

We are interested in making sustainability the core of our business, not the exception to it.

Enerjisa Üretim stands for clean, uninterrupted electricity supply at competitive prices.



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CEO and Chair of the Sustainability Steering Committee's Message

The recent spate of global events sparked by the climate crisis has once again shown us how critical it is that sustainability be fully embedded into our business models. In light of this, we are continuing to transform the way we operate. What we have experienced so far in the climate crisis and our forecasts for the future clearly show that this transformation needs to be accelerated even further. As one of the leading companies in our sector and in line with our sustainability strategy, we are directing our investments towards new technologies such as hydrogen, hybrid and innovation in renewable energy sources that will shape our country's energy supply in the years ahead.

When we examine long-term structural trends in the energy sector, the tremendous increase in digitalization, especially in innovation and hightech investments, and the explosion of e-commerce worldwide, especially during the pandemic, showed us how quickly consumer behaviour can adapt to external factors. Thanks in part to the pandemic, another trend that has become apparent is the increase in consumer awareness of climate change and environmental issues.

We will achieve our net carbon zero goal by growing our renewable energy investments and transforming our current assets.

At Enerjisa Üretim, our goal is to pioneer this change and transformation, while working with the utmost effort to ensure the uninterrupted continuity and security of our energy supplies. We are moving towards this goal by investing in innovation, new technology and renewable resources. We have already begun ensuring that sustainability is at the core of our business, and not the exception to the way we operate. This means investing in renewable energy so that it becomes the norm, not a privilege.

Sustainability, in the broadest sense, is much more than using fewer resources, or achieving great-

er business continuity. Today, the expectation is that companies should grow through adding value to society and the environment, and certainly not pursue growth at any cost. Enerjisa Üretim is keenly aware of the key role it plays in ensuring our country's energy security and as such, we work in full awareness of our environmental impact in, and responsibilities to the regions and communities in which we operate, working harder each day to create solutions that benefit our society.

Our long-term goal is to reduce our carbon footprint and play a leading role in shaping the renewable transformation. By 2032, we aim to have avoided carbon emissions equal to the amount of carbon emissions we produce annually, in other words, to have reached a "carbon break-even" point. This important milestone in our sustainability journey will carry us to our goal of becoming net-zero carbon by 2045. We intend to hit our net-zero carbon target by growing through renewable energy investments and transforming our existing assets. By the end of 2025, we will have added 565 MW of wind power to our renewable portfolio, which constitutes 44 percent of our current total installed



capacity, thereby increasing the share of renewables to 60 percent overall.

Our target to generate green hydrogen will be key to reducing industrial and transportation emissions, and this important fuel has the additional advantage of being a medium in which energy can be both stored and transported. The grid-scale storage batteries that are being designed in this respect are a further important step towards ensuring the security of supply in a decarbonizing world.

We have begun investing in pilot projects for both these technologies and are establishing special project execution teams. To this end, in 2021, we finalized the feasibility phase of installing the electrolyser unit and storage tank in collaboration with

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the Sabancı University Nanotechnology and Research Center. We intend to accelerate our green hydrogen deployment in 2022, with a view to pioneering the growth of this promising technology.

We are using our imaginations to transform our existing assets while continuing to ensure uninterrupted supplies of energy. Our team has built and begun operating solar farms at our existing facilities, and with this new hybrid operating model, our goal is to transform existing old energy plants into hybrid photovoltaic plants. In 2021, we launched our first pilot hybrids at two of our old generation power plants, using the energy produced in our own production.

To have a greater positive impact in the regions where we operate, we continue to lead projects that take into consideration the needs and requests from our local communities. We select these projects in the context of the UN Sustainable Development Goals (SDGs), focusing on local development issues such as Affordable and Clean Energy (SDG 7) and Gender Equality (SDG 5), Quality Education, especially for children (SDG 4) and sports, Good Health and Well-being (SDG 3), Decent Work

and Economic Growth (SDG 8), Industrial Innovation and Infrastructure (SDG 9).

We are proud to present the Enerjisa Üretim 2021 Sustainability Report which has been prepared in accordance with the Global Reporting Initiative (GRI) core principles under the guidance of the UN Sustainable Development Goals. With this report, we want to share our sustainability journey with our stakeholders and show you how we want to engage together. We the team at Enerjisa Üretim will continue to work towards our common goals for good, and collaborate through a common understanding with our stakeholders to make further progress each year.

I would like to thank all our stakeholders for accompanying us on our sustainability journey...

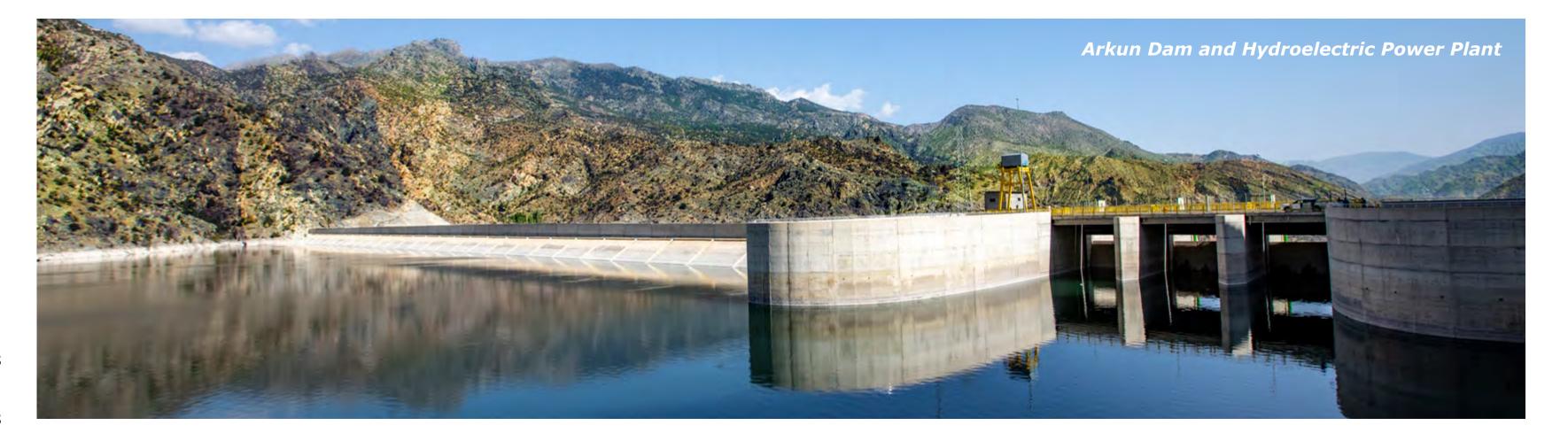


İhsan Erbil Bayçöl CEO and Chairperson of the Sustainability Steering Committee

Corporate Profile and Reporting Scope

Enerjisa Üretim is an energy company that manages an integrated asset portfolio under two main business headings: electricity generation and trading. Relying on an efficient and flexible portfolio strategy, Enerjisa Üretim executes its business with operational excellence by seizing opportunities in the sector, and aims to create continuous and sustainable value for all its stakeholders, including its partners, customers, employees, suppliers and for the society in which it operates.

Sabancı Holding, one of Turkiye's leading diversified conglomerates, and Germany-based E.ON each hold a 50% stake in Enerjisa Üretim. Enerjisa Üretim is Turkiye's largest private electricity generation company with an installed capacity of 3,608 MW and operates twelve hydroelectric, three wind, two solar, three natural gas and one domestic lignite-fired power plant. Enerjisa Enerji Üretim A.Ş., Enerjisa Elektrik Enerjisi Toptan Satış A.Ş. and Enerjisa Doğalgaz Toptan Satış A.Ş. are subsidiary operating companies that operate under the umbrella of Enerjisa Üretim Santralleri A.Ş.; active in generation, trading and natural gas related business lines.



PROFILE OF ENERJİSA ÜRETİM'S POWER PLANTS



12 hydroelectric power plants with a total of 1,353 MW (38%) installed capacity operating in Adana, Kahramanmaraş, Artvin and Trabzon



3 wind farms in Çanakkale, Mersin and Balıkesir with installed and currently operating capacity of 212 MW (6%)



2 solar power plants with 9 MW of installed capacity operating in Bandırma and Karabük



3 natural gas combined cycle power plants with an installed capacity of 1,583 MW, operating in Kocaeli and Bandırma **(44%)**



Operating in Adana's Tufanbeyli district with a capacity of 450 MW, 1 domestic lignite-fired power plant **(12%)**

With 1,574 MW of installed renewable power Enerjisa Üretim is Turkiye's largest renewable energy producer.

REPORTING SCOPE

Enerjisa Enerji Üretim Santralleri A.Ş. (Enerjisa Üretim) is very pleased to share its Sustainability Report, which was prepared according to Global Reporting Initiative (GRI) Core Standards. This report is a summary of our electricity generation and energy trading operations, covering the period between January 1, 2021 and 31 December 2021.

Sustainability Governance

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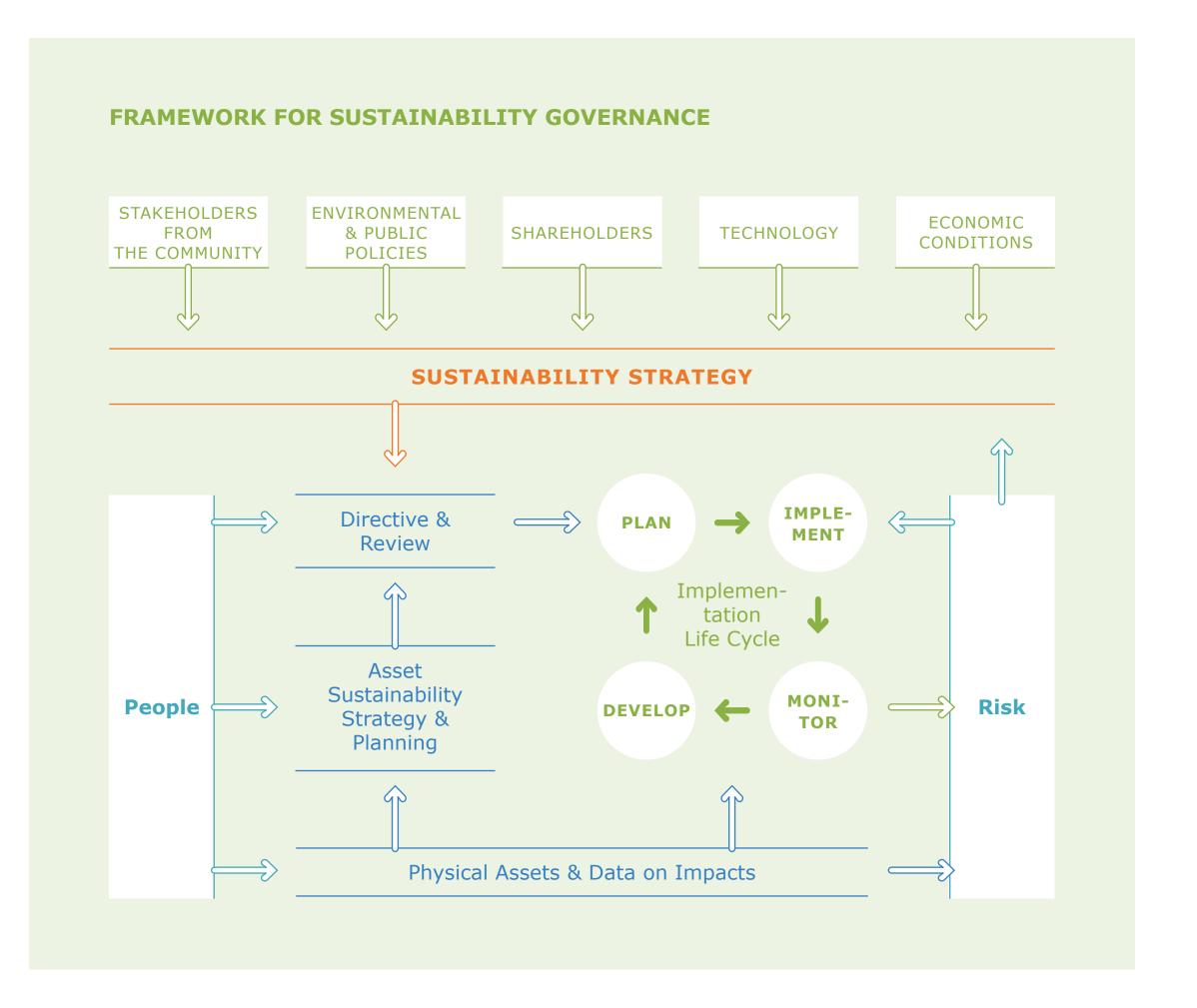
Our sustainability work is carried out continuously using a circular 'plan, implement, monitor and develop' approach. There are four elements that constitute this cycle.

- **1.Sustainability Strategy:** x+5 year targets are deployed. Targets are put forward by the Sustainability Management Committee for approval by the Sustainability Steering Committee. These targets are prepared by considering social stakeholders involved in our company's operations, Turkish and global public and environmental policies, shareholder targets and expectations, technologies and opportunities available globally, and the company's economic operating environment.
- **2.People:** Sustainability objectives can only be achieved if individuals and units in the organization take broad ownership of the issue. Functional managers are expected to develop annual business and resource plans to meet corporate sustainability goals and to identify and implement key performance indicators.

We are interested in making sustainability the core of our business, not the exception to it.

3.Data on Physical Assets and Impact Areas: Our company's sustainability activities are shaped by the latest data on our reputational and operational needs, and the social and environmental impact of our investment projects and operating power plants (physical assets). Furthermore, our sustainability activities are informed by value added data gained by establishing and maintaining effective and constructive communication with local stakeholders.

4.Risk: Anticipating and understanding the risks and opportunities that may arise and making decisions that allows us to adapt or act accordingly plays a decisive role in our sustainability practices.



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Sustainability Governance



EXECUTIVE FUNCTIONS

- 1. The Sustainability Steering Committee is tasked with oversight and evaluation;
- 2. The Sustainability Management Committee is tasked with managing goals and activities;
- **3.** Sustainability *Working Groups* determine and execute sustainability work.

This three tier structure is designed to be simple and clear.

The Sustainability Steering Committee, has overall responsibility for reviewing and assessing initiatives, goals and performance. It ensures sufficient resources are made available to engage in sustainability activities. The CEO heads this committee comprising the CFO, EVP for Operations and Technical and the EVP for People and Culture and one independent member.

The Sustainability Management Committee is headed by the Asset Management and Sustainability Leader and is responsible for the effective management of the company's goals and practices from a sustainability perspective in the regions where Enerjisa Üretim operates. The Sustainability Management Committee is responsible for reviewing policy trends and other risks that may affect sustainability performance and reputation; setting medium-term strategy and annual targets; determining resource requirements, defining role and responsibility needs, budget planning and budget management.

Working Groups are teams that coordinate the translation of sustainability goals into actionable business plans, implementation and reporting.

A minimum 10% of our CEO's direct targets and 20% of their indirect targets consist of sustainability-linked goals: in aggregate 30% of their targets relate to sustainability. The CEO also chairs the Sustainability Steering Committee, because sustainability is our business strategy!

We use Key Performance Indicator (KPI) metrics to embed our sustainability strategy into our corporate culture. All our main business units are given sustainability-oriented KPIs, including our CEO.

ENERJİSA ÜRETİM & SUSTAINABILITY CLIMATE CHANGE & ENVIRONMENT ENERGY SUPPLY SECURITY OUR EMPLOYEES OUR CONTRIBUTION TO SOCIETY CORPORATE GOVERNANCE ANNEXES

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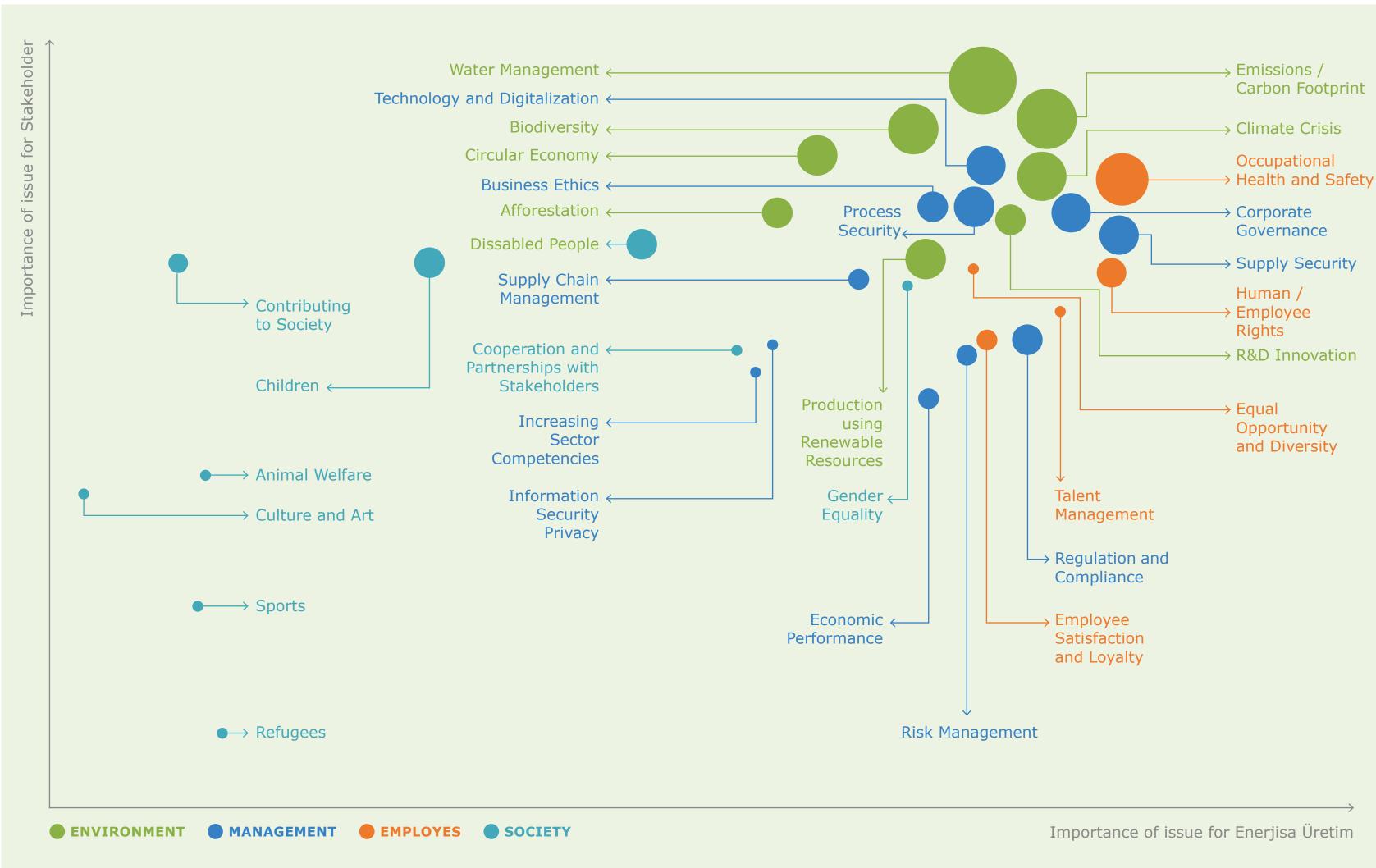
Our Sustainability Priorities

Material Issues

In early 2021, we identified the following four priority issues by undertaking stakeholder surveys and workshops.



Issues such as risk management, business ethics, regulation and compliance, which are shown in the table under Secure Energy Supply, are addressed in the Governance, Risk Management and Internal Audit sections of this report.



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Our Sustainability Priorities

Stakeholder Survey Results and Sustainable Development Goals

In Q121, we surveyed internal (592 participants) and external (66 participants) stakeholders as part of our goal to determine sustainability priorities that lie within Enerjisa Üretim's sphere of influence.

The project was carried out in phases:

- 1. The survey responses were combined into relevant categories, which were then mapped to the United Nations Sustainable Development Goals (SDGs).*
- 2. After mapping, each issue was weighted equally, with any issues that both internal and external stakeholders found important ranked higher.
- **3.**Prioritized SDGs were determined **by identify**ing the objectives over which Enerjisa Üretim has strong influence, and these were grouped under four related topics for Enerjisa Üretim as follows:

SDGs that Enerjisa Üretim has influence over **Objectives over which Enerjisa Üretim has strong influence** 7 AFFORDABLE AND CLEAN ENERGY 13 CLIMATE ACTION 15 LIFE ON LAND 17 PARTNERSHIPS FOR THE GOALS 14 LIFE BELOW WATER Climate Change and the Environment 7 AFFORDABLE AND CLEAN ENERGY 17 PARTNERSHIPS FOR THE GOALS 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 2 **Energy Supply Security** 3 GOOD HEALTH AND WELL-BEING 5 GENDER EQUALITY 8 DECENT WORK AND ECONOMIC GROWTH 17 PARTNERSHIPS FOR THE GOALS **Our Employees** 17 PARTNERSHIPS FOR THE GOALS 8 DECENT WORK AND ECONOMIC GROWTH 15 LIFE ON LAND 4 QUALITY EDUCATION 5 GENDER EQUALITY **Our Contribution to Society**

^{*} For some topics, such as Contribution to Society, survey responses were matched to more than one SDG.

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Sustainability Milestones



Our Journey Towards Our Sustainability Goals

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By 2032 Reach Carbon Break-Even

Working with consultants to help us build our Net Zero Roadmap, 2032 is now our updated year for hitting our "carbon breakeven" goal.

Plant 1.5 million seedlings by 2025

In **2021** we planted **285** thousand, exceeding our target & for the year by 35 thousand seedlings.



Due to increased thermal power plant production in **2021** our emission intensity increased 7.5% y-o-y to 458 g/kWh. The previous target was to reduce

emissions intensity to **500 g/kWh** by **2025**. By pulling this target from 500 g/kWh to 375 gr/kWh we are challenging ourselves to do better.

Implementing carbon sequestration projects in the atmosphere with restorative and sustainable methods by 2025

Though our feasibility studies on Algae and Restorative Agriculture haven't yet yielded a suitable project, our research on new methods is ongoing.

Reuse of 5 million m³ of wastewater at thermal power plants by 2025

In **2021**, **1,079 million m**³ of additional industrial wastewater was recovered and reused.

By 2023, we will reduce single-use plastics by 90%

In **2021** single-use plastics were reduced by **35%** compared to 2020.

ENERGY SUPPLY SECURITY

By 2025 565 MW Wind Power Plant

The first construction work began in 2021 on the Erciyes WPP and 10% of the project is now complete. In 2022 a 12 turbine section representing **65**

MW of power will be operable. The permit and EIA processes for our Çanakkale and Aydın YEKA projects are ongoing.

150 MW Hybrid Solar Power Plant by 2025

In **2021 t**he first phases of our investment have been achieved and we have finalized the project plans.

USD1 million towards innovation by 2025 on a cumulative basis

In **2021** the Searover initiative, comprising underwater technologies was begun with the signing of a **US \$445,000** contract.

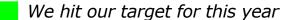
Sign 5 new joint ventures by 2025

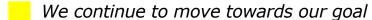
In **2021** we signed one new initiative. We collaborated with the Searover start-up on underwater technologies.



To begin producing hydrogen by 2023

The agreement was signed to locate a green hydrogen plant at our Bandırma Energy Base. In **2021** we completed the feasibility study and the supply contract; the goal for 2021 was to complete **c.75%** of the project and **50%** excluding the supply of electrolysers was actually completed.





Our Journey Towards Our Sustainability Goals

OUR EMPLOYEES

- Devote 25% employee training to providing competence in advanced data analytics and sustainable energy by 2025 In **2021 63** of **380** training topics were on advanced data analytics and renewable energy. **13%** of the training hours and **16%** of the topics were directly on these issues.
- Achieving a 20% female recruitment ratio by 2025 **30%** of our **2021** hires were women.
- Transitioning to a **Volunteering Program** by 2023

We are working on establishing a Volunteering program and coordinating projects, supported by a mobile application called 'GönüllülükApp'.

10% of senior management's KPIs directly linked to sustainability performance by 2022

In 2021, 10% of our CEO's direct targets and 20% of their indirect targets were linked to sustainability: in total **30%** of our CEO's targets were linked to sustainability.



OUR CONTRIBUTION TO SOCIETY

Transitioning to high impact projects by 2025 (SROI > 1)

Enerjisa Üretim's Sustainability Team completed their Social Return on Investment (SROI) training in **2021**.

Dedicating resources for 500 children in digital competence and climate change by 2025

We established robotic coding laboratories in Saimbeyli and Kozan for **240** students in total.

Provide income-increasing education and resource support to 500 women by 2025

In **2021**, we supported **55** female producers and **7** women in Saimbeyli. We provided assistance to 1 female beekeeper in Kozan to replace hives affected by fire. In **2022**, we will create jobs for **5** women at the Bakliyat Packaging facility in Tufanbeyli which is one of our joint ventures.

Improve the conditions of 500 stray animals by 2025

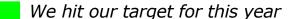
In **2021**, we provided **14,980 kg** of animal feed for many of our little friends, **15** feeding stations for stray animals and neutered **130** animals.

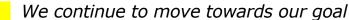
Provide mentoring support to 100 female students studying STEM by 2025.

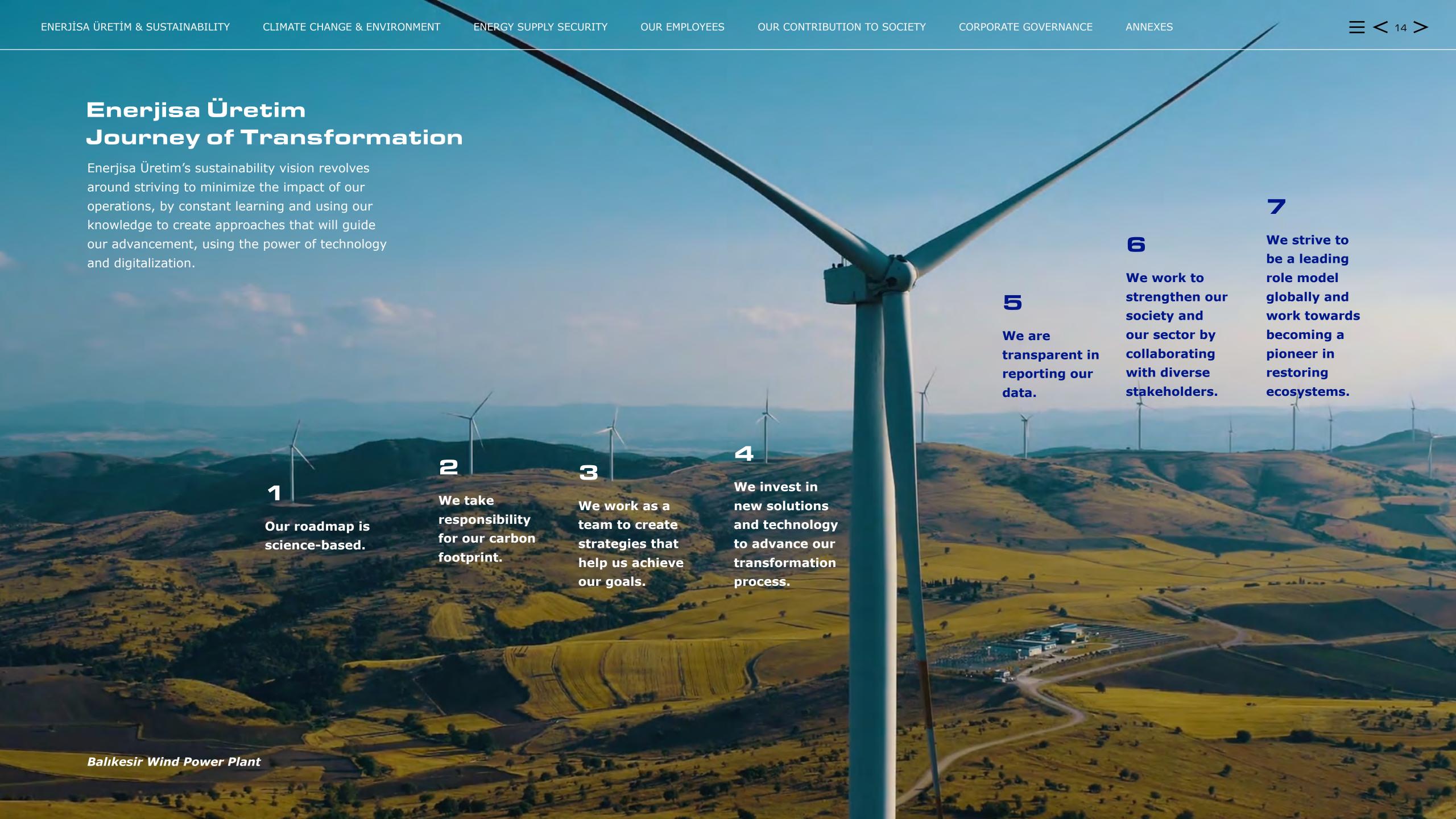
In **2021**, we started preparations for a project to support the career development of **2022**'s female university students.

Prepare and deploy a policy to prefer suppliers with a high proportion of female employees and managers in supplier selection by 2023

In **2021** we started work on our sustainable supply chain policy.







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OUR PRIORITY ISSUES

1. Climate Change and the Environment

2021 2025

x1

x4

By 2025, we aim to quadruple our installed wind energy capacity.



ENERJİSA ÜRETİM & SUSTAINABILITY CLIMATE CHANGE & ENVIRONMENT ENERGY SUPPLY SECURITY OUR EMPLOYEES OUR CONTRIBUTION TO SOCIETY CORPORATE GOVERNANCE ANNEXES

OUR PRIORITY ISSUES

1. Climate Change and the Environment

Article 13.2 of the 13th SDG on Climate Action sets out how measures for dealing with climate change can be incorporated into national policies, strategies and processes. In the context of the struggle against the climate crisis, in 2021 we witnessed some important steps taken globally. The Intergovernmental Panel on Climate Change (IPCC) report stated that due to the observed and felt impacts of climate change, "climate action for development" should be urgently on the agenda worldwide. The United Nations Climate Change Conference (COP26) held in Glasgow was an important turning point in the fight against climate change and on the need for the business world to have a greater engagement in the transition to low-carbon systems.

According to the Paris Agreement, which Turkiye ratified in October 2021, the global temperature increase must be limited to 1.5°C to prevent environmental, social and economic damage. To this end, many countries and companies, particularly in the European Union, have started to announce net zero targets on greenhouse gas emissions and waste management. The number of countries reporting the establishment or implementation of "an integrated policy/strategy/plan that promotes progress on lowering greenhouse gas emissions and climate resilience and to enhance adaptation to the adverse impacts of climate change" as stat-

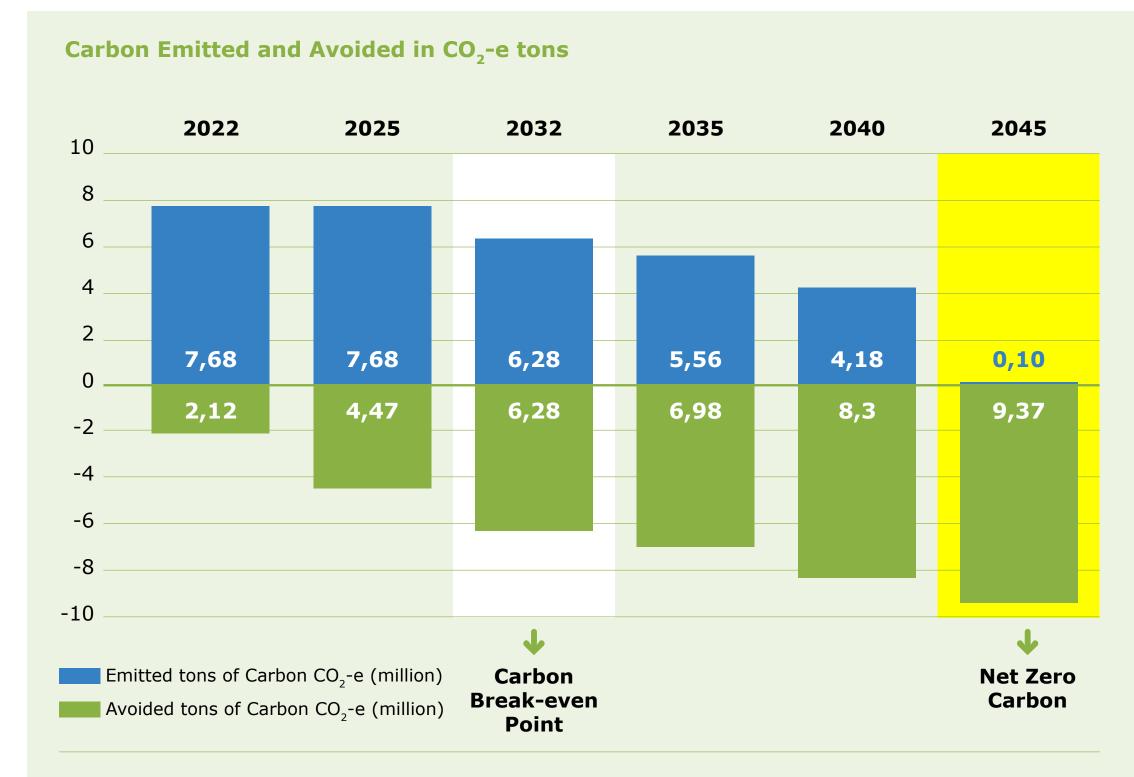
ed in SDG 13 Climate Action sub-target 13.2.1 is now around 196.

Although the generally accepted approach to defining sustainability is to meet today's needs without jeopardizing the resources of future generations, we believe that more is needed. As a consequence of this belief, Enerjisa Üretim has a mission of repairing and improving what has already become unfavourable for future generations.

Our Decarbonization Journey

Enerjisa Üretim stands at the nexus of where the goal of becoming net zero carbon (or carbon neutral) as defined by the IPCC¹ meets our key responsibility towards the public and our other stakeholders of providing clean, uninterrupted and competitively priced electricity. With the awareness of what this responsibility means, we aim to be net carbon zero by 2045 at the latest.

In addition to our Hybrid Solar projects, upon the completion and commissioning of our ongoing Renewable Energy Resource Areas (YEKA) and Erci-



Key assumptions

- 1. According to the National Electricity Grid Emission Factors (MENR-EVÇED-FRM-039) published by the Ministry of Energy and Natural Resources, every 1 MWh of electricity generated from wind and solar energy prevents 0.6482 tons of CO₂ emissions (0.5706 tons of CO₂ /MWh for hydroelectric power).
- 2. Offsetting such as afforestation, hydrogen production, carbon capture technologies, and efficiency increases are not included in these calculations.

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^{1 &}lt;a href="https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SR15_AnnexI.pdf">https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SR15_AnnexI.pdf Carbon neutrality or Net Carbon Zero Emissions refers to a state of equilibrium reached after carbon dioxide (and other greenhouse gases) are removed from the atmosphere within a given period of time.

WHAT IS THE IPCC?

The Intergovernmental Panel on Climate Change (IPCC) was established in 1988 to assess the risks of climate change, predominantly by reviewing and evaluating publications on climate science, and to publish assessment reports highlighting important findings on current issues. Though it does not conduct original research, this panel evaluates scientific research published in peer-reviewed journals on climate science by climate experts and authors, aiming to be objective and comprehensive, and its work is sometimes described as the biggest peer review in the scientific community.

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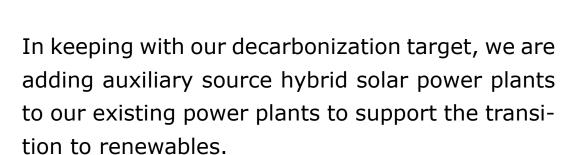
yes WPP investments in Aydın and Çanakkale in 2026, we intend to reduce the emission intensity of our total generation portfolio by 25%. The 'carbon break-even' target we have set for 2032 will be our second important milestone in this journey. By 2032, the amount of our carbon emissions due to our energy generation operations and the amount of carbon emissions that we have been instrumental in avoiding by commissioning renewable energy facilities will break-even, with the result that our emission intensity will decrease by 33%.

The three key drivers to achieving our net carbon zero emission target are

- **1.** Investing in Renewable Energy
- 2. Decarbonization
- 3. Investing in Green Hydrogen

Our investments will make sustainable energy the norm rather than a privilege. We are Turkiye's largest renewable energy producer with a total of 3.1 TWh produced per annum. Our twin goals are to increase our installed capacity to over 5,000 MW by 2025 and to do this by investing only in new wind and solar power plants. These goals also include a commitment to avoid investing in any new fossil fuel power plants or to increase the capacity of existing ones.

We are carrying out decarbonization projects to bring forward our net zero carbon emission target date. While Turkiye's ratification of the Paris Agreement in 2021 will be an important step in our overall decarbonization efforts, we believe that the transition from the voluntary carbon market to the mandatory carbon market will also drive this transformation forward, and we intend to lead in this regard.



This transformation began at our Tufanbeyli Power Plant in 2020. By 2025 we plan to commission 150 MW hybrid solar projects.

In our first assessment, we scored "B" in the Carbon Disclosure **Project for climate change**





WHY IS THE PARIS AGREE-**MENT IMPORTANT?**

This is the name given to the international climate change agreement signed by 196 countries, including Turkiye, in 2015. The long-term temperature goal is to limit the increase in global average temperatures to 2°C above pre-industrial levels whilst striving for a 1.5°C increase, and is therefore important for the future of our planet. By 2050, each signatory country is expected to identify and report on its contribution to mitigating global warming, with a limit of 1.5°C increase required to meet the global net-zero target.

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HOW DOES **HYBRID ENERGY WORK?**

As the name suggests, hybrid energy works by combining different technologies to produce energy. Energy generation technologies such as hydroelectricity, solar, wind, wind, thermal, hydrogen and batteries are used to produce energy from multiple sources by using two or more sources. Hybrid renewable energy systems have come to the fore as independent power systems to provide electricity in remote areas as renewable energy technologies have become cheaper and due to a desire to move away from fossil fuels.

For example, wind speed is low in summer when the sun's rays are strongest and brightest. In the winter months, when there is less solar energy, wind speed is high. When wind speed is insufficient or inefficient, solar energy can be utilized as an alternative. Thus, the continuity of energy production in the system is ensured by hybrid renewable energy.

Investing in Renewable Energy

SDG 7 Affordable and Clean Energy involves ensuring access to affordable, reliable, sustainable and modern energy for all. Achieving this goal requires increasing the share of renewable energy in global energy sources significantly by 2030 (SDG 7.2) and doubling the global rate of energy efficiency progress (SDG 7.3), while increasing energy efficiency requires increased international cooperation to facilitate access to clean energy research and technologies, including advanced technologies, and supporting investments in clean energy infrastructure and clean energy technologies (SDG 7.a). The International Renewable Energy Agency's Innovation Landscape Report highlights hybrid projects as a key enabling technology to accelerate the integration of renewable energy. Hybrid projects consist of systems that can improve power system efficiency and balance energy supply.

In line with our sustainability goals, we completed Turkiye's first solar hybrid investment this year by commissioning two hybrid solar power plants of 573 kWp at our Tufanbeyli power plant and 395 kWp at our Balıkesir WPP plant for a total of c.1MW. These two investments will enable us to supply a portion of our own energy consumption using renewable sources. We have also embarked on the process of permitting and procurement for auxiliary source solar facilities with a capacity of 60 MW, which represent the first portion of the targeted 150 MW hybrid solar energy projects for our own needs at our different facilities.

We have added a new region to our renewable energy portfolio by beginning construction on the 65 MW Erciyes Wind Power Project in Kayseri in Central Anatolia. The turbines for this project have the largest blade span of any yet installed in Turkiye. The large blade surface area is designed to maximize the potential of wind energy in regions with lower wind speeds, less land and which lack necessary infrastructure.

Once these projects are commissioned, we will have increased our total installed capacity to 3,672 MW as of 2022, continuing to maintain our position having Turkiye's leading renewables portfolio. The next goal is to increase Enerjisa Üretim's installed renewables capacity of 44% in 2021 to 60% by 2025. We have based our sustainability strategy and growth targets on increasing our diversified renewable energy investments summarized above.



YEKA (Renewable **Energy** Resource Areas)

EZGİ DENİZ KATMER

Wind Power Plant Investments Director

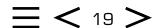
- **1.** Can you give us your assessment of renewable energy progress made in Turkiye?
- 2. What's your opinion on the contribution of YEKA projects to scaling renewables in Turkiye?
- 3. Can you summarise Enerjisa Üretim's YEKA projects in 2021?

Scan the QR code to watch the video.



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OUR EMPLOYEES



Contributing to the Green Transition

2021 was marked by a positive momentum on global warming and was a year in which countries were invited to accept their individual roles and responsibilities in combating climate change. This is evident in Turkiye's "Green Consensus", "TR Pilot ETS Studies" and the name change to the "Ministry of Environment, Urbanization and Climate Change", and has also accelerated our green transformation process. At Enerjisa Üretim, we attach great importance to this transformation in line with our mission to "produce energy for a better future by respecting life".

In 2021, we offset our employees' individual domestic electricity consumption as well as office emissions from Scope 1 electricity consumption by means of a YEK-G certificate. We successfully completed the Verified Carbon Standard (VCS) update audits of our Kavşak Bendi, Menge and Kandil hydroelectric power plants. In addition, we completed the carbon emission audits of our Balıkesir, Dağpazarı and Çanakkale wind power plants and had our environmental and social impact performance verified by Gold Standard global accreditation. At our Arkun, Köprü, Hacınınoğlu hydroelectric and Bandırma, Karabük solar plants, we purchased internationally recognised I-REC clean energy certificates. We certified our Çambaşı hydroelectric power plant with the Turkish YEK-G clean energy certificate.

We know that R&D and innovation are key drivers for the future green transformation. For this reason we not only follow hydrogen production and carbon capture technologies closely but our Bandırma Energy Base is positioned as a springboard for this kind of future innovation.

As the green transformation process, unfolds, we continue to plan our new investments to increase the share of renewable energy sources in our portfolio and to support the power of renewable generation in Turkiye. By accelerating our investments for a sustainable future, we aim to position Enerjisa Üretim's and Turkiye's energy portfolio structure more strategically and provide effective solutions to the increase in electricity demand. By commissioning our Yeka-2 WPP (Aydın), Yeka-2 WPP (Çanakkale) and Erciyes WPP projects we will contribute 565 MW of renewable energy installed capacity to provide additional security of supply.

In 2021, we prevented 1.78 million tons of carbon emissions. This avoided carbon emission amount is equal to the below uses.





GHG emitted as a result of the use of transportation fuel



Carbon emmissions equivalent to replacing incandescent wire lamp bulbs with LED bulbs



greenhouse gas released as a result of use for one year by **petrol-fuelled** passenger car



carbon emission caused by **smart phone** charging



energy related carbon emissions by households a year



waste disposal, the equivalent of sending waste for recycling instead of landfill



the GHG produced by households' electricity usage



of carbon captured by **forests** in one year

In addition, we plan to gradually commission our Solar Power Plants with an installed capacity of approximately 150 MW in the short term, alongside implementing Hybrid Solar, developed to enable our existing power plants to contribute more effectively to the green transformation process.

Enerjisa Üretim's Head Office Building, designed using Green Building concepts, was awarded the LEED Gold Certificate. In 2022, we have also begun LEED certification studies for our Kozan Social Facility, which we intend to open in 2022.

We believe that change begins with us and that transformation will happen collectively.

Our Green Transformation targets can only be met in collaboration with our stakeholders. Our green solutions are intended to support stakeholder's short- and long- term emission reduction efforts; currently, our solutions to Scope 1, 2 and 3 emissions involve comprehensive carbon emission reduction certificates and clean energy certificates in our portfolio. We provide training to our stakeholders, sharing our expertise and the most upto-date information to increase their level of green awareness. We offer our stakeholders a range of green products, including carbon emission reduction and clean energy certificates either from

our own proprietary portfolio or sourced from the markets, as market makers and leaders. We also offer flexible solutions that offset their preferred energy, project, or certificate type and according to the emission year they need.

ENERGY SUPPLY SECURITY

Our Green Solutions product offering is present in 20 different countries and have ventures with more than 50 countries. We have a leading 30% market share in the internationally recognised and traded I-REC clean energy certificates, and take an active role in the market to ensure we maintain our leading position. In 2021, we sold 500,000 MWh of I-RECs and 66,500 tCO $_2$ of carbon emission reduction certificates. The vast majority of our stakeholders, particularly those that transact in the international markets, are exporters. Our customer's industry distribution is iron and steel and aluminium (44%), packaging (28%), automotive (15%), paints (7%), textiles (4%), and finance (2%).

We offer new business models to enable our stakeholders to become our renewable energy operating partners. They can produce their own clean energy and Power Purchase Agreements are a partnership solution that supports their sustainable future. The electricity produced not only enhances our overall energy supply, but we also contribute to the offsetting of their emissions using Clean Energy Certificates obtained from the power plants.

A recent important issue closely monitored by Turkish exporters is the Carbon Border Adjustment Mechanism (CBAM), and Enerjisa Üretim is working to plan, manage and aid in the compli-

ance of our stakeholders in this new process. We are working on scenarios to optimize the risks and maximize the opportunities that this financial mechanism will bring.



HOW MUCH CARBON CAN A TREE STORE?

A single tree has the capacity to store up to 24 kilograms of carbon per year once it reaches its full size, and over its 100-year lifespan, 1 tree can store 1 ton of carbon. A tree's capacity to store carbon can vary depending on its species, age, habitat conditions and trunk diameter. The biomass (vegetative mass) of a 25 cm diameter red pine tree is 220 kg and this tree draws 220 kg x 0.51 (carbon concentration of the tree) = 112.2 kg of carbon from the atmosphere until it reaches a diameter of 25 cm. This is equivalent to 112.2 x (44/12) (carbon to carbon dioxide conversion coefficient) = 411.4 kg of carbon dioxide (CO₂).



Biodiversity and Nature-Based Solutions

(UNEP) Making Peace with Nature Report states that "everyone has a responsibility to ensure that human knowledge, ingenuity, technology and cooperation enhance humanity's relationship with nature rather than transform it." This corresponds to Enerjisa Üretim's perspective and we use nature's resources in our operating ecosystem and within our sphere of influence, while focusing on having a positive impact on our ecosystem in return.

As a consequence of our nature-inspired "Regeneration" perspective, we don't see the reduction of negative impacts on biodiversity as being a sufficient aim. Our goal is to go beyond this to contribute to the self-renewal of the ecosystem. "Human knowledge, ingenuity, technology and cooperation have a responsibility to benefit the mutual relationship between human beings and nature rather than transforming nature", and at Enerjisa Üretim, we focus on having a positive contribution on the ecosystem at the same time as we use its resources.

UNEP has established certain days, weeks, years and decades to mark specific events or issues to promote awareness and action.

Following the 2011 - 2020 United Nations Decade for Biodiversity, the Decade for Ecosystem Restoration was launched on World Environment Day in June 2021. The United Nations has called on countries to fulfil their existing commitments to restore a total area equivalent to the size of China by 2030. It is also known that the overarching goal of this decade is to foster a nature-friendly movement that transcends the decade timeframe. As detailed in the **UN Decade on Ecosystem**

Restoration plan, we are aware that protecting biodiversity and restoring ecosystems does not simply mean engaging in afforestation. Enerjisa Üretim carries out afforestation activities in appropriate ecosystems and in consultation with experts, imagining forests that will continue to exist in the future, while respecting all living species in our geography and working to continuously improve their conditions.





In **2021**

150 our employees contributed 285 thousand saplings.

Moreover, we lead our sector as the company that makes the most sapling donations according to OGEM-VAK.

SDG 15 Life on Land includes sub-targets to protect, restore and promote the sustainable use of terrestrial ecosystems; to ensure sustainable forest management; to combat desertification; to halt and reverse land degradation, and to prevent the loss of biodiversity. In 2021, as part of the the Republic of Turkiye General Directorate of Forestry project entitled "Breath for the Future Afforestation Project", we planted 182,000 saplings in the Aydın, Çanakkale and Kayseri provinces and 103,000 saplings in other regions where our power plants are located.

Approximately 150 employees participated in these events to plant 285,000 saplings, exceeding the 250 thousand target we set at the beginning of 2021 when we launched our "Every Sapling Brings Hope!" project,. According to the influential forest development and forest fire prevention foundation OGEM-VAK data, we planted the most saplings in the energy sector in 2021. In fact, having planted 422 thousand over the past few years, we are proud to rank in first place for most seedlings ever planted since their foundation.

Our new goal is to plant 1 million seedlings by 2025.

We regularly carry out monitoring, assessment and measurement studies to protect the habitats of special species that live in our power plant areas. We try to ensure that the aquatic ecosystem is restored by carrying out surface water quality analysis studies, sediment analysis, fish fauna monitoring studies, fish extraction and transportation studies periodically with the participation of expert academics and our skilled employees.

In 2021, Prof. Dr. S. Cevher Özeren, a member of the Ankara University Faculty of Science, Department of Biology and our colleagues conducted research on Ichthyofauna and Species Populations in the Sarıgüzel Dam and HEPP in Kahramanmaraş. The research piece they prepared was peer-reviewed and published in the Ankara University's Journal of Environmental Sciences and on the DergiPark site in 2022.

A Study on Ichthiofauna and Species Populations of Sarıgüzel Dam (Kahramanmaraş)

Furthermore, we are committed to the sustainability of aquatic life, the protection of water resources and the provision of sanitary drinking and potable water for every individual in the enterprises where we have domestic biological waste water treatment plants. We also comply with the IFC Standard and Equator Principles.

We conduct site-specific assessments to identify bird migration movements, local and migratory bird species, and carcass (death or injury) and collision controls for bats at our wind power plants.



OUR EMPLOYEES

WILDLIFE PROJECT

As part of SDG 15 Life on Land, we commissioned a Wildlife Project to protect ecosystems as per article 15.4, which states, "Ensure the protection of mountain ecosystems and biodiversity, which play a crucial role in sustainable development, by 2030".

CLIMATE CHANGE & ENVIRONMENT

The Arkun Dam Wildlife Project is a special zone for wildlife studies carried out in the region. Enerjisa Üretim collaborates with the Nature Conservation and National Parks in conducting this research..

- This region is rich in biodiversity, and we monitor, record and report the different species and biological diversity in the region.
- In 2021, we tagged 3 adult male wild goats (named Inatçı, Verçenik and Cevher) with GPS-GSM satellite transmitters and released them into the wild. Every day, we input signals received from the wild goats into the UTM ED 50 6° coordinate application on the Geographic Information System, tracking them on maps for analysis.
- To raise awareness on biodiversity and disseminate wildlife culture, Enerjisa Üretim holds a



wildlife photography contest at our art club, awarding the best photos with prizes. We also publish an online magazine on this subject.

• In 2021, we contributed to inventory studies organized annually under the coordination of the 13th Regional Directorate of Nature Conservation and National Parks. We continue to contribute to counting wild goat and chamois.

• We help transport injured wild animals, encountered during field observations or notified to the 13th Regional Directorate.

• Finally, we have begun trials for the capture and monitoring of hooked horned ibex.

ENERJİSA ÜRETİM & SUSTAINABILITY





CLIMATE CHANGE & ENVIRONMENT

SAIMBEYLI BLUE DOCUMENTARY

In seeking a more sustainable future, we are committed to being good neighbours, by protecting the environment, biodiversity, and the hundreds of years of social and cultural heritage of the communities living in the regions where our power plants are located. As part of our commitment, in the neighbouring region where our Tufanbeyli Power Plant and Yamanlı II Hydroelectric Power Plant are located, in the Saimbeyli district of Adana, at the junction of three climate zones, we are committed to the preservation of butterfly species and their promotion. Saimbeyli province is one of the most important ten butterfly areas in Turkiye with approximately 40% of Turkiye's butterfly biodiversity. By creating this documentary, we hope to support it as a a niche tourism destination in which eco-tourism can be developed. Drawing tourists interested in butterfly watching will both increase income levels in the district and help protect biodiversity.

Scan the QR code to access our 2021 Saimbeyli Blue documentary, which we hope will inspire sustainability for future projects.



Zero waste

ur approach to waste management is based on reviewing each process starting from the design phase of power plants to prevent or minimize waste at the source. Where it's not possible to prevent or minimize waste being generated, we consider recycling options. Our company's waste management revolves around transitioning from a linear economy to a circular economy by moving from a Take-Use-Dispose approach to a Take-Use-Long-Term Use-Recycle approach.

CLIMATE CHANGE & ENVIRONMENT

In 2020 and 2021, we received Zero Waste Certificates for 19 of our electricity generation facilities and our Ataşehir Head Office.

(Ton)	2020	2021
Hazardous waste	114.4	521.2
Non-hazardous waste	56.5	43.4

Close to all hazardous waste is sent to recycling facilities (99.97%) as required by our legal obligations.² The increase in 2021 in the table above is due to a previously planned large-scale general maintenance at our Bandırma I-II power plants comprising oily effluent coming out of oil and wa-

2 The very minimal remainder was sent to mandatory disposal.

ter separators in power plants, waste containing harmful silicon in Tufanbeyli power plant and lead battery and accumulator waste. As in previous years, almost all of our waste was sent to licensed recycling companies in 2021.

We reduced single-use plastics by 35% in 2021 compared to the previous year. Reducing plastic use is among our main targets in the coming years. During the structural reinforcement works carried out at our hydroelectric power plants in 2021, we recycled 110 tons of steel waste material. By installing Advanced Technology Biological Package Wastewater Treatment plants at Arkun and Sarıgüzel hydroelectric power plants we reduced our impact on aquatic ecosystems. With this, we strive to go beyond the legal and regulatory requirements by considering the International Finance Corporation's Equator Principles, which are accepted as best practice for managing environmental risks. Thus, we were able to prevent algae blooms, mucilage formation and oxygen loss in water by removing organic loads such as nitrogen, phosphorus and total coliforms from receiving environments in waste water that cannot be adequately treated or cannot be treated at all.

In 2021, a detailed risk analysis study was conducted during the mucilage crisis in the Marmara Sea, one of the negative impacts of climate change. Power plant employees, asset and risk management specialists and sustainability experts, collaborated to identify

In **2021**





99.97% of our hazardous waste was recovered



We reduced our single-plastic waste by **35%** y-o-y



We removed 12 tons of mucilage waste from our seas

We recycled **42 tons** of **our glass, plastic and paper** waste so that





We saved 132 MWh of energy



or greennouse gases were avoided



We prevented the use of

25 thousand litres of crude oil the risks caused by mucilage and formed an action plan. The 12 tons of mucilage waste found in the water intake structure of the Bandırma-1 Natural Gas Power Plant was separated out and sent to the Bandırma Municipality Solid Waste Disposal Facilities, thereby contributing to the collaboration initiated by the Republic of Turkiye Ministry of Environment, Urbanization and Climate Change to tackle musilage.

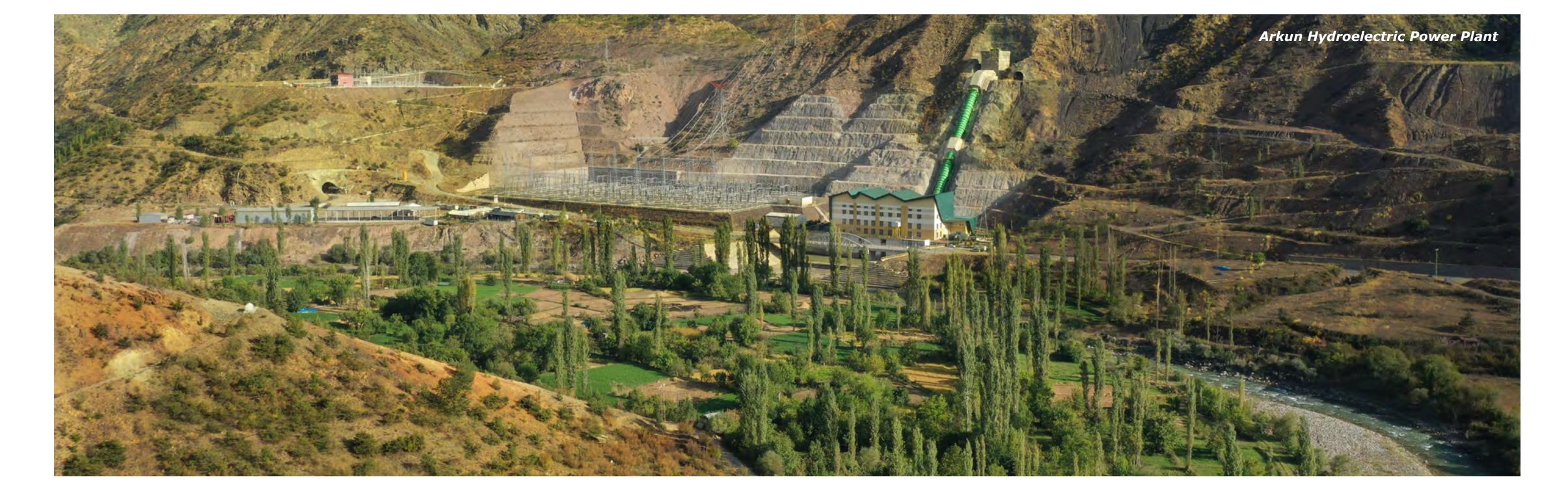
CLIMATE CHANGE & ENVIRONMENT

WHAT IS THE RELATIONSHIP BETWEEN THE CIRCULAR **ECONOMY AND ZERO WASTE?**

The Circular Economy is a concept in which a company's environmental impact and footprint is reduced, feedstock costs are lowered and resources are saved and their efficiency

is enhanced thanks to recycling and reusing all waste generated during production Unlike the traditional "Linear Economy" which operates along the "take-use-dispose" model, zero-waste embodies the principle of "takeuse-long-term-then recycle" and this is one of its most important elements.

For a sustainable future and to reduce carbon footprints, the processes required to transition to a circular economy can be summarized as follows: use fewer primary resources, maintain the highest value of materials and products, and change the way you use them.







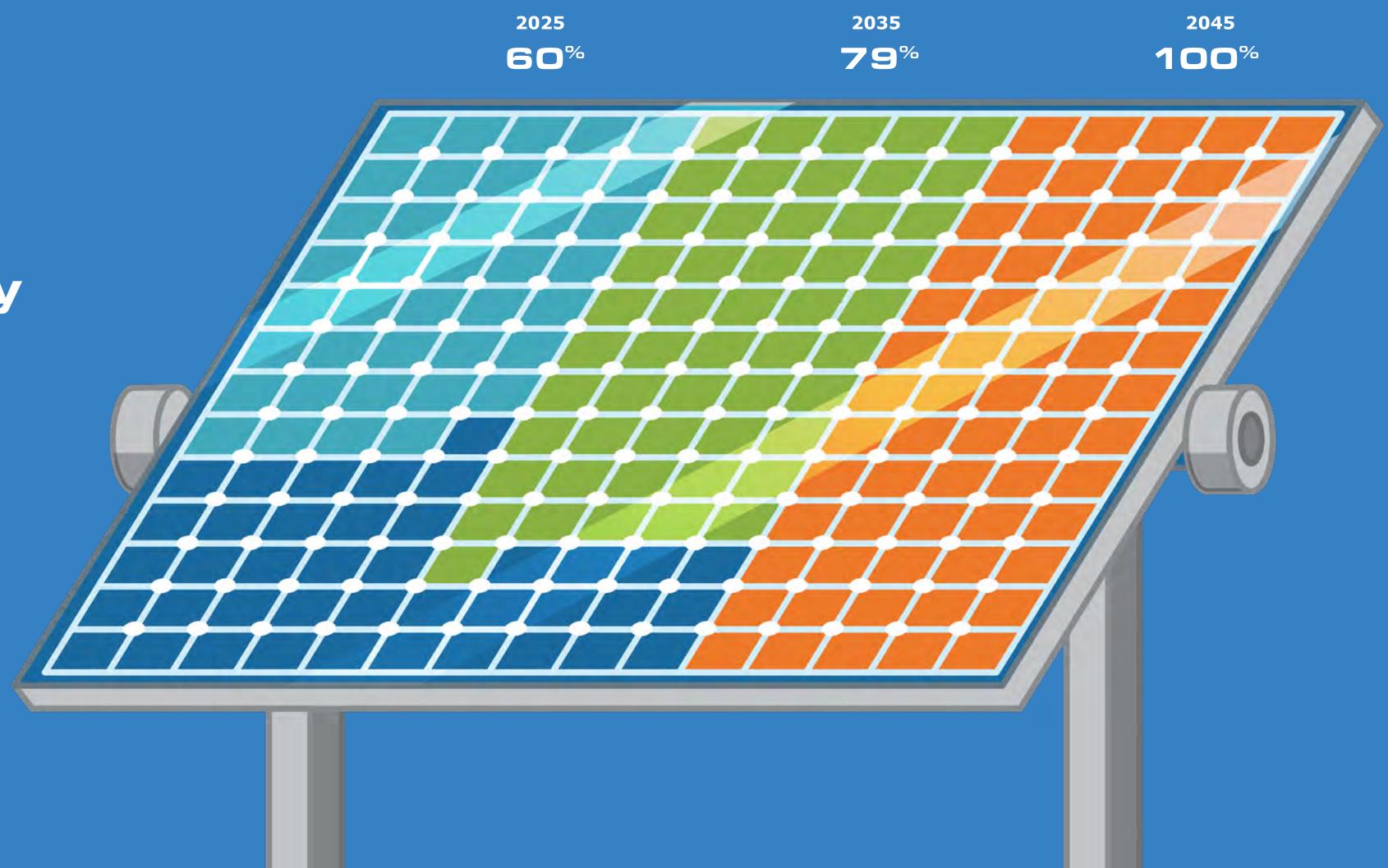




OUR PRIORITY ISSUES

2. Energy Supply Security

Our 2045 Target is to ensure Energy Supply Security with 100% renewable energy.



\equiv < 28 >

OUR PRIORITY ISSUES

2. Energy Supply Security

CLIMATE CHANGE & ENVIRONMENT

One of Enerjisa Üretim's four priorities is to ensure the transition to uninterrupted, accessible and clean energy, which constitutes the 7th Sustainable Development Goal. Continuous supply, or energy supply security, can be guaranteed by higher availability and capacity factors leading to more efficient operations. This in turn, can be achieved through digital transformation, technological investments and innovation. Innovation is not simply about introducing new products, such as green hydrogen, but often also occurs through the use of existing processes or infrastructure in novel ways.

Risks that are likely to arise during the transition to clean energy should be managed with the utmost care. One of the most important risks is that traditional power generation investments have longer

lead times, are capital intensive and require large amounts of debt financing. In contrast, security of supply risk needs to be managed sensitively and dynamically in the face of geopolitical developments. Since electricity is not easily stored using technology available at the moment, instantaneous balancing of supply and demand in the system is of great importance. In this respect, high rates of availability and geographical coverage of this availability is a prerequisite for uninterrupted energy supply.

At the point where supply and demand do not overlap, the system must have the technical capacity to respond to this instantaneous imbalance, as frequency and load stabilization are of critical importance when it comes to security of supply. At Enerjisa Üretim, the technical capacity of our pow-



In 2021, the 3 tWh of renewable energy power our plants produced replaced imports equivalent to 470 million m³ of natural gas (USD 137 mn) or 1 million tons of coal (USD 124 mn).3

er plants, as well as our flexibility and instantly responsive portfolio, plays an important role not only in terms of production but also in providing support in emergencies. For example, in 2021, we made a significant contribution to ensuring balance on the grid by meeting 4% of the loading and deloading orders received during imbalances in the system.

In line with SDG 7.3 which promotes "Doubling the rate of global energy efficiency progress by 2030", we remotely operate 12 hydroelectric, 3 wind and 2 solar power plants and monitor the performance and status of the entire generation portfolio thanks to our Central Operations Room "Senkron", which we commissioned in 2020 to continuously increase efficiency and availability rates. With the multi-facility management capability it possesses, Senkron increases the performance of our power plants and maximizes our efficient energy production. The higher level of digital integration Senkron pro-

vides enables us to increase both the availability and overall efficiency of our product and service throughout the energy value chain. Our priority of providing clean and uninterrupted electricity supply is supported by Senkron.

By optimizing the use of resources, Senkron contributes to the reduction of carbon emissions. Our intention is to share this technology by increasing its use among our customers and stakeholders in the future. In the current structure, we also manage other power plants that are not directly under our organization with Senkron, thus contributing to the development of the sector.

3 Assumes natural gas calorific value 9200 kcal/m³, power plant efficiency of 60%, Assumes 2021 BOTAŞ purchase price is 292\$/1000 m³ on average. Imported coal approximately 6,000 kcal/kg, imported coal power plant efficiency 40%, 2021 average imported coal price of 115\$/kg.

Our hydroelectric power plant reservoir and fast start-up capabilities ensure flexible generation and provide balance to the grid. Our Arkun HEPP generates an average of nearly 400 GWh of electricity by converting 670 hm³ of water to energy annually and can pivot from shutdown to generation within 7 minutes to begin supplying electricity to the grid.

CLIMATE CHANGE & ENVIRONMENT

Efficiency and Effective Use of Resources

As part of SDG 7.3's sub-target of "doubling the global energy efficiency progress rate by 2030", energy efficiency achieved through operational and technical optimization is one of our key strategic targets. Accordingly, we continue to adapt new technologies to our power plants to continuously improve operational optimization.

With a volume of 672 million cubic meters and an annual generation capacity of 2.95 TWh, we monitor and analyse our power plant's water basins and the rivers that feed these. The Hydrology-Meteorology-Logistics team draws up short and longterm generation plans for our hydroelectric power plants to ensure the most efficient use of our available resources.

Our systems allow us to monitor 100+ measurement nodes on a real-time basis including meteorological data such as instantaneous temperature, precipitation and snow height, in addition to live data from 12 flow observation stations supplied by the State Hydraulic Works. The precipitation and temperature data we prepare and the flow data we observe live are used as an early warning system to guard against meteorological and hydrological risks that may occur during the time the power plant is operating.

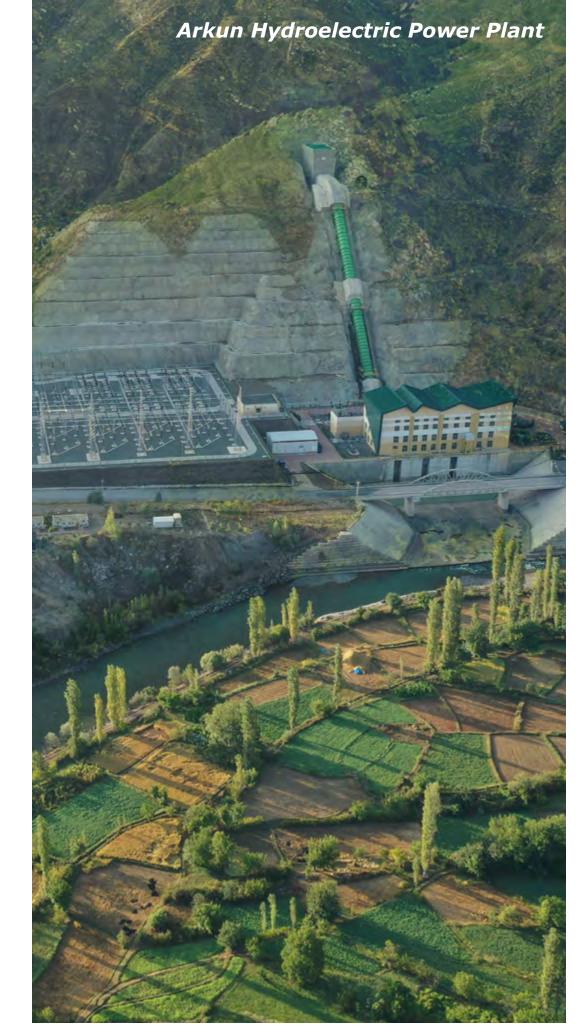
Thanks to this data, we can develop measures against potential risks. PERA, an optimization model established by the numerical analysis department at Enerjisa Üretim, operates in the cloud and guides us in obtaining maximum energy from one unit of water in the most effective and economically valuable time slot, by analysing esti-

mated flow and market conditions. This enables efficiencies that are equivalent to the electricity needs of 22,000 households on an annual basis resulting in zero carbon emissions.

In 2021, thanks to the "Predