

Select from:

☑ Yes

(4.2.2) Mechanisms to maintain an environmentally competent board

Select all that apply

☑ Consulting regularly with an internal, permanent, subject-expert working group

☑ Engaging regularly with external stakeholders and experts on environmental issues

☑ Integrating knowledge of environmental issues into board nominating process

☑ Regular training for directors on environmental issues, industry best practice, and standards (e.g., TCFD, SBTi)

☑ Having at least one board member with expertise on this environmental issue

(4.2.3) Environmental expertise of the board member

Experience

☑ Executive-level experience in a role focused on environmental issues

☑ Management-level experience in a role focused on environmental issues

☑ Experience in an organization that is exposed to environmental-scrutiny and is going through a sustainability transition

☑ Active member of an environmental committee or organization

[Fixed row]

(4.3) Is there management-level responsibility for environmental issues within your organization?

	Management-level responsibility for this environmental issue
Climate change	*Select from:* ☑ Yes
Water	*Select from:* ☑ Yes
Biodiversity	*Select from:* ☑ Yes

[Fixed row]

(4.3.1) Provide the highest senior management-level positions or committees with responsibility for environmental issues (do not include the names of individuals).

Climate change

(4.3.1.1) Position of individual or committee with responsibility

Committee

☑ Sustainability committee

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing public policy engagement related to environmental issues

☑ Managing value chain engagement related to environmental issues

Policies, commitments, and targets

☑ Monitoring compliance with corporate environmental policies and/or commitments

☑ Measuring progress towards environmental corporate targets

☑ Measuring progress towards environmental science-based targets

☑ Setting corporate environmental policies and/or commitments

☑ Setting corporate environmental targets

Strategy and financial planning

☑ Conducting environmental scenario analysis

☑ Developing a business strategy which considers environmental issues

☑ Developing a climate transition plan

☑ Implementing a climate transition plan

☑ Implementing the business strategy related to environmental issues

Other

☑ Providing employee incentives related to environmental performance

(4.3.1.4) Reporting line

Select from:

☑ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Annually

(4.3.1.6) Please explain

Sustainability Committee is newly developed in 2024 under the reporting line of Board of Directors. The Sustainability Committee includes an independent board member (acts as a committee president) and the sector president. It meets annually to evaluate the company's performance, budget needs, risks, opportunities, and developments regarding ESG, climate, water, and biodiversity, and shapes the company's strategy accordingly.

Water

(4.3.1.1) Position of individual or committee with responsibility

Committee

☑ Sustainability committee

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing public policy engagement related to environmental issues

☑ Managing value chain engagement related to environmental issues

Policies, commitments, and targets

☑ Monitoring compliance with corporate environmental policies and/or commitments
☑ Measuring progress towards environmental corporate targets
☑ Measuring progress towards environmental science-based targets
☑ Setting corporate environmental policies and/or commitments
☑ Setting corporate environmental targets

Strategy and financial planning

☑ Developing a climate transition plan
☑ Implementing a climate transition plan
☑ Conducting environmental scenario analysis
☑ Managing annual budgets related to environmental issues
☑ Implementing the business strategy related to environmental issues
☑ Developing a business strategy which considers environmental issues
☑ Managing environmental reporting, audit, and verification processes
☑ Managing acquisitions, mergers, and divestitures related to environmental issues
☑ Managing major capital and/or operational expenditures relating to environmental issues
☑ Managing priorities related to innovation/low-environmental impact products or services (including R&D)

Other

☑ Providing employee incentives related to environmental performance

(4.3.1.4) Reporting line

Select from:

☑ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Annually

(4.3.1.6) Please explain

Sustainability Committee is newly developed in 2024 under the reporting line of Board of Directors. The Sustainability Committee includes an independent board member (acts as a committee president) and the sector president. It meets annually to evaluate the company's performance, budget needs, risks, opportunities, and developments regarding ESG, climate, water, and biodiversity, and shapes the company's strategy accordingly.

Biodiversity

(4.3.1.1) Position of individual or committee with responsibility

Committee

☑ Sustainability committee

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing public policy engagement related to environmental issues

☑ Managing supplier compliance with environmental requirements

☑ Managing value chain engagement related to environmental issues

Policies, commitments, and targets

☑ Monitoring compliance with corporate environmental policies and/or commitments

☑ Measuring progress towards environmental corporate targets

☑ Measuring progress towards environmental science-based targets

☑ Setting corporate environmental policies and/or commitments

☑ Setting corporate environmental targets

Strategy and financial planning

☑ Developing a climate transition plan
☑ Implementing a climate transition plan
☑ Conducting environmental scenario analysis
☑ Managing annual budgets related to environmental issues
☑ Implementing the business strategy related to environmental issues
☑ Developing a business strategy which considers environmental issues
☑ Managing environmental reporting, audit, and verification processes
☑ Managing acquisitions, mergers, and divestitures related to environmental issues
☑ Managing major capital and/or operational expenditures relating to environmental issues
☑ Managing priorities related to innovation/low-environmental impact products or services (including R&D)

Other

☑ Providing employee incentives related to environmental performance

(4.3.1.4) Reporting line

Select from:

☑ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Annually

(4.3.1.6) Please explain

Sustainability Committee is newly developed in 2024 under the reporting line of Board of Directors. The Sustainability Committee includes an independent board member (acts as a committee president) and the sector president. It meets annually to evaluate the company's performance, budget needs, risks, opportunities, and developments regarding ESG, climate, water, and biodiversity, and shapes the company's strategy accordingly.
[Add row]

(4.5) Do you provide monetary incentives for the management of environmental issues, including the attainment of targets?

Climate change

(4.5.1) Provision of monetary incentives related to this environmental issue

Select from:

☑ Yes

(4.5.2) % of total C-suite and board-level monetary incentives linked to the management of this environmental issue

50

(4.5.3) Please explain

Zorlu Enerji's C-level positions and the organizations reporting to them are included in the performance evaluation system with annual realizations of our Net-Zero Strategy.

Water

(4.5.1) Provision of monetary incentives related to this environmental issue

Select from:

☑ No, but we plan to introduce them in the next two years

(4.5.3) Please explain

Zorlu Enerji recognizes the growing importance of water management and the role it plays in both operational efficiency and environmental sustainability. Although monetary incentives specifically tied to water management are not currently in place, we plan to introduce such incentives within the next two years. These incentives will focus on achieving key performance indicators related to water usage efficiency, reducing water waste, and implementing sustainable water resource management practices, in line with our broader environmental goals. The introduction of these incentives will support our efforts to minimize water-related risks and align with global sustainability standards.
[Fixed row]

(4.5.1) Provide further details on the monetary incentives provided for the management of environmental issues (do not include the names of individuals).

Climate change

(4.5.1.1) Position entitled to monetary incentive

Board or executive level

☑ Chief Financial Officer (CFO)

(4.5.1.2) Incentives

Select all that apply

☑ Bonus - % of salary

☑ Bonus – set figure

☑ Promotion

☑ Salary increase

(4.5.1.3) Performance metrics

Targets

☑ Progress towards environmental targets

☑ Achievement of environmental targets

☑ Organization performance against an environmental sustainability index

☑ Reduction in absolute emissions in line with net-zero target

☑ Other targets-related metrics, please specify :ESG performance levels in rating scores

Strategy and financial planning

☑ Board approval of climate transition plan

☑ Achievement of climate transition plan

Emission reduction

☑ Reduction in emissions intensity

☑ Increased share of renewable energy in total energy consumption

☑ Reduction in absolute emissions

☑ Other emission reduction-related metrics, please specify :Reduction in scope 3 absolute and intensity emissions

Resource use and efficiency

☑ Improvements in emissions data, reporting, and third-party verification

☑ Energy efficiency improvement

☑ Reduction in total energy consumption

Engagement

☑ Increased engagement with suppliers on environmental issues

(4.5.1.4) Incentive plan the incentives are linked to

Select from:

☑ Both Short-Term and Long-Term Incentive Plan, or equivalent

(4.5.1.5) Further details of incentives

Zorlu Enerji's C-level positions and the organizations reporting to them are included in the performance evaluation system related to climate, primarily covering ESG rating scores, emission reductions, water usage rates, and renewable energy consumption. Successful performance is prized by short-term (annual) and long term (more than annual) monetary incentives for c-levels, sustainability team and other organizations who directly involved is related achievements.

(4.5.1.6) How the position's incentives contribute to the achievement of your environmental commitments and/or climate transition plan

The incentives associated with our positions are strategically designed to align with and support the achievement of our environmental commitments and climate transition plan. By incorporating sustainability metrics into performance evaluations, we ensure that all team members, particularly in leadership roles, are held accountable for their contributions to our environmental goals. For instance, executives have specific targets related to emissions reductions, renewable energy usage, and water conservation integrated into their incentive structures. This approach not only motivates them to prioritize sustainable practices but also fosters a culture of accountability across the organization. Furthermore, regular training and development opportunities are provided to enhance understanding of climate issues and innovative solutions. This empowers our teams to actively engage in initiatives that drive our climate transition, ensuring that every employee feels a

sense of ownership in our sustainability journey. Ultimately, by aligning incentives with our environmental commitments, we create a robust framework that drives meaningful action and measurable progress towards our climate objectives, reinforcing our dedication to a sustainable future.
[Add row]

(4.6) Does your organization have an environmental policy that addresses environmental issues?

	Does your organization have any environmental policies?
	Select from: ☑ Yes

[Fixed row]

(4.6.1) Provide details of your environmental policies.

Row 1

(4.6.1.1) Environmental issues covered

Select all that apply
☑ Climate change
☑ Water
☑ Biodiversity

(4.6.1.2) Level of coverage

Select from:
☑ Organization-wide

(4.6.1.3) Value chain stages covered

Select all that apply

☑ Direct operations

☑ Upstream value chain

☑ Downstream value chain

☑ Portfolio

(4.6.1.4) Explain the coverage

Zorlu Enerji developed a comprehensive environmental policy, applicable to all Zorlu Enerji employees, all operations, suppliers, and key business partners. Focus on stated environmental aspects; - Biodiversity - Water management - Environmental and social impacts - Preventing pollution - Resource efficiency - Regulatory compliance - Training and awareness raising - New investments and continuous improvement - Transparency in sustainability reporting - Net-zero emissions and renewable energy - Climate resilience and infrastructure development - Supply chain and procurement management

(4.6.1.5) Environmental policy content

Environmental commitments

☑ Commitment to No Net Loss

☑ Commitment to Net Positive Gain

☑ Commitment to a circular economy strategy

☑ Commitment to no trade of CITES listed species

☑ Commitment to respect legally designated protected areas

☑ Commitment to comply with regulations and mandatory standards

☑ Commitment to take environmental action beyond regulatory compliance

☑ Commitment to avoidance of negative impacts on threatened and protected species

☑ Commitment to stakeholder engagement and capacity building on environmental issues

☑ Commitment to implementation of nature-based solutions that support landscape restoration and long-term protection of natural ecosystems

☑ Commitment to engage in integrated, multi-stakeholder landscape (including river basin) initiatives to promote shared sustainability goals

Climate-specific commitments

☑ Commitment to 100% renewable energy

☑ Commitment to net-zero emissions

☑ Commitment to not invest in fossil-fuel expansion

☑ Commitment to not funding climate-denial or lobbying against climate regulations

Water-specific commitments

☑ Commitment to reduce water consumption volumes
☑ Commitment to reduce water withdrawal volumes
☑ Commitment to reduce or phase out hazardous substances
☑ Commitment to control/reduce/eliminate water pollution
☑ Commitment to safely managed WASH in local communities
☑ Commitment to the conservation of freshwater ecosystems
☑ Commitment to water stewardship and/or collective action

Social commitments

☑ Commitment to respect internationally recognized human rights
☑ Adoption of the UN International Labour Organization principles
☑ Commitment to promote gender equality and women's empowerment
☑ Commitment to secure Free, Prior, and Informed Consent (FPIC) of indigenous people and local communities
☑ Commitment to respect and protect the customary rights to land, resources, and territory of Indigenous Peoples and Local Communities
☑ Other social commitment, please specify

Additional references/Descriptions

☑ Recognition of environmental linkages and trade-offs
☑ Description of environmental requirements for procurement
☑ Description of biodiversity-related performance standards
☑ Description of impacts on natural resources and ecosystems
☑ Acknowledgement of the human right to water and sanitation
☑ Description of renewable electricity procurement practices
☑ Reference to timebound environmental milestones and targets
☑ Description of dependencies on natural resources and ecosystems
☑ Description of membership and financial support provided to organizations that seek to influence public policy
☑ Description of grievance/whistleblower mechanism to monitor non-compliance with the environmental policy and raise/address/escalate any other greenwashing concerns

(4.6.1.6) Indicate whether your environmental policy is in line with global environmental treaties or policy goals

Select all that apply

☑ Yes, in line with the Paris Agreement

☑ Yes, in line with Sustainable Development Goal 6 on Clean Water and Sanitation

☑ Yes, in line with another global environmental treaty or policy goal, please specify :SBTi, UNGlobal Compact

(4.6.1.7) Public availability

Select from:

☑ Publicly available

(4.6.1.8) Attach the policy

Çevre Politikası_EN.pdf
[Add row]

(4.10) Are you a signatory or member of any environmental collaborative frameworks or initiatives?

(4.10.1) Are you a signatory or member of any environmental collaborative frameworks or initiatives?

Select from:

☑ Yes

(4.10.2) Collaborative framework or initiative

Select all that apply

☑ Global Reporting Initiative (GRI) Community Member

☑ Science-Based Targets Initiative (SBTi)

☑ Task Force on Climate-related Financial Disclosures (TCFD)

☑ UN Global Compact

☑ World Business Council for Sustainable Development (WBCSD)

(4.10.3) Describe your organization’s role within each framework or initiative

As a member of the UN Global Compact, Zorlu Enerji actively participates in projects and programs developed by the organization. In line with the commitments under the Reporting Matters project and Science-Based Targets, its near-term and long-term goals have been validated and approved by SBTi. At the CEO level, the Sector President participates in the WBCSD Board of Directors, leading projects by the company Sustainability Team developed by the association. Also taking an active role in TUSİAD, As a member of TÜSİAD, Zorlu Enerji plays leading roles in the relevant working group.
[Fixed row]

(4.11) In the reporting year, did your organization engage in activities that could directly or indirectly influence policy, law, or regulation that may (positively or negatively) impact the environment?

(4.11.1) External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the environment

Select all that apply

☑ Yes, we engaged directly with policy makers

☑ Yes, we engaged indirectly through, and/or provided financial or in-kind support to a trade association or other intermediary organization or individual whose activities could influence policy, law, or regulation

(4.11.2) Indicate whether your organization has a public commitment or position statement to conduct your engagement activities in line with global environmental treaties or policy goals

Select from:

☑ Yes, we have a public commitment or position statement in line with global environmental treaties or policy goals

(4.11.3) Global environmental treaties or policy goals in line with public commitment or position statement

Select all that apply

☑ Paris Agreement

☑ Sustainable Development Goal 6 on Clean Water and Sanitation

☑ Another global environmental treaty or policy goal, please specify **:**GRI, SBTi short and long term ghg targets

(4.11.4) Attach commitment or position statement

integrated-annual-report-2023.pdf

(4.11.5) Indicate whether your organization is registered on a transparency register

Select from:

☑ Unknown

(4.11.8) Describe the process your organization has in place to ensure that your external engagement activities are consistent with your environmental commitments and/or transition plan

Our organization has established a comprehensive process to ensure that our external engagement activities align with our environmental commitments and transition plan. This process is structured around three key pillars: alignment, stakeholder engagement, and continuous monitoring. Alignment with Commitments: Before initiating any external engagement activities, we conduct a thorough review to ensure they are consistent with our environmental commitments and climate transition objectives. This involves cross-referencing potential initiatives with our sustainability strategy, ensuring that all proposed actions support our goals related to emissions reductions, resource conservation, and community impact. Stakeholder Engagement: We actively engage with a diverse range of stakeholders, including local communities, industry partners, NGOs, and governmental bodies. By fostering open dialogue, we gather insights and feedback that inform our strategies and initiatives. This engagement not only helps us understand the broader environmental landscape but also ensures that our actions resonate with the values and expectations of our stakeholders. Continuous Monitoring and Reporting: To maintain accountability, we implement a robust monitoring framework. This includes regular assessments of our external engagements to evaluate their effectiveness and alignment with our environmental commitments. Key performance indicators (KPIs) related to sustainability are integrated into our reporting mechanisms, allowing us to track progress and make data-driven adjustments as needed. Training and Awareness: We prioritize training and awareness programs for our employees involved in external engagement activities. This ensures that they are well-versed in our environmental commitments and understand how to effectively represent our organization's sustainability goals during interactions with external parties. By following this structured process, we ensure that our external engagement activities not only uphold our environmental commitments but also contribute positively to our transition plan. This holistic approach reinforces our dedication to sustainability and positions us as a responsible leader in our industry.
[Fixed row]

(4.11.1) On what policies, laws, or regulations that may (positively or negatively) impact the environment has your organization been engaging directly with policy makers in the reporting year?

Row 1

(4.11.1.1) Specify the policy, law, or regulation on which your organization is engaging with policy makers

Renewable Energy Law (Law No. 5346) Climate Law (draft version) Green Taxonomy Legislation (draft version) Green Deal and Carbon Pricing & Local Carbon Pricing Legislation (draft version) Environmental Impact Assessment (EIA) Regulations

(4.11.1.2) Environmental issues the policy, law, or regulation relates to

Select all that apply

☑ Climate change

☑ Water

(4.11.1.3) Focus area of policy, law, or regulation that may impact the environment

Financial mechanisms (e.g., taxes, subsidies, etc.)

☑ Carbon offsets

☑ Carbon taxes

☑ Emissions trading schemes

(4.11.1.4) Geographic coverage of policy, law, or regulation

Select from:

☑ National

(4.11.1.5) Country/area/region the policy, law, or regulation applies to

Select all that apply

☑ Turkey

(4.11.1.6) Your organization’s position on the policy, law, or regulation

Select from:

☑ Neutral

(4.11.1.8) Type of direct engagement with policy makers on this policy, law, or regulation

Select all that apply

☑ Participation in working groups organized by policy makers

☑ Participation in voluntary government programs

☑ Responding to consultations

☑ Submitting written proposals/inquiries

(4.11.1.9) Funding figure your organization provided to policy makers in the reporting year relevant to this policy, law, or regulation (currency)

0

(4.11.1.10) Explain the relevance of this policy, law, or regulation to the achievement of your environmental commitments and/or transition plan, how this has informed your engagement, and how you measure the success of your engagement

Zorlu Enerji's active engagement with policymakers on key environmental policies, laws, and regulations is essential for achieving its environmental commitments and transitioning towards a sustainable energy future. Through strategic advocacy, stakeholder collaboration, and a focus on best practices, the company seeks to influence the regulatory landscape in a manner that supports the growth of renewable energy in Turkey. By measuring the success of its engagement efforts through various KPIs, Zorlu Enerji ensures that its advocacy remains effective and aligned with its sustainability goals. As the renewable energy landscape continues to evolve, Zorlu Enerji remains committed to fostering a favorable regulatory environment that not only enhances its operational capabilities but also contributes to the broader global effort to combat climate change.

(4.11.1.11) Indicate if you have evaluated whether your organization’s engagement on this policy, law, or regulation is aligned with global environmental treaties or policy goals

Select from:

☑ No, we have not evaluated

[Add row]

(4.11.2) Provide details of your indirect engagement on policy, law, or regulation that may (positively or negatively) impact the environment through trade associations or other intermediary organizations or individuals in the reporting year.

Row 1

(4.11.2.1) Type of indirect engagement

Select from:

☑ Indirect engagement via a trade association

(4.11.2.4) Trade association

Europe

☑ WindEurope

(4.11.2.5) Environmental issues relevant to the policies, laws, or regulations on which the organization or individual has taken a position

Select all that apply

☑ Climate change

(4.11.2.6) Indicate whether your organization's position is consistent with the organization or individual you engage with

Select from:

☑ Mixed

(4.11.2.7) Indicate whether your organization attempted to influence the organization or individual's position in the reporting year

Select from:

☑ No, we did not attempt to influence their position

(4.11.2.8) Describe how your organization's position is consistent with or differs from the organization or individual's position, and any actions taken to influence their position

Zorlu Enerji promotes the activities of WindEurope and actively participates in projects such as SmartWind, and JIDEP that are related to wind power plant types of equipment and systems in the scope of Horizon2020 R&D projects.

(4.11.2.9) Funding figure your organization provided to this organization or individual in the reporting year (currency)

0

(4.11.2.11) Indicate if you have evaluated whether your organization's engagement is aligned with global environmental treaties or policy goals

Select from:
☑ No, we have not evaluated
[Add row]

(4.12.1) Provide details on the information published about your organization's response to environmental issues for this reporting year in places other than your CDP response. Please attach the publication.

Row 1

(4.12.1.1) Publication

Select from:
☑ In mainstream reports, in line with environmental disclosure standards or frameworks

(4.12.1.2) Standard or framework the report is in line with

Select all that apply
☑ GRI
☑ IFRS
☑ TCFD

(4.12.1.3) Environmental issues covered in publication

Select all that apply
☑ Climate change
☑ Forests
☑ Water
☑ Biodiversity

(4.12.1.4) Status of the publication

Select from:
☑ Complete

(4.12.1.5) Content elements

Select all that apply

☑ Strategy
☑ Governance
☑ Emission targets
☑ Emissions figures
☑ Risks & Opportunities
☑ Water pollution indicators
☑ Content of environmental policies
☑ Value chain engagement
☑ Dependencies & Impacts
☑ Biodiversity indicators
☑ Public policy engagement
☑ Water accounting figures

(4.12.1.6) Page/section reference

Governance & Value Creation Nature Stewardship & Value Chain

(4.12.1.7) Attach the relevant publication

integrated-annual-report-2023.pdf

(4.12.1.8) Comment

Zorlu Enerji publishes an integrated annual report annually to disclose ESG-related (climate, water, and biodiversity-related, social, and governance) performance and actions in line with related standards. please refer to Integrated Annual Report 2023 for more details.
[Add row]

C5. Business strategy

(5.1) Does your organization use scenario analysis to identify environmental outcomes?

Climate change

(5.1.1) Use of scenario analysis

Select from:
☑ Yes

(5.1.2) Frequency of analysis

Select from:
☑ More than once a year

Water

(5.1.1) Use of scenario analysis

Select from:
☑ Yes

(5.1.2) Frequency of analysis

Select from:
☑ More than once a year
[Fixed row]

(5.1.1) Provide details of the scenarios used in your organization’s scenario analysis.

Climate change

(5.1.1.1) Scenario used

Climate transition scenarios

☑ IEA NZE 2050

(5.1.1.3) Approach to scenario

Select from:

☑ Qualitative and quantitative

(5.1.1.4) Scenario coverage

Select from:

☑ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply

☑ Acute physical

☑ Chronic physical

☑ Policy

☑ Market

☑ Technology

(5.1.1.6) Temperature alignment of scenario

Select from:

☑ 1.5°C or lower

(5.1.1.7) Reference year

2021

(5.1.1.8) Timeframes covered

Select all that apply

☑ 2025

☑ 2030

☑ 2040

☑ 2050

(5.1.1.9) Driving forces in scenario

Local ecosystem asset interactions, dependencies and impacts

☑ Climate change (one of five drivers of nature change)

Finance and insurance

☑ Cost of capital

Regulators, legal and policy regimes

☑ Political impact of science (from galvanizing to paralyzing)

☑ Global targets

☑ Methodologies and expectations for science-based targets

Relevant technology and science

☑ Granularity of available data (from aggregated to local)

☑ Data regime (from closed to open)

Direct interaction with climate

☑ On asset values, on the corporate

☑ Perception of efficacy of climate regime

Macro and microeconomy

☑ Domestic growth

☑ Globalizing markets

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

Assumptions: Energy Transition: The scenario assumes radical changes in the global energy sector, with heavy investments in renewable energy, energy efficiency, electrification, and carbon capture technologies. Technological Development: It anticipates rapid advancements in low-carbon technologies and widespread adoption, particularly for clean energy sources like wind, solar, and hydrogen. Policy and Regulatory Changes: It is assumed that countries and companies will adapt to strict carbon taxes and regulations. Policymakers are expected to adopt more aggressive carbon reduction strategies to meet the Paris Agreement targets. Global Cooperation: The scenario presumes coordinated efforts and global cooperation to implement emission reduction strategies worldwide. Uncertainties: Access to Technology: There is a risk that low-carbon technologies may not be developed or deployed quickly enough, particularly for scaling carbon capture and hydrogen technologies. Political Will and Implementation: Success depends on countries fulfilling their long-term commitments, but some may deviate due to economic or political reasons. Financial Investments: It is uncertain whether the necessary global investments will be secured, particularly in developing countries, where financing challenges could slow the transition. Constraints: Existing Energy Infrastructure: Transitioning from fossil fuel-based infrastructure quickly is costly and technically challenging, and there are infrastructural barriers that may limit the speed of the transition. Social Acceptance: The energy transition may lead to job losses, price increases, and societal resistance, creating social challenges that could take time to overcome. Natural Resource Constraints: There may be shortages of natural resources (e.g., lithium, cobalt) needed for renewable energy projects, which could cause supply chain issues during the transition.

(5.1.1.11) Rationale for choice of scenario

As part of our ongoing commitment to align with global climate objectives, Zorlu Enerji selected the IEA's NZE 2050 scenario due to its robust alignment with the Paris Agreement's goal of limiting global warming to 1.5C. This scenario is pivotal for mapping out the trajectory toward our long-term net-zero emissions target by 2050. By using the IEA NZE 2050 scenario, we ensure that our short- and medium-term strategies are scientifically validated and benchmarked against the most credible, widely recognized decarbonization pathways. Our emissions targets, validated by the Science Based Targets initiative (SBTi), reflect the ambition required to meet these global climate goals. This scenario offers comprehensive insights into the anticipated energy transition, technology advancements, and policy shifts, which are critical in shaping our operational and strategic decisions. Its selection was driven by our desire to future-proof our business model while contributing to the global effort to combat climate change.

Water

(5.1.1.1) Scenario used

Water scenarios

☑ WWF Water Risk Filter

(5.1.1.3) Approach to scenario

Select from:

☑ Qualitative and quantitative

(5.1.1.4) Scenario coverage

Select from:

☑ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply

☑ Acute physical

☑ Chronic physical

☑ Policy

☑ Market

(5.1.1.7) Reference year

2021

(5.1.1.8) Timeframes covered

Select all that apply

☑ 2030

☑ 2050

☑ 2070

☑ 2090

(5.1.1.9) Driving forces in scenario

Local ecosystem asset interactions, dependencies and impacts

☑ Changes to the state of nature

☑ Number of ecosystems impacted

☑ Changes in ecosystem services provision

☑ Speed of change (to state of nature and/or ecosystem services)

☑ Climate change (one of five drivers of nature change)

Stakeholder and customer demands

☑ Impact of nature footprint on reputation

☑ Sensitivity to inequity of nature impacts

Regulators, legal and policy regimes

☑ Global regulation

☑ Political impact of science (from galvanizing to paralyzing)

☑ Global targets

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

Assumptions: Data Availability: The tool assumes that comprehensive and accurate data on water-related risks (such as water stress, pollution, and regulatory risks) are available and up-to-date for the locations being assessed. Predictive Accuracy: The tool assumes that its predictive models accurately reflect future water-related risks based on current trends, climate projections, and socio-economic developments. Applicability to Various Sectors: It assumes that water risk metrics and categories are equally applicable across different industries and geographies, despite variations in local conditions and industry-specific factors. Uncertainties: Data Quality and Gaps: There is uncertainty around the quality, granularity, and completeness of the underlying data. In some regions, particularly developing areas, water-related data may be limited or outdated. Local Variations: Water risks can vary significantly at the local level, and the tool may not capture all nuances or site-specific risks, especially for areas with complex water governance or unregulated water use. Climate Change Projections: While the tool incorporates some climate change scenarios, there is inherent uncertainty in predicting the specific impacts of climate change on local water availability, quality, and seasonal variability. Limitations: Broad Scope: The tool provides a high-level risk assessment but may not offer detailed, site-specific insights. For in-depth local assessments, additional tools or localized studies may be necessary. Static Nature: The WWF Risk Filter Tool relies on historical and current data, and may not fully account for rapid changes in water availability or policies in certain regions. Sector-specific Considerations: While the tool is designed for broad use, its recommendations may not fully account for industry-specific water usage patterns, making it necessary to supplement the analysis with sector-focused risk assessments.

(5.1.1.11) Rationale for choice of scenario

In the renewable energy sector, using the WWF Risk Filter Tool to assess water risks makes sense for several key reasons: Water-Intensive Processes: While renewable energy technologies like solar and wind are less water-intensive compared to fossil fuels, other renewable sources, such as geothermal and bioenergy, may require significant water usage for cooling and other processes. The tool can help identify potential water risks in areas where these technologies are deployed. Sustainability Alignment: The WWF Risk Filter Tool aligns well with sustainability objectives. It offers a comprehensive approach to understanding water risks, which is crucial for companies aiming to integrate environmental stewardship into their operational strategies. Risk Identification Across the Supply Chain: The tool evaluates water risks not only for direct operations but also for supply chains and upstream activities. This can help renewable energy companies assess risks related to equipment manufacturing, material sourcing (e.g., for solar panels or wind turbines), and other critical inputs. Proactive Risk Management: By using the tool, your company can take a proactive approach to water-related risks in project development, particularly in water-scarce regions. Identifying risks early can reduce potential disruptions and improve community relations by ensuring responsible water use. Global Reach and Credibility: The WWF Risk Filter Tool is globally recognized and

widely used, offering a robust database and analysis tools that can cater to the needs of both local and international projects. This makes it particularly useful for renewable energy companies working in diverse geographies with varying water stress levels. Supporting Decision-Making for Project Siting: In the renewable energy sector, the location of projects is crucial. The tool provides insights into local water risks, helping to choose optimal locations for future projects, where water scarcity or regulatory risks could be minimized.
[Add row]

(5.1.2) Provide details of the outcomes of your organization's scenario analysis.

Climate change

(5.1.2.1) Business processes influenced by your analysis of the reported scenarios

Select all that apply

☑ Risk and opportunities identification, assessment and management

☑ Strategy and financial planning

☑ Resilience of business model and strategy

☑ Capacity building

☑ Target setting and transition planning

(5.1.2.2) Coverage of analysis

Select from:

☑ Organization-wide

(5.1.2.3) Summarize the outcomes of the scenario analysis and any implications for other environmental issues

Zorlu Enerji's scenario analysis, using the IEA NZE 2050 scenario, revealed key insights about the company's long-term resilience and adaptability to climate change. The analysis emphasized the importance of accelerating the transition to low-carbon technologies and decarbonizing its energy production. Zorlu Enerji aims to achieve significant decarbonization through investments in renewable energy power plants, hybrid plant projects, and the integration of Carbon Capture, Utilization, and Storage (CCUS) technologies. The company is leading R&D efforts for CCUS implementation in Turkey. The scenario analysis identified climate change risks such as hydrological droughts affecting hydropower plants and geothermal water reservoirs, as well as threats from wildfires and floods. In response, Zorlu Enerji is developing hybrid power plants to mitigate generation losses and plans to use closed-loop water systems to conserve resources. Localization in the supply chain is prioritized to address potential disruptions. Additionally, the outcomes influenced strategic decisions, including expanding the renewable energy portfolio and exploring decarbonization solutions like carbon sequestration. Zorlu Enerji anticipates potential financial impacts from carbon pricing and the commercialization of CCUS technologies. The company considers both optimistic and pessimistic scenarios regarding CCUS, seeing opportunities for revenue generation through carbon

sequestration services as carbon market prices rise. This scenario analysis has informed the company's resilience strategy, financial planning, and risk management approach, supporting long-term alignment with global decarbonization efforts. Investments in digital technologies, such as smart grids and digital twins, have also been prioritized to optimize operational efficiency. In summary, the analysis confirmed the need for substantial investments in renewable energy, CCUS, and energy efficiency projects to mitigate climate risks. Zorlu Enerji remains committed to achieving science-based emissions reduction targets validated by SBTi, ensuring business model resilience in an increasingly decarbonized global market.

Water

(5.1.2.1) Business processes influenced by your analysis of the reported scenarios

Select all that apply

☑ Risk and opportunities identification, assessment and management

☑ Strategy and financial planning

☑ Resilience of business model and strategy

☑ Capacity building

☑ Target setting and transition planning

(5.1.2.2) Coverage of analysis

Select from:

☑ Organization-wide

(5.1.2.3) Summarize the outcomes of the scenario analysis and any implications for other environmental issues

Zorlu Enerji's scenario analysis related to water emphasizes the critical role that water resources play in the company's operations, especially for its hydropower and geothermal plants. The analysis identified key risks, including hydrological droughts, reduced water availability, and competition for water resources, which could affect both the operational capacity and long-term resilience of the company's energy production. In geothermal power plants, there is intensive use of fossil water, and changes in the quantity of this fluid significantly impact production. Through water-related scenario analysis studies, Zorlu Enerji has provided input to prioritize geothermal licenses within its portfolio, ensuring resource availability aligns with operational sustainability. Specifically, production licenses for Alkan 1-2 GPP and Ağrı GPP have been earmarked for power plant investment by 2030 to secure medium-term energy generation. To mitigate water-related risks, Zorlu Enerji is investing in closed-loop water systems for geothermal plants, designed to minimize water use and enhance operational efficiency. These systems help reduce the impact of water scarcity and ensure the sustainability of its geothermal operations. Additionally, hybrid power plant development was prioritized to address potential generation losses caused by water shortages. These hybrid solutions allow the company to integrate other renewable energy sources, like wind or solar, in locations where water resources may be limited, ensuring diversified and resilient energy production. The outcomes of the water scenario analysis have informed Zorlu Enerji's broader environmental strategy. It has led to capacity-building across the organization, particularly in water resource management and environmental resilience. The scenario analysis also supports target-setting and transition planning, ensuring Zorlu Enerji adapts to water-related challenges over short, medium, and long-term

horizons. This includes ensuring that water-related risks are incorporated into business continuity planning and that measures are in place to secure water access in critical energy production areas. Furthermore, the implications extend to financial planning, with water risk being integrated into future investment decisions. The scenario analysis has prompted Zorlu Enerji to evaluate the financial impact of potential disruptions due to water scarcity and to allocate capital for improving water-use efficiency. The company is exploring opportunities in water-related technologies and partnerships to build resilience against growing environmental uncertainties, particularly in regions where water competition could directly impact operations. In summary, Zorlu Enerji's scenario analysis for water has strengthened the company's business model resilience and risk management framework. By identifying critical water risks and prioritizing specific geothermal projects, the company ensures that its long-term growth and operational stability are maintained, even in an increasingly water-scarce world.
[Fixed row]

(5.2) Does your organization's strategy include a climate transition plan?

(5.2.1) Transition plan

Select from:
☑ Yes, we have a climate transition plan which aligns with a 1.5°C world

(5.2.3) Publicly available climate transition plan

Select from:
☑ Yes

(5.2.4) Plan explicitly commits to cease all spending on, and revenue generation from, activities that contribute to fossil fuel expansion

Select from:
☑ Yes

(5.2.5) Description of activities included in commitment and implementation of commitment

Zorlu Energy Climate Transition Plan Activities for Achieving Net-Zero Emissions by 2040 Renewable Energy Expansion: Increase the capacity of renewable energy sources (solar, wind, hydro) in our energy portfolio to significantly reduce reliance on fossil fuels. Energy Efficiency Initiatives: Implement energy efficiency measures across all operations and facilities to reduce energy consumption and emissions. Carbon Capture and Storage (CCS): Invest in and develop carbon capture technologies to minimize emissions from existing fossil fuel operations. Electrification of Operations: Transition from fossil fuel-based systems to electric systems,

where feasible, particularly in transportation and industrial processes. Sustainable Supply Chain Management: Collaborate with suppliers to promote sustainable practices and reduce emissions throughout the supply chain. Invest in Research and Development: Support innovative technologies and practices that can lead to significant emissions reductions and enhance sustainability. Community Engagement and Education: Foster partnerships with local communities and stakeholders to promote awareness and understanding of climate change and sustainability initiatives. Policy Advocacy: Actively engage with policymakers to support regulations and incentives that facilitate the transition to a low-carbon economy. Monitoring and Reporting: Establish a robust framework for tracking emissions and progress towards targets, ensuring transparency and accountability. Employee Training and Development: Provide training programs to equip employees with the skills needed to implement sustainability initiatives effectively. Biodiversity and Ecosystem Conservation: Integrate practices that protect and enhance biodiversity in project development and operational processes. Resilience Planning: Develop strategies to enhance resilience against the impacts of climate change, ensuring operational continuity in the face of environmental challenges.

(5.2.7) Mechanism by which feedback is collected from shareholders on your climate transition plan

Select from:

☑ Our climate transition plan is voted on at AGMs and we also have an additional feedback mechanism in place

(5.2.8) Description of feedback mechanism

Shareholder Surveys: Distribute structured surveys to gather quantitative and qualitative feedback on the climate transition plan, including key priorities and concerns in the scope of the double materiality process. Focus Groups: Organize focus group discussions with a diverse range of shareholders to facilitate in-depth conversations and insights regarding the transition plan. One-on-One Meetings: Conduct individual meetings with key shareholders to discuss their perspectives, expectations, and suggestions related to the climate transition strategy. Investor Webinars: Host webinars to present the climate transition plan and gather real-time feedback from shareholders, allowing for interactive Q&A sessions. Annual General Meetings (AGMs): Utilize AGMs to present the climate transition plan and encourage shareholder dialogue, enabling feedback to be collected directly during the event. Feedback Forms: Provide accessible feedback forms on the company's website, allowing shareholders to submit their thoughts and suggestions at their convenience. Online Platforms: Leverage digital platforms and social media channels to facilitate discussions and gather feedback from a broader shareholder base. Performance Reviews: Include shareholder feedback as a component of performance reviews related to sustainability and climate initiatives, ensuring their input is valued and acted upon. Regular Updates: Provide regular updates on the climate transition plan and invite feedback through newsletters or reports, maintaining open lines of communication. The integrated annual report is the main instrument for updates on the climate transition plan.

(5.2.9) Frequency of feedback collection

Select from:

☑ Annually

(5.2.10) Description of key assumptions and dependencies on which the transition plan relies

Regulatory Environment: The plan assumes a stable and supportive regulatory framework that promotes renewable energy development and carbon reduction initiatives. Technological Advancements: It depends on the continued advancement and commercialization of renewable energy technologies and carbon capture solutions to achieve emissions reduction goals. Market Demand for Renewables: The success of the transition plan assumes a growing market demand for renewable energy sources, influencing investment and development decisions. Stakeholder Engagement: Effective collaboration with stakeholders, including government, communities, and investors, is essential for gaining support and resources for the transition. Access to Financing: The plan assumes the availability of financial resources, including investments and grants, to support the implementation of sustainability initiatives. Infrastructure Development: The successful deployment of renewable energy technologies relies on the existence of necessary infrastructure, such as energy storage and smart grid systems. Public Support: The transition plan depends on public awareness and acceptance of renewable energy initiatives, which can impact project approvals and community engagement. Global Climate Agreements: The alignment with international climate commitments and agreements is assumed to influence national policies and corporate practices. Workforce Capability: The availability of a skilled workforce to implement new technologies and practices is crucial for the successful execution of the climate transition plan. Economic Stability: The plan assumes a stable economic environment that allows for continued investment in renewable energy and sustainability efforts.

(5.2.11) Description of progress against transition plan disclosed in current or previous reporting period

Our transition plan is a roadmap approved by the SBTi that serves our net-zero and 2030 short-term targets. These targets are as follows: Near-Term Targets by 2030: Scope 1: 73.71% reduction in GHG emissions from electricity and heat generation (per MWh) from a 2021 base year. Scope 2: 42% reduction in absolute GHG emissions. Scope 1 and 3: 73.71% reduction in emissions from all sold electricity (per MWh). Scope 3: 25% reduction in all other emissions. Long-Term Targets by 2040: Scope 1: 97.7% reduction in GHG emissions from electricity and heat generation (per MWh). Scope 2: 90% reduction in absolute GHG emissions. Scope 1 and 3: 97.8% reduction in fuel and energy-related emissions (per MWh). Scope 3: 90% reduction in all other emissions. The action plans and interim targets (2025, 2026, 2027, 2028, 2029, 2030) will be used as milestones for our financing needs in line with the bond maturity date during the SLB process. According to the 2022 emission targets, the results for 2023 show positive performance in absolute emissions and intensity performance based on Scope 1, Scope 2, and Scope 3 emissions, as well as production-based, consumption-based, and sold unit electricity metrics.

(5.2.12) Attach any relevant documents which detail your climate transition plan (optional)

integrated-annual-report-2023.pdf

(5.2.13) Other environmental issues that your climate transition plan considers

Select all that apply

☑ Forests

☑ Water

☑ Biodiversity

(5.2.14) Explain how the other environmental issues are considered in your climate transition plan

In addition to emission targets, our climate transition plan incorporates crucial areas such as biodiversity, water management, and forestry. Biodiversity: Protecting and promoting biodiversity is essential for maintaining ecosystem balance and resilience. Our plan includes initiatives aimed at preserving natural habitats and enhancing biodiversity in our operational areas, recognizing that healthy ecosystems contribute to carbon sequestration and sustainable resource management. Water Management: Efficient water management is vital in addressing the impacts of climate change. Our transition plan outlines strategies to optimize water use, minimize waste, and implement sustainable practices that protect local water resources, ensuring their availability for future generations. Forestry: Forests play a critical role in carbon capture and climate regulation. Our commitment to sustainable forestry practices involves supporting reforestation efforts and responsible land management to enhance carbon sinks and protect forest ecosystems. By integrating these elements into our climate transition plan, we aim to create a holistic approach that not only addresses climate change but also fosters environmental sustainability and resilience.
[Fixed row]

(5.3) Have environmental risks and opportunities affected your strategy and/or financial planning?

(5.3.1) Environmental risks and/or opportunities have affected your strategy and/or financial planning

Select from:
☑ Yes, both strategy and financial planning

(5.3.2) Business areas where environmental risks and/or opportunities have affected your strategy

Select all that apply
☑ Products and services
☑ Upstream/downstream value chain
☑ Investment in R&D
☑ Operations
[Fixed row]

(5.3.1) Describe where and how environmental risks and opportunities have affected your strategy.

Products and services

(5.3.1.1) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

Select all that apply

☑ Climate change

☑ Water

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

Zorlu Enerji's products and services are strategically aligned with its commitment to sustainability and its response to environmental risks and opportunities. Sustainable Energy Solutions: By focusing on renewable energy generation, such as wind, solar, and hydroelectric power, Zorlu Enerji is addressing the urgent need to reduce greenhouse gas emissions. This not only mitigates regulatory and reputational risks associated with fossil fuel dependency but also positions the company as a leader in the transition to a low-carbon economy. Energy Efficiency Products: The development and promotion of energy-efficient technologies and services reflect a proactive approach to environmental challenges. By helping consumers and businesses reduce their energy consumption, Zorlu Energy not only supports cost savings for customers but also contributes to broader energy conservation goals. Innovative Technologies: Investment in innovative technologies, such as smart grid systems and energy storage solutions, enables Zorlu Energy to enhance the reliability and efficiency of its energy offerings. These advancements can help mitigate risks related to energy supply fluctuations and improve resilience against climate impacts. Integration of Environmental Considerations: The incorporation of biodiversity, water management, and sustainable forestry practices into its operations and product offerings demonstrates Zorlu Energy's holistic approach to environmental stewardship. By addressing these factors, the company not only enhances its brand reputation but also ensures compliance with emerging regulations and societal expectations. Market Demand and Responsiveness: The growing demand for clean energy and sustainable practices presents significant opportunities for Zorlu Energy. By developing products and services that align with consumer preferences for sustainability, the company can capture new market segments and drive revenue growth.

Upstream/downstream value chain

(5.3.1.1) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

Select all that apply

☑ Climate change

☑ Water

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

Upstream Activities: In upstream operations, which include resource extraction and energy generation, environmental risks such as regulatory changes, climate variability, and biodiversity loss directly influence Zorlu Enerji's strategy. To mitigate these risks, the company engages with green critical suppliers who invest in sustainable practices and technologies, such as cleaner extraction methods and renewable energy sources. This proactive approach not only reduces operational risks but also aligns with regulatory compliance and stakeholder expectations, enhancing Zorlu's reputation as a responsible energy provider. Downstream Activities: In downstream operations, which involve energy distribution and customer engagement, environmental opportunities, such as the increasing demand for clean energy solutions, shape Zorlu Enerji's strategy. The company capitalizes on these opportunities by developing innovative products and services, such as increasing investments in solar power business as energy-efficient technologies and renewable energy offerings such as green tariffs, and IREC certifications. By responding to consumer preferences for sustainability, Zorlu Enerji can strengthen customer loyalty and expand its market share. Overall, Zorlu Enerji's strategy is influenced by a comprehensive understanding of environmental risks and opportunities across both upstream and downstream activities, guiding its efforts toward sustainability and resilience in the energy sector.

Investment in R&D

(5.3.1.1) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

Select all that apply

☑ Climate change

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

For our CCUS projects (such as GECO) that we are working on under R&D, there are currently no suitable standards available for generating carbon credits that would make the project financially feasible. The lack of an appropriate methodology for CCUS projects under standards like VCS and Gold Standard poses a risk. However, having a suitable methodology would enable the generation of high-quality carbon credits, which could be sold at a higher price due to the technology used, turning this situation into an opportunity. Also, current technology seems to be expensive which is a financial risk for Zorlu Enerji.

Operations

(5.3.1.1) Effect type

Select all that apply

☑ Risks

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

Select all that apply

☑ Climate change

☑ Water

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

In the case of hydroelectric power plants, changes in precipitation patterns will negatively impact production due to reduced flow rates. A similar situation is also valid for wind power plants in the long term, as changes in wind characteristics will adversely affect production at the facility. Additionally, extreme weather events that lead to heavy rainfall can pose a risk by causing damage to solar panels.
[Add row]

(5.3.2) Describe where and how environmental risks and opportunities have affected your financial planning.

Row 1

(5.3.2.1) Financial planning elements that have been affected

Select all that apply

☑ Revenues

(5.3.2.2) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.2.3) Environmental issues relevant to the risks and/or opportunities that have affected these financial planning elements

Select all that apply

☑ Climate change

☑ Water

(5.3.2.4) Describe how environmental risks and/or opportunities have affected these financial planning elements

The following environmental opportunities are included in financial planning related to revenues: demand for renewable energy, I-REC, YEK-G, and carbon credits generated through eligible investments are expected to increase. Zorlu Energy is already conducting sales of such green energy, certificates and carbon credits, which is considered an opportunity in terms of revenue. Another opportunity can be identified as holding renewable energy plant licenses, which facilitate access to financing, and the increasing demand for these licenses. As a risk, extreme weather events caused by climate change, along with changes in underground and surface water regimes, present a long-term risk of production and revenue loss for hydroelectric, solar, and geothermal power plants.

Row 2

(5.3.2.1) Financial planning elements that have been affected

Select all that apply

☑ Access to capital

☑ Liabilities

(5.3.2.2) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.2.3) Environmental issues relevant to the risks and/or opportunities that have affected these financial planning elements

Select all that apply

☑ Climate change

(5.3.2.4) Describe how environmental risks and/or opportunities have affected these financial planning elements

Having SBTi-approved targets and progressing in line with these targets facilitates access to green financing (at lower costs), creating an opportunity for both short- and long-term liabilities by offering interest rate advantages during the repayment periods of SLBs and Eurobonds issued based on these targets. However, investing in geothermal power plants that could increase emissions presents the risk of moving in the opposite direction of achieving targets, particularly endangering Scope 1 emissions, which could raise borrowing costs. This is considered a risk

Row 4

(5.3.2.1) Financial planning elements that have been affected

Select all that apply

☑ Capital expenditures

☑ Assets

(5.3.2.2) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.2.3) Environmental issues relevant to the risks and/or opportunities that have affected these financial planning elements

Select all that apply

☑ Climate change

☑ Water

(5.3.2.4) Describe how environmental risks and/or opportunities have affected these financial planning elements

Extreme weather events and catastrophic events caused by climate change could lead to physical damage to intangible assets such as plants, facilities, and equipment. This could increase insurance risk premiums, creating a negative financial impact. Geothermal facilities, due to the presence of deep drilling wells, can provide access to carbon sinks at a lower cost, which can be seen as an opportunity for potential CCUS projects. The V2Grid-Grid2V energy distribution trials conducted through the EV charging network in the investment portfolio are also considered a forward-looking opportunity. The base load shortfall that will result from

the increasing trend and focus on renewable energy sources, along with the power plant licenses owned by Zorlu Energy, presents an opportunity to be addressed through hybrid and energy storage power plants.
[Add row]

(5.4) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?

	Identification of spending/revenue that is aligned with your organization's climate transition
	Select from: ☑ No, but we plan to in the next two years

[Fixed row]

(5.5) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

(5.5.1) Investment in low-carbon R&D

Select from:
☑ Yes

(5.5.2) Comment

Zorlu Enerji is deeply committed to research and development (R&D) in low-carbon technologies, which are crucial for transitioning to a more sustainable energy future. Our investments span a wide range of innovative solutions within the energy sector, aimed at not only improving efficiency but also uncovering new opportunities for growth. One of the primary areas of focus is carbon capture and storage technology, as demonstrated by our involvement in the GECO project, which is dedicated to developing cutting-edge techniques for reducing carbon emissions from industrial sources. In addition, we are continuously enhancing the performance of our geothermal power plants through projects such as Geosmart and Geopro, ensuring that this renewable energy source becomes even more

efficient and reliable. Zorlu Enerji is also playing a pivotal role in the e-mobility revolution through initiatives like the Echarge4Drivers projects, which support the development of electric vehicle (EV) infrastructure and encourage the adoption of clean transportation. Our MASS project, a national smart meter initiative for the distribution sector, is contributing to the digital transformation of energy management, promoting efficiency and better resource utilization. Moreover, our commitment to the circular economy is exemplified by the JIDEP project, where we aim to recycle waste wind turbine blades, integrating them back into the economy rather than letting them end up as waste. This initiative highlights our holistic approach to sustainability, ensuring that the life cycle of renewable energy assets is extended and their environmental impact minimized. Additionally, Zorlu Enerji is participating in several forward-thinking projects under the Horizon 2020 program, including the development of digital twins for wind power plants. These digital twins allow for advanced event management, predictive maintenance, and downtime simulations, significantly improving the reliability and operational performance of our wind energy assets. By leveraging advanced digital tools, we ensure that our renewable energy operations are not only efficient but also resilient in the face of unforeseen challenges.
[Fixed row]

(5.5.7) Provide details of your organization's investments in low-carbon R&D for your sector activities over the last three years.

Row 1

(5.5.7.1) Technology area

Select from:
☑ Carbon capture, utilization, and storage (CCUS)

(5.5.7.2) Stage of development in the reporting year

Select from:
☑ Pilot demonstration

(5.5.7.3) Average % of total R&D investment over the last 3 years

17

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

53738

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

GECO Project: Electricity generation from geothermal resources in our country creates significant emissions due to the unique structure of the reservoir. In this context, studies are carried out for the capture and underground storage of geothermal resource emissions within the scope of the project initiated in cooperation with international institutions and organizations within the scope of the EU Horizon 2020 program. Pilot carbon capture and storage facility was established at our Kızıldere III Geothermal Power Plant and capture and storage activities were initiated. With the project, it is aimed to reduce carbon emissions to zero in areas where geothermal activities are carried out. It is believed that the final report of the project will be published in 2023, and it will be a part of an important step to combat the climate crisis by reducing the emissions from geothermal power plants in our country. With the project implemented under the roof of Zorlu Enerji Elektrik Üretim AŞ, it is aimed to reduce the carbon footprint and increase the share of green energy to 100%. The project, which has partners from 9 different countries, is expected to be completed in 2023. With the pilot project, 1000 tons of CO2 was pumped into the reservoir annually.

Row 2

(5.5.7.1) Technology area

Select from:

☑ Other, please specify **:**Thermal energy storage

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

18

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

355682

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

35

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

GeoSmart Project: GeoSmart project aims to increase the flexibility and efficiency of geothermal power plants. Project consortium includes 19 institutions, organizations, universities and institutes from 8 different countries. Within the scope of the project; thermal storage systems will be demonstrate in the Insheim fields in Germany and the Zorlu Kızıldere geothermal power plant in Turkey. In addition, installed systems in the Kızıldere GPP will help to reduce the re-injection temperature of the geothermal fluid. According to the project plan, after installation phase, system will be tested according to use-cases. Project studies will be completed by the end of September 2024.

Row 3

(5.5.7.1) Technology area

Select from:

☑ Other, please specify **:**Electrical Vehicles

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Pilot demonstration

(5.5.7.3) Average % of total R&D investment over the last 3 years

9

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

103315

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

4

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

With the brands of ZES, a network of electric vehicle charging stations, and electrip, an hourly electric vehicle rental platform, which are among the investments made by Zorlu Enerji Elektrik Üretim AŞ to implement new generation technologies as an R&D project, it is among the partners of the eCharge4Drivers Project, which was launched for the same purpose in Europe. Drivers of electric vehicles, whose sales are increasing rapidly throughout Europe, still have difficulties in finding suitable charging options, which limits the ease of use of electric vehicles. With the eCharge4Drivers Project, which aims to significantly improve the electric vehicle charging experience in cities and intercity journeys, users can, in line with their expectations on charging options, mobility, and parking habits, develop pilot projects in 10 areas in Europe, including cities and the Trans-European Transport Network. The project has 32 partners from 12 different countries. The project, which started in 2020, is expected to be completed in 2024. The project aims to reduce the carbon emission intensity in the electricity grid.

Row 4

(5.5.7.1) Technology area

Select from:

☑ Other, please specify **:**Recyling of components

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Basic academic/theoretical research

(5.5.7.3) Average % of total R&D investment over the last 3 years

4

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

82538

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

10

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Continuing to develop its growth strategy in the axis of innovation and R&D, Zorlu Enerji applied within the scope of the JIDEP (Joint Industrial) program, which is the continuation of the Horizon 2020 grant program established by the European Union to support research, development, and innovation projects. The Data Exchange Pipeline - Joint Industrial Data Exchange Platform project was entitled to receive 100% grant support. With the project, which aims to recycle composite materials used in many different sectors, especially in the automotive and maritime sectors, it is aimed to directly contribute to the circular economy and waste management.

Row 5

(5.5.7.1) Technology area

Select from:

☑ Carbon capture, utilization, and storage (CCUS)

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

0

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

0

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Succeed Project: As the R&D project of Zorlu Enerji Elektrik Üretim AŞ, ERA-NET ACT is supported within the scope of the "Reliable, Clean and Efficient Energy" subheading included in the Horizon 2020 Program and in which TÜBİTAK is also a partner. Within the scope of the project, coordination of national programs in the field of dissemination and acceleration of carbon storage and sequestration technologies, unity in research priorities, and data sharing are planned. With the ERA-NET ACT Project, R&D and innovation activities will be supported in order to accelerate the development of carbon dioxide capture and storage (CCS) technologies. The Synergetic Utilization of CO2 Storage Coupled with Geothermal Energy Deployment (SUCCEED) Project, which was applied for within the scope of this program, was entitled to receive grant support and entered into force as of September 2019. Within the scope of the project, it is aimed to contribute to sustainability by pumping carbon dioxide back into the geothermal reservoir under supercritical conditions in order to reduce carbon dioxide emissions originating from geothermal power plants.

Row 6

(5.5.7.1) Technology area

Select from:

☑ Wind energy generation

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Pilot demonstration

(5.5.7.3) Average % of total R&D investment over the last 3 years

3

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

0

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Smart Wind Project: SmartWind is an industry-driven demonstration project focused on the energy digitalisation that will contribute to achieving a reduction of the total costs of renewable wind power generation and the Levelized Cost of Electricity (LCoE), providing advanced and automated functions from data analysis for early fault detection and diagnosis, and Operations and Maintenance (O&M) planning at wind assets. As a result, SmartWind will face the main challenges of the wind industry (LCoE reduction) through the optimisation of O&M processes while maximising production from the available resource. The main KPIs to measure the project success are the reduction of O&M costs by 10% and the increase of availability and production indicators by 5%. To achieve the objectives of the project, the partners will bring on board their extensive expertise in data management, algorithms development, machine learning, artificial intelligence, operational and management failures as well as control and optimisation. This action will contribute to starting the project from a leading position in this field and to reinforcing the action plan to be covered within the project. Furthermore, the standardisation of the prototype solution, the validation phase in the laboratory and the field test in wind farms with real operation are considered as a vital aspect of the working plan. The plan covers the following technical actions: i) Analyze technologies and applications, ii) Modelling and data characterisation, iii) Algorithms development for problem detection (faults and performance diagnosis) and optimised wind farm control and operation, and iv) O&M Decision Support Systems (DSS). The primary objective of SmartWind is to provide an integrated platform for cost reduction and revenue optimisation based on advanced and automated functions for data analysis, fault detection, diagnosis and O&M recommendations, thus achieving operational excellence, maximising availability and Operating Expenditure (OPEX) reduction both at the wind farm, wind turbine and component level. In summary: i) Maximise high-quality reliable information available in SCADAs and systems as a basis for analysis, ii) Identify faults and performance problems, quantifying losses and proposing actions, and iii) Support the O&M decisions.

Row 7

(5.5.7.1) Technology area

Select from:

☑ Wind energy generation

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Pilot demonstration

(5.5.7.3) Average % of total R&D investment over the last 3 years

1

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

0

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

As an R&D project of Zorlu Enerji Elektrik Üretim AŞ, EUREKA, of which Turkey is among the founders, aims to encourage the development of advanced technologies, products, and services that will increase the competitiveness of industrial and research institutions in European countries in world markets, and the creation and execution of joint projects between countries. It is an established international cooperation platform. The necessary grant support for Turkish partners is provided by TÜBİTAK. With the SMART-PDM project, predictive maintenance technology is used, thus it is planned to increase the benefit from these power plants by reducing operating costs and production losses in wind power plants. The project will be implemented with predictive maintenance technology at Gökçedağ Wind Power Plant under the Eurogia2020 Program.

Row 8

(5.5.7.1) Technology area

Select from:

☑ Other, please specify **:**Renewable energy

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Basic academic/theoretical research

(5.5.7.3) Average % of total R&D investment over the last 3 years

1

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

31486

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

4

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

ERA-NET GEOTHERMICA is a TÜBİTAK partnership support framework, supported by the European Union, aiming to use geothermal energy, which is a renewable and green energy type, more efficiently and more sustainably. Deeplight project aims: -Creating a more efficient way for geothermal drilling by using electric pulsed power drilling technology, -Development of pulse power generator for specific use, -Integration of pulse power technology with drilling technology, -Improvement of geothermal district heating systems by finding feasible ways for geothermal liquid production.

Row 9

(5.5.7.1) Technology area

Select from:

☑ Battery storage

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Pilot demonstration

(5.5.7.3) Average % of total R&D investment over the last 3 years

4

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

0

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Investigation of Chemical Energy Storage Technologies and Implementation of Pilot Project Studies in Our Distribution Networks, Comparison of Studies (KEDEP Project) in OEDAŞ operations

Row 10

(5.5.7.1) Technology area

Select from:

☑ Wind energy generation

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Pilot demonstration

(5.5.7.3) Average % of total R&D investment over the last 3 years

1

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

0

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

As an R&D project of Zorlu Enerji Elektrik Üretim AŞ, EUREKA, of which Turkey is among the founders, aims to encourage the development of advanced technologies, products, and services that will increase the competitiveness of industrial and research institutions in European countries in world markets, and the creation and execution of joint projects between countries. It is an established international cooperation platform. The necessary grant support for Turkish partners is provided by TÜBİTAK. With the SMART-PDM project, predictive maintenance technology is used, thus it is planned to increase the benefit from these power plants by reducing operating costs and production losses in wind power plants. The project will be implemented with predictive maintenance technology at Gökçedağ Wind Power Plant under the Eurogia2020 Program.

Row 11

(5.5.7.1) Technology area

Select from:

☑ Smart grid integration

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

1

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

0

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

National Smart Metering Systems (MASS) Project in scope of OEDAŞ business

Row 12

(5.5.7.1) Technology area

Select from:

☑ Other, please specify **:**Renewable energy

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

3

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

0

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Integrated Planning Of Multi-Energy Systems (PLAMES)Project in scope of OEDAŞ business

Row 13

(5.5.7.1) Technology area

Select from:

☑ Other, please specify **:**Renewable energy

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Pilot demonstration

(5.5.7.3) Average % of total R&D investment over the last 3 years

12

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

66757

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Enabling Flexibility for Future Distribution Grid (FLEXIGRID) Project in OEDAŞ business

Row 14

(5.5.7.1) Technology area

Select from:

☑ Other, please specify **:**Renewable energy

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Pilot demonstration

(5.5.7.3) Average % of total R&D investment over the last 3 years

7

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

61556

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Big Data for Open innovation Energy Marketplace Project in scope of OEDAŞ business

Row 15

(5.5.7.1) Technology area

Select from:

☑ Other, please specify **:**Renewable energy

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Pilot demonstration

(5.5.7.3) Average % of total R&D investment over the last 3 years

6

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

80947

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Big Data for Next Generation Energy Project in scope of OEDAŞ business

Row 16

(5.5.7.1) Technology area

Select from:
☑ Demand response

(5.5.7.2) Stage of development in the reporting year

Select from:
☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

0

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

0

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Harvesting Energy Efficiency in the Electricity Distribution Sector (HASAT) – Phase 2 Project in scope of OEDAŞ business

Row 17

(5.5.7.1) Technology area

Select from:
☑ Demand response

(5.5.7.2) Stage of development in the reporting year

Select from:
☑ Pilot demonstration

(5.5.7.3) Average % of total R&D investment over the last 3 years

0

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

0

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Infrastructure Development and Pilot Implementation for Independent Electricity Distribution Service – Energy Everywhere Project in scope of OEDAŞ business.

Row 18

(5.5.7.1) Technology area

Select from:
☑ Other, please specify **:**Renewable energy

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

0

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

0

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

R&D Platform Phase-2 Project in scope of OEDAŞ business

Row 19

(5.5.7.1) Technology area

Select from:
☑ Other, please specify **:**Renewable energy

(5.5.7.2) Stage of development in the reporting year

Select from:
☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

0

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

0

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Local energy local technology project in scope of OEDAŞ business

Row 20

(5.5.7.1) Technology area

Select from:

☑ Other, please specify **:**Physical Risk Management

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

2

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

58117

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Investigation of the Turkish Electricity Distribution Network Against Earthquakes and Other Natural Disaster Situations, Performing Potential Post-Earthquake Performance Analyses, and Developing Emergency Action Plans Project in OEDAŞ business

Row 21

(5.5.7.1) Technology area

Select from:

☑ Other, please specify **:**Electrical safety in electricity distribution business

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

1

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

33799

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

ArcOS (Arc Flash Safety Operation System) Enhanced Safety System Project for Workers Against Arc Flash Hazards During Maintenance and Operations in scope of OEDAŞ business

Row 22

(5.5.7.1) Technology area

Select from:

☑ Other, please specify :Distributed Networks

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

0

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

2231

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

New Generation Network Design Project in scope of OEDAŞ business.

Row 23

(5.5.7.1) Technology area

Select from:

☑ Other, please specify :Scope 2 GHG Emissions

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Small scale commercial deployment

(5.5.7.3) Average % of total R&D investment over the last 3 years

3

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

36507

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Partial Discharge Detection Project Using Radio Frequency Emissions in scope of OEDAŞ business.

Row 24

(5.5.7.1) Technology area

Select from:

☑ Other, please specify :Web-based Monitoring Solutions

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

1

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

13921

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Argenerji PRO (R&D Platform Development Phase 3 Project) in scope of OEDAŞ business.

Row 25

(5.5.7.1) Technology area

Select from:
☑ Smart grid integration

(5.5.7.2) Stage of development in the reporting year

Select from:
☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

1

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

17180

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Digital Maturity Assessment Model and Development Roadmap Project in OEDAŞ business.

Row 26

(5.5.7.1) Technology area

Select from:

☑ Smart grid integration

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

0

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

3387

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

DÖMİ (Distribution-Specific National Processor) Phase 1 Project in OEDAŞ business.

Row 27

(5.5.7.1) Technology area

Select from:

☑ Other, please specify **:**Renewable energy

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

0

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

1259

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Development of a Test Device for Detecting Failures in Primary and Secondary Windings of Distribution Transformers (DTR-SAFE) in OEDAŞ business.

Row 28

(5.5.7.1) Technology area

Select from:

☑ Smart grid integration

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Pilot demonstration

(5.5.7.3) Average % of total R&D investment over the last 3 years

1

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

16869

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

5

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Remote Secure Activation System Project for Rural Street Lighting Fixtures Project in OEDAŞ business.

Row 29

(5.5.7.1) Technology area

Select from:

☑ Other, please specify :Software Project

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

1

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

12821

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Noca Platform No-Code Application Development Platform Project in OEDAŞ business.

Row 30

(5.5.7.1) Technology area

Select from:

☑ Other, please specify **:**Renewable energy

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

0

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

11652

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

1

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

MASS Integrated Standalone PLC and RF Communication Protocol and Product Development Project in OEDAŞ business.

Row 31

(5.5.7.1) Technology area

Select from:

☑ Other, please specify **:**Web-based platform development

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

0

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

9926

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Development of a Data-Centric Security and Compliance Platform Project in OEDAŞ business

Row 32

(5.5.7.1) Technology area

Select from:
☑ Other, please specify

(5.5.7.2) Stage of development in the reporting year

Select from:
☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

0

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

10303

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Local software development ecosystem project is scope of OEDAŞ business

Row 33

(5.5.7.1) Technology area

Select from:

☑ Other, please specify **:**Software development project

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

0

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

3189

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

1

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

E-Mobility Initiative (Preparation of the Electrical Infrastructure within the Framework of Turkey's E-Mobility Initiative) Project in scope of OEDAŞ business

Row 34

(5.5.7.1) Technology area

Select from:

☑ Other, please specify :renewable

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

0

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

1455

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

6

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

SLF: Spatial Load Forecasting Tool Project in scope of OEDAŞ business.

Row 35

(5.5.7.1) Technology area

Select from:

☑ Battery storage

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

0

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

11712

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

8

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

E-Depot: Energy Storage Systems Monitoring Portal Project for OEDAŞ business

Row 36

(5.5.7.1) Technology area

Select from:
☑ Other, please specify :renewable

(5.5.7.2) Stage of development in the reporting year

Select from:
☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

0

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

1265

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

11

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Domestic Energy Ecosystem Integration and Master Data Management Platform (YE3AP) Project for OEDAŞ business

Row 37

(5.5.7.1) Technology area

Select from:

☑ Smart grid integration

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

0

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

769

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

13

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Data Collection, Processing, and On-Site Evaluation Application R&D Project for TM/DM Station Devices Using the MASS Protoco for OEDAŞ business
[Add row]

(5.7) Break down, by source, your organization’s CAPEX in the reporting year and CAPEX planned over the next 5 years.

Coal – hard

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

(5.7.5) Explain your CAPEX calculations, including any assumptions

-

Lignite

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

(5.7.5) Explain your CAPEX calculations, including any assumptions

-

Oil

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

(5.7.5) Explain your CAPEX calculations, including any assumptions

-

Gas

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

(5.7.5) Explain your CAPEX calculations, including any assumptions

-

Sustainable biomass

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

(5.7.5) Explain your CAPEX calculations, including any assumptions

-

Other biomass

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

(5.7.5) Explain your CAPEX calculations, including any assumptions

-

Waste (non-biomass)

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

(5.7.5) Explain your CAPEX calculations, including any assumptions

-

Nuclear

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

(5.7.5) Explain your CAPEX calculations, including any assumptions

-

Geothermal

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

18500000

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

97.3

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

71.2

(5.7.5) Explain your CAPEX calculations, including any assumptions

CAPEX as capital expenses for investment requirements for long term duration and capability of PP. CAPEX covers expenses as engineering, construction and long term maintenance services, machinery, main and partial equipment costs and other fixed asset costs. Accounting for 18% of the total installed capacity of Turkey in geothermal energy, Zorlu Enerji (ZE) aims to reach an installed capacity of at least 400 MW in this field by undertaking new geothermal energy projects. -Alasehir 2 Geothermal Power Plant Project: For the Alasehir 2 GPP, which is planned to be established to make use of the additional geothermal potential in the Manisa Alasehir site, a generation license valid was obtained from EMRA for an installed capacity of 18.6 MW. -Tekkehamam 2 Geothermal Power Plant Project: The application filed to EMRA to obtain a pre-license for the Tekkehamam 2 Geothermal Power Plant project, which will have an installed capacity of 35 MW and is planned to be established within the site, was approved in January 2020, and the project was granted a pre-license. Project development activities are ongoing

Hydropower

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

Wind

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

6000

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0.1

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

17.1

(5.7.5) Explain your CAPEX calculations, including any assumptions

In order to establish a Combined Renewable Electricity Generation Facility (Main Source WPP Auxiliary Source SPP) to generate electricity from solar energy integrated with Gökçedağ Wind Power Plant with an installed capacity of 135 MWm/135 MWe and a license power of 150.6 MWm/150.6 MWe in Bahçe district of Osmaniye province, the application to the Energy Market Regulatory Authority to amend the existing electricity generation license of the power plant to 160.209 MWm/150.6 MWe was approved in October 2022.

Solar

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

504736

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

2.6

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

11.7

(5.7.5) Explain your CAPEX calculations, including any assumptions

Hybrid SPPs are taken in solar. Hybrid power plants are joint plants with wind and geothermal power plants.

Marine

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

(5.7.5) Explain your CAPEX calculations, including any assumptions

-

Fossil-fuel plants fitted with CCS

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

(5.7.5) Explain your CAPEX calculations, including any assumptions

-

Other renewable (e.g. renewable hydrogen)

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

(5.7.5) Explain your CAPEX calculations, including any assumptions

-

Other non-renewable (e.g. non-renewable hydrogen)

(5.7.1) CAPEX in the reporting year for power generation from this source (unit currency as selected in 1.2)

0

(5.7.2) CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0

(5.7.3) CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

(5.7.5) Explain your CAPEX calculations, including any assumptions

-
[Fixed row]

(5.7.1) Break down your total planned CAPEX in your current CAPEX plan for products and services (e.g. smart grids, digitalization, etc.).

Row 1

(5.7.1.1) Products and services

Select from:
☑ Other, please specify **:**Renewable energy (large scale storage, hybrid PPs, Solar, Geothermal PPs)

(5.7.1.2) Description of product/service

Renewable energy business (large-scale storage hybrid PPs, Wind, Solar, Geothermal PPs)

(5.7.1.3) CAPEX planned for product/service

43670000

(5.7.1.4) Percentage of total CAPEX planned for products and services

13.4

(5.7.1.5) End year of CAPEX plan

2024

Row 2

(5.7.1.1) Products and services

Select from:
☑ Distributed generation

(5.7.1.2) Description of product/service

Electricity distribution business

(5.7.1.3) CAPEX planned for product/service

30160000

(5.7.1.4) Percentage of total CAPEX planned for products and services

9.3

(5.7.1.5) End year of CAPEX plan

2024

Row 3

(5.7.1.1) Products and services

Select from:

☑ Other, please specify **:**Demand-side efficiency business (EV charging network and solar smart grid equipment sales)

(5.7.1.2) Description of product/service

Demand-side efficiency business (EV charging network and solar smart grid equipment sales)

(5.7.1.3) CAPEX planned for product/service

251290000

(5.7.1.4) Percentage of total CAPEX planned for products and services

77.3

(5.7.1.5) End year of CAPEX plan

2024
[Add row]

(5.9) What is the trend in your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

(5.9.1) Water-related CAPEX (+/- % change)

0

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

0

(5.9.3) Water-related OPEX (+/- % change)

0

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

1

(5.9.5) Please explain

The ingredients of the water security are monitored seriously and carefully. In case of the emergence of any variations than expected in follow-up findings, our operation team is assigned to immediately intervene in the situation. The laboratory (TSS, BOD, COD) test costs added as anticipated trend for OPEX.
[Fixed row]

(5.10) Does your organization use an internal price on environmental externalities?

	Use of internal pricing of environmental externalities	Environmental externality priced
	Select from: ☑ Yes	*Select all that apply* ☑ Carbon

[Fixed row]

(5.10.1) Provide details of your organization’s internal price on carbon.

Row 1

(5.10.1.1) Type of pricing scheme

Select from:

☑ Shadow price

(5.10.1.2) Objectives for implementing internal price

Select all that apply

☑ Navigate regulations

☑ Drive energy efficiency

☑ Set a carbon offset budget

☑ Drive low-carbon investment

☑ Conduct cost-benefit analysis

☑ Identify and seize low-carbon opportunities

☑ Influence strategy and/or financial planning

☑ Setting and/or achieving of climate-related policies and targets

☑ Incentivize consideration of climate-related issues in decision making

(5.10.1.3) Factors considered when determining the price

Select all that apply

☑ Scenario analysis

☑ Benchmarking against peers

☑ Alignment to scientific guidance

☑ Alignment to international standards

☑ Alignment with the price of a carbon tax

☑ Alignment with the price of allowances under an Emissions Trading Scheme

☑ Price/cost of renewable energy procurement

☑ Price/cost of voluntary carbon offset credits

☑ Price with substantive impact on business decisions

☑ Cost of required measures to achieve climate-related targets

☑ Alignment with the price of carbon border adjustment mechanism

(5.10.1.4) Calculation methodology and assumptions made in determining the price

Estimation of Carbon Costs: The shadow price of carbon is typically calculated based on the expected costs of carbon emissions over a given time horizon. This mainly involves using external carbon market prices of the EU Emissions Trading System due to the closest market system for Turkey's potential implementation. Long-term Scenario Analysis: Various future carbon price scenarios are considered to reflect regulatory changes, market developments, and global climate policies. A projected future price trajectory is used to assess the cost impact over the lifespan of projects or assets. Sector-specific Adjustments: Given the energy sector's carbon intensity, adjustments are made to reflect the specific carbon emissions from different types of energy generation (e.g., geothermal, wind, solar, or fossil-based sources). Regulatory Developments: Assumptions are made about future carbon regulations, including possible tax schemes or stricter emissions caps. Market Trends: Global and regional market prices for carbon credits or taxes are forecasted to project future pricing trends. Technological Improvements: The potential reduction in carbon emissions due to new technologies, such as CCUS is factored into price calculations. the shadow price of carbon for Zorlu Enerji is determined by considering market trends, regulatory outlooks, and sector-specific and location-based emission factors, aiming to integrate carbon costs into long-term investment and operational decisions.

(5.10.1.5) Scopes covered

Select all that apply

☑ Scope 1
☑ Scope 2
☑ Scope 3, Category 14 – Franchises
☑ Scope 3, Category 15 – Investments
☑ Scope 3, Category 2 - Capital goods
☑ Scope 3, Category 1 - Purchased goods and services
☑ Scope 3, Category 10 - Processing of sold products
☑ Scope 3, Category 5 - Waste generated in operations
☑ Scope 3, Category 12 - End-of-life treatment of sold products
☑ Scope 3, Category 4 - Upstream transportation and distribution
☑ Scope 3, Category 6 - Business travel
☑ Scope 3, Category 7 - Employee commuting
☑ Scope 3, Category 11 - Use of sold products
☑ Scope 3, Category 8 - Upstream leased assets
☑ Scope 3, Category 13 - Downstream leased assets
☑ Scope 3, Category 9 - Downstream transportation and distribution
☑ Scope 3, Category 3 - Fuel- and energy-related activities (not included in Scope 1 or 2)

(5.10.1.6) Pricing approach used – spatial variance

Select from:

☑ Differentiated

(5.10.1.7) Indicate how and why the price is differentiated

Heavy Industries vs. Power Generation: Industries such as cement, steel, and chemical production often face higher carbon prices because they have fewer options for reducing emissions compared to the power sector, which can shift to renewable energy sources more easily. This results in varying demand for emissions allowances across sectors. Free Allocation of Allowances: Some sectors receive a portion of their allowances for free to prevent carbon leakage (the risk of companies relocating to countries with less stringent climate policies). This affects the effective carbon price paid by these sectors. Supply and Demand: The carbon price is influenced by the balance of supply and demand for emissions allowances. Factors like economic growth, energy prices, and technological advancements can impact demand for allowances, leading to price fluctuations. Market Speculation: Traders and investors participate in the carbon market, which can lead to price volatility. Speculative activities can drive prices up or down based on expectations about future regulations or economic conditions.

(5.10.1.8) Pricing approach used – temporal variance

Select from:

☑ Evolutionary

(5.10.1.9) Indicate how you expect the price to change over time

Zorlu Enerji anticipates a continuous rise in carbon prices, potentially reaching 130 USD per metric ton of carbon by 2030. This projection is based on ongoing discussions among industry stakeholders and carbon market experts. Zorlu Enerji incorporates this upward trend in carbon pricing into its financial planning, recognizing the increasing impact of carbon pricing mechanisms. Additionally, Zorlu Enerji closely monitors the EU Emissions Trading System (ETS) market, which serves as a reference for determining the minimum and maximum carbon prices per metric ton. The maximum price of 110 USD obtained from EMBER as the EU ETS maximum price in 2022, and the actual minimum price of 70 USD, sourced from the World Bank database (https://carbonpricingdashboard.worldbank.org/map_data), representing the average carbon price in the EU ETS market, are both taken into consideration.

(5.10.1.10) Minimum actual price used (currency per metric ton CO2e)

70

(5.10.1.11) Maximum actual price used (currency per metric ton CO2e)

110

(5.10.1.12) Business decision-making processes the internal price is applied to

Select all that apply

- ☑ Operations
- ☑ Procurement
- ☑ Remuneration
- ☑ Product and R&D
- ☑ Risk management
- ☑ Impact management
- ☑ Capital expenditure
- ☑ Opportunity management
- ☑ Value chain engagement
- ☑ Dependencies management

(5.10.1.13) Internal price is mandatory within business decision-making processes

Select from:

☑ Yes, for all decision-making processes

(5.10.1.14) % total emissions in the reporting year in selected scopes this internal price covers

100

(5.10.1.15) Pricing approach is monitored and evaluated to achieve objectives

Select from:

☑ Yes

(5.10.1.16) Details of how the pricing approach is monitored and evaluated to achieve your objectives

Zorlu Enerji closely follows up on the potential impact of carbon prices aligned with the local Emissions Trading System (ETS) and also the changing market preference towards low carbon energy in its value chain where decarbonization will be a near term target as well. By internalizing carbon costs, Zorlu Enerji prioritizes investments in decarbonization projects that offer favorable payback periods and also low carbon alternatives for energy, resource, and logistics-related emissions. Zorlu Enerji also takes into account intangible costs such as reputation and market potential associated with delayed decarbonization efforts. Concrete outcomes of carbon pricing instruments guide Zorlu Enerji's financial planning, allowing the company to outline the costs of its decarbonization milestones in parallel with its commitment to Science-Based Targets (SBTs) and incorporating carbon pricin considerations into operational, capital expenditure, and R&D decisions. Zorlu Enerji extends its decarbonization approach to its shareholders, suppliers, and contractors, going beyond raising awareness within the corporate culture. The company has solidified policies on sustainable procurement and stakeholder relationships since 2021 and targets emission emission-free value chain in 2040. The Risk and Finance department analyzes the financial risks and opportunities arising from the climate change-driven market and regulatory context. These analyses are reported to the Sustainability Committee, led by Zorlu Enerji's CEO, and significantly impact the company's financial planning for new decarbonization investments. Zorlu Enerji's ongoing decarbonization investments and divestments exemplify the company's dedication to sustainability targets, while also providing advantages in terms of accessing capital at low interest rates for future investments.
[Add row]

(5.11) Do you engage with your value chain on environmental issues?

	Engaging with this stakeholder on environmental issues	Environmental issues covered
Suppliers	*Select from:* ☑ Yes	*Select all that apply* ☑ Climate change ☑ Water
Customers	*Select from:* ☑ Yes	*Select all that apply* ☑ Climate change

	Engaging with this stakeholder on environmental issues	Environmental issues covered
		☑ Water
Investors and shareholders	*Select from:* ☑ Yes	*Select all that apply* ☑ Climate change ☑ Water
Other value chain stakeholders	*Select from:* ☑ Yes	*Select all that apply* ☑ Climate change ☑ Water

[Fixed row]

(5.11.1) Does your organization assess and classify suppliers according to their dependencies and/or impacts on the environment?

Climate change

(5.11.1.1) Assessment of supplier dependencies and/or impacts on the environment

Select from:

☑ Yes, we assess the dependencies and/or impacts of our suppliers

(5.11.1.2) Criteria for assessing supplier dependencies and/or impacts on the environment

Select all that apply

☑ Basin/landscape condition

☑ Contribution to supplier-related Scope 3 emissions

☑ Dependence on ecosystem services/environmental assets

☑ Impact on plastic waste and pollution

☑ Impact on pollution levels

(5.11.1.3) % Tier 1 suppliers assessed

Select from:
☑ 26-50%

(5.11.1.4) Define a threshold for classifying suppliers as having substantive dependencies and/or impacts on the environment

- Suppliers who have been labeled as strategic and critical suppliers. (Please refer to Zorlu Enerji Sustainable Supply Chain Policy) - Suppliers operating in high-risk sectors (such as fossil fuels, mining, and agriculture) will be classified as having substantive dependencies and/or impacts if they are part of industries known for significant environmental impacts, regardless of strategic or critical attributes.

(5.11.1.5) % Tier 1 suppliers meeting the thresholds for substantive dependencies and/or impacts on the environment

Select from:
☑ 51-75%

(5.11.1.6) Number of Tier 1 suppliers meeting the thresholds for substantive dependencies and/or impacts on the environment

10

Water

(5.11.1.1) Assessment of supplier dependencies and/or impacts on the environment

Select from:
☑ Yes, we assess the dependencies and/or impacts of our suppliers

(5.11.1.2) Criteria for assessing supplier dependencies and/or impacts on the environment

Select all that apply
☑ Basin/landscape condition

☑ Dependence on water
☑ Dependence on ecosystem services/environmental assets
☑ Impact on water availability

(5.11.1.3) % Tier 1 suppliers assessed

Select from:
☑ 26-50%

(5.11.1.4) Define a threshold for classifying suppliers as having substantive dependencies and/or impacts on the environment

- Suppliers identified through an environmental impact assessment that has a significant carbon footprint (e.g., those exceeding 1,000 tons of CO2 emissions annually) or substantial water usage (e.g., over 10,000 cubic meters) will be classified as having a significant impact on the environment.

(5.11.1.5) % Tier 1 suppliers meeting the thresholds for substantive dependencies and/or impacts on the environment

Select from:
☑ 51-75%

(5.11.1.6) Number of Tier 1 suppliers meeting the thresholds for substantive dependencies and/or impacts on the environment

10
[Fixed row]

(5.11.2) Does your organization prioritize which suppliers to engage with on environmental issues?

Climate change

(5.11.2.1) Supplier engagement prioritization on this environmental issue

Select from:

☑ Yes, we prioritize which suppliers to engage with on this environmental issue

(5.11.2.2) Criteria informing which suppliers are prioritized for engagement on this environmental issue

Select all that apply

☑ Regulatory compliance

☑ Reputation management

☑ Business risk mitigation

☑ Leverage over suppliers

☑ Vulnerability of suppliers

☑ Strategic status of suppliers

☑ Supplier performance improvement

☑ In line with the criteria used to classify suppliers as having substantive dependencies and/or impacts relating to climate change

(5.11.2.4) Please explain

Zorlu Enerji evaluates its critical and strategic suppliers in terms of ESG criteria, which are aligned with ISO 26000, the UN Global Compact, and GRI standards. After the ESG assessment, the companies receive scorecards. These scorecards reflect evaluations based on corporate activities, environmental factors (such as water, energy, and waste management), environmental certification, social and human resources aspects, certification and regulations, stakeholder relations, public relations, and corporate governance structures and components. Based on the performance demonstrated by the companies, ESG action plans are created to address identified gaps, and this information is shared with the Procurement Directorate. Progress on these actions, as well as training and awareness sessions regarding Zorlu Enerji's expectations in terms of ESG, are conducted. Critical suppliers with climate crisis-related programs are favorably considered during tender processes.

Water

(5.11.2.1) Supplier engagement prioritization on this environmental issue

Select from:

☑ Yes, we prioritize which suppliers to engage with on this environmental issue

(5.11.2.2) Criteria informing which suppliers are prioritized for engagement on this environmental issue

Select all that apply

☑ Regulatory compliance
☑ Reputation management
☑ Business risk mitigation
☑ Leverage over suppliers
☑ Vulnerability of suppliers
☑ Strategic status of suppliers
☑ Supplier performance improvement
☑ In line with the criteria used to classify suppliers as having substantive dependencies and/or impacts relating to water

(5.11.2.4) Please explain

Zorlu Enerji evaluates its critical and strategic suppliers in terms of ESG criteria, which are aligned with ISO 26000, the UN Global Compact, and GRI standards. After the ESG assessment, the companies receive scorecards. These scorecards reflect evaluations based on corporate activities, environmental factors (such as water, energy, and waste management), environmental certification, social and human resources aspects, certification and regulations, stakeholder relations, public relations, and corporate governance structures and components. Based on the performance demonstrated by the companies, ESG action plans are created to address identified gaps, and this information is shared with the Procurement Directorate. Progress on these actions, as well as training and awareness sessions regarding Zorlu Enerji's expectations in terms of ESG, are conducted. Critical suppliers with climate crisis-related programs are favorably considered during tender processes.
[Fixed row]

(5.11.5) Do your suppliers have to meet environmental requirements as part of your organization’s purchasing process?

Climate change

(5.11.5.1) Suppliers have to meet specific environmental requirements related to this environmental issue as part of the purchasing process

Select from:
☑ Yes, environmental requirements related to this environmental issue are included in our supplier contracts

(5.11.5.2) Policy in place for addressing supplier non-compliance

Select from:

☑ Yes, we have a policy in place for addressing non-compliance

(5.11.5.3) Comment

Zorlu Enerji addresses its requirements regarding issues such as climate change and water security through specifications specifically developed for contracts. These specifications are part of the agreements signed with the company awarded the tender, as a requirement of the relevant procurement process, and are signed by both parties. Zorlu Enerji reserves the right to conduct compliance audits for the supplier in line with these specifications. This process is defined under the Sustainable Supply Chain Policy.

Water

(5.11.5.1) Suppliers have to meet specific environmental requirements related to this environmental issue as part of the purchasing process

Select from:

☑ Yes, environmental requirements related to this environmental issue are included in our supplier contracts

(5.11.5.2) Policy in place for addressing supplier non-compliance

Select from:

☑ Yes, we have a policy in place for addressing non-compliance

(5.11.5.3) Comment

Zorlu Enerji addresses its requirements regarding issues such as climate change and water security through specifications specifically developed for contracts. These specifications are part of the agreements signed with the company awarded the tender, as a requirement of the relevant procurement process, and are signed by both parties. Zorlu Enerji reserves the right to conduct compliance audits for the supplier in line with these specifications. This process is defined under the Sustainable Supply Chain Policy.
[Fixed row]

(5.11.6) Provide details of the environmental requirements that suppliers have to meet as part of your organization's purchasing process, and the compliance measures in place.

Climate change

(5.11.6.1) Environmental requirement

Select from:

☑ Environmental disclosure through a non-public platform

(5.11.6.2) Mechanisms for monitoring compliance with this environmental requirement

Select all that apply

☑ Certification

☑ Geospatial monitoring tool

☑ Supplier scorecard or rating

☑ Supplier self-assessment

(5.11.6.3) % tier 1 suppliers by procurement spend required to comply with this environmental requirement

Select from:

☑ None

(5.11.6.4) % tier 1 suppliers by procurement spend in compliance with this environmental requirement

Select from:

☑ Less than 1%

(5.11.6.7) % tier 1 supplier-related scope 3 emissions attributable to the suppliers required to comply with this environmental requirement

Select from:

☑ Less than 1%

(5.11.6.8) % tier 1 supplier-related scope 3 emissions attributable to the suppliers in compliance with this environmental requirement

Select from:

☑ Less than 1%

(5.11.6.9) Response to supplier non-compliance with this environmental requirement

Select from:

☑ Suspend and engage

(5.11.6.10) % of non-compliant suppliers engaged

Select from:

☑ 26-50%

(5.11.6.11) Procedures to engage non-compliant suppliers

Select all that apply

☑ Assessing the efficacy and efforts of non-compliant supplier actions through consistent and quantified metrics

☑ Developing quantifiable, time-bound targets and milestones to bring suppliers back into compliance

☑ Re-integrating suppliers back into upstream value chain based on the successful and verifiable completion of activities

(5.11.6.12) Comment

Zorlu Enerji evaluates its critical and strategic suppliers in terms of ESG criteria, which are aligned with ISO 26000, the UN Global Compact, and GRI standards. After the ESG assessment, the companies receive scorecards. These scorecards reflect evaluations based on corporate activities, environmental factors (such as water, energy, and waste management), environmental certification, social and human resources aspects, certification and regulations, stakeholder relations, public relations, and corporate governance structures and components. Based on the performance demonstrated by the companies, ESG action plans are created to address identified gaps, and this information is shared with the Procurement Directorate. Progress on these actions, as well as training and awareness sessions regarding Zorlu Energy's expectations in terms of ESG, are conducted. Critical suppliers with climate crisis-related programs are favorably considered during tender processes.

Water

(5.11.6.1) Environmental requirement

Select from:

☑ Environmental disclosure through a non-public platform

(5.11.6.2) Mechanisms for monitoring compliance with this environmental requirement

Select all that apply

☑ Certification

☑ Geospatial monitoring tool

☑ Supplier scorecard or rating

☑ Supplier self-assessment

(5.11.6.3) % tier 1 suppliers by procurement spend required to comply with this environmental requirement

Select from:

☑ None

(5.11.6.4) % tier 1 suppliers by procurement spend in compliance with this environmental requirement

Select from:

☑ Less than 1%

(5.11.6.5) % tier 1 suppliers with substantive environmental dependencies and/or impacts related to this environmental issue required to comply with this environmental requirement

Select from:

☑ Less than 1%

(5.11.6.6) % tier 1 suppliers with substantive environmental dependencies and/or impacts related to this environmental issue that are in compliance with this environmental requirement

Select from:

☑ Less than 1%

(5.11.6.9) Response to supplier non-compliance with this environmental requirement

Select from:

☑ Suspend and engage

(5.11.6.10) % of non-compliant suppliers engaged

Select from:

☑ 26-50%

(5.11.6.11) Procedures to engage non-compliant suppliers

Select all that apply

☑ Assessing the efficacy and efforts of non-compliant supplier actions through consistent and quantified metrics

☑ Developing quantifiable, time-bound targets and milestones to bring suppliers back into compliance

☑ Re-integrating suppliers back into upstream value chain based on the successful and verifiable completion of activities

(5.11.6.12) Comment

Zorlu Enerji evaluates its critical and strategic suppliers in terms of ESG criteria, which are aligned with ISO 26000, the UN Global Compact, and GRI standards. After the ESG assessment, the companies receive scorecards. These scorecards reflect evaluations based on corporate activities, environmental factors (such as water, energy, and waste management), environmental certification, social and human resources aspects, certification and regulations, stakeholder relations, public relations, and corporate governance structures and components. Based on the performance demonstrated by the companies, ESG action plans are created to address identified gaps, and this information is shared with the Procurement Directorate. Progress on these actions, as well as training and awareness sessions regarding Zorlu Energy's expectations in terms of ESG, are conducted. Critical suppliers with climate crisis-related programs are favorably considered during tender processes.
[Add row]

(5.11.7) Provide further details of your organization’s supplier engagement on environmental issues.

Climate change

(5.11.7.2) Action driven by supplier engagement

Select from:

☑ Adaptation to climate change

(5.11.7.3) Type and details of engagement

Capacity building

☑ Provide training, support and best practices on how to measure GHG emissions

☑ Provide training, support and best practices on how to set science-based targets
☑ Support suppliers to develop public time-bound action plans with clear milestones
☑ Provide training, support and best practices on how to mitigate environmental impact
☑ Support suppliers to set their own environmental commitments across their operations
☑ Provide training, support and best practices on how to make credible renewable energy usage claims

Information collection
☑ Collect climate transition plan information at least annually from suppliers
☑ Collect environmental risk and opportunity information at least annually from suppliers
☑ Collect GHG emissions data at least annually from suppliers
☑ Collect water quality information at least annually from suppliers (e.g., discharge quality, pollution incidents, hazardous substances)
☑ Collect water quantity information at least annually from suppliers (e.g., withdrawal and discharge volumes)

(5.11.7.4) Upstream value chain coverage

Select all that apply
☑ Tier 1 suppliers

(5.11.7.5) % of tier 1 suppliers by procurement spend covered by engagement

Select from:
☑ Less than 1%

(5.11.7.6) % of tier 1 supplier-related scope 3 emissions covered by engagement

Select from:
☑ 26-50%

(5.11.7.9) Describe the engagement and explain the effect of your engagement on the selected environmental action

Action plans and roadmaps are communicated to critical suppliers based on identified gaps in climate-related issues. For companies that do not meet the required score, training and awareness sessions are organized. During the following year, they are re-included in the scoring system, with their progress tracked and supported to help them reach the desired level.

(5.11.7.10) Engagement is helping your tier 1 suppliers meet an environmental requirement related to this environmental issue

Select from:

☑ Yes, please specify the environmental requirement

(5.11.7.11) Engagement is helping your tier 1 suppliers engage with their own suppliers on the selected action

Select from:

☑ Yes

Water

(5.11.7.2) Action driven by supplier engagement

Select from:

☑ Total water withdrawal volumes reduction

(5.11.7.3) Type and details of engagement

Capacity building

☑ Provide training, support and best practices on how to make credible renewable energy usage claims

☑ Provide training, support and best practices on how to measure GHG emissions

☑ Provide training, support and best practices on how to mitigate environmental impact

☑ Support suppliers to develop public time-bound action plans with clear milestones

☑ Support suppliers to set their own environmental commitments across their operations

Information collection

☑ Collect environmental risk and opportunity information at least annually from suppliers

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

☑ Collect water quantity information at least annually from suppliers (e.g., withdrawal and discharge volumes)

(5.11.7.4) Upstream value chain coverage

Select all that apply

☑ Tier 1 suppliers

(5.11.7.5) % of tier 1 suppliers by procurement spend covered by engagement

Select from:

☑ Less than 1%

(5.11.7.7) % tier 1 suppliers with substantive impacts and/or dependencies related to this environmental issue covered by engagement

Select from:

☑ 26-50%

(5.11.7.9) Describe the engagement and explain the effect of your engagement on the selected environmental action

Action plans and roadmaps are communicated to critical suppliers based on identified gaps in climate-related issues. For companies that do not meet the required score, training and awareness sessions are organized. During the following year, they are re-included in the scoring system, with their progress tracked and supported to help them reach the desired level.

(5.11.7.10) Engagement is helping your tier 1 suppliers meet an environmental requirement related to this environmental issue

Select from:

☑ No, this engagement is unrelated to meeting an environmental requirement

(5.11.7.11) Engagement is helping your tier 1 suppliers engage with their own suppliers on the selected action

Select from:

☑ No

[Add row]

(5.11.9) Provide details of any environmental engagement activity with other stakeholders in the value chain.

Climate change

(5.11.9.1) Type of stakeholder

Select from:

☑ Customers

(5.11.9.2) Type and details of engagement

Education/Information sharing

☑ Educate and work with stakeholders on understanding and measuring exposure to environmental risks

☑ Run an engagement campaign to educate stakeholders about the environmental impacts about your products, goods and/or services

☑ Share information about your products and relevant certification schemes

☑ Share information on environmental initiatives, progress and achievements

Innovation and collaboration

☑ Align your organization's goals to support customers' targets and ambitions

☑ Collaborate with stakeholders in creation and review of your climate transition plan

☑ Collaborate with stakeholders on innovations to reduce environmental impacts in products and services

☑ Engage with stakeholders to advocate for policy or regulatory change

☑ Run a campaign to encourage innovation to reduce environmental impacts

(5.11.9.3) % of stakeholder type engaged

Select from:

☑ 100%

(5.11.9.4) % stakeholder-associated scope 3 emissions

Select from:

☑ 76-99%

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

The emissions generated from the production of the electricity we traded through OEPSAŞ and distributed via OEDAŞ in 2023 amounted to 2,833,991 tons of CO2e, and are categorized under Scope 3 Fuel and energy-related activities. Embedded emissions related to customers account for 83% of total Scope 3 emissions. The electricity trading and generation activities within our distribution area are primarily based on solar-powered renewable energy. We have forecasts about production increases in the coming years, the share of renewables in the electricity mix we trade and distribute will rise, leading to a gradual reduction in our associated embedded emissions. We inform our customers, investors, and all relevant stakeholders accordingly and encourage them through our participation in association activities such as WBCSD Turkey. Main engagement process is double materiality analysis that directly give us crucial inputs for shaping/reviewing our sustainability strategy

(5.11.9.6) Effect of engagement and measures of success

We observe that our embedded emissions have decreased over the years as energy production has become cleaner. By involving our customers in our double materiality processes, we are able to measure the impact of engagement efforts.

Water

(5.11.9.1) Type of stakeholder

Select from:

☑ Customers

(5.11.9.2) Type and details of engagement

Education/Information sharing

☑ Educate and work with stakeholders on understanding and measuring exposure to environmental risks

☑ Run an engagement campaign to educate stakeholders about the environmental impacts about your products, goods and/or services

☑ Share information about your products and relevant certification schemes

☑ Share information on environmental initiatives, progress and achievements

Innovation and collaboration

☑ Align your organization’s goals to support customers’ targets and ambitions

☑ Collaborate with stakeholders on innovations to reduce environmental impacts in products and services

☑ Encourage collaborative work in multi-stakeholder landscape towards initiatives for sustainable land-use goals

☑ Engage with stakeholders to advocate for policy or regulatory change

(5.11.9.3) % of stakeholder type engaged

Select from:

☑ 100%

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

Water is a significant environmental aspect for Zorlu Enerji due to the regions affected by our hydropower plants, which are certified with ISO 14046 for our water-related targets, as well as our thermal and geothermal plants involved in our processes. As part of our strategy, we share our water impact with our customers and local stakeholders in the areas where we operate, incorporating it into our double materiality processes to include it in our strategic planning efforts.

(5.11.9.6) Effect of engagement and measures of success

We continue to reduce our water footprint through the implementation of the ISO 14046 Management System, which was developed in line with our targets to reduce water consumption, especially focusing on water use. Additionally, we leverage the Do! Project and ISO 14001 Management System practices, incorporating solution proposals from our stakeholders to further support these efforts.

Climate change

(5.11.9.1) Type of stakeholder

Select from:

☑ Investors and shareholders

(5.11.9.2) Type and details of engagement

Education/Information sharing

☑ Educate and work with stakeholders on understanding and measuring exposure to environmental risks

☑ Run an engagement campaign to educate stakeholders about the environmental impacts about your products, goods and/or services

☑ Share information about your products and relevant certification schemes

☑ Share information on environmental initiatives, progress and achievements

Innovation and collaboration

☑ Align your organization’s goals to support customers’ targets and ambitions

☑ Collaborate with stakeholders in creation and review of your climate transition plan

☑ Collaborate with stakeholders on innovations to reduce environmental impacts in products and services

☑ Engage with stakeholders to advocate for policy or regulatory change

☑ Run a campaign to encourage innovation to reduce environmental impacts

(5.11.9.3) % of stakeholder type engaged

Select from:

☑ 100%

(5.11.9.4) % stakeholder-associated scope 3 emissions

Select from:

☑ 1-25%

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

As Zorlu Enerji, through our thermally-based assets, in which we have shares but do not exercise operational control (%25 Dorad CCNG, %42.5 Ashdod CoNG, %42.5 Ramat Negev CCNG), we had 452,570 tons of CO2e emissions under Scope 3, category 15 (investments). These emissions represented 13% of our total emissions in 2023. In alignment with our SBTi-approved 2040 net zero journey and sustainability strategy, we divested from these assets. We managed this process in collaboration with our investors and partners, ensuring engagement and cleaning our portfolio accordingly.

(5.11.9.6) Effect of engagement and measures of success

As Zorlu Enerji, through our thermally-based assets, in which we have shares but do not exercise operational control (%25 Dorad CCNG, %42.5 Ashdod CoNG, %42.5 Ramat Negev CCNG), we had 452,570 tons of CO2e emissions under Scope 3, category 15 (investments). These emissions represented 13% of our total emissions in 2023. In alignment with our SBTi-approved 2040 net zero journey and sustainability strategy, we divested from these assets. We managed this process in collaboration with our investors and partners, ensuring engagement and cleaning our portfolio accordingly.

Climate change

(5.11.9.1) Type of stakeholder

Select from:

☑ Other value chain stakeholder, please specify :Employees, critical suppliers, education institutions, govermental institutions, international institutions, entrepreneurs, media, NGOs

(5.11.9.2) Type and details of engagement

Education/Information sharing

☑ Educate and work with stakeholders on understanding and measuring exposure to environmental risks

☑ Run an engagement campaign to educate stakeholders about the environmental impacts about your products, goods and/or services

☑ Share information about your products and relevant certification schemes

☑ Share information on environmental initiatives, progress and achievements

Innovation and collaboration

☑ Align your organization's goals to support customers' targets and ambitions

☑ Collaborate with stakeholders in creation and review of your climate transition plan

☑ Collaborate with stakeholders on innovations to reduce environmental impacts in products and services

☑ Engage with stakeholders to advocate for policy or regulatory change

☑ Run a campaign to encourage innovation to reduce environmental impacts

(5.11.9.3) % of stakeholder type engaged

Select from:

☑ 100%

(5.11.9.4) % stakeholder-associated scope 3 emissions

Select from:

☑ 1-25%

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

In 2023, our downstream and upstream Scope 3 emissions accounted for 4% of our total Scope 3 emissions. We understand that, in order to achieve net zero emissions by 2040, we primarily need to reduce supplier-related emissions. To this end, we are implementing the necessary strategies and actions. We are creating specifications for solutions that drive towards zero emissions for our suppliers, including low-emission materials, transportation methods, and measures to reduce Scope 2 emissions. Additionally, we are reviewing our waste management processes, shifting towards low-emission practices like reuse and recycling, and working to reintegrate waste and outputs back into the economy. For emissions related to travel, we are revisiting our travel plans and adjusting the frequency of trips. We aim to reduce employee commuting emissions through hybrid working models and optimized transportation services, and we are replacing our rental car fleet with electric vehicles to reduce Scope 3 emissions. Throughout this process, we are involving our employees and relevant stakeholders at key stages, including: Collecting data for emissions calculations, Organizing training programs, and Communicating progress through transparent reporting.

(5.11.9.6) Effect of engagement and measures of success

In 2023, our downstream and upstream Scope 3 emissions accounted for 4% of our total Scope 3 emissions. We understand that, in order to achieve net zero emissions by 2040, we primarily need to reduce supplier-related emissions. To this end, we are implementing the necessary strategies and actions. We are creating specifications for solutions that drive towards zero emissions for our suppliers, including low-emission materials, transportation methods, and measures to reduce Scope 2 emissions. Additionally, we are reviewing our waste management processes, shifting towards low-emission practices like reuse and recycling, and working to reintegrate waste and outputs back into the economy. For emissions related to travel, we are revisiting our travel plans and adjusting the frequency of trips. We aim to reduce employee commuting emissions through hybrid working models and optimized transportation services, and we are replacing our rental car fleet with electric vehicles to reduce Scope 3 emissions. Throughout this process, we are involving our employees and relevant stakeholders at key stages, including: Collecting data for emissions calculations, Organizing training programs, and Communicating progress through transparent reporting.
[Add row]

C6. Environmental Performance - Consolidation Approach

(6.1) Provide details on your chosen consolidation approach for the calculation of environmental performance data.

Climate change

(6.1.1) Consolidation approach used

Select from:

☑ Operational control

(6.1.2) Provide the rationale for the choice of consolidation approach

In our organization, we adopt an operational control approach to consolidate our environmental performance data, ensuring that we account for all environmental impacts associated with our operations. This method allows us to attribute GHG emissions, water withdrawals, and other environmental impacts directly to the facilities and activities under our operational control, providing a clear view of our environmental footprint. Scope and Boundaries: We define the organizational boundaries based on the operational control model, which includes all facilities where we have the authority to introduce and implement operational policies. This ensures that we capture the full range of environmental impacts from our owned and operated facilities. Data Collection: Data is collected systematically from all relevant operations, leveraging established reporting protocols. We utilize a combination of metered data, estimated figures, and historical data to ensure a comprehensive overview of our environmental performance. Standardization and Consistency: To ensure consistency in our data reporting, we follow internationally recognized guidelines and standards, including the IFRS, GRI, GHG Protocol, and ISO 14064. This standardization allows for the comparability of our data over time and against industry benchmarks. Continuous Improvement: We are committed to continuously improving our data collection and reporting processes. Regular audits and reviews are conducted to validate our data and ensure accuracy. Additionally, we encourage feedback from stakeholders to refine our approach further. Transparency and Reporting: We transparently disclose our environmental performance data in our annual sustainability report and to relevant stakeholders, ensuring that users can interpret how these impacts relate to our business operations. By aligning our consolidation approach with recognized best practices, we aim to provide clear, actionable insights into our environmental performance and drive ongoing improvements.

Water

(6.1.1) Consolidation approach used

Select from:

☑ Operational control

(6.1.2) Provide the rationale for the choice of consolidation approach

In our organization, we adopt an operational control approach to consolidate our environmental performance data, ensuring that we account for all environmental impacts associated with our operations. This method allows us to attribute GHG emissions, water withdrawals, and other environmental impacts directly to the facilities and activities under our operational control, providing a clear view of our environmental footprint. Scope and Boundaries: We define the organizational boundaries based on the operational control model, which includes all facilities where we have the authority to introduce and implement operational policies. This ensures that we capture the full range of environmental impacts from our owned and operated facilities. Data Collection: Data is collected systematically from all relevant operations, leveraging established reporting protocols. We utilize a combination of metered data, estimated figures, and historical data to ensure a comprehensive overview of our environmental performance. Standardization and Consistency: To ensure consistency in our data reporting, we follow internationally recognized guidelines and standards, including the IFRS, GRI, GHG Protocol, and ISO 14046. This standardization allows for the comparability of our data over time and against industry benchmarks. Continuous Improvement: We are committed to continuously improving our data collection and reporting processes. Regular audits and reviews are conducted to validate our data and ensure accuracy. Additionally, we encourage feedback from stakeholders to refine our approach further. Transparency and Reporting: We transparently disclose our environmental performance data in our annual sustainability report and to relevant stakeholders, ensuring that users can interpret how these impacts relate to our business operations. By aligning our consolidation approach with recognized best practices, we aim to provide clear, actionable insights into our environmental performance and drive ongoing improvements.

Plastics

(6.1.1) Consolidation approach used

Select from:

☑ Operational control

(6.1.2) Provide the rationale for the choice of consolidation approach

-

Biodiversity

(6.1.1) Consolidation approach used

Select from:

☑ Operational control

(6.1.2) Provide the rationale for the choice of consolidation approach

In our organization, we adopt an operational control approach to consolidate our environmental performance data, ensuring that we account for all environmental impacts associated with our operations. This method allows us to attribute GHG emissions, water withdrawals, and other environmental impacts directly to the facilities and activities under our operational control, providing a clear view of our environmental footprint. Scope and Boundaries: We define the organizational boundaries based on the operational control model, which includes all facilities where we have the authority to introduce and implement operational policies. This ensures that we capture the full range of environmental impacts from our owned and operated facilities. Data Collection: Data is collected systematically from all relevant operations, leveraging established reporting protocols. We utilize a combination of metered data, estimated figures, and historical data to ensure a comprehensive overview of our environmental performance. Standardization and Consistency: To ensure consistency in our data reporting, we follow internationally recognized guidelines and standards, including the IFRS and GRI. This standardization allows for the comparability of our data over time and against industry benchmarks. Continuous Improvement: We are committed to continuously improving our data collection and reporting processes. Regular audits and reviews are conducted to validate our data and ensure accuracy. Additionally, we encourage feedback from stakeholders to refine our approach further. Transparency and Reporting: We transparently disclose our environmental performance data in our annual sustainability report and to relevant stakeholders, ensuring that users can interpret how these impacts relate to our business operations. By aligning our consolidation approach with recognized best practices, we aim to provide clear, actionable insights into our environmental performance and drive ongoing improvements.
[Fixed row]

C7. Environmental performance - Climate Change

(7.1.1) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

(7.1.1.1) Has there been a structural change?

Select all that apply

☑ Yes, a divestment

☑ Yes, other structural change, please specify

(7.1.1.2) Name of organization(s) acquired, divested from, or merged with

Equity Share of Zorlu Holding A.Ş. in the shareholding structure of Zorlu Enerji decreased to 32.31% in 2023 from 54.27% as a result of the share sales to corporate investors and share sales to Wren House Infrastructure LP outside the Stock Exchange.

(7.1.1.3) Details of structural change(s), including completion dates

Equity Share of Zorlu Holding A.Ş. in the shareholding structure of Zorlu Enerji decreased to 32.31% in 2023 from 54.27% as a result of the share sales to corporate investors and share sales to Wren House Infrastructure LP outside the Stock Exchange. The transaction was completed on 13.01.2023
[Fixed row]

(7.1.2) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?
	Select all that apply ☑ No

[Fixed row]

(7.1.3) Have your organization’s base year emissions and past years’ emissions been recalculated as a result of any changes or errors reported in 7.1.1 and/or 7.1.2?

	Base year recalculation
	Select from: ☑ No, because the impact does not meet our significance threshold

[Fixed row]

(7.3) Describe your organization’s approach to reporting Scope 2 emissions.

(7.3.1) Scope 2, location-based

Select from:

☑ We are reporting a Scope 2, location-based figure

(7.3.2) Scope 2, market-based

Select from:

☑ We are reporting a Scope 2, market-based figure

(7.3.3) Comment

We consume electricity from the grid which is reported as Scope 2, location-based figure. We consume International Renewable Energy Certificate (I-REC)-certified electricity which is reported as Scope 2, location-based figure.
[Fixed row]

(7.5) Provide your base year and base year emissions.

Scope 1

(7.5.1) Base year end

12/30/2021

(7.5.2) Base year emissions (metric tons CO2e)

1093383

(7.5.3) Methodological details

Zorlu Enerji is an energy company that aims to operate in different fields of the energy sector providing a global scale integrated service. Zorlu Enerji Group has lots of subsidiary companies that operate in various fields of the sector with an integrated corporate combination including electricity and steam generation and their retail, electricity sales, solar panel sales and installation, natural gas sales and distribution, construction, management, and maintenance of power plants and EV charging stations network. Therefore, the base year emissions including all related emissions in line with the GHG Protocol Corporate Standard.

Scope 2 (location-based)

(7.5.1) Base year end

12/30/2021

(7.5.2) Base year emissions (metric tons CO2e)

240699

(7.5.3) Methodological details

Zorlu Enerji is an energy company that aims to operate in different fields of the energy sector providing a global scale integrated service. Zorlu Enerji Group has lots of subsidiary companies that operate in various fields of the sector with an integrated corporate combination including electricity and steam generation and their retail, electricity sales, solar panel sales and installation, natural gas sales and distribution, construction, management, and maintenance of power plants and EV charging stations network. Therefore, the base year emissions including all related emissions in line with the GHG Protocol Corporate Standard.

Scope 2 (market-based)

(7.5.1) Base year end

12/30/2021

(7.5.2) Base year emissions (metric tons CO2e)

0.0

(7.5.3) Methodological details

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

Scope 3 category 1: Purchased goods and services

(7.5.1) Base year end

12/31/2021

(7.5.2) Base year emissions (metric tons CO2e)

64200.95

(7.5.3) Methodological details

The emission related to the purchased good and services was calculated and verified by a third party first in 2021. Therefore, the baseline year for this category is 2021. The "DEFRA Greenhouse Gas Reporting: Conversion Factors" is used.

Scope 3 category 2: Capital goods

(7.5.1) Base year end

12/31/2021

(7.5.2) Base year emissions (metric tons CO2e)

688.22

(7.5.3) Methodological details

The emission related to the capital good was calculated and verified by a third party first in 2021. Therefore, the baseline year for this category is 2021.

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

(7.5.1) Base year end

12/30/2021

(7.5.2) Base year emissions (metric tons CO2e)

3293872.05

(7.5.3) Methodological details

Fuel-and-energy-related activities include Well to tank (WTT) process emissions of consumed fuels and electricity. The emission related to this category was calculated and verified by a third party first in 2021. Therefore, the baseline year for this category is 2021.

Scope 3 category 4: Upstream transportation and distribution

(7.5.1) Base year end

12/31/2021

(7.5.2) Base year emissions (metric tons CO2e)

59354.85

(7.5.3) Methodological details

This category covers WTW emissions from outsourced logistics services.The emission related to this category was calculated and verified by a third party first in 2021. Therefore, the baseline year for this category is 2021.

Scope 3 category 5: Waste generated in operations

(7.5.1) Base year end

12/30/2021

(7.5.2) Base year emissions (metric tons CO2e)

2083.36

(7.5.3) Methodological details

Emissions from waste depend on the type of waste being disposed of, and the waste diversion method. The emission related to this category was calculated and verified by a third party first in 2021. Therefore, the baseline year for this category is 2021.

Scope 3 category 6: Business travel

(7.5.1) Base year end

12/30/2021

(7.5.2) Base year emissions (metric tons CO2e)

9673.97

(7.5.3) Methodological details

Emissions that caused by travel and short term car rentals conducted by Zorlu Enerji employees have been accounted for under business travel-related Scope 3 emissions. The emission related to this category was calculated and verified by a third party first in 2021. Therefore, the baseline year for this category is 2021.

Scope 3 category 7: Employee commuting

(7.5.1) Base year end

12/30/2021

(7.5.2) Base year emissions (metric tons CO2e)

10012.09

(7.5.3) Methodological details

Employee commuting is realized by scheduled buses and minibuses. The emission related to this category was calculated and verified by a third party first in 2021. Therefore, the baseline year for this category is 2021.

Scope 3 category 8: Upstream leased assets

(7.5.1) Base year end

12/30/2021

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

We have not used upstream leased assets in 2021.

Scope 3 category 9: Downstream transportation and distribution

(7.5.1) Base year end

12/30/2021

(7.5.2) Base year emissions (metric tons CO2e)

240.55

(7.5.3) Methodological details

-

Scope 3 category 10: Processing of sold products

(7.5.1) Base year end

12/30/2021

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

-

Scope 3 category 11: Use of sold products

(7.5.1) Base year end

12/30/2021

(7.5.2) Base year emissions (metric tons CO2e)

2571962.96

(7.5.3) Methodological details

Emissions resulting from distributed gas.

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

(7.5.1) Base year end

12/30/2021

(7.5.2) Base year emissions (metric tons CO2e)

340.12

(7.5.3) Methodological details

-

Scope 3 category 13: Downstream leased assets

(7.5.1) Base year end

12/30/2021

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

We have not used downstream leased assets in 2021.

Scope 3 category 14: Franchises

(7.5.1) Base year end

12/30/2021

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

We do not have any franchises.

Scope 3 category 15: Investments

(7.5.1) Base year end

12/30/2021

(7.5.2) Base year emissions (metric tons CO2e)

520473.08

(7.5.3) Methodological details

The calculation has been made using financial data based on the share of ownership in Israeli power plants, revenue information, and the average emission factor. [Fixed row]

(7.6) What were your organization’s gross global Scope 1 emissions in metric tons CO2e?

Reporting year

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

756843

(7.6.3) Methodological details

The given gross global Scope 1 emissions represent our electricity and steam generation and their retail, electricity sales, electricity and gas ditribution, solar panel sales and installation, construction, management, and maintenance of power plants and EV charging stations network. Our greenhouse gas inventory report has been prepared in line with the ISO 14064-1 standard which has been verified by an accredited third party. We have calculated our emissions based on the 2006 IPCC Guidelines for National Greenhouse Gas Inventories methodology according to the Tier 1 approach.

Past year 1

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

1063477

(7.6.2) End date

12/30/2022

(7.6.3) Methodological details

The given gross global Scope 1 emissions represent our electricity and steam generation and their retail, electricity sales, electricity and gas ditribution, solar panel sales and installation, construction, management, and maintenance of power plants and EV charging stations network. Our greenhouse gas inventory report has been prepared in line with the ISO 14064-1 standard which has been verified by an accredited third party. We have calculated our emissions based on the 2006 IPCC Guidelines for National Greenhouse Gas Inventories methodology according to the Tier 1 approach.

Past year 2

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

1093383

(7.6.2) End date

12/30/2021

(7.6.3) Methodological details

The given gross global Scope 1 emissions represent our electricity and steam generation and their retail, electricity sales, electricity and gas ditribution, solar panel sales and installation, construction, management, and maintenance of power plants and EV charging stations network. Our greenhouse gas inventory report has

been prepared in line with the ISO 14064-1 standard which has been verified by an accredited third party. We have calculated our emissions based on the 2006 IPCC Guidelines for National Greenhouse Gas Inventories methodology according to the Tier 1 approach.
[Fixed row]

(7.7) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

(7.7.1) Gross global Scope 2, location-based emissions (metric tons CO2e)

234905

(7.7.2) Gross global Scope 2, market-based emissions (metric tons CO2e) (if applicable)

0

(7.7.4) Methodological details

We consume electricity from the grid which is reported as Scope 2, location-based figure. We consume International Renewable Energy Certificate (I-REC)-certified electricity which is reported as Scope 2, location-based figure. The given gross global Scope 2 emissions represent our electricity and steam generation and their retail, electricity sales, electricity and gas distribution, solar panel sales and installation, construction, management, and maintenance of power plants and EV charging stations network. Our greenhouse gas inventory report has been prepared in line with the ISO 14064-1 standard which has been verified by an accredited third party. We have calculated our emissions based on the 2006 IPCC Guidelines for National Greenhouse Gas Inventories methodology according to the Tier 1 approach. ZES provides charging services with renewable electricity and certified with the International Renewable Energy Certificate (I-REC). Therefore, the market-based emissions is zero.

Past year 1

(7.7.1) Gross global Scope 2, location-based emissions (metric tons CO2e)

232456

(7.7.2) Gross global Scope 2, market-based emissions (metric tons CO2e) (if applicable)

0

(7.7.3) End date

12/30/2022

(7.7.4) Methodological details

We consume electricity from the grid which is reported as Scope 2, location-based figure. We consume International Renewable Energy Certificate (I-REC)-certified electricity which is reported as Scope 2, location-based figure. The given gross global Scope 2 emissions represent our electricity and steam generation and their retail, electricity sales, electricity and gas distribution, solar panel sales and installation, construction, management, and maintenance of power plants and EV charging stations network. Our greenhouse gas inventory report has been prepared in line with the ISO 14064-1 standard which has been verified by an accredited third party. We have calculated our emissions based on the 2006 IPCC Guidelines for National Greenhouse Gas Inventories methodology according to the Tier 1 approach. ZES provides charging services with renewable electricity and certified with the International Renewable Energy Certificate (I-REC). Therefore, the market-based emissions is zero.

Past year 2

(7.7.1) Gross global Scope 2, location-based emissions (metric tons CO2e)

240699

(7.7.2) Gross global Scope 2, market-based emissions (metric tons CO2e) (if applicable)

0

(7.7.3) End date

12/30/2021

(7.7.4) Methodological details

We consume electricity from the grid which is reported as Scope 2, location-based figure. We consume International Renewable Energy Certificate (I-REC)-certified electricity which is reported as Scope 2, location-based figure. The given gross global Scope 2 emissions represent our electricity and steam generation and their retail, electricity sales, electricity and gas distribution, solar panel sales and installation, construction, management, and maintenance of power plants and EV charging stations network. Our greenhouse gas inventory report has been prepared in line with the ISO 14064-1 standard which has been verified by an accredited third party. We have calculated our emissions based on the 2006 IPCC Guidelines for National Greenhouse Gas Inventories methodology according to the Tier 1 approach. ZES provides charging services with renewable electricity and certified with the International Renewable Energy Certificate (I-REC). Therefore, the market-based emissions is zero.

[Fixed row]

(7.8) Account for your organization’s gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

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

28321.1

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Average data method

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

(7.8.5) Please explain

It includes upstream (cradle-to-gate) emissions of purchased goods and services. The average-data method is applied according to the "GHG Protocol Technical Guidance for Calculating Scope 3 Emissions". Emissions are calculated by the data on the mass (kilograms) or other relevant units of goods purchased and multiplied by the emission factor. Emission factors are based on the "DEFRA Greenhouse Gas Reporting, Conversion Factors 2023".

Capital goods

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

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

296.4

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Average data method

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

(7.8.5) Please explain

It includes upstream (cradle-to-gate) emissions of capital goods. The average-data method is applied according to the "GHG Protocol Technical Guidance for Calculating Scope 3 Emissions". Emissions are calculated by the data on the mass (kilograms) or other relevant units of goods purchased and multiplied by the emission factor. Emission factors are based on the "DEFRA Greenhouse Gas Reporting, Conversion Factors 2023".

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

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

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

2835264

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Average data method

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

(7.8.5) Please explain

Fuel-and-energy-related activities include Well to tank (WTT) process emissions of consumed fuels and electricity. The data is based on energy consumption that is monitored and cross-checked with the supplier invoice. The average-data method, which involves estimating emissions by using secondary (e.g., industry average) emission factors for upstream emissions per unit of consumption (e.g., kg CO2e/kWh) is applied. The "DEFRA Greenhouse Gas Reporting: Conversion Factors" is used. The fuel consumptions are monitored through the based on invoices and measuring equipment. The data is based on energy consumption that is monitored and cross-checked with the supplier invoice. Emission factors are based on the "DEFRA Greenhouse Gas Reporting, Conversion Factors 2023.

Upstream transportation and distribution

(7.8.1) Evaluation status

Select from:
☑ Relevant, calculated

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

2685

(7.8.3) Emissions calculation methodology

Select all that apply
☑ Distance-based method

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

(7.8.5) Please explain

The upstream transportation and distribution category is calculated for Lüleburgaz, Bursa, Kızıldere, and Alaşehir plants, which are in scope of ISO 14064-1 Certification. It includes the emissions from outsourced logistics services used which are not already reported in scopes 1 and 2 emissions. The emissions are calculated based on the distance-based method, which involves determining the mass and distance, then applying the appropriate mass-distance emission factor for the vehicle used according to the Greenhouse Gas Protocol -Corporate Value Chain (Scope 3) Accounting and Reporting Standard. To calculate emissions, the number of goods purchased in mass by the distance traveled in the transport leg and then multiply that by an emission factor specific to the transport mode. Because each transport mode or vehicle type has a different emission factor, the transport legs are calculated separately and total emissions aggregated. To calculate emissions, the number of goods purchased in mass by the distance traveled in the transport leg and then multiply that by an emission factor specific to the transport mode. Because each transport mode or vehicle type has a different emission factor, the transport legs are calculated separately and total emissions aggregated. The activity data which is the amount of raw materials transported is based on purchase records. Emission factors are based on the "DEFRA Greenhouse Gas Reporting, Conversion Factors 2023".

Waste generated in operations

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

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

74305.63

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Waste-type-specific method

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

(7.8.5) Please explain

The waste-type-specific method is applied which involves using emission factors for specific waste types and waste treatment methods. The emissions are calculated based on the "DEFRA Greenhouse Gas Reporting: Conversion Factors 2023".

Business travel

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

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

470.85

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Distance-based method

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

(7.8.5) Please explain

The Greenhouse Gas Protocol -Corporate Value Chain (Scope 3) Accounting and Reporting Standard is used.

Employee commuting

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

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

30180.12

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Distance-based method

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

(7.8.5) Please explain

This category includes emissions from the transportation of employees between home to work. The distance-based method is applied which involves collecting data from employees on commuting patterns (e.g., distance traveled and mode used for commuting) and applying appropriate emission factors for the modes used. The emission factor is based on "DEFRA Greenhouse Gas Reporting: Conversion Factors 2023".

Upstream leased assets

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Our leased assets are calculated under Scope 1 and 2 since they are under our operation control. Therefore, we don't have any emissions from upstream leased assets in the reporting year.

Downstream transportation and distribution

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Our product, electricity, is directly consumed without any processing. Therefore, we do not have scope 3 emissions to account for under this category

Processing of sold products

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Our product, electricity, is directly consumed without any processing. Therefore, we do not have scope 3 emissions to account for under this category.

Use of sold products

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

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

2577777

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Average data method

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

(7.8.5) Please explain

Emissions related to extraction and production of the product have already been accounted for as Scope 1 and 2 emissions. Transmission and distribution related emissions can be considered for use of sold product emissions.

End of life treatment of sold products

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

-

Downstream leased assets

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

We have not used downstream leased assets in the reporting year.

Franchises

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

We do not have any franchises.

Investments

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

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

452570.88

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Average data method

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

(7.8.5) Please explain

The calculation has been made using financial data based on the share of ownership in Israeli power plants, revenue information, and the average emission factor.

Other (upstream)

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

-

Other (downstream)

(7.8.1) Evaluation status

Select from:
☑ Not relevant, explanation provided

(7.8.5) Please explain

-
[Fixed row]

(7.8.1) Disclose or restate your Scope 3 emissions data for previous years.

Past year 1

(7.8.1.1) End date

12/30/2022

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

93714

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

1786

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

2453585

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

8014

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

29211

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

72178

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

137451

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

0

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

640

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

0

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

2745618

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

0

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

0

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

0

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

566145

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

0

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

0

(7.8.1.19) Comment

-
[Fixed row]

(7.9) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	*Select from:* ☑ Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	*Select from:* ☑ Third-party verification or assurance process in place

	Verification/assurance status
Scope 3	*Select from:* ☑ Third-party verification or assurance process in place

[Fixed row]

(7.9.1) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Row 1

(7.9.1.1) Verification or assurance cycle in place

Select from:
☑ Annual process

(7.9.1.2) Status in the current reporting year

Select from:
☑ Complete

(7.9.1.3) Type of verification or assurance

Select from:
☑ Reasonable assurance

(7.9.1.4) Attach the statement

Zorlu Doğal 14064-1 Doğrulama Beyanı_080824.pdf

(7.9.1.5) Page/section reference

The first page includes verification scope for Kızıldere JES

(7.9.1.6) Relevant standard

Select from:
☑ ISO14064-3

(7.9.1.7) Proportion of reported emissions verified (%)

99

Row 2

(7.9.1.1) Verification or assurance cycle in place

Select from:
☑ Annual process

(7.9.1.2) Status in the current reporting year

Select from:
☑ Complete

(7.9.1.3) Type of verification or assurance

Select from:
☑ Reasonable assurance

(7.9.1.4) Attach the statement

Zorlu Enerji 14064-1 Doğrulama Beyanı_080824.pdf

(7.9.1.5) Page/section reference

The first page includes verification scope for Lüleburgaz facility.

(7.9.1.6) Relevant standard

Select from:
☑ ISO14064-3

(7.9.1.7) Proportion of reported emissions verified (%)

99

Row 3

(7.9.1.1) Verification or assurance cycle in place

Select from:
☑ Annual process

(7.9.1.2) Status in the current reporting year

Select from:
☑ Complete

(7.9.1.3) Type of verification or assurance

Select from:
☑ Reasonable assurance

(7.9.1.4) Attach the statement

Zorlu Jeotermal 14064-1 Doğrulama Beyanı_08082024.pdf

(7.9.1.5) Page/section reference

The first page includes verification scope for Alaşehir facility.

(7.9.1.6) Relevant standard

Select from:

☑ ISO14064-3

(7.9.1.7) Proportion of reported emissions verified (%)

99

Row 4

(7.9.1.1) Verification or assurance cycle in place

Select from:

☑ Annual process

(7.9.1.2) Status in the current reporting year

Select from:

☑ Complete

(7.9.1.3) Type of verification or assurance

Select from:

☑ Limited assurance

(7.9.1.4) Attach the statement

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(7.9.1.5) Page/section reference

All of our Scope 1 emissions have been verified according to the ISAE3000.

(7.9.1.6) Relevant standard

Select from:
☑ ISAE3000

(7.9.1.7) Proportion of reported emissions verified (%)

100
[Add row]

(7.9.2) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Row 1

(7.9.2.1) Scope 2 approach

Select from:
☑ Scope 2 location-based

(7.9.2.2) Verification or assurance cycle in place

Select from:
☑ Annual process

(7.9.2.3) Status in the current reporting year

Select from:
☑ Complete

(7.9.2.4) Type of verification or assurance

Select from:
☑ Reasonable assurance

(7.9.2.5) Attach the statement

(7.9.2.6) Page/ section reference

1

(7.9.2.7) Relevant standard

Select from:
☑ ISO14064-3

(7.9.2.8) Proportion of reported emissions verified (%)

100

Row 2

(7.9.2.1) Scope 2 approach

Select from:
☑ Scope 2 location-based

(7.9.2.2) Verification or assurance cycle in place

Select from:
☑ Annual process

(7.9.2.3) Status in the current reporting year

Select from:
☑ Complete

(7.9.2.4) Type of verification or assurance

Select from:

☑ Reasonable assurance

(7.9.2.5) Attach the statement

Zorlu Doğal 14064-1 Doğrulama Beyanı_080824.pdf

(7.9.2.6) Page/ section reference

1

(7.9.2.7) Relevant standard

Select from:
☑ ISO14064-3

(7.9.2.8) Proportion of reported emissions verified (%)

100

Row 3

(7.9.2.1) Scope 2 approach

Select from:
☑ Scope 2 location-based

(7.9.2.2) Verification or assurance cycle in place

Select from:
☑ Annual process

(7.9.2.3) Status in the current reporting year

Select from:
☑ Complete

(7.9.2.4) Type of verification or assurance

Select from:

☑ Reasonable assurance

(7.9.2.5) Attach the statement

Zorlu Jeotermal 14064-1 Doğrulama Beyanı_08082024.pdf

(7.9.2.6) Page/ section reference

1

(7.9.2.7) Relevant standard

Select from:

☑ ISO14064-3

(7.9.2.8) Proportion of reported emissions verified (%)

100

Row 4

(7.9.2.1) Scope 2 approach

Select from:

☑ Scope 2 location-based

(7.9.2.2) Verification or assurance cycle in place

Select from:

☑ Annual process

(7.9.2.3) Status in the current reporting year

Select from:
☑ Complete

(7.9.2.4) Type of verification or assurance

Select from:
☑ Limited assurance

(7.9.2.5) Attach the statement

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(7.9.2.6) Page/ section reference

1

(7.9.2.7) Relevant standard

Select from:
☑ ISAE3000
[Add row]

(7.9.3) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Row 1

(7.9.3.1) Scope 3 category

Select all that apply
☑ Scope 3: Capital goods
☑ Scope 3: Business travel
☑ Scope 3: Employee commuting
☑ Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

☑ Scope 3: Purchased goods and services
☑ Scope 3: Waste generated in operations

(7.9.3.2) Verification or assurance cycle in place

Select from:
☑ Annual process

(7.9.3.3) Status in the current reporting year

Select from:
☑ Complete

(7.9.3.4) Type of verification or assurance

Select from:
☑ Reasonable assurance

(7.9.3.6) Page/section reference

1

(7.9.3.7) Relevant standard

Select from:
☑ ISO14064-3

(7.9.3.8) Proportion of reported emissions verified (%)

2

Row 2

(7.9.3.1) Scope 3 category

Select all that apply

☑ Scope 3: Capital goods
☑ Scope 3: Business travel
☑ Scope 3: Employee commuting
☑ Scope 3: Purchased goods and services
☑ Scope 3: Waste generated in operations
☑ Scope 3: Upstream transportation and distribution
☑ Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

(7.9.3.2) Verification or assurance cycle in place

Select from:

☑ Annual process

(7.9.3.3) Status in the current reporting year

Select from:

☑ Complete

(7.9.3.4) Type of verification or assurance

Select from:

☑ Reasonable assurance

(7.9.3.6) Page/section reference

1

(7.9.3.7) Relevant standard

Select from:

☑ ISO14064-3

(7.9.3.8) Proportion of reported emissions verified (%)

2

Row 3

(7.9.3.1) Scope 3 category

Select all that apply

- ☑ Scope 3: Capital goods
- ☑ Scope 3: Business travel
- ☑ Scope 3: Employee commuting
- ☑ Scope 3: Purchased goods and services
- ☑ Scope 3: Waste generated in operations
- ☑ Scope 3: Upstream transportation and distribution
- ☑ Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

(7.9.3.2) Verification or assurance cycle in place

Select from:

☑ Annual process

(7.9.3.3) Status in the current reporting year

Select from:

☑ Complete

(7.9.3.4) Type of verification or assurance

Select from:

☑ Reasonable assurance

(7.9.3.6) Page/section reference

1

(7.9.3.7) Relevant standard

Select from:

☑ ISO14064-3

(7.9.3.8) Proportion of reported emissions verified (%)

2
[Add row]

(7.10.1) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

Change in renewable energy consumption

(7.10.1.1) Change in emissions (metric tons CO2e)

23586

(7.10.1.2) Direction of change in emissions

Select from:
☑ Decreased

(7.10.1.3) Emissions value (percentage)

1.8

(7.10.1.4) Please explain calculation

*Our renewable energy consumption has decreased to 35,427 MWh from 88,492 MWh compared to the previous year. As a result of increasing renewable energy consumption, our emissions decreased by 2%. The emission factor of the electricity grid is accepted as 0.447 tCO2/MWh (Scope 1 and Scope 2) and our total emissions (Scope 1 and Scope 2) in the previous year were 1,081,723 tons of CO2e. activities. (35,727 -88,492) * 0.447 / 1,295,933 * 100 1.8%*

Other emissions reduction activities

(7.10.1.1) Change in emissions (metric tons CO2e)

304185

(7.10.1.2) Direction of change in emissions

Select from:

☑ Decreased

(7.10.1.3) Emissions value (percentage)

23.47

(7.10.1.4) Please explain calculation

*Our scope 1 and 2 emissions have decreased by 23.47% compared to the previous year. We focused on energy efficiency benefits in the operation of our plants. Through these activities, we reduced our emissions by 304,185 tons of CO2e which leads 23.47% reduction. Our total emissions (Scope 1 and Scope 2) in the previous year were 1,295,933 tons of CO2e activities. (304,185 /1,295,933) * 100 23.47%*

Divestment

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:

☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

N/A

Acquisitions

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

N/A

Mergers

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

N/A

Change in output

(7.10.1.1) Change in emissions (metric tons CO2e)

28236

(7.10.1.2) Direction of change in emissions

Select from:

☑ Decreased

(7.10.1.3) Emissions value (percentage)

2.6

(7.10.1.4) Please explain calculation

*Our total emissions have decreased by 23.47% compared to the previous year. Production has decreased by about 3.75% compared to last year. Since, emission percentage is higher in geothermal plants, compare to others, as the emission intensity of geothermal plants is considered, the emission decrease due to the decrease in production was found to be 28,236 that results in 2.6% emission decrease in emissions due to electricity generation. (28,236 / 1,081,723) * 100 2.6%*

Change in methodology

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:

☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

N/A

Change in boundary

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

N/A

Change in physical operating conditions

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

N/A

Unidentified

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

N/A
[Fixed row]

(7.15.1) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used global warming potential (GWP).

Row 1

(7.15.1.1) Greenhouse gas

Select from:

☑ CO2

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

719010

(7.15.1.3) GWP Reference

Select from:
☑ IPCC Sixth Assessment Report (AR6 - 100 year)

Row 2

(7.15.1.1) Greenhouse gas

Select from:
☑ CH4

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

35342

(7.15.1.3) GWP Reference

Select from:
☑ IPCC Sixth Assessment Report (AR6 - 100 year)

Row 3

(7.15.1.1) Greenhouse gas

Select from:
☑ N2O

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

492

(7.15.1.3) GWP Reference

Select from:
☑ IPCC Sixth Assessment Report (AR6 - 100 year)

Row 4

(7.15.1.1) Greenhouse gas

Select from:
☑ HFCs

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

1802

(7.15.1.3) GWP Reference

Select from:
☑ IPCC Sixth Assessment Report (AR6 - 100 year)
[Add row]

(7.15.3) Break down your total gross global Scope 1 emissions from electric utilities value chain activities by greenhouse gas type.

Fugitives

(7.15.3.1) Gross Scope 1 CO2 emissions (metric tons CO2)

615620

(7.15.3.2) Gross Scope 1 methane emissions (metric tons CH4)

25777

(7.15.3.3) Gross Scope 1 SF6 emissions (metric tons SF6)

0

(7.15.3.4) Total gross Scope 1 emissions (metric tons CO2e)

643199

(7.15.3.5) Comment

The figure includes geothermal fugitive emissions. Total gross scope 1 emissions include also N2O and HFC fugitive emissions.

Combustion (Electric utilities)

(7.15.3.1) Gross Scope 1 CO2 emissions (metric tons CO2)

3501

(7.15.3.2) Gross Scope 1 methane emissions (metric tons CH4)

5

(7.15.3.3) Gross Scope 1 SF6 emissions (metric tons SF6)

46

(7.15.3.4) Total gross Scope 1 emissions (metric tons CO2e)

3552

(7.15.3.5) Comment

This figure includes our electric utilies emissions.

Combustion (Gas utilities)

(7.15.3.1) Gross Scope 1 CO2 emissions (metric tons CO2)

4228

(7.15.3.2) Gross Scope 1 methane emissions (metric tons CH4)

9529

(7.15.3.3) Gross Scope 1 SF6 emissions (metric tons SF6)

19

(7.15.3.4) Total gross Scope 1 emissions (metric tons CO2e)

708

(7.15.3.5) Comment

This figure includes our natural gas utilities emissions.

Combustion (Other)

(7.15.3.1) Gross Scope 1 CO2 emissions (metric tons CO2)

1211

(7.15.3.2) Gross Scope 1 methane emissions (metric tons CH4)

3.5

(7.15.3.3) Gross Scope 1 SF6 emissions (metric tons SF6)

0

(7.15.3.4) Total gross Scope 1 emissions (metric tons CO2e)

1234

(7.15.3.5) Comment

This figure includes the emission of diesel generator and off-road mobile sources such as forklifts, excavators etc. Total gross scope 1 emissions include N2O and HFC fugitive emissions.

Emissions not elsewhere classified

(7.15.3.1) Gross Scope 1 CO2 emissions (metric tons CO2)

97802

(7.15.3.2) Gross Scope 1 methane emissions (metric tons CH4)

27

(7.15.3.3) Gross Scope 1 SF6 emissions (metric tons SF6)

0

(7.15.3.4) Total gross Scope 1 emissions (metric tons CO2e)

98238

(7.15.3.5) Comment

This figure includes our natural gas power plants. Total gross scope 1 emissions include N2O and HFC fugitive emissions.
[Fixed row]

(7.16) Break down your total gross global Scope 1 and 2 emissions by country/area.

	Scope 1 emissions (metric tons CO2e)
Israel	*0*
Pakistan	*124*
Turkey	*756719*

[Fixed row]

(7.17.1) Break down your total gross global Scope 1 emissions by business division.

Row 1

(7.17.1.1) Business division

Solar Energy Operations

(7.17.1.2) Scope 1 emissions (metric ton CO2e)

0

Row 2

(7.17.1.1) Business division

Wind Energy Operations

(7.17.1.2) Scope 1 emissions (metric ton CO2e)

221

Row 3

(7.17.1.1) Business division

Administrative Operation

(7.17.1.2) Scope 1 emissions (metric ton CO2e)

2350

Row 4

(7.17.1.1) Business division

Geothermal Energy Operations

(7.17.1.2) Scope 1 emissions (metric ton CO2e)

638311

Row 5

(7.17.1.1) Business division

Hydro Energy Operations

(7.17.1.2) Scope 1 emissions (metric ton CO2e)

206

Row 6

(7.17.1.1) Business division

Natural Gas Operation

(7.17.1.2) Scope 1 emissions (metric ton CO2e)

97963

Row 7

(7.17.1.1) Business division

Electricity Distrubition&Trade Operations

(7.17.1.2) Scope 1 emissions (metric ton CO2e)

3959

Row 8

(7.17.1.1) Business division

Gas Distrubition&Trade Operations

(7.17.1.2) Scope 1 emissions (metric ton CO2e)

13790
[Add row]

(7.17.2) Break down your total gross global Scope 1 emissions by business facility.

Row 1

(7.17.2.1) Facility

Palestine Solar Power Plant

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

0

(7.17.2.3) Latitude

31.49215

(7.17.2.4) Longitude

35.28265

Row 3

(7.17.2.1) Facility

Pakistan Wind Power Plant

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

124

(7.17.2.3) Latitude

25.043613

(7.17.2.4) Longitude

67.999048

Row 4

(7.17.2.1) Facility

İkizdere Hydro Power Plant

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

12

(7.17.2.3) Latitude

40.795463

(7.17.2.4) Longitude

40.551031

Row 6

(7.17.2.1) Facility

Kuzgun Hydro Power Plant

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

120.23

(7.17.2.3) Latitude

40.183631

(7.17.2.4) Longitude

41.063687

Row 7

(7.17.2.1) Facility

Mercan Hydro Power Plant

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

30.27

(7.17.2.3) Latitude

39.413794

(7.17.2.4) Longitude

39.30221

Row 8

(7.17.2.1) Facility

Bursa Natural Gas Power Plant

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

272

(7.17.2.3) Latitude

40.245104

(7.17.2.4) Longitude

28.955018

Row 9

(7.17.2.1) Facility

İstanbul Headquarters

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

2117.18

(7.17.2.3) Latitude

40.993661

(7.17.2.4) Longitude

28.699289

Row 10

(7.17.2.1) Facility

Gökçedağ Wind Power Plant

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

97.44

(7.17.2.3) Latitude

37.074627

(7.17.2.4) Longitude

36.246399

Row 11

(7.17.2.1) Facility

Tercan Hydro Power Plant

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

17.42

(7.17.2.3) Latitude

39.755985

(7.17.2.4) Longitude

40.40183

Row 12

(7.17.2.1) Facility

Çıldır Hydro Power Plant

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

15.92

(7.17.2.3) Latitude

40.900774

(7.17.2.4) Longitude

43.328855

Row 14

(7.17.2.1) Facility

Kızıldere I-II-III Geothermal Power Plant

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

571688.87

(7.17.2.3) Latitude

37.956213

(7.17.2.4) Longitude

28.842528

Row 15

(7.17.2.1) Facility

Beyköy Hydro Power Plant

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

9.77

(7.17.2.3) Latitude

40.073156

(7.17.2.4) Longitude

30.755448

Row 16

(7.17.2.1) Facility

Ataköy Hydro Power Plant

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

0

(7.17.2.3) Latitude

40.424004

(7.17.2.4) Longitude

36.884118

Row 17

(7.17.2.1) Facility

Lüleburgaz Natural Gas Power Plant

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

97963

(7.17.2.3) Latitude

41.4

(7.17.2.4) Longitude

27.35

Row 18

(7.17.2.1) Facility

Alaşehir Geothermal Power Plant

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

66624.59

(7.17.2.3) Latitude

38.233

(7.17.2.4) Longitude

28.261

Row 19

(7.17.2.1) Facility

OEPSAŞ

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

232.76

(7.17.2.3) Latitude

39.775254

(7.17.2.4) Longitude

30.515913

Row 20

(7.17.2.1) Facility

OEDAŞ

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

3726.39

(7.17.2.3) Latitude

39.775254

(7.17.2.4) Longitude

30.515913

Row 21

(7.17.2.1) Facility

GAZDAŞ

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

13790.89

(7.17.2.3) Latitude

41.401006

(7.17.2.4) Longitude

27.355003
[Add row]

(7.17.3) Break down your total gross global Scope 1 emissions by business activity.

	Activity	Scope 1 emissions (metric tons CO2e)
Row 1	*Stationary Combustion*	*101759*
Row 2	*Mobile Combustion*	*5384*
Row 4	*Office Activities*	*128*
Row 5	*Process Activities*	*3355*
Row 6	*Fugitive Emissions*	*646217*

[Add row]

(7.19) Break down your organization’s total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

Electric utility activities

(7.19.1) Gross Scope 1 emissions, metric tons CO2e

740320

(7.19.3) Comment

This figure includes all activities, processes, and equipment that are ancillary to the production processes. Offices, non-production-related activities such as offices, and vehicles are excluded from total gross emissions.
[Fixed row]

(7.22) Break down your gross Scope 1 and Scope 2 emissions between your consolidated accounting group and other entities included in your response.

Consolidated accounting group

(7.22.1) Scope 1 emissions (metric tons CO2e)

748152

(7.22.2) Scope 2, location-based emissions (metric tons CO2e)

15597

(7.22.3) Scope 2, market-based emissions (metric tons CO2e)

0

(7.22.4) Please explain

Zorlu Enerji's Scope 1 and Scope 2 emissions encompass its energy and electricity generation facilities.

All other entities

(7.22.1) Scope 1 emissions (metric tons CO2e)

8690

(7.22.2) Scope 2, location-based emissions (metric tons CO2e)

219.307

(7.22.3) Scope 2, market-based emissions (metric tons CO2e)

0

(7.22.4) Please explain

Scope 1 and Scope 2 emissions from NG distribution business (Zorlu Enerji Gaz Dağıtım) and electricity distribution and wholesales business (Zorlu Osmangazi) are covered in this section.
[Fixed row]

(7.23.1) Break down your gross Scope 1 and Scope 2 emissions by subsidiary.

Row 1

(7.23.1.1) Subsidiary name

Zorlu Osmangazi

(7.23.1.2) Primary activity

Select from:
☑ Electricity networks

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply
☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

3959

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

218493

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

0

(7.23.1.15) Comment

Zorlu Osmangazi is a 100% subsidiary of Zorlu Enerji and fully owns OEDAŞ (electricity distribution) and OEPSAŞ (electricity retail sales). In 2023, OEDAŞ reported Scope 1 emissions of 3,726 tCO2e and Scope 2 emissions of 218,493 tCO2e, while OEPSAŞ recorded Scope 1 emissions of 233 tCO2e and Scope 2 emissions of 184 tCO2e.

Row 2

(7.23.1.1) Subsidiary name

Zorlu Yenilenebilir

(7.23.1.2) Primary activity

Select from:
☑ Other renewable generation

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply
☑ LEI number

(7.23.1.9) LEI number

7890003XL281DFSLEQ74

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

638617

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

12767

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

0

(7.23.1.15) Comment

Zorlu Yenilenebilir is a 100% subsidiary of Zorlu Enerji and operates in renewable electricity production activities (Wind, Geothermal and Hydro) in Turkey.

Row 3

(7.23.1.1) Subsidiary name

Zorlu Enerji Dağıtım

(7.23.1.2) Primary activity

Select from:

☑ Gas utilities

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

13791

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

1123

(7.23.1.15) Comment

Zorlu Enerji Dağıtım is a 100% subsidiary of Zorlu Enerji and operates in the gas distribution sector in Turkey, under Trakya Gaz in the Trakya region and GAZDAŞ in the Gaziantep region. In 2023, Trakya Gaz recorded 4,732 tCO2e of Scope 1 emissions and 814 tCO2e of Scope 2 emissions, while GAZDAŞ reported 9,059 tCO2e of Scope 1 emissions and 308 tCO2e of Scope 2 emissions.

Row 4

(7.23.1.1) Subsidiary name

Zorlu Enerji Pakistan

(7.23.1.2) Primary activity

Select from:

☑ Wind Generation

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

124

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

103

(7.23.1.15) Comment

Zorlu Enerji Pakistan is a 99.99% subsidiary of Zorlu Enerji and operates in wind power production activies in Pakistan.

Row 5

(7.23.1.1) Subsidiary name

Zorlu Enerji İsrail

(7.23.1.2) Primary activity

Select from:

☑ Non-CCGT generation

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

0

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

0

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

0

(7.23.1.15) Comment

Zorlu Enerji Israel Ltd. is a 100% subsidiary of Zorlu Enerji and operates in electricity trading activities in Israel. Therefore Zorlu Enerji doesn't haveany operational control on entity so emissions were included in scope 3.15 investment category.

Row 6

(7.23.1.1) Subsidiary name

ZJ Strong

(7.23.1.2) Primary activity

Select from:

☑ Solar generation

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

0

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

6.19

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

0

(7.23.1.15) Comment

ZJ Strong is a 75% subsidiary of Zorlu Enerji and operates in solar power production activities in Palestine.

Row 7

(7.23.1.1) Subsidiary name

Zador

(7.23.1.2) Primary activity

Select from:

☑ Non-CCGT generation

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

0

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

0

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

0

(7.23.1.15) Comment

Zorlu Enerji Israel Ltd. is a 100% subsidiary of Zorlu Enerji and operates in electricity trading activities in Israel. Therefore Zorlu Enerji doesn't haveany operational control on entity so emissions were included in scope 3.15 investment category.

Row 8

(7.23.1.1) Subsidiary name

Zorlu Enerji

(7.23.1.2) Primary activity

Select from:

☑ CCGT generation

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

98235

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

2497

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

0

(7.23.1.15) Comment

It includes emissions from Lüleburgaz and Bursa natural gas power plants.
[Add row]

(7.30) 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)	*Select from:* ☑ Yes
Consumption of purchased or acquired electricity	*Select from:* ☑ Yes
Consumption of purchased or acquired heat	*Select from:* ☑ No
Consumption of purchased or acquired steam	*Select from:* ☑ No
Consumption of purchased or acquired cooling	*Select from:* ☑ No
Generation of electricity, heat, steam, or cooling	*Select from:* ☑ Yes

[Fixed row]

(7.30.1) Report your organization’s energy consumption totals (excluding feedstocks) in MWh.

Consumption of fuel (excluding feedstock)

(7.30.1.1) Heating value

Select from:

☑ LHV (lower heating value)

(7.30.1.2) MWh from renewable sources

0

(7.30.1.3) MWh from non-renewable sources

617328

(7.30.1.4) Total (renewable and non-renewable) MWh

617328

Consumption of purchased or acquired electricity

(7.30.1.1) Heating value

Select from:

☑ LHV (lower heating value)

(7.30.1.2) MWh from renewable sources

0

(7.30.1.3) MWh from non-renewable sources

40266

(7.30.1.4) Total (renewable and non-renewable) MWh

40266

Consumption of self-generated non-fuel renewable energy

(7.30.1.1) Heating value

Select from:
☑ LHV (lower heating value)

(7.30.1.2) MWh from renewable sources

359501

(7.30.1.4) Total (renewable and non-renewable) MWh

359501

Total energy consumption

(7.30.1.1) Heating value

Select from:
☑ LHV (lower heating value)

(7.30.1.2) MWh from renewable sources

359501

(7.30.1.3) MWh from non-renewable sources

657594

(7.30.1.4) Total (renewable and non-renewable) MWh

1017095
[Fixed row]

(7.30.6) Select the applications of your organization’s consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	*Select from:* ☑ Yes
Consumption of fuel for the generation of heat	*Select from:* ☑ Yes
Consumption of fuel for the generation of steam	*Select from:* ☑ Yes
Consumption of fuel for the generation of cooling	*Select from:* ☑ No
Consumption of fuel for co-generation or tri-generation	*Select from:* ☑ Yes

[Fixed row]

(7.30.7) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Sustainable biomass

(7.30.7.1) Heating value

Select from:
☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

We do not use sustainable biomass energy.

Other biomass

(7.30.7.1) Heating value

Select from:
☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

We do not use any other biomass energy.

Other renewable fuels (e.g. renewable hydrogen)

(7.30.7.1) Heating value

Select from:
☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

We do not use other renewable fuels.

Coal

(7.30.7.1) Heating value

Select from:
☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

560733

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

560733

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

We consume lignite coal for the generation of steam. The generated steam is not consumed by Zorlu Enerji, it is delivered to the customer. The main customer is Zorlu Textile which is a sister company.

Oil

(7.30.7.1) Heating value

Select from:
☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

4727

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

39472

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

This figure covers diesel oil and gasoline consumption. The diesel is consumed by generators, on-road transportation, and off-road transportation (forklift, grass mower, etc). The gasoline is consumed for on-road transportation, and off-road transportation (forklift, grass mower, etc). Almost all gasoline is used for on-road transportation.

Gas

(7.30.7.1) Heating value

Select from:

☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

39472

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

17122

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

We consumed natural gas in the office buildings in the reporting year.

Other non-renewable fuels (e.g. non-renewable hydrogen)

(7.30.7.1) Heating value

Select from:
☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

We do not use other non- renewable fuels.

Total fuel

(7.30.7.1) Heating value

Select from:
☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

617328

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

56594

(7.30.7.5) MWh fuel consumed for self-generation of steam

560733

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

The total fuel consumption covers coal, natural gas, diesel oil, and gasoline consumption.
[Fixed row]

(7.30.16) Provide a breakdown by country/area of your electricity/heat/steam/cooling consumption in the reporting year.

Israel

(7.30.16.1) Consumption of purchased electricity (MWh)

14.28

(7.30.16.2) Consumption of self-generated electricity (MWh)

0

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

364

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

0

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

378.28

Pakistan

(7.30.16.1) Consumption of purchased electricity (MWh)

237.05

(7.30.16.2) Consumption of self-generated electricity (MWh)

0

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

10

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

0

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

247.05

Turkey

(7.30.16.1) Consumption of purchased electricity (MWh)

40266

(7.30.16.2) Consumption of self-generated electricity (MWh)

359501

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

617328

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

0

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

1017095.00
[Fixed row]

(7.33.1) Disclose the following information about your transmission and distribution business.

Row 1

(7.33.1.1) Country/area/region

Select from:
☑ Turkey

(7.33.1.2) Voltage level

Select from:
☑ Distribution (low voltage)

(7.33.1.3) Annual load (GWh)

7233

(7.33.1.4) Annual energy losses (% of annual load)

6.94

(7.33.1.5) Scope where emissions from energy losses are accounted for

Select from:

☑ Scope 2 (location-based)

(7.33.1.6) Emissions from energy losses (metric tons CO2e)

218309.78

(7.33.1.7) Length of network (km)

53564

(7.33.1.8) Number of connections

3000000

(7.33.1.9) Area covered (km2)

35501

(7.33.1.10) Comment

Osmangazi Elektrik Dağıtım A.Ş. (OEDAŞ) (%100 Zorlu Enerji asset) is responsible for the electricity distribution across five provinces in Turkey: Afyonkarahisar, Bilecik, Eskişehir, Kütahya, and Uşak, covering an area of approximately 35,501 km². Serving around 3 million people, OEDAŞ plays a key role in modernizing energy infrastructure, enhancing energy efficiency, and integrating renewable energy sources. The company is actively involved in innovative projects like energy storage systems and smart grids, contributing to Turkey's green energy transition. OEDAŞ also focuses on sustainability and corporate social responsibility through various initiatives
[Add row]

(7.45) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Row 1

(7.45.1) Intensity figure

0.000036

(7.45.2) Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

991749

(7.45.3) Metric denominator

Select from:
☑ unit total revenue

(7.45.4) Metric denominator: Unit total

27281884000

(7.45.5) Scope 2 figure used

Select from:
☑ Location-based

(7.45.6) % change from previous year

0

(7.45.7) Direction of change

Select from:
☑ No change

(7.45.8) Reasons for change

Select all that apply

☑ Other, please specify :Change in total Scope 1 and 2 emissions overall.

(7.45.9) Please explain

The revenue has decreased by 9.26% while our absolute gross emissions have decreased by 23.47% compared to the previous year.
[Add row]

(7.46) For your electric utility activities, provide a breakdown of your Scope 1 emissions and emissions intensity relating to your total power plant capacity and generation during the reporting year by source.

Gas

(7.46.1) Absolute scope 1 emissions (metric tons CO2e)

98235

(7.46.2) Emissions intensity based on gross or net electricity generation

Select from:

☑ Gross

Geothermal

(7.46.1) Absolute scope 1 emissions (metric tons CO2e)

638313

(7.46.2) Emissions intensity based on gross or net electricity generation

Select from:

☑ Gross

(7.46.3) Scope 1 emissions intensity (Gross generation)

334.10

(7.46.4) Scope 1 emissions intensity (Net generation)

411.17

Hydropower

(7.46.1) Absolute scope 1 emissions (metric tons CO2e)

206

(7.46.2) Emissions intensity based on gross or net electricity generation

Select from:
☑ Gross

(7.46.3) Scope 1 emissions intensity (Gross generation)

0.62

(7.46.4) Scope 1 emissions intensity (Net generation)

0.67

Wind

(7.46.1) Absolute scope 1 emissions (metric tons CO2e)

221

(7.46.2) Emissions intensity based on gross or net electricity generation

Select from:

☑ Gross

(7.46.3) Scope 1 emissions intensity (Gross generation)

0.50

(7.46.4) Scope 1 emissions intensity (Net generation)

0.50

Solar

(7.46.1) Absolute scope 1 emissions (metric tons CO2e)

2350

(7.46.2) Emissions intensity based on gross or net electricity generation

Select from:
☑ Gross

(7.46.3) Scope 1 emissions intensity (Gross generation)

810.34

(7.46.4) Scope 1 emissions intensity (Net generation)

810.34

Total

(7.46.1) Absolute scope 1 emissions (metric tons CO2e)

740323

(7.46.2) Emissions intensity based on gross or net electricity generation

Select from:

☑ Gross

(7.46.3) Scope 1 emissions intensity (Gross generation)

275.70
[Fixed row]

(7.52) Provide any additional climate-related metrics relevant to your business.

Row 1

(7.52.1) Description

Select from:

☑ Energy usage

(7.52.2) Metric value

24

(7.52.3) Metric numerator

% of consumed energy in total produced energy

(7.52.4) Metric denominator (intensity metric only)

total consumed energy in total produced energy

(7.52.5) % change from previous year

23

(7.52.6) Direction of change

Select from:

☑ Decreased

(7.52.7) Please explain

In 2022, the percentage of total energy consumed (MWh) to total energy production (MWh) was 47%, it decreased to 24% in 2023 due to a decrease in electricity production from power plants means a positive impact on energy consumption and Scope 2 emissions.

Row 2

(7.52.1) Description

Select from:

☑ Waste

(7.52.2) Metric value

95

(7.52.3) Metric numerator

% of recycled and recovered waste in total waste

(7.52.4) Metric denominator (intensity metric only)

total recycled and recovered waste in total waste

(7.52.5) % change from previous year

56

(7.52.6) Direction of change

Select from:

☑ Increased

(7.52.7) Please explain

In 2022, the percentage of recycled&reused waste to total waste was 39% (16,322 tons/41,466 tons), while in 2023, it increased to 95% (36,876 tons/38,455 tons), marking a 56% improvement, significantly reducing the amount of waste sent to landfill. The disposal method of coal-based ash waste is the main reason for positive performance enhancement.
[Add row]

(7.53.1) Provide details of your absolute emissions targets and progress made against those targets.

Row 1

(7.53.1.1) Target reference number

Select from:
☑ Abs 1

(7.53.1.2) Is this a science-based target?

Select from:
☑ Yes, and this target has been approved by the Science Based Targets initiative

(7.53.1.3) Science Based Targets initiative official validation letter

Zorlu Enerji Elektrik Üretim A.Ş. - Net-Zero Approval Validation Report_compressed.pdf

(7.53.1.4) Target ambition

Select from:
☑ 1.5°C aligned

(7.53.1.5) Date target was set

05/20/2024

(7.53.1.6) Target coverage

Select from:

☑ Business activity

(7.53.1.7) Greenhouse gases covered by target

Select all that apply

☑ Carbon dioxide (CO2)

☑ Methane (CH4)

☑ Nitrous oxide (N2O)

☑ Hydrofluorocarbons (HFCs)

(7.53.1.8) Scopes

Select all that apply

☑ Scope 2

(7.53.1.9) Scope 2 accounting method

Select from:

☑ Location-based

(7.53.1.11) End date of base year

12/30/2021

(7.53.1.13) Base year Scope 2 emissions covered by target (metric tons CO2e)

240009

(7.53.1.31) Base year total Scope 3 emissions covered by target (metric tons CO2e)

0.000

(7.53.1.32) Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

240009.000

(7.53.1.34) Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

(7.53.1.53) Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

(7.53.1.54) End date of target

12/30/2030

(7.53.1.55) Targeted reduction from base year (%)

42

(7.53.1.56) Total emissions at end date of target covered by target in all selected Scopes (metric tons CO2e)

139205.220

(7.53.1.58) Scope 2 emissions in reporting year covered by target (metric tons CO2e)

233942

(7.53.1.77) Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

233942.000

(7.53.1.78) Land-related emissions covered by target

Select from:

☑ No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

(7.53.1.79) % of target achieved relative to base year

6.02

(7.53.1.80) Target status in reporting year

Select from:

☑ Achieved and maintained

(7.53.1.82) Explain target coverage and identify any exclusions

Absolute Scope 2 GHG Emissions (tCO2e) from Electricity and Heat Generation Definition Scope 2 GHG Emissions are defined as indirect GHG emissions from electricity and heat generation. Calculation Methodology The Company calculates its Scope 2 GHG emissions via a location-based approach, according to the International Energy Agency – CO2 Emissions From Fuel Combustion Highlights, and using the GHG Protocol: Scope 2 Guidance. Coverage 100% of Scope 2 emissions.

(7.53.1.83) Target objective

Zorlu Enerji Elektrik Uretim A.S. (Zorlu Enerji) also commits to reduce absolute scope 2 GHG emissions by 42% within the same timeframe (from 2021 to 2030)

(7.53.1.85) Target derived using a sectoral decarbonization approach

Select from:

☑ No

(7.53.1.86) List the emissions reduction initiatives which contributed most to achieving this target

Using I-REC and Yek-G-certified electricity usage for business. Increasing renewable energy power plant investments (solar PV modules etc.) for internal usage by hybrid power plants.

Row 2

(7.53.1.1) Target reference number

Select from:

☑ Abs 2

(7.53.1.2) Is this a science-based target?

Select from:

☑ Yes, and this target has been approved by the Science Based Targets initiative

(7.53.1.3) Science Based Targets initiative official validation letter

Zorlu Enerji Elektrik Üretim A.Ş. - Net-Zero Approval Validation Report_compressed.pdf

(7.53.1.4) Target ambition

Select from:

☑ 1.5°C aligned

(7.53.1.5) Date target was set

05/20/2024

(7.53.1.6) Target coverage

Select from:

☑ Business activity

(7.53.1.7) Greenhouse gases covered by target

Select all that apply

☑ Carbon dioxide (CO2)

☑ Methane (CH4)

☑ Nitrous oxide (N2O)

☑ Hydrofluorocarbons (HFCs)

(7.53.1.8) Scopes

Select all that apply

☑ Scope 2

(7.53.1.9) Scope 2 accounting method

Select from:

☑ Location-based

(7.53.1.11) End date of base year

12/30/2021

(7.53.1.13) Base year Scope 2 emissions covered by target (metric tons CO2e)

240009

(7.53.1.31) Base year total Scope 3 emissions covered by target (metric tons CO2e)

0.000

(7.53.1.32) Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

240009.000

(7.53.1.34) Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

(7.53.1.53) Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

(7.53.1.54) End date of target

12/30/2040

(7.53.1.55) Targeted reduction from base year (%)

90

(7.53.1.56) Total emissions at end date of target covered by target in all selected Scopes (metric tons CO2e)

24000.900

(7.53.1.58) Scope 2 emissions in reporting year covered by target (metric tons CO2e)

233942

(7.53.1.77) Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

233942.000

(7.53.1.78) Land-related emissions covered by target

Select from:

☑ No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

(7.53.1.79) % of target achieved relative to base year

2.81

(7.53.1.80) Target status in reporting year

Select from:

☑ Achieved and maintained

(7.53.1.82) Explain target coverage and identify any exclusions

Absolute Scope 2 GHG Emissions (tCO2e) from Electricity and Heat Generation Definition Scope 2 GHG Emissions are defined as indirect GHG emissions from electricity and heat generation. Calculation Methodology The Company calculates its Scope 2 GHG emissions via a location-based approach, according to the International Energy Agency – CO2 Emissions From Fuel Combustion Highlights, and using the GHG Protocol: Scope 2 Guidance. Coverage 100% of Scope 2 emissions.

(7.53.1.83) Target objective

Zorlu Enerji Elektrik Uretim A.S. (Zorlu Enerji) also commits to reduce absolute scope 2 GHG emissions 90% within the same timeframe. (from 2021 to 2040)

(7.53.1.85) Target derived using a sectoral decarbonization approach

Select from:

☑ No

(7.53.1.86) List the emissions reduction initiatives which contributed most to achieving this target

Using I-REC and Yek-G-certified electricity usage for business. Increasing renewable energy power plant investments (solar PV modules etc.) for internal usage by hybrid power plants.

Row 3

(7.53.1.1) Target reference number

Select from:

☑ Abs 3

(7.53.1.2) Is this a science-based target?

Select from:

☑ Yes, and this target has been approved by the Science Based Targets initiative

(7.53.1.3) Science Based Targets initiative official validation letter

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(7.53.1.4) Target ambition

Select from:

☑ 1.5°C aligned

(7.53.1.5) Date target was set

05/20/2024

(7.53.1.6) Target coverage

Select from:

☑ Business activity

(7.53.1.7) Greenhouse gases covered by target

Select all that apply

☑ Carbon dioxide (CO2)

☑ Methane (CH4)

☑ Nitrous oxide (N2O)

☑ Hydrofluorocarbons (HFCs)

(7.53.1.8) Scopes

Select all that apply

☑ Scope 3

(7.53.1.10) Scope 3 categories

Select all that apply

☑ Scope 3, Category 15 – Investments

☑ Scope 3, Category 2 – Capital goods

☑ Scope 3, Category 6 – Business travel

☑ Scope 3, Category 7 – Employee commuting

☑ Scope 3, Category 11 – Use of sold products

☑ Scope 3, Category 1 – Purchased goods and services

☑ Scope 3, Category 5 – Waste generated in operations

☑ Scope 3, Category 12 – End-of-life treatment of sold products

☑ Scope 3, Category 4 – Upstream transportation and distribution

☑ Scope 3, Category 9 – Downstream transportation and distribution

(7.53.1.11) End date of base year

12/30/2021

(7.53.1.14) Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

62711.14

(7.53.1.15) Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)

665.64

(7.53.1.17) Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

59284.85

(7.53.1.18) Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

2083.35

(7.53.1.19) Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

9657.97

(7.53.1.20) Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

10012.09

(7.53.1.22) Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

240.55

(7.53.1.24) Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

1700.52

(7.53.1.25) Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

340.12

(7.53.1.28) Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

518331.08

(7.53.1.31) Base year total Scope 3 emissions covered by target (metric tons CO2e)

665027.310

(7.53.1.32) Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

665027.310

(7.53.1.35) Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)

100

(7.53.1.36) Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)

100

(7.53.1.38) Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)

100

(7.53.1.39) Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)

100

(7.53.1.40) Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)

100

(7.53.1.41) Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)

100

(7.53.1.43) Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)

100

(7.53.1.45) Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)

100

(7.53.1.46) Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)

100

(7.53.1.49) Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

100

(7.53.1.52) Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

100

(7.53.1.53) Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

(7.53.1.54) End date of target

12/30/2030

(7.53.1.55) Targeted reduction from base year (%)

25

(7.53.1.56) Total emissions at end date of target covered by target in all selected Scopes (metric tons CO2e)

498770.483

(7.53.1.59) Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)

21385.36

(7.53.1.60) Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)

296.41

(7.53.1.62) Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

2400.19

(7.53.1.63) Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)

74119.44

(7.53.1.64) Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)

206.85

(7.53.1.65) Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)

24234.23

(7.53.1.67) Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

0

(7.53.1.69) Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)

1098.24

(7.53.1.70) Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

0

(7.53.1.73) Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

452570.88

(7.53.1.76) Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)

576311.600

(7.53.1.77) Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

576311.600

(7.53.1.78) Land-related emissions covered by target

Select from:

☑ No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

(7.53.1.79) % of target achieved relative to base year

53.36

(7.53.1.80) Target status in reporting year

Select from:

☑ Achieved and maintained

(7.53.1.82) Explain target coverage and identify any exclusions

All Other Absolute Scope 3 GHG emissions, (tCO2e) Definition Scope 3 GHG Emissions are other indirect emissions, not covered in Scope 2 and not covered under KPI 3 (please refer to intensity-related targets), arising from all other source categories by the GHG Protocol. Calculation Methodology The Company calculates its Scope 3 GHG emissions by the GHG Protocol Standard. Coverage of 100% all other absolute Scope 3 GHG emissions excludes fuel-and energy-related services.

(7.53.1.83) Target objective

Zorlu Enerji Elektrik Uretim A.S. (Zorlu Enerji) further commits to reduce all other absolute scope 3 GHG emissions 25% within the same timeframe.(2021 to 2030)

(7.53.1.85) Target derived using a sectoral decarbonization approach

Select from:

☑ No

(7.53.1.86) List the emissions reduction initiatives which contributed most to achieving this target

Supply of substitute products with lower emission factors Supply and logistics network optimized by operational data (e.g., closer logistics locations, logistics networks using more environmentally friendly fuels, etc.) Prioritization of circularity solutions in waste and product (EV Chargers, PV module and equipments) management Optimization of business travel (travel and accommodation conditions) Replacement of rental company vehicles with EVs (electric vehicles) Optimization of employee shuttle routes Divestment from carbon-intensive assets and capital investments in renewable energy plants

Row 4

(7.53.1.1) Target reference number

Select from:

☑ Abs 4

(7.53.1.2) Is this a science-based target?

Select from:

☑ Yes, and this target has been approved by the Science Based Targets initiative

(7.53.1.3) Science Based Targets initiative official validation letter

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(7.53.1.4) Target ambition

Select from:

☑ 1.5°C aligned

(7.53.1.5) Date target was set

05/11/2024

(7.53.1.6) Target coverage

Select from:

☑ Business activity

(7.53.1.7) Greenhouse gases covered by target

Select all that apply

☑ Carbon dioxide (CO2)

☑ Methane (CH4)

☑ Nitrous oxide (N2O)
☑ Hydrofluorocarbons (HFCs)

(7.53.1.8) Scopes

Select all that apply
☑ Scope 3

(7.53.1.10) Scope 3 categories

Select all that apply
☑ Scope 3, Category 15 – Investments
☑ Scope 3, Category 2 – Capital goods
☑ Scope 3, Category 6 – Business travel
☑ Scope 3, Category 7 – Employee commuting
☑ Scope 3, Category 11 – Use of sold products
☑ Scope 3, Category 1 – Purchased goods and services
☑ Scope 3, Category 5 – Waste generated in operations
☑ Scope 3, Category 12 – End-of-life treatment of sold products
☑ Scope 3, Category 4 – Upstream transportation and distribution
☑ Scope 3, Category 9 – Downstream transportation and distribution

(7.53.1.11) End date of base year

12/30/2021

(7.53.1.14) Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

62711.14

(7.53.1.15) Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)

665.64

(7.53.1.17) Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

59284.85

(7.53.1.18) Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

2083.35

(7.53.1.19) Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

9657.97

(7.53.1.20) Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

10012.09

(7.53.1.22) Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

240.55

(7.53.1.24) Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

1700.52

(7.53.1.25) Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

340.12

(7.53.1.28) Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

518331.08

(7.53.1.31) Base year total Scope 3 emissions covered by target (metric tons CO2e)

665027.310

(7.53.1.32) Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

(7.53.1.35) Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)

100

(7.53.1.36) Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)

100

(7.53.1.38) Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)

100

(7.53.1.39) Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)

100

(7.53.1.40) Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)

100

(7.53.1.41) Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)

100

(7.53.1.43) Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)

100

(7.53.1.45) Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)

100

(7.53.1.46) Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)

100

(7.53.1.49) Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

100

(7.53.1.52) Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

100

(7.53.1.53) Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

(7.53.1.54) End date of target

12/30/2040

(7.53.1.55) Targeted reduction from base year (%)

90

(7.53.1.56) Total emissions at end date of target covered by target in all selected Scopes (metric tons CO2e)

66502.731

(7.53.1.59) Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)

21385.36

(7.53.1.60) Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)

296.41

(7.53.1.62) Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

2400.19

(7.53.1.63) Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)

74119.44

(7.53.1.64) Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)

206.85

(7.53.1.65) Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)

24234.23

(7.53.1.67) Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

0

(7.53.1.69) Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)

1098.24

(7.53.1.70) Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

0

(7.53.1.73) Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

452570.88

(7.53.1.76) Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)

576311.600

(7.53.1.77) Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

576311.600

(7.53.1.78) Land-related emissions covered by target

Select from:

☑ No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

(7.53.1.79) % of target achieved relative to base year

14.82

(7.53.1.80) Target status in reporting year

Select from:

☑ Achieved and maintained

(7.53.1.82) Explain target coverage and identify any exclusions

All Other Absolute Scope 3 GHG emissions, (tCO2e) Definition Scope 3 GHG Emissions are other indirect emissions, not covered in Scope 2 and not covered under KPI 3 (please refer to intensity-related targets), arising from all other source categories by the GHG Protocol. Calculation Methodology The Company calculates its Scope 3 GHG emissions by the GHG Protocol Standard. Coverage of 100% all other absolute Scope 3 GHG emissions excludes fuel-and energy-related services.

(7.53.1.83) Target objective

Zorlu Enerji Elektrik Uretim A.S. (Zorlu Enerji) further commits to reduce all other absolute scope 3 GHG emissions 90% within the same timeframe.(2021 to 2040)

(7.53.1.85) Target derived using a sectoral decarbonization approach

Select from:

☑ No

(7.53.1.86) List the emissions reduction initiatives which contributed most to achieving this target

Supply of substitute products with lower emission factors Supply and logistics network optimized by operational data (e.g., closer logistics locations, logistics networks using more environmentally friendly fuels, etc.) Prioritization of circularity solutions in waste and product (EV Chargers, PV module and equipments) management Optimization of business travel (travel and accommodation conditions) Replacement of rental company vehicles with EVs (electric vehicles) Optimization of employee shuttle routes Divestment from carbon-intensive assets and capital investments in renewable energy plants
[Add row]

(7.53.2) Provide details of your emissions intensity targets and progress made against those targets.

Row 1

(7.53.2.1) Target reference number

Select from:

☑ Int 1

(7.53.2.2) Is this a science-based target?

Select from:

☑ Yes, and this target has been approved by the Science Based Targets initiative

(7.53.2.3) Science Based Targets initiative official validation letter

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(7.53.2.4) Target ambition

Select from:
☑ 1.5°C aligned

(7.53.2.5) Date target was set

05/20/2024

(7.53.2.6) Target coverage

Select from:
☑ Business activity

(7.53.2.7) Greenhouse gases covered by target

Select all that apply
☑ Carbon dioxide (CO2)
☑ Methane (CH4)
☑ Nitrous oxide (N2O)
☑ Hydrofluorocarbons (HFCs)

(7.53.2.8) Scopes

Select all that apply
☑ Scope 1

(7.53.2.11) Intensity metric

Select from:

☑ Metric tons CO2e per megawatt hour (MWh)

(7.53.2.12) End date of base year

12/30/2021

(7.53.2.13) Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)

0.402

(7.53.2.33) Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

0.4020000000

(7.53.2.34) % of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

100

(7.53.2.54) % of total base year emissions in all selected Scopes covered by this intensity figure

100

(7.53.2.55) End date of target

12/30/2030

(7.53.2.56) Targeted reduction from base year (%)

73.71

(7.53.2.57) Intensity figure at end date of target for all selected Scopes (metric tons CO2e per unit of activity)

0.1056858000

(7.53.2.58) % change anticipated in absolute Scope 1+2 emissions

0

(7.53.2.60) Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)

0.277

(7.53.2.80) Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

0.2770000000

(7.53.2.81) Land-related emissions covered by target

Select from:

☑ No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

(7.53.2.82) % of target achieved relative to base year

42.18

(7.53.2.83) Target status in reporting year

Select from:

☑ Achieved and maintained

(7.53.2.85) Explain target coverage and identify any exclusions

Scope 1 GHG Emissions Intensity from Electricity and Heat Generation, (tCO2e/MWh) Definition Scope 1 GHG Emissions are direct Greenhouse Gas (GHG) emissions occurring from Zorlu Enerji's business activities. The definition of the denominator of the intensity metric will be the energy generated by Zorlu Enerji in MWh. Calculation Methodology The Company calculates its Scope 1 GHG emissions according to the International Panel on Climate Change (IPCC) guidelines and the 2006 Guidelines for National Greenhouse Gas Inventories. The coverage ratio is 100% of Scope 1 GHG Emissions. Investing in low-carbon business (EV ecosystem, smart-systems etc.)

(7.53.2.86) Target objective

Zorlu Enerji Elektrik Uretim A.S. (Zorlu Enerji) commits to reduce scope 1 GHG emission intensity from electricity and heat generation 73.71% per MWh by 2030 from a 2021 base year.

(7.53.2.88) Target derived using a sectoral decarbonization approach

Select from:

☑ Yes

(7.53.2.89) List the emissions reduction initiatives which contributed most to achieving this target

Transition to natural gas by fuel switching in coal-fired facilities Divestment from thermal power plants and businesses Investment in CCUS projects such as the GECO project Investment in renewable energy sources

Row 2

(7.53.2.1) Target reference number

Select from:

☑ Int 2

(7.53.2.2) Is this a science-based target?

Select from:

☑ Yes, and this target has been approved by the Science Based Targets initiative

(7.53.2.3) Science Based Targets initiative official validation letter

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(7.53.2.4) Target ambition

Select from:

☑ 1.5°C aligned

(7.53.2.5) Date target was set

05/20/2024

(7.53.2.6) Target coverage

Select from:

☑ Business activity

(7.53.2.7) Greenhouse gases covered by target

Select all that apply

☑ Carbon dioxide (CO2)

☑ Methane (CH4)

☑ Nitrous oxide (N2O)

☑ Hydrofluorocarbons (HFCs)

(7.53.2.8) Scopes

Select all that apply

☑ Scope 1

(7.53.2.11) Intensity metric

Select from:

☑ Metric tons CO2e per megawatt hour (MWh)

(7.53.2.12) End date of base year

12/30/2021

(7.53.2.13) Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)

0.402

(7.53.2.33) Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

0.4020000000

(7.53.2.34) % of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

100

(7.53.2.54) % of total base year emissions in all selected Scopes covered by this intensity figure

100

(7.53.2.55) End date of target

12/30/2040

(7.53.2.56) Targeted reduction from base year (%)

97.7

(7.53.2.57) Intensity figure at end date of target for all selected Scopes (metric tons CO2e per unit of activity)

0.0092460000

(7.53.2.58) % change anticipated in absolute Scope 1+2 emissions

0

(7.53.2.60) Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)

0.277

(7.53.2.80) Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

0.2770000000

(7.53.2.81) Land-related emissions covered by target

Select from:

☑ No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

(7.53.2.82) % of target achieved relative to base year

31.83

(7.53.2.83) Target status in reporting year

Select from:

☑ Achieved and maintained

(7.53.2.85) Explain target coverage and identify any exclusions

Scope 1 GHG Emissions Intensity from Electricity and Heat Generation, (tCO2e/MWh) Definition Scope 1 GHG Emissions are direct Greenhouse Gas (GHG) emissions occurring from Zorlu Enerji's business activities. The definition of the denominator of the intensity metric will be the energy generated by Zorlu Enerji in MWh. Calculation Methodology The Company calculates its Scope 1 GHG emissions according to the International Panel on Climate Change (IPCC) guidelines and the 2006 Guidelines for National Greenhouse Gas Inventories. The coverage ratio is 100% of Scope 1 GHG Emissions. Investing in low-carbon business (EV ecosystem, smart-systems etc.)

(7.53.2.86) Target objective

Zorlu Enerji Elektrik Uretim A.S. (Zorlu Enerji) commits to reduce scope 1 GHG emission intensity from electricity and heat generation 97.7% per MWh by 2040 from a 2021 base year.

(7.53.2.88) Target derived using a sectoral decarbonization approach

Select from:

☑ No

(7.53.2.89) List the emissions reduction initiatives which contributed most to achieving this target

Transition to natural gas by fuel switching in coal-fired facilities Divestment from thermal power plants and businesses Investment in CCUS projects such as the GECO project Investment in renewable energy sources

Row 3

(7.53.2.1) Target reference number

Select from:

☑ Int 3

(7.53.2.2) Is this a science-based target?

Select from:

☑ Yes, and this target has been approved by the Science Based Targets initiative

(7.53.2.3) Science Based Targets initiative official validation letter

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(7.53.2.4) Target ambition

Select from:

☑ 1.5°C aligned

(7.53.2.5) Date target was set

05/20/2024

(7.53.2.6) Target coverage

Select from:

☑ Business activity

(7.53.2.7) Greenhouse gases covered by target

Select all that apply

☑ Carbon dioxide (CO2)

☑ Methane (CH4)

☑ Nitrous oxide (N2O)

☑ Hydrofluorocarbons (HFCs)

(7.53.2.8) Scopes

Select all that apply

☑ Scope 1

☑ Scope 3

(7.53.2.10) Scope 3 categories

Select all that apply

☑ Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

(7.53.2.11) Intensity metric

Select from:

☑ Metric tons CO2e per megawatt hour (MWh)

(7.53.2.12) End date of base year

12/30/2021

(7.53.2.13) Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)

0.427

(7.53.2.17) Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)

0.408

(7.53.2.32) Intensity figure in base year for total Scope 3 (metric tons CO2e per unit of activity)

0.4080000000

(7.53.2.33) Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

0.8350000000

(7.53.2.34) % of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

100

(7.53.2.38) % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure

97.88

(7.53.2.53) % of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure

81.54

(7.53.2.54) % of total base year emissions in all selected Scopes covered by this intensity figure

100

(7.53.2.55) End date of target

12/30/2030

(7.53.2.56) Targeted reduction from base year (%)

73.71

(7.53.2.57) Intensity figure at end date of target for all selected Scopes (metric tons CO2e per unit of activity)

0.2195215000

(7.53.2.58) % change anticipated in absolute Scope 1+2 emissions

8

(7.53.2.59) % change anticipated in absolute Scope 3 emissions

0

(7.53.2.60) Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)

0.276

(7.53.2.64) Intensity figure in reporting year for Scope 3, Category 3: Fuel- and energy-related activities (metric tons CO2e per unit of activity)

0.32

(7.53.2.79) Intensity figure in reporting year for total Scope 3 (metric tons CO2e per unit of activity)

0.3200000000

(7.53.2.80) Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

0.5960000000

(7.53.2.81) Land-related emissions covered by target

Select from:

☑ No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

(7.53.2.82) % of target achieved relative to base year

38.83

(7.53.2.83) Target status in reporting year

Select from:

☑ Achieved and maintained

(7.53.2.85) Explain target coverage and identify any exclusions

Scope 1 and 3 GHG Emissions Intensity from Fuel and Energy-Related Activities, (tCO2e/MWh) Definition Scope 1 GHG Emissions are direct GHG emissions occurring from sources that are owned or controlled by Zorlu Enerji. Scope 3 GHG Emissions are other indirect emissions, not covered in Scope 2, arising from fuel and energy-related activities following the GHG Protocol. The definition of the denominator of the intensity metric will be the energy sold by Zorlu Enerji in MWh.Coverage ratio is 100%.

(7.53.2.86) Target objective

Zorlu Enerji Elektrik Uretim A.S. (Zorlu Enerji) further commits to reduce scope 1 and 3 GHG emissions from fuel and energy related activities covering all sold electricity 73.71% per MWh within the same timeframe. (2021 to 2030)

(7.53.2.88) Target derived using a sectoral decarbonization approach

Select from:

☑ Yes

(7.53.2.89) List the emissions reduction initiatives which contributed most to achieving this target

Transition to natural gas by fuel switching in coal-fired facilities Divestment from thermal power plants and businesses Investment in CCUS projects such as the GECO project Investment in renewable energy sources Retailing zero-carbon emission-intense electricity

Row 4

(7.53.2.1) Target reference number

Select from:

☑ Int 4

(7.53.2.2) Is this a science-based target?

Select from:

☑ Yes, and this target has been approved by the Science Based Targets initiative

(7.53.2.3) Science Based Targets initiative official validation letter

(7.53.2.4) Target ambition

Select from:

☑ 1.5°C aligned

(7.53.2.5) Date target was set

05/20/2024

(7.53.2.6) Target coverage

Select from:

☑ Business activity

(7.53.2.7) Greenhouse gases covered by target

Select all that apply

☑ Carbon dioxide (CO2)

☑ Methane (CH4)

☑ Nitrous oxide (N2O)

☑ Hydrofluorocarbons (HFCs)

(7.53.2.8) Scopes

Select all that apply

☑ Scope 1

☑ Scope 3

(7.53.2.10) Scope 3 categories

Select all that apply

☑ Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

(7.53.2.11) Intensity metric

Select from:

☑ Metric tons CO2e per megawatt hour (MWh)

(7.53.2.12) End date of base year

12/30/2021

(7.53.2.13) Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)

0.427

(7.53.2.17) Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)

0.408

(7.53.2.32) Intensity figure in base year for total Scope 3 (metric tons CO2e per unit of activity)

0.4080000000

(7.53.2.33) Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

0.8350000000

(7.53.2.34) % of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

100

(7.53.2.38) % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure

97.88

(7.53.2.53) % of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure

81.54

(7.53.2.54) % of total base year emissions in all selected Scopes covered by this intensity figure

100

(7.53.2.55) End date of target

12/30/2040

(7.53.2.56) Targeted reduction from base year (%)

97.8

(7.53.2.57) Intensity figure at end date of target for all selected Scopes (metric tons CO2e per unit of activity)

0.0183700000

(7.53.2.58) % change anticipated in absolute Scope 1+2 emissions

0

(7.53.2.59) % change anticipated in absolute Scope 3 emissions

0

(7.53.2.60) Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)

0.408

(7.53.2.64) Intensity figure in reporting year for Scope 3, Category 3: Fuel- and energy-related activities (metric tons CO2e per unit of activity)

0.323

(7.53.2.79) Intensity figure in reporting year for total Scope 3 (metric tons CO2e per unit of activity)

0.3230000000

(7.53.2.80) Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

0.7310000000

(7.53.2.81) Land-related emissions covered by target

Select from:

☑ No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

(7.53.2.82) % of target achieved relative to base year

12.74

(7.53.2.83) Target status in reporting year

Select from:

☑ Achieved and maintained

(7.53.2.85) Explain target coverage and identify any exclusions

Scope 1 and 3 GHG Emissions Intensity from Fuel and Energy-Related Activities, (tCO2e/MWh) Definition Scope 1 GHG Emissions are direct GHG emissions occurring from sources that are owned or controlled by Zorlu Enerji. Scope 3 GHG Emissions are other indirect emissions, not covered in Scope 2, arising from fuel and energy-related activities following the GHG Protocol. The definition of the denominator of the intensity metric will be the energy sold by Zorlu Enerji in MWh.Coverage ratio is 100%.

(7.53.2.86) Target objective

Zorlu Enerji Elektrik Uretim A.S. (Zorlu Enerji) further commits to reduce scope 1 and 3 GHG emissions from fuel and energy-related activities covering all sold electricity 97.8% per MWh within the same timeframe. (2021 to 2040)

(7.53.2.88) Target derived using a sectoral decarbonization approach

Select from:

☑ No

(7.53.2.89) List the emissions reduction initiatives which contributed most to achieving this target

Transition to natural gas by fuel switching in coal-fired facilities Divestment from thermal power plants and businesses Investment in CCUS projects such as the GECO project Investment in renewable energy sources Retailing zero-carbon emission-intense electricity
[Add row]

(7.54.1) Provide details of your targets to increase or maintain low-carbon energy consumption or production.

Row 1

(7.54.1.1) Target reference number

Select from:

☑ Low 1

(7.54.1.2) Date target was set

12/31/2019

(7.54.1.3) Target coverage

Select from:

☑ Organization-wide

(7.54.1.4) Target type: energy carrier

Select from:

☑ Electricity

(7.54.1.5) Target type: activity

Select from:

☑ Production

(7.54.1.6) Target type: energy source

Select from:

☑ Renewable energy source(s) only

(7.54.1.7) End date of base year

12/30/2020

(7.54.1.8) Consumption or production of selected energy carrier in base year (MWh)

3061025

(7.54.1.9) % share of low-carbon or renewable energy in base year

87

(7.54.1.10) End date of target

12/30/2030

(7.54.1.11) % share of low-carbon or renewable energy at end date of target

100

(7.54.1.12) % share of low-carbon or renewable energy in reporting year

88

(7.54.1.13) % of target achieved relative to base year

7.69

(7.54.1.16) Is this target part of an emissions target?

It is related to our absolute targets. By 2030, we aim to generate all of our electricity production in Turkey from renewable energy sources and to invest in the protection and improvement of biodiversity. In the fight against the climate crisis, we aim to reduce the carbon emissions from our operations to net-zero by 2030 and to create long-term positive value by working towards a net-zero emission target in our entire value chain by 2040.

(7.54.1.17) Is this target part of an overarching initiative?

Select all that apply

☑ No, it's not part of an overarching initiative

(7.54.1.19) Explain target coverage and identify any exclusions

This target is company-wide and covers all our operations.

Row 3

(7.54.1.1) Target reference number

Select from:

☑ Low 2

(7.54.1.2) Date target was set

12/31/2019

(7.54.1.3) Target coverage

Select from:

☑ Business division

(7.54.1.4) Target type: energy carrier

Select from:

☑ Electricity

(7.54.1.5) Target type: activity

Select from:
☑ Consumption

(7.54.1.6) Target type: energy source

Select from:
☑ Renewable energy source(s) only

(7.54.1.7) End date of base year

12/30/2020

(7.54.1.8) Consumption or production of selected energy carrier in base year (MWh)

8847.0

(7.54.1.9) % share of low-carbon or renewable energy in base year

14.0

(7.54.1.10) End date of target

12/30/2030

(7.54.1.11) % share of low-carbon or renewable energy at end date of target

100

(7.54.1.16) Is this target part of an emissions target?

No, it comes from general performance of company

(7.54.1.17) Is this target part of an overarching initiative?

Select all that apply

☑ No, it's not part of an overarching initiative

(7.54.1.19) Explain target coverage and identify any exclusions

R&D Projects are going to be paced and low carbon based investments as ZES and Electrip are going to increase rapidly. R&D Projects, ZES, Electrip investments and additional capacity extension projects for WPP and hybrid extension SPP projects for GPP. Also ISO 50001 Energy Management System configuration works are going to be implemented due to legal requirements for Kızıldere GPP.Existing wind, geothermal, and hydroelectric power plants will be able to install solar panels and generate electricity from solar energy according to the "Procedures and Principles Regarding the Regulation of Power Plant Sites of Generation Plants Subject to Pre-Licenses or Licenses in the Electricity Market" published by EMRA and entered into force in June 2020. We aim to meet the internal consumption of our existing power plants and benefit more from renewable sources with the establishment of hybrid plants
[Add row]

(7.54.3) Provide details of your net-zero target(s).

Row 1

(7.54.3.1) Target reference number

Select from:

☑ NZ1

(7.54.3.2) Date target was set

12/31/2020

(7.54.3.3) Target Coverage

Select from:

☑ Organization-wide

(7.54.3.4) Targets linked to this net zero target

Select all that apply

☑ Abs2

☑ Abs4

☑ Int2

☑ Int4

(7.54.3.5) End date of target for achieving net zero

12/30/2040

(7.54.3.6) Is this a science-based target?

Select from:

☑ Yes, and this target has been approved by the Science Based Targets initiative

(7.54.3.7) Science Based Targets initiative official validation letter

Zorlu Enerji Elektrik Üretim A.Ş. - Net-Zero Approval Validation Report_compressed.pdf

(7.54.3.8) Scopes

Select all that apply

☑ Scope 1

☑ Scope 2

☑ Scope 3

(7.54.3.9) Greenhouse gases covered by target

Select all that apply

☑ Carbon dioxide (CO2)

☑ Methane (CH4)

☑ Nitrous oxide (N2O)

☑ Hydrofluorocarbons (HFCs)

☑ Sulphur hexafluoride (SF6)

(7.54.3.10) Explain target coverage and identify any exclusions

ZE set long term sustainability targets in 2020 which includes Net Zero Target by 2030. It is aimed to be Net Zero in Scope 1 and Scope 2 emissions by 2030 and across the entire value chain (Scope 1, 2, and 3) by 2040.

(7.54.3.11) Target objective

By 2030, we aim to generate all of our electricity production in Turkey from renewable energy sources and to invest in the protection and improvement of biodiversity. In the fight against the climate crisis, we aim to reduce the carbon emissions from our operations to net-zero target in our entire value chain by 2040. As a company that generates electricity and provides it to consumers, Zorlu Enerji is committed to supplying its entire power generation from renewables by 2030, striving to facilitate not only its own operations but also the carbon-free growth of its clients. Zorlu Enerji aims to further increase the share of renewables in its generation portfolio, especially geothermal and solar energy, and to develop its resource diversity. Zorlu Enerji continues to engage in activities in line with the principle of developing generation capacity by supporting Turkey's clean energy supply. Our application for a license amendment for the 3.58 MWp solar power plant which we will establish in integration with our Alaşehir Geothermal Power Plant was approved in 2021. Thanks to this project developed as a result of comprehensive R&D activities carried out for long years, we became a role model once again for the industry by introducing to Turkey the integrated plant model, which is becoming widespread across the world and where geothermal and solar power plants are used in a hybrid form. In the upcoming period, we plan to apply the integrated plant model, in which geothermal and solar power is used in a hybrid form, to our Kızıldere Geothermal Power Plants and Gökçedağ Wind Power Plant.

(7.54.3.12) Do you intend to neutralize any residual emissions with permanent carbon removals at the end of the target?

Select from:

☑ No

(7.54.3.13) Do you plan to mitigate emissions beyond your value chain?

Select from:

☑ No, but we plan to within the next two years

(7.54.3.17) Target status in reporting year

Select from:

☑ Achieved

(7.54.3.19) Process for reviewing target

ZE plays an important role in reducing the impacts of climate change and environmental impacts throughout its value chain by supplying sustainable energy to all its customers via the electricity it generates from renewable energy sources. ZE offers sustainable solutions in different segments of the value chain through Electrip, the electric vehicle sharing platform, ZES, which provides charging services for electric vehicle users all around Turkey, and through the provision of all kinds of consultancy services for the sale, export and installation of photovoltaic (PV) panels under ZES brand for solar power generation in Turkey and abroad. Sustainability criteria are also taken into account in supplier evaluation and selection processes, and the company acts in line with the "Sustainable Supply Chain Policy". In this context, the company pays attention to working with suppliers that manage environmental and social impacts and have existing sustainability practices that regard the rights of their employees and society.
[Add row]

(7.55.1) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	*8*	*`Numeric input*
To be implemented	*2*	*532000*
Implementation commenced	*1*	*30*
Implemented	*1*	*156103*
Not to be implemented	*0*	*`Numeric input*

[Fixed row]

(7.55.2) Provide details on the initiatives implemented in the reporting year in the table below.

Row 1

(7.55.2.1) Initiative category & Initiative type

Fugitive emissions reductions

☑ Carbon capture and storage/utilization (CCS/U)

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

156103

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

Select all that apply

☑ Scope 1

(7.55.2.4) Voluntary/Mandatory

Select from:

☑ Voluntary

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

3500000000

(7.55.2.7) Payback period

Select from:

☑ 4-10 years

(7.55.2.8) Estimated lifetime of the initiative

Select from:

☑ 1-2 years

(7.55.2.9) Comment

We are conducting studies on the capture and underground storage of emissions from geothermal sources within the framework of the project initiated in cooperation with international institutions and organizations under the EU Horizon 2020 program. The pilot carbon capture and storage plant was established at the Kızıldere III Geothermal Power Plant with studies on capture and storage were initiated. We expect the final report of the project to be published soon and we will be part of an important step to combat the climate crisis by reducing emissions from geothermal power plants in our country.
[Add row]

(7.55.3) What methods do you use to drive investment in emissions reduction activities?

Row 1

(7.55.3.1) Method

Select from:
☑ Internal price on carbon

(7.55.3.2) Comment

Internal carbon price is also determined by Sustainability Committee considering the emerging regulationary framework and actual carbon price in international emission trading systems.Under MRV reporting conducted by Zorlu since 2015, stationary combustion and process emissions of our facilities are reported to the ministerial authorities. With respect to the production capacity and emission levels, carbon intensity of each facility is determined and internal pricing is applied on lower performing facilities. Performance of the plants are followed by Environment and Sustainability Executive and reported to the Sustainability Committee.

Row 3

(7.55.3.1) Method

Select from:
☑ Compliance with regulatory requirements/standards

(7.55.3.2) Comment

The importance we give to the environment goes beyond legal requirements. As we continue our operations, we act on the basis of our Sustainability Strategy and Environmental Policy when it comes to efficient use of energy, management of greenhouse gas emissions, prevention of waste generation, protection of biodiversity and natural heritage.We had all the required legal inspections conducted at existing power plants and projects regarding their environmental impacts, and these audits identified no serious and material violation regarding the environment. All activities are carried out in accordance with the national regulations on the

environment, obligations arising from international conventions, and environmental awareness.Geothermal Village ProjectThe project aims to utilize the excess heat produced by the geothermal power plant to power the greenhouse, heating, electricity generation, thermal tourism, food drying, and aquaculture activities to be undertaken by the village which will be built next to the GPP, and the project development is underway.Horizon 2020 Program - GECO ProjectThe Horizon 2020 Program is the largest Research and Innovation Program in the European Union with 80 billion of funding available over seven years. The Program aims to take major discoveries, creative ideas, and inventions from the laboratory to the world markets to create a more sustainable world.Horizon 2020 Program - GeoSmart ProjectThe project aims to implement crosscountry field applications for the "Application of High-Performance Renewable Energy Technologies to Combined Heat and Power Plants" under the "Safe, Clean and Efficient Energy" heading of the Horizon 2020 Program, test new equipment and technologies, and transfer know-how and experience. The activities planned within the scope of the project include the storage of geothermal fluids in liquid and vapor phases at the Kızıldere Geothermal Power Plants of Zorlu Enerji and in the Balmatt field in Belgium and to study the impacts of CSP (Concentrated Solar Power) and biomass technologies that can be integrated into the geothermal power plants on plant performance. The project is planned to be included in the main project list and implemented in the event that the Commission allocates funds for the project.

Row 4

(7.55.3.1) Method

Select from:

☑ Dedicated budget for other emissions reduction activities

(7.55.3.2) Comment

Zorlu Energy has a budget to develop emission reduction units as an asset. It is the approval for the project that shows the magnitude of the emission reduction provided. We have received the "Gold Standard" certificate for our Gökçedağ Wind Energy Power Plant.Within the scope of Gokcedag WPP 6th Verification, 213,000 ton CO2 certification approval was received.

Row 5

(7.55.3.1) Method

Select from:

☑ Dedicated budget for low-carbon product R&D

(7.55.3.2) Comment

We invest in national, renewable, and clean energy to reduce Turkey's dependency on energy imports. We ensure sustainability and security in energy supply through our balanced portfolio. On the back of our innovation and R&D activities that shape the sector, we invest in the development and operation of smart systems.Charging Stations: This project aims to analyze the impact of the increasing number of electric vehicles and charging stations on the electricity transmission

network and minimize the impact of charging devices on the electrical grid as well as develop innovative and value-added applications that will help increase customer satisfaction.Electricity Storage: The project aims to integrate storage systems for different purposes and with different configurations and capacities to the distribution grid, ensure that these systems are operated in accordance with their objectives, and to compare the applications. Within the scope of this project, a proposal document will also be prepared to help draft new legislation.GECO Project:GECO (Geothermal Gas Emission Control) Project,aims to conduct international field applications, test new equipment and technologies, and enable the transfer of know-how and experience in order to reduce carbon dioxide (CO2) emissions from geothermal energy in line with the goals set forth in "Reducing the Costs of Electricity Generation from Renewable Energy Sources" in the Horizon 2020 program.The Horizon 2020 Program is the largest Research and Innovation Program in the European Union with 80 billion of funding available over seven years. The Program aims to make major discoveries, creative ideas and inventions from the laboratory to the world markets to create a more sustainable world. The GECO Project includes various institutions and organizations from countries including France, the United Kingdom, Italy, Iceland, and Germany. Zorlu Energy and Middle East Technical University are the only participants from Turkey.Under the project, initiated with the "Grant Agreement," a grant of approximately 15 million will be provided to Zorlu Energy in long term for use in R&D work in the area of sustainable generation of geothermal energy. Zorlu Energy will contribute to the GECO Project with its vast experience and R&D resources in the field of geothermal energy.
[Add row]

(7.74.1) Provide details of your products and/or services that you classify as low-carbon products.

Row 1

(7.74.1.1) Level of aggregation

Select from:
☑ Group of products or services

(7.74.1.2) Taxonomy used to classify product(s) or service(s) as low-carbon

Select from:
☑ Low-Carbon Investment (LCI) Registry Taxonomy

(7.74.1.3) Type of product(s) or service(s)

Power
☑ Onshore wind

(7.74.1.4) Description of product(s) or service(s)

Zorlu Energy is a leading Turkish energy company that is committed to providing clean and affordable energy. The company's 100% of electricity generation comes from renewable sources, including hydroelectric and wind power. Wind power is a low-carbon source of energy that produces no emissions, making it a sustainable choice for the future. In 2023, Zorlu Energy's 4 wind power plants generated 444,35 GWh of electricity, which helped to reduce the company's carbon footprint by a significant amount.

(7.74.1.5) Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Select from:

☑ Yes

(7.74.1.6) Methodology used to calculate avoided emissions

Select from:

☑ The Avoided Emissions Framework (AEF)

(7.74.1.7) Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Select from:

☑ Gate-to-gate

(7.74.1.8) Functional unit used

1 MWh electricity generation from windpower plants.

(7.74.1.9) Reference product/service or baseline scenario used

1 MWh electricity generation from mixed national grid

(7.74.1.10) Life cycle stage(s) covered for the reference product/service or baseline scenario

Select from:

☑ Gate-to-gate

(7.74.1.11) Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

192233

(7.74.1.12) Explain your calculation of avoided emissions, including any assumptions

Turkey's national grid is based on electricity generation from different sources. The combined margin emission factor of the grid is 0.447 tCO2/MWh. The generated electricity from the wind plant is multiplied by the emission factor.

(7.74.1.13) Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

3

Row 2

(7.74.1.1) Level of aggregation

Select from:

☑ Group of products or services

(7.74.1.2) Taxonomy used to classify product(s) or service(s) as low-carbon

Select from:

☑ Low-Carbon Investment (LCI) Registry Taxonomy

(7.74.1.3) Type of product(s) or service(s)

Power

☑ Hydropower

(7.74.1.4) Description of product(s) or service(s)

Zorlu Energy is a leading Turkish energy company that is committed to providing clean and affordable energy. The company's 100% of electricity generation comes from renewable sources, including hydroelectric and wind power. Hydroelectric power is a low-carbon source of energy that produces no emissions, making it a sustainable choice for the future. In 2023, Zorlu Energy's 7 hydroelectric power plants generated 330,312 MWh of electricity, which helped to reduce the company's carbon footprint by a significant amount.

(7.74.1.5) Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Select from:

☑ Yes

(7.74.1.6) Methodology used to calculate avoided emissions

Select from:

☑ The Avoided Emissions Framework (AEF)

(7.74.1.7) Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Select from:

☑ Gate-to-gate

(7.74.1.8) Functional unit used

1 MWh electricity generation from hydro power plants.

(7.74.1.9) Reference product/service or baseline scenario used

1 MWh electricity generation from mixed national grid

(7.74.1.10) Life cycle stage(s) covered for the reference product/service or baseline scenario

Select from:

☑ Gate-to-gate

(7.74.1.11) Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

145337

(7.74.1.12) Explain your calculation of avoided emissions, including any assumptions

Turkey's national grid is based on electricity generation from different sources. The combined margin emission factor of the grid is 0.44 tCO2/MWh. The generated electricity from the hydropower plant is multiplied by the emission factor.

(7.74.1.13) Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

2

Row 3

(7.74.1.1) Level of aggregation

Select from:

☑ Product or service

(7.74.1.2) Taxonomy used to classify product(s) or service(s) as low-carbon

Select from:

☑ Other, please specify **:**UNFCCC CDM Methodology ACM0002

(7.74.1.3) Type of product(s) or service(s)

Power

☑ Onshore wind

(7.74.1.4) Description of product(s) or service(s)

Zorlu Energy has wind power plants in its portfolio and emission reduction units have been developed as per UNFCCC CDM Methodologies. Producing electricity from renewable sources causes avoided emissions as per the baseline scenario which is conventional production in the Turkish national grid. Renewable energy sources basically low carbon products and avoided emissions have been verified by an accredited third party. Within the scope of Gokcedag WPP 6th Verification, 590,224 tone CO2 certification approval was received on 31.12.2021. The sale of the remaining 75,827 tCO2 credits is in progress. Within the scope of 7th Verification, 344,803 tCO2 approval process is targeted to be completed in April 2023, based on 2021-2022 production.

(7.74.1.5) Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Select from:

☑ Yes

(7.74.1.6) Methodology used to calculate avoided emissions

Select from:

☑ Other, please specify :UNFCCC CDM Methodology ACM0002

(7.74.1.7) Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Select from:

☑ Gate-to-gate

(7.74.1.8) Functional unit used

Electricity generation from renewable resources

(7.74.1.9) Reference product/service or baseline scenario used

In the absence of the project activity, the electricity would have been delivered to the grid through a mix of existing power generation resources mainly based on fossil fuel.

(7.74.1.10) Life cycle stage(s) covered for the reference product/service or baseline scenario

Select from:

☑ Gate-to-gate

(7.74.1.11) Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

237215

(7.74.1.12) Explain your calculation of avoided emissions, including any assumptions

The emission reduction has been calculated according to the ACM0002 Methodology which is approved by the UNFCCC. The baseline emissions (tCO2e) are the product of the baseline emission factor (tCO2e) times the net electricity supplied by the project activity to the grid (MWh). The baseline emission factor for the project

activity is determined ex-ante as a combined margin (CM) consisting of the combination of operating margin (OM) and build margin (BM) according the methodological “Tool to calculate the emission factor for an electricity system”.

(7.74.1.13) Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

0.12

Row 4

(7.74.1.1) Level of aggregation

Select from:

☑ Product or service

(7.74.1.2) Taxonomy used to classify product(s) or service(s) as low-carbon

Select from:

☑ Low-Carbon Investment (LCI) Registry Taxonomy

(7.74.1.3) Type of product(s) or service(s)

Systems integration

☑ Smart meter

(7.74.1.4) Description of product(s) or service(s)

Zorlu Enerji uses smart meter implementation in the OEDAŞ (electricity distribution business) scope. As part of the National Smart Meter Project (MASS), which has been implemented nationwide, smart meters are used for users on the distribution network with an annual consumption of 10 MWh or more. In 2023 and 2024, the usage rate of smart meters is 65%, and for customers using smart meters, remote meter readings and automatic billing is implemented.

(7.74.1.5) Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Select from:

☑ No

(7.74.1.13) Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

25
[Add row]

(7.79.1) Provide details of the project-based carbon credits canceled by your organization in the reporting year.

Row 1

(7.79.1.1) Project type

Select from:
☑ Wind
[Add row]

C9. Environmental performance - Water security

(9.1.1) Provide details on these exclusions.

Row 1

(9.1.1.1) Exclusion

Select from:

☑ Other, please specify

(9.1.1.2) Description of exclusion

Negligible data.

(9.1.1.3) Reason for exclusion

Select from:

☑ Shared premises

(9.1.1.7) Percentage of water volume the exclusion represents

Select from:

☑ Less than 1%

(9.1.1.8) Please explain

Zorlu Enerji has only 2 employees operating in a small office in a 5 block facility which the Company does not have any access to water consumption data. As it constitutes a considerably small fraction of the overall water accounting data and therefore considered as “not material”, we have not yet taken any measures to include this facility in our water accounting.
[Add row]

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

Water withdrawals – total volumes

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Monthly

(9.2.3) Method of measurement

Performance is monitored by Zorlu Energy. In order to track our performance, we monitor all water-related data including the total volume of water withdrawals at our power plants as well as in our Istanbul Headquarters.

(9.2.4) Please explain

Zorlu Holding launched Smart-Life 2030 transformation plan. Under the umbrella of Zorlu Holding, Zorlu Energy is also responsible for its targets and less natural resource consumption is defined as a target. Performance is monitored by Zorlu Energy. In order to track our performance, we monitor all water-related data including the total volume of water withdrawals at our power plants as well as in our Istanbul Headquarters.

Water withdrawals – volumes by source

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Monthly

(9.2.3) Method of measurement

100% of water withdrawal is measured and monitored monthly.

(9.2.4) Please explain

With the vision of Smart Life 2030, Zorlu Holding is in the process of setting water targets in terms of less and more efficient use of natural resources, for all its group companies including Zorlu Energy. In order to track our performance, we monitor all water-related data including the total volume of water withdrawals by the source at our power plants as well as in our Istanbul Headquarters. In Alaşehir Plant, both well and municipal waters are used. In Kızıldere Plants water is supplied from wells and surface water. 100% of water withdrawal is measured also in hydropower plants.

Water withdrawals quality

(9.2.1) % of sites/facilities/operations

Select from:

☑ 76-99

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

All withdrawal water is analyzed before using it to ensure that quality parameters are met the limit figure.

(9.2.4) Please explain

In Alaşehir Plant, both well and municipal waters are used. In Kızıldere Plants water is supplied from wells and surface water. All withdrawal water is analyzed before using it to ensure that quality parameters are met the limit figure.

Water discharges – total volumes

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Monthly

(9.2.3) Method of measurement

Alaşehir and Kızıldere plant's treated wastewater is discharged into the surface water (river) in line with the Discharge Permission Certificate.

(9.2.4) Please explain

With the vision of Smart Life 2030, Zorlu Holding is in the process of setting water targets in terms of less and more efficient use of natural resources, for all its group companies including Zorlu Energy. In order to track our performance, we monitor all water-related data including the total volume of water discharges in each location we operate. Alaşehir and Kızıldere plant's treated wastewater is discharged into the surface water (river) in line with the Discharge Permission Certificate.

Water discharges – volumes by destination

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

Alaşehir and Kızıldere plant's treated wastewater is discharged into the surface water (river) in line with the Discharge Permission Certificate. All discharged destinations are known and followed.

(9.2.4) Please explain

Zorlu Holding launched Smart-Life 2030 transformation plan. Under the umbrella of Zorlu Holding, Zorlu Energy is also responsible for its targets and less natural resource consumption is defined as a target. Performance is monitored by Zorlu Energy. In order to track our performance, we monitor all water-related data including water discharges by destination in each location we operate. Alaşehir and Kızıldere plant's treated wastewater is discharged into the surface water (river) in line with the Discharge Permission Certificate. All discharged destinations are known and followed.

Water discharges – volumes by treatment method

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Monthly

(9.2.3) Method of measurement

All treated wastewater is analyzed monthly by an accredited laboratory to comply with the Turkish Water Pollution Control Regulation.

(9.2.4) Please explain

Zorlu Holding launched Smart-Life 2030 transformation plan. Under the umbrella of Zorlu Holding, Zorlu Energy is also responsible for its targets and less natural resource consumption is defined as a target. Performance is monitored by Zorlu Energy. In order to track our performance, we monitor all water-related data including the total volume of water discharge volumes by treatment method at our power plants as well as in our Istanbul Headquarters. All treated wastewater is analyzed periodically by an accredited laboratory to comply with the Turkish Water Pollution Control Regulation. BOD, COD, TSS, and pH parameters are analyzed periodically.

Water discharge quality – by standard effluent parameters

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Monthly

(9.2.3) Method of measurement

BOD, COD, TSS, and pH parameters are analyzed monthly.

(9.2.4) Please explain

Zorlu Holding launched Smart-Life 2030 transformation plan. Under the umbrella of Zorlu Holding, Zorlu Energy is also responsible for its targets and less natural resource consumption is defined as a target. Performance is monitored by Zorlu Energy. In order to track our performance, we monitor all water-related data, especially in our Geothermal Energy Power Plants (GEPP) where we have the regulatory obligation to report the standard effluent parameters. All treated wastewater is analyzed periodically by an accredited laboratory to comply with the Turkish Water Pollution Control Regulation. BOD, COD, TSS, and pH parameters are analyzed periodically.

Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances)

(9.2.1) % of sites/facilities/operations

Select from:

☑ Not relevant

(9.2.4) Please explain

The discharged water is domestic wastewater. Therefore, it does not have a pesticides or related pollution impact. It does not have to monitor by regulation.

Water discharge quality – temperature

(9.2.1) % of sites/facilities/operations

Select from:

☑ Not relevant

(9.2.4) Please explain

The discharged water is domestic wastewater. Therefore, it does not have a thermal pollution impact, and discharged water does not change the temperature of the discharged area.

Water consumption – total volume

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Monthly

(9.2.3) Method of measurement

We monitor all water-related data including the total volume of water consumption in each location we operate, bimonthly.

(9.2.4) Please explain

Zorlu Holding launched Smart-Life 2030 transformation plan. Under the umbrella of Zorlu Holding, Zorlu Energy is also responsible for its targets and less natural resource consumption is defined as a target. Performance is monitored by Zorlu Energy. In order to track our performance, we monitor all water-related data including the total volume of water consumption in each location we operate.

Water recycled/reused

(9.2.1) % of sites/facilities/operations

Select from:

☑ 76-99

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

All reinjected amount is monitored continuously.

(9.2.4) Please explain

In Lüleburgaz natural gas power plants, recycled water is used. Lüleburgaz facility uses well water and recycled water. The water obtained from Zorlu Textiles' (the sister company) wastewater treatment plant is purified and the resulting clean water is used in the operations. In our geothermal power plants, the geothermal fluid is reinjected into the reservoir. All reinjected amount is monitored continuously. Geothermal reinjection involves returning some, or even all, of the water produced from a geothermal reservoir back into the geothermal system, after energy has been extracted from the water. Geothermal reinjection, which involves injecting energy-depleted fluid back into geothermal systems, is a sustainable, and environmentally friendly geothermal utilization project.

The provision of fully-functioning, safely managed WASH services to all workers

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

In order to track our performance, we monitor all water-related data and make sure we provide fully functioning WASH services to all Zorlu Enerji employees.

(9.2.4) Please explain

Zorlu Holding launched Smart-Life 2030 transformation plan. Under the umbrella of Zorlu Holding, Zorlu Energy is also responsible for its targets and less natural resource consumption is defined as a target. Performance is monitored by Zorlu Energy. In order to track our performance, we monitor all water-related data and make sure we provide fully functioning WASH services to all Zorlu Enerji employees.
[Fixed row]

(9.2.1) For your hydropower operations, what proportion of the following water aspects are regularly measured and monitored?

Fulfilment of downstream environmental flows

(9.2.1.1) % of sites/facilities/operations measured and monitored

Select from:
☑ 76 - 99%

(9.2.1.2) Please explain

To preserve the downstream natural habitat, we have released water at a sufficient flow into the river. Since there are no irrigation areas between the diversion weir and the power plants, a continuous water flow for the natural ecosystem is ensured. Our İkizdere HEPP site is located at the border of the Ikizdere district, an area rich in species diversity and biodiversity significance. As part of our flora and fauna studies at İkizdere HPP, we conducted year-long fieldwork during the growing season to identify rare and threatened species on global, European, and local scales. Mercan HEPP is situated in Munzur Valley National Park, a region known for its natural resources such as rivers, springs, unique wildlife, and endemic plant species. No negative impacts on biodiversity have been identified at our power plants, which operate as channel-type HEPPs. Additionally, no invasive species, insects, or pathogens were detected. Our methods for identifying endangered and rare species, based on IUCN endangered levels, CITES, Bern, and other international and local regulations, include the proper collection of plant samples, transforming them into herbarium specimens, and documenting them with digital cameras for identification. At Zorlu Enerji, we prioritize preserving Turkey's natural and cultural heritage for future generations. To this end, we have begun monitoring the living species in our power plant locations. Since the start of our operations, we have tracked changes in the populations of valuable and threatened species in the region, especially the red-spotted trout in facilities without fish passages. We have determined that it is possible to reverse these changes by implementing fish migration practices, along with online sap water monitoring systems and biological monitoring systems. We are currently planning the implementation of these measures.

Sediment loading

(9.2.1.1) % of sites/facilities/operations measured and monitored

Select from:

☑ 100%

(9.2.1.2) Please explain

Necessary precautions including minimum flow, sediment, and fish passage have been included in all of our HEPPs. The weir does not affect the spawning habitat for fish. Through the scouring sluice just by the weir spillway, any sediments accumulating before the weir will be released to downstream. Our run-off river types HEPPs include a sediment passage and involve the accumulation of sediment. There is no significant accumulation is expected at our dam type HEPPs, as there exist a sediment passage in the weir design and all sediments are trapped.

Other, please specify

(9.2.1.1) % of sites/facilities/operations measured and monitored

Select from:

☑ Not monitored

(9.2.1.2) Please explain

There are no other water aspects.
[Fixed row]

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

Total withdrawals

(9.2.2.1) Volume (megaliters/year)

2234327.14

(9.2.2.2) Comparison with previous reporting year

Select from:

☑ Higher

(9.2.2.3) Primary reason for comparison with previous reporting year

Select from:
☑ Increase/decrease in business activity

(9.2.2.4) Five-year forecast

Select from:
☑ Lower

(9.2.2.5) Primary reason for forecast

Select from:
☑ Increase/decrease in efficiency

(9.2.2.6) Please explain

The total withdrawn water amount increased by 16.79 % compared to the previous year. In this report, our threshold for "higher" and "lower" is between 4% and %19.

Total discharges

(9.2.2.1) Volume (megaliters/year)

2115396.32

(9.2.2.2) Comparison with previous reporting year

Select from:
☑ Higher

(9.2.2.3) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.2.4) Five-year forecast

Select from:
☑ Lower

(9.2.2.5) Primary reason for forecast

Select from:
☑ Increase/decrease in efficiency

(9.2.2.6) Please explain

The total discharged water amount increased by 13.08% compared to the previous year. In this report, our threshold for "higher" and "lower" is between 4% and %19.

Total consumption

(9.2.2.1) Volume (megaliters/year)

119012.92

(9.2.2.2) Comparison with previous reporting year

Select from:
☑ Higher

(9.2.2.3) Primary reason for comparison with previous reporting year

Select from:
☑ Increase/decrease in business activity

(9.2.2.4) Five-year forecast

Select from:

☑ Lower

(9.2.2.5) Primary reason for forecast

Select from:

☑ Increase/decrease in efficiency

(9.2.2.6) Please explain

The total consumption of water amount is increased by 16% compared to the previous year. In this report, our threshold for "about the same" is between 0% and %4. [Fixed row]

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

(9.2.4.1) Withdrawals are from areas with water stress

Select from:

☑ Yes

(9.2.4.2) Volume withdrawn from areas with water stress (megaliters)

1156458

(9.2.4.3) Comparison with previous reporting year

Select from:

☑ Lower

(9.2.4.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.4.5) Five-year forecast

Select from:

☑ Lower

(9.2.4.6) Primary reason for forecast

Select from:

☑ Increase/decrease in efficiency

(9.2.4.7) % of total withdrawals that are withdrawn from areas with water stress

51.76

(9.2.4.8) Identification tool

Select all that apply

☑ WRI Aqueduct

(9.2.4.9) Please explain

We have production sites on 11 different basins: Aras Basin, Büyük Menderes Basin, Ceyhan Basin, Çoruh Basin, Fırat Basin, Gediz Basin, Indus Basin, Marmara Basin, Meriç-Ergene Basin, Sakarya Basin, and Yeşilırmak Basin. The share of withdrawal water from basins and their risks are as follows: 70% from the Çoruh Basin Low-Medium Risk (10-20%) 26% from the Sakarya Basin Medium-High Risk (20-40%) 3% from the Büyük Menderes Basin Extremely High Risk (80%) 1% from Marmara Basin Extremely High Risk (80%) The withdrawal water from Ceyhan, Indus, Meriç-Ergene, Gediz, Aras, and Fırat Basin is negligible. We define water stress by applying the WRI Aqueduct tool. The coordinates of each production site are entered into the tool and water stress is analyzed through the WRI Aqueduct Water Risk Atlas. The risk is defined as Low-Medium (10-20%) and Medium-High (20-40%) fort he 96% of withdrawal water which shows that our operations are located in medium water-stressed areas.
[Fixed row]

(9.2.7) Provide total water withdrawal data by source.

Fresh surface water, including rainwater, water from wetlands, rivers, and lakes

(9.2.7.1) Relevance

Select from:

☑ Relevant

(9.2.7.2) Volume (megaliters/year)

2138756.77

(9.2.7.3) Comparison with previous reporting year

Select from:

☑ Higher

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.7.5) Please explain

The water withdrawn from surface water amount is increased by 13.91% compared to the previous year. In this report, our threshold for "higher" and "lower" is between 4% and %19.

Brackish surface water/Seawater

(9.2.7.1) Relevance

Select from:

☑ Relevant

(9.2.7.2) Volume (megaliters/year)

3

(9.2.7.3) Comparison with previous reporting year

Select from:

☑ This is our first year of measurement

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☑ Other, please specify **:**This is our first year of measurement on the certain withdrawal.

(9.2.7.5) Please explain

Seawater has withdrawn this year.

Groundwater – renewable

(9.2.7.1) Relevance

Select from:

☑ Relevant

(9.2.7.2) Volume (megaliters/year)

95136.04

(9.2.7.3) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.7.5) Please explain

For the geothermal power plants, we use underground water. In our geothermal power plants, the geothermal fluid is re-injected to the reservoir. The water withdrawn from groundwater (renewable) amount is decreased by 0.14% compared to the previous year. In this report, our threshold for "higher" and "lower" is between 4% and %19.

Groundwater – non-renewable

(9.2.7.1) Relevance

Select from:

☑ Relevant

(9.2.7.2) Volume (megaliters/year)

395.26

(9.2.7.3) Comparison with previous reporting year

Select from:

☑ Higher

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.7.5) Please explain

Total withdrawn water from wells is increased by 13.48% compared to the previous year. In this report, our threshold for " much higher" and " much lower" is 20% and above.

Produced/Entrained water

(9.2.7.1) Relevance

Select from:

☑ Not relevant

(9.2.7.5) Please explain

Produced water is not used.

Third party sources

(9.2.7.1) Relevance

Select from:

☑ Relevant

(9.2.7.2) Volume (megaliters/year)

35.96

(9.2.7.3) Comparison with previous reporting year

Select from:

☑ Much higher

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.7.5) Please explain

Municipality water withdrawn is increased by 356% comparing to the previous year. In this report, our threshold for "much higher" and "much lower" is 20%. [Fixed row]

(9.2.8) Provide total water discharge data by destination.

Fresh surface water

(9.2.8.1) Relevance

Select from:

☑ Relevant

(9.2.8.2) Volume (megaliters/year)

2031826.13

(9.2.8.3) Comparison with previous reporting year

Select from:

☑ Higher

(9.2.8.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.8.5) Please explain

In the reporting year, the water discharged to the fresh surface water has increased by 13.91% compared to the previous year. This figure shows the water amount used by our hydropower plant and released to the river again after flowing through the turbines. In this report, our threshold for "higher" and "lower" is between 4% and %19.

Brackish surface water/seawater

(9.2.8.1) Relevance

Select from:

☑ Not relevant

(9.2.8.5) Please explain

Our wastewater is not discharged to brackish surface water or seawater.

Groundwater

(9.2.8.1) Relevance

Select from:
☑ Relevant

(9.2.8.2) Volume (megaliters/year)

83376.76

(9.2.8.3) Comparison with previous reporting year

Select from:
☑ About the same

(9.2.8.4) Primary reason for comparison with previous reporting year

Select from:
☑ Increase/decrease in business activity

(9.2.8.5) Please explain

The total discharged water amount decreased by 3.97% compared to the previous year. In this report, our threshold for "about the same" is between 0% and 4%.

Third-party destinations

(9.2.8.1) Relevance

Select from:
☑ Relevant

(9.2.8.2) Volume (megaliters/year)

193.42

(9.2.8.3) Comparison with previous reporting year

Select from:

☑ Much higher

(9.2.8.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.8.5) Please explain

The total consumption of water amount is increased by 26.76% compared to the previous year.In this report, our threshold for "higher" and "lower" is between 4% and %19.
[Fixed row]

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

Tertiary treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☑ Not relevant

(9.2.9.6) Please explain

We don't have any tertiary treatment facility.

Secondary treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☑ Relevant

(9.2.9.2) Volume (megaliters/year)

3.87

(9.2.9.3) Comparison of treated volume with previous reporting year

Select from:

☑ About the same

(9.2.9.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in efficiency

(9.2.9.5) % of your sites/facilities/operations this volume applies to

Select from:

☑ Less than 1%

(9.2.9.6) Please explain

Alaşehir and Kızıldere plants wastewater is discharged into the surface water (river) after being treated biologically in line with the Discharge Permission Certificate. The figure is decreased by 3.25% compared to the previous year. In this report, our threshold for "about the same" is between 0% and 4%.

Primary treatment only

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☑ Not relevant

(9.2.9.6) Please explain

We don't have any primary treatment facility.

Discharge to the natural environment without treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☑ Relevant

(9.2.9.2) Volume (megaliters/year)

2031826.13

(9.2.9.3) Comparison of treated volume with previous reporting year

Select from:

☑ Higher

(9.2.9.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.9.5) % of your sites/facilities/operations this volume applies to

Select from:

☑ 91-99

(9.2.9.6) Please explain

This figure shows the water amount used by our hydropower plant and released to the river again after flowed through the turbines. The figure is increased 13.9% compared to the previous year. In this report, our threshold for "higher" and "lower" is between 4% and 19%.

Discharge to a third party without treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☑ Relevant

(9.2.9.2) Volume (megaliters/year)

193.42

(9.2.9.3) Comparison of treated volume with previous reporting year

Select from:

☑ Much higher

(9.2.9.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.9.5) % of your sites/facilities/operations this volume applies to

Select from:

☑ Less than 1%

(9.2.9.6) Please explain

Wastewater is transferred to the municipal wastewater treatment plant through the sewerage system. The total amount of discharged water to the municipality wastewater treatment plant is increased by 25.61% compared to the previous year. In this report, our threshold for "much higher" is 20%.

Other

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☑ Relevant

(9.2.9.2) Volume (megaliters/year)

83376.76

(9.2.9.3) Comparison of treated volume with previous reporting year

Select from:

☑ Lower

(9.2.9.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.9.5) % of your sites/facilities/operations this volume applies to

Select from:

☑ 1-10

(9.2.9.6) Please explain

The water amount discharged to the groundwater is increased by 13% compared to the previous year. This figure represents the amount of re-injected water. In this report, our threshold for "higher" and "lower" is between 4% and %19.
[Fixed row]

(9.3) In your direct operations and upstream value chain, what is the number of facilities where you have identified substantive water-related dependencies, impacts, risks, and opportunities?

Direct operations

(9.3.1) Identification of facilities in the value chain stage

Select from:

☑ Yes, we have assessed this value chain stage and identified facilities with water-related dependencies, impacts, risks, and opportunities

(9.3.2) Total number of facilities identified

14

(9.3.3) % of facilities in direct operations that this represents

Select from:
☑ 76-99

(9.3.4) Please explain

Both our geothermal and hydro power plants generate electricity from water via different technologies.

Upstream value chain

(9.3.1) Identification of facilities in the value chain stage

Select from:
☑ No, we have assessed this value chain stage but did not identify any facilities with water-related dependencies, impacts, risks, and opportunities

(9.3.4) Please explain

-
[Fixed row]

(9.3.1) For each facility referenced in 9.3, provide coordinates, water accounting data, and a comparison with the previous reporting year.

Row 1

(9.3.1.1) Facility reference number

Select from:
☑ Facility 1

(9.3.1.2) Facility name (optional)

Bursa Natural Gas Power Plant

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Turkey

☑ Other, please specify **:**Marmara Basin

(9.3.1.8) Latitude

40.245104

(9.3.1.9) Longitude

28.955018

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☑ Gas

(9.3.1.13) Total water withdrawals at this facility (megaliters)

1.82

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ Much higher

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

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

1.82

(9.3.1.21) Total water discharges at this facility (megaliters)

0.21

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ Much higher

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0.21

(9.3.1.27) Total water consumption at this facility (megaliters)

1.6

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ Much higher

(9.3.1.29) Please explain

Bursa facility is in a transition process to a renewable energy plant. Thus there were no significant water consumption in this facility in the reporting year.Also, data quality has increased compared to the previous year, thus consumption is considered as much higher.

Row 3

(9.3.1.1) Facility reference number

Select from:

☑ Facility 2

(9.3.1.2) Facility name (optional)

Lüleburgaz Natural Gas Power Plant

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Turkey

☑ Other, please specify **:**Marmara Basin

(9.3.1.8) Latitude

41.4

(9.3.1.9) Longitude

27.35

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☑ Gas

(9.3.1.13) Total water withdrawals at this facility (megaliters)

394.54

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ Higher

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

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

394.54

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

168.27

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ Higher

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

168.27

(9.3.1.27) Total water consumption at this facility (megaliters)

226.27

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ Higher

(9.3.1.29) Please explain

Lüleburgaz facility uses well water and recycled water. The water obtained from Zorlu Textiles' (the sister company located in the same area) wastewater treatment plant is purified in Lüleburgaz Natural Gas Plant and the resulting clean water is used in the operations. Wastewater is transferred back to Zorluteks' wastewater treatment plant. Domestic wastewater is connected to the sewage system and discharged to the municipality treatment plant. In Lüleburgaz Natural Gas Power Plant, the wastewater is reused which is supplied from Zorlu Textile's wastewater treatment plant. Water consumption increased by 9.87% compared to the previous year. Our water consumption figure is a calculation using withdrawals minus discharges.

Row 4

(9.3.1.1) Facility reference number

Select from:

☑ Facility 3

(9.3.1.2) Facility name (optional)

Gökçedağ Wind Power Plant

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Turkey

☑ Other, please specify **:**Meriç - Ergene Basin

(9.3.1.8) Latitude

37.074627

(9.3.1.9) Longitude

36.246399

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☑ Wind

(9.3.1.13) Total water withdrawals at this facility (megaliters)

0.72

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ Higher

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

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0.72

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

0

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ Much lower

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

0.72

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ Much higher

(9.3.1.29) Please explain

There is no water needed for wind power electricity generation. Therefore, the given figures are for domestic water. Water is withdrawn from the water well. Domestic wastewater is collected at the cesspool in line with the discharge permit license and transferred by the sewage truck to the municipality treatment plant. Water consumption decreased by 82.28% compared to the previous year. Also data quality has increased compare to the previous year.

Row 5

(9.3.1.1) Facility reference number

Select from:

☑ Facility 6

(9.3.1.2) Facility name (optional)

Pakistani Wind Power Plant

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts
☑ Risks
☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:
☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan
☑ Indus

(9.3.1.8) Latitude

25.043613

(9.3.1.9) Longitude

67.999049

(9.3.1.10) Located in area with water stress

Select from:
☑ No

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:
☑ Wind

(9.3.1.13) Total water withdrawals at this facility (megaliters)

5.84

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ Much higher

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

1.37

(9.3.1.16) Withdrawals from brackish surface water/seawater

3

(9.3.1.17) Withdrawals from groundwater - renewable

1.4

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0.07

(9.3.1.21) Total water discharges at this facility (megaliters)

3.86

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ Much higher

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

2.2

(9.3.1.26) Discharges to third party destinations

1.66

(9.3.1.27) Total water consumption at this facility (megaliters)

1.98

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ Much higher

(9.3.1.29) Please explain

There is no water needed for wind power electricity generation. Therefore, the given figures are for domestic water. Water is withdrawn from the water well. Domestic wastewater is collected at the cesspool in line with the discharge permit license and transferred by the sewage truck to the municipality treatment plant. Water consumption and data quality has increased compared to the previous year. Our water consumption figure is a calculation using withdrawals minus discharges.

Row 6

(9.3.1.1) Facility reference number

Select from:

☑ Facility 7

(9.3.1.2) Facility name (optional)

Alaşehir Geothermal Power Plant

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Turkey

☑ Other, please specify **:**Gediz Basin

(9.3.1.8) Latitude

38.233

(9.3.1.9) Longitude

28.261

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☑ Geothermal

(9.3.1.13) Total water withdrawals at this facility (megaliters)

21635.91

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ About the same

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

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

21631.83

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

4.08

(9.3.1.21) Total water discharges at this facility (megaliters)

18822.34

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ About the same

(9.3.1.23) Discharges to fresh surface water

3.87

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

18818.47

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

2813.57

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ About the same

(9.3.1.29) Please explain

In our geothermal power plants, the geothermal fluid is reinjected into the reservoir. Geothermal reinjection involves returning some, or even all, of the water produced from a geothermal reservoir back into the geothermal system after energy has been extracted from the water. Thus, the reinjection of geothermal fluid is renewable groundwater. Domestic wastewater is discharged into the river. Water consumption decreased by 1.2% compared to the previous year, which is considered about the same. Our water consumption figure is a calculation using withdrawals minus discharges.

Row 7

(9.3.1.1) Facility reference number

Select from:

☑ Facility 8

(9.3.1.2) Facility name (optional)

Kızıldere I-II-III Geothermal Power Plant

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies
☑ Impacts
☑ Risks
☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:
☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Turkey
☑ Other, please specify **:**Büyük Menderes Basin

(9.3.1.8) Latitude

37.956213

(9.3.1.9) Longitude

28.842528

(9.3.1.10) Located in area with water stress

Select from:
☑ Yes

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:
☑ Geothermal

(9.3.1.13) Total water withdrawals at this facility (megaliters)

73585.03

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ About the same

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

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

73585.03

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

82.22

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

64556.08

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ Lower

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

64556.08

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

9028.95

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ Much higher

(9.3.1.29) Please explain

In our geothermal power plants, the geothermal fluid is reinjected into the reservoir. Geothermal reinjection involves returning some, or even all, of the water produced from a geothermal reservoir back into the geothermal system after energy has been extracted from the water. Thus, the reinjection of geothermal fluid is renewable groundwater. Domestic wastewater is discharged into the DSI channel in line with the Discharge Permission Certificate Water consumption is decreased by 59.70% which is much higher than the previous year. Our water consumption figure is a calculation using withdrawals minus discharges.

Row 8

(9.3.1.1) Facility reference number

Select from:

☑ Facility 9

(9.3.1.2) Facility name (optional)

Ataköy Hydro Power Plant

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Turkey

☑ Other, please specify **:**Yeşilırmak River Basin

(9.3.1.8) Latitude

40.424004

(9.3.1.9) Longitude

36.884118

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☑ Hydropower

(9.3.1.13) Total water withdrawals at this facility (megaliters)

197999.4

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ Higher

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

197999.4

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

188099.43

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ Higher

(9.3.1.23) Discharges to fresh surface water

188099.43

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

9899.97

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ Higher

(9.3.1.29) Please explain

The water is withdrawn from the reservoir surface and used for electricity generation. Water consumption increased by 4.21% compared to the previous year. Our water consumption figure is a calculation using withdrawals minus discharges.

Row 9

(9.3.1.1) Facility reference number

Select from:

☑ Facility 10

(9.3.1.2) Facility name (optional)

Beyköy Hydro Power Plant

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Turkey

☑ Sakarya

(9.3.1.8) Latitude

40.073156

(9.3.1.9) Longitude

30.755448

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☑ Hydropower

(9.3.1.13) Total water withdrawals at this facility (megaliters)

862812.36

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ Higher

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

862812.36

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

819671.74

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ Higher

(9.3.1.23) Discharges to fresh surface water

819671.74

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

43140.62

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:
☑ Higher

(9.3.1.29) Please explain

Beyköy is a channel-type hydroelectric power plant. Withdrawn water is discharged into the same river after being used for electricity generation. The discharge amount includes domestic-purpose water use. Water consumption increased by 18.62% which is higher compared to the previous year. Our water consumption figure is a calculation using withdrawals minus discharges.

Row 10

(9.3.1.1) Facility reference number

Select from:

☑ Facility 11

(9.3.1.2) Facility name (optional)

Çıldır Hydro Power Plant

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Turkey

☑ Kura - Ozero Sevan

(9.3.1.8) Latitude

40.900774

(9.3.1.9) Longitude

43.328855

(9.3.1.10) Located in area with water stress

Select from:

☑ No

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☑ Hydropower

(9.3.1.13) Total water withdrawals at this facility (megaliters)

48351.58

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ Higher

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

48351.58

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

45934

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ Much lower

(9.3.1.23) Discharges to fresh surface water

45934

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

2417.58

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ Much lower

(9.3.1.29) Please explain

The water is withdrawn from the reservoir surface and used for electricity generation. Water consumption decreased by 70.33% which is much lower compared to the previous year,. Our water consumption figure is a calculation using withdrawals minus discharges.

Row 11

(9.3.1.1) Facility reference number

Select from:

☑ Facility 12

(9.3.1.2) Facility name (optional)

İkizdere Hydro Power Plant

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Turkey

☑ Other, please specify :İkizdere River Basin

(9.3.1.8) Latitude

40.795463

(9.3.1.9) Longitude

40.551031

(9.3.1.10) Located in area with water stress

Select from:

☑ No

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☑ Hydropower

(9.3.1.13) Total water withdrawals at this facility (megaliters)

314011.39

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ Higher

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

314011.39

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

298310.82

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ Higher

(9.3.1.23) Discharges to fresh surface water

298310.82

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

15700.57

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:
☑ Higher

(9.3.1.29) Please explain

İkizdere is a channel-type hydroelectric power plant. Withdrawn water is released into the same river after being used for electricity generation. The discharge amount includes domestic-purpose water use. Water consumption increased by 19.36% compared to the previous year. Our water consumption figure is a calculation using withdrawals minus discharges.

Row 12

(9.3.1.1) Facility reference number

Select from:

☑ Facility 13

(9.3.1.2) Facility name (optional)

Kuzgun Hydro Power Plant

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan

☑ Other, please specify **:**Yeşilırmak Basin

(9.3.1.8) Latitude

40.183631

(9.3.1.9) Longitude

41.063687

(9.3.1.10) Located in area with water stress

Select from:

☑ No

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☑ Hydropower

(9.3.1.13) Total water withdrawals at this facility (megaliters)

101934.56

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ About the same

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

101934.56

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

96837.83

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ About the same

(9.3.1.23) Discharges to fresh surface water

96837.83

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

5096.73

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ About the same

(9.3.1.29) Please explain

The water is withdrawn from the reservoir surface and used for electricity generation. Water consumption decreased by 2.28% which is about the same compared to the previous year. Our water consumption figure is a calculation using withdrawals minus discharges.

Row 13

(9.3.1.1) Facility reference number

Select from:

☑ Facility 14

(9.3.1.2) Facility name (optional)

Mercan Hydro Power Plant

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Turkey

☑ Sakarya

(9.3.1.8) Latitude

39.413794

(9.3.1.9) Longitude

39.30221

(9.3.1.10) Located in area with water stress

Select from:

☑ No

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☑ Hydropower

(9.3.1.13) Total water withdrawals at this facility (megaliters)

190026.21

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ Much higher

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

190026.21

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

180524.89

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ Much higher

(9.3.1.23) Discharges to fresh surface water

180524.89

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

9501.31

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:
☑ Much higher

(9.3.1.29) Please explain

Mercan is a channel-type hydroelectric power plant. Withdrawn water is released into the same river after being used for electricity generation. The discharge amount includes domestic-purpose water use. Water consumption increased by 45.88 % which is much higher compared to the previous year. Our water consumption figure is a calculation using withdrawals minus discharges.

Row 14

(9.3.1.1) Facility reference number

Select from:

☑ Facility 15

(9.3.1.2) Facility name (optional)

Tercan Hydro Power Plant

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan

☑ Other, please specify **:**Marmara Basin

(9.3.1.8) Latitude

39.755985

(9.3.1.9) Longitude

40.40183

(9.3.1.10) Located in area with water stress

Select from:

☑ No

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☑ Hydropower

(9.3.1.13) Total water withdrawals at this facility (megaliters)

423619.91

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ Much higher

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

423619.91

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

402438.91

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ Much higher

(9.3.1.23) Discharges to fresh surface water

402438.91

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

21181

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ Much higher

(9.3.1.29) Please explain

The water is withdrawn from the reservoir surface and used for electricity generation. Water consumption is increased by 41.44% which is much higher compared to the previous year. Our water consumption figure is a calculation using withdrawals minus discharges.

Row 15

(9.3.1.1) Facility reference number

Select from:

☑ Facility 16

(9.3.1.2) Facility name (optional)

İstanbul Headquarters

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan

☑ Other, please specify **:**Aras Basin

(9.3.1.8) Latitude

40.993661

(9.3.1.9) Longitude

28.699289

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☑ Not applicable

(9.3.1.13) Total water withdrawals at this facility (megaliters)

1.49

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ About the same

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

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

1.49

(9.3.1.21) Total water discharges at this facility (megaliters)

1.41

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ Much lower

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

1.41

(9.3.1.27) Total water consumption at this facility (megaliters)

0.07

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:
☑ Much lower

(9.3.1.29) Please explain

Our water consumption figure is a calculation using withdrawals minus discharges.

Row 16

(9.3.1.1) Facility reference number

Select from:

☑ Facility 17

(9.3.1.2) Facility name (optional)

OEPSAŞ

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan

☑ Other, please specify **:**Fırat Basin

(9.3.1.8) Latitude

39.775254

(9.3.1.9) Longitude

30.515913

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☑ Not applicable

(9.3.1.13) Total water withdrawals at this facility (megaliters)

1.55

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ About the same

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

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

1.55

(9.3.1.21) Total water discharges at this facility (megaliters)

1.47

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ Much higher

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

1.47

(9.3.1.27) Total water consumption at this facility (megaliters)

0.08

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ Much higher

(9.3.1.29) Please explain

Our water consumption figure is a calculation using withdrawals minus discharges.

Row 17

(9.3.1.1) Facility reference number

Select from:

☑ Facility 18

(9.3.1.2) Facility name (optional)

OEDAŞ

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan

☑ Other, please specify

(9.3.1.8) Latitude

39.775254

(9.3.1.9) Longitude

30.515913

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☑ Not applicable

(9.3.1.13) Total water withdrawals at this facility (megaliters)

16.8

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ This is our first year of measurement

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

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

16.8

(9.3.1.21) Total water discharges at this facility (megaliters)

15.98

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ This is our first year of measurement

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

15.98

(9.3.1.27) Total water consumption at this facility (megaliters)

0.8

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:
☑ This is our first year of measurement

(9.3.1.29) Please explain

Our water consumption figure is a calculation using withdrawals minus discharges.

Row 18

(9.3.1.1) Facility reference number

Select from:
☑ Facility 19

(9.3.1.2) Facility name (optional)

GAZDAŞ

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan

☑ Other, please specify

(9.3.1.8) Latitude

41.401006

(9.3.1.9) Longitude

27.355003

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.11) Primary power generation source for your electricity generation at this facility

Select from:

☑ Not applicable

(9.3.1.13) Total water withdrawals at this facility (megaliters)

4.6

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ This is our first year of measurement

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

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

4.6

(9.3.1.21) Total water discharges at this facility (megaliters)

4.5

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ This is our first year of measurement

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

1.45

(9.3.1.27) Total water consumption at this facility (megaliters)

0.1

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ This is our first year of measurement

(9.3.1.29) Please explain

Our water consumption figure is a calculation using withdrawals minus discharges.
[Add row]

(9.3.2) For the facilities in your direct operations referenced in 9.3.1, what proportion of water accounting data has been third party verified?

Water withdrawals – total volumes

(9.3.2.1) % verified

Select from:
☑ 76-100

(9.3.2.2) Verification standard used

It has been verified according to the "ISO 14046:2014 Environmental management - Water footprint Standard" by an accredited third-party verification body. All data has been verified with reasonable assurance level.

Water withdrawals – volume by source

(9.3.2.1) % verified

Select from:
☑ 76-100

(9.3.2.2) Verification standard used

It has been verified according to the "ISO 14046:2014 Environmental management - Water footprint Standard" by an accredited third-party verification body. All data has been verified with reasonable assurance level.

Water withdrawals – quality by standard water quality parameters

(9.3.2.1) % verified

Select from:

☑ 51-75

(9.3.2.2) Verification standard used

It has been verified according to the "ISO 14046:2014 Environmental management - Water footprint Standard" by an accredited third-party verification body. All data has been verified with reasonable assurance level.

Water discharges – total volumes

(9.3.2.1) % verified

Select from:

☑ 76-100

(9.3.2.2) Verification standard used

It has been verified according to the "ISO 14046:2014 Environmental management - Water footprint Standard" by an accredited third-party verification body. All data has been verified with reasonable assurance level.

Water discharges – volume by destination

(9.3.2.1) % verified

Select from:

☑ 76-100

(9.3.2.2) Verification standard used

It has been verified according to the "ISO 14046:2014 Environmental management - Water footprint Standard" by an accredited third-party verification body. All data has been verified with reasonable assurance level.

Water discharges – volume by final treatment level

(9.3.2.1) % verified

Select from:

☑ Not verified

(9.3.2.3) Please explain

-

Water discharges – quality by standard water quality parameters

(9.3.2.1) % verified

Select from:

☑ 76-100

(9.3.2.2) Verification standard used

It has been verified according to the "ISO 14046:2014 Environmental management - Water footprint Standard" by an accredited third-party verification body. All data has been verified with reasonable assurance level.

Water consumption – total volume

(9.3.2.1) % verified

Select from:

☑ 76-100

(9.3.2.2) Verification standard used

It has been verified according to the "ISO 14046:2014 Environmental management - Water footprint Standard" by an accredited third-party verification body. All data has been verified with reasonable assurance level.
[Fixed row]

(9.5) Provide a figure for your organization’s total water withdrawal efficiency.

(9.5.1) Revenue (currency)

27281884

(9.5.2) Total water withdrawal efficiency

12.21

(9.5.3) Anticipated forward trend

It is expected to decrease the water withdrawal efficiency. In line with Zorlu Holding's Smart Life 2030 vision, Zorlu Enerji carries out its activities with the aim of more efficient use of natural resources and minimizing their consumption. In this context, it integrates water-related risks and opportunities into its business plan in order to achieve its efficiency target.
[Fixed row]

(9.7.1) Provide the following intensity information associated with your electricity generation activities.

Row 1

(9.7.1.1) Water intensity value (m3/denominator)

0.87

(9.7.1.2) Numerator: water aspect

Select from:
☑ Total water withdrawals

(9.7.1.3) Denominator

Select from:

☑ Other, please specify :Gwh

(9.7.1.4) Comparison with previous reporting year

Select from:

☑ Higher

(9.7.1.5) Please explain

We produced 2.364,15 GWh electricity and 2.234.327 cubic meter water is withdrawn this year. The intensity was, 0.82 m3/GWh, in previous year. Therefore, our intensity has increased by 6.1%.
[Add row]

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

	Products contain hazardous substances	Comment
	Select from: ☑ No	*Since we generate electricity, there is no hazardous substance in our product.*

[Fixed row]

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

	Products and/or services classified as low water impact	Primary reason for not classifying any of your current products and/or services as low water impact	Please explain
	Select from: ☑ No, and we do not plan to address this within the next two years	*Select from:* ☑ Judged to be unimportant, explanation provided	*We are producing electricity from renewable sources. Our impact due to our service is negligible.*

[Fixed row]

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

Water pollution

(9.15.1.1) Target set in this category

Select from:

☑ No, but we plan to within the next two years

(9.15.1.2) Please explain

Since the discharged water quality is almost the same as the domestic wastewater quality; we do not have a target. However, we are planning to define a target in two years.

Water withdrawals

(9.15.1.1) Target set in this category

Select from:

☑ Yes

Water, Sanitation, and Hygiene (WASH) services

(9.15.1.1) Target set in this category

Select from:

☑ No, but we plan to within the next two years

(9.15.1.2) Please explain

We are planning to define a target for water, sanitation and WASH services.

Other

(9.15.1.1) Target set in this category

Select from:

☑ Yes

[Fixed row]

(9.15.2) Provide details of your water-related targets and the progress made.

Row 1

(9.15.2.1) Target reference number

Select from:

☑ Target 1

(9.15.2.2) Target coverage

Select from:

☑ Organization-wide (direct operations only)

(9.15.2.3) Category of target & Quantitative metric

Water withdrawals

☑ Reduction in total water withdrawals

(9.15.2.4) Date target was set

12/31/2016

(9.15.2.5) End date of base year

12/30/2016

(9.15.2.6) Base year figure

2863701

(9.15.2.7) End date of target year

12/30/2023

(9.15.2.8) Target year figure

2720516

(9.15.2.9) Reporting year figure

2234327

(9.15.2.10) Target status in reporting year

Select from:

☑ Achieved

(9.15.2.11) % of target achieved relative to base year

440

(9.15.2.12) Global environmental treaties/initiatives/ frameworks aligned with or supported by this target

Select all that apply

☑ None, no alignment after assessment

(9.15.2.13) Explain target coverage and identify any exclusions

We aimed to reduce our total water withdrawals by 5% by 2022. In this reporting year, we reduced about 21.97% compared to the base year which is defined as 2016. Therefore, we have reached our target in advance. A new target is defined in line with Zorlu Holding's Smart Life 2030 strategy.

(9.15.2.15) Actions which contributed most to achieving or maintaining this target

Zorlu Energy has developed various actions to achieve its goal of reducing water intake. By implementing water management systems, it monitors and manages water resources effectively. The company encourages the reuse of available water through the development of water recycling projects. Additionally, it focuses on researching and applying new technologies to reduce water consumption. Zorlu Energy collaborates with its employees to support projects aimed at water conservation and continues its efforts in this direction. These actions significantly contribute to Zorlu Energy's sustainability goals.

(9.15.2.16) Further details of target

-

Row 2

(9.15.2.1) Target reference number

Select from:

☑ Target 2

(9.15.2.2) Target coverage

Select from:

☑ Organization-wide (direct operations only)

(9.15.2.3) Category of target & Quantitative metric

Monitoring of water use

☑ Increase in the proportion of sites monitoring water recycled/reused

(9.15.2.4) Date target was set

12/31/2019

(9.15.2.5) End date of base year

12/30/2016

(9.15.2.6) Base year figure

11.6

(9.15.2.7) End date of target year

12/30/2030

(9.15.2.8) Target year figure

50

(9.15.2.9) Reporting year figure

3.73

(9.15.2.10) Target status in reporting year

Select from:

☑ Underway

(9.15.2.11) % of target achieved relative to base year

-20

(9.15.2.12) Global environmental treaties/initiatives/ frameworks aligned with or supported by this target

Select all that apply

☑ None, no alignment after assessment

(9.15.2.13) Explain target coverage and identify any exclusions

With the vision of Smart Life 2030, Zorlu Holding is in the process of setting water targets in terms of less and efficient use of natural resources, for all its group companies including Zorlu Energy. Zorlu Energy aims to recycle 50% of the consumed water by 2030 and 100% by 2050. Zorlu Enerji's water consumption mainly originates from the generation processes in natural gas, geothermal and hydroelectric power plants. Renewable groundwater is used for generation in geothermal power plants. Steam is obtained by separating the water-steam mixture drawn from the wells in separators, and electricity is generated through turbines by feeding the resulting steam. After condensing the steam used in the turbines within the condenser, the resulting water is sent to the cooling towers. In line with the strategy of using water efficiently, the geothermal fluid used in the generation processes is injected back underground at the end of the process

(9.15.2.14) Plan for achieving target, and progress made to the end of the reporting year

Zorlu Enerji is implementing sustainable water management strategies to achieve its water recovery target. The company is working towards this goal by reducing water consumption, improving water efficiency, and prioritizing wastewater recovery. Operational improvements at facilities aim to prevent water losses through leakage reduction and recycling techniques, ensuring more effective and efficient water use.

(9.15.2.16) Further details of target

-

[Add row]

C10. Environmental performance - Plastics

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

	Targets in place
	Select from: ☑ No, but we plan to within the next two years

[Fixed row]

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

	Activity applies
Production/commercialization of plastic polymers (including plastic converters)	*Select from:* ☑ Yes

[Fixed row]

C11. Environmental performance - Biodiversity

(11.2) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

(11.2.1) Actions taken in the reporting period to progress your biodiversity-related commitments

Select from:

☑ Yes, we are taking actions to progress our biodiversity-related commitments

(11.2.2) Type of action taken to progress biodiversity- related commitments

Select all that apply

☑ Land/water protection

☑ Land/water management

☑ Species management

☑ Education & awareness

☑ Law & policy

[Fixed row]

(11.3) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
	Select from: ☑ Yes, we use indicators	*Select all that apply* ☑ Response indicators

[Fixed row]

(11.4) Does your organization have activities located in or near to areas important for biodiversity in the reporting year?

Legally protected areas

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:
☑ No

(11.4.2) Comment

-

UNESCO World Heritage sites

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:
☑ No

(11.4.2) Comment

-

UNESCO Man and the Biosphere Reserves

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:

☑ No

(11.4.2) Comment

-

Ramsar sites

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:
☑ No

(11.4.2) Comment

-

Key Biodiversity Areas

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:
☑ Yes

(11.4.2) Comment

Key Biodiversity Areas (KBA) are 'sites contributing significantly to the global persistence of biodiversity', in terrestrial, freshwater and marine ecosystems. Sites qualify as global KBAs if they meet one or more of 11 criteria, clustered into five categories: threatened biodiversity; geographically restricted biodiversity; ecological integrity; biological processes; and, irreplaceability. KBAs cover important bird and biodiversity areas and Alliance for zero extinction sites. Zorlu Enerji has identified key biodiversity areas using the IBAT tool, and according to the results, its operations exhibit varying degrees of biodiversity risk. In Turkey, while some projects show moderate to high biodiversity risks, others have relatively lower risks but still require diligent monitoring and management to mitigate potential impacts on local biodiversity. Robust biodiversity management plans, continuous monitoring, and active engagement with conservation efforts are essential to ensure sustainable operations across all sites.

Other areas important for biodiversity

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:
☑ No

(11.4.2) Comment

-
[Fixed row]

(11.4.1) Provide details of your organization’s activities in the reporting year located in or near to areas important for biodiversity.

Row 1

(11.4.1.2) Types of area important for biodiversity

Select all that apply
☑ Key Biodiversity Areas

(11.4.1.4) Country/area

Select from:
☑ Turkey

(11.4.1.5) Name of the area important for biodiversity

Kızıldere GPP

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Kızıldere I-II-III geothermal plants in Denizli and Aydın are similar. Kızıldere I, managed by Zorlu Doğal Elektrik Üretimi A.Ş., has a 15 MWe capacity. It is 7 km from Sarayköy and near Buldan, Yayla, Denizli, Pamukkale, and Nazilli. Important wetlands include Afşar Dam, Derbent Dam, Adıgüzel Dam, Kemer Dam, Salda Lake, and Acıgöl Lake. The site is close to Honazdağı National Park, the ancient city of Collasea, Akdağ, and Bozdağlar Important Nature Areas. Kızıldere II GPP is located in Sarayköy, Denizli, operated by Zorlu Doğal Elektrik Üretimi A.Ş., with an installed capacity of 80 MWe. Kızıldere III GPP, with a capacity of 165 MWe, is situated in Buharkent, Aydın. Key nearby locations include Buldan and Yayla villages, and significant centers like Denizli, Pamukkale, and Nazilli for Kızıldere II; and Kızıldere and Savcılı neighborhoods for Kızıldere III. Both facilities are near important water bodies. Kızıldere II is approximately 32 km from Honazdağı National Park, 34 km from the ancient city of Collasea, 29 km from Bozdağlar, and 1.5 km from Akdağ-Denizli Important Nature Area. Kızıldere III is about 40 km from Honazdağı National Park, 42 km from Collasea, 35 km from Bozdağlar, and 4,5 km from Akdağ Denizli Important Nature Area.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Physical controls

☑ Operational controls

☑ Abatement controls

☑ Restoration

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Zorlu Enerji recognizes that biodiversity is an important topic for its business model and carries out its activities by placing respect for biodiversity and ecosystems as a fundamental element of its business strategy. It aligns its developed projects to minimize impact on nature and works to reduce biodiversity loss by adopting biodiversity conservation strategies and showing respect for natural areas. In 2022, it successfully integrated the Biodiversity and Ecosystem Management System into its business processes. In each of its facilities, it has identified at-risk species and developed strategic action plans for their protection, communicating these

plans to relevant units. It has identified critical species and created a "Critical Species Booklet." The species included in the booklet have been evaluated within the framework of the Bern Convention, an agreement for the protection of wildlife and natural habitats in Europe, and the CITES Convention, which regulates the trade of wild animal and plant species. Additionally, it has organized training sessions to raise awareness among the plant personnel. With this approach, it continually improves to effectively fulfill its commitments in biodiversity and ecosystem management. There are Biodiversity Action Plans specific to the power plants to protect critical species within the operational areas. In accordance with these plans, periodic observation studies are conducted on affected species. In determining these species, it has relied on the "Red List" inventory prepared and published by the International Union for Conservation of Nature (IUCN). This list shows the current status of species classified as endangered, vulnerable, or extinct. It also provides information about various parameters, such as population trends, habitats, and threats to the species. An example of its activities in accordance with the Biodiversity Action Plans is the conservation efforts for the "Heliotropium thermophilum" species, which has a very narrow habitat, near the Kızıldere 3 GPP conducted in 2023. The conservation efforts for the "Heliotropium thermophilum" which grows only in the Sarayköy district of Denizli in Turkey, have been carried out in collaboration with Pamukkale University. Efforts have begun to preserve its genetic diversity. The objectives of this study include: Determining the genetic diversity of Heliotropium thermophilum using the ISSR technique. Conducting soil and climate analysis to obtain detailed information about the species' ecology. Preventing the risk of extinction through ex-situ and in-situ conservation studies. Collecting and storing seed samples from healthy individuals in a gene bank. Creating herbarium material from living samples collected during field studies. Conducting germination studies with mature and productive seeds, and adaptation studies to the PAU Botanical Garden as part of ex-situ conservation efforts.
[Add row]

C13. Further information & sign off

(13.1) Indicate if any environmental information included in your CDP response (not already reported in 7.9.1/2/3, 8.9.1/2/3/4, and 9.3.2) is verified and/or assured by a third party?

	Other environmental information included in your CDP response is verified and/or assured by a third party	Primary reason why other environmental information included in your CDP response is not verified and/or assured by a third party	Explain why other environmental information included in your CDP response is not verified and/or assured by a third party
	Select from: ☑ No, but we plan to obtain third-party verification/assurance of other environmental information in our CDP response within the next two years	*Select from:* ☑ Not an immediate strategic priority	*We have already have verified emission calculations and water footprint. We intend to expend our scope for verifications.*

[Fixed row]

(13.2) 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.

	Additional information	Attachment (optional)
	Integrated Annual Report'23	*integrated-annual-report-2023.pdf*

[Fixed row]

(13.3) Provide the following information for the person that has signed off (approved) your CDP response.

(13.3.1) Job title

Chief Executive Officer

(13.3.2) Corresponding job category

Select from:

☑ Chief Executive Officer (CEO)

[Fixed row]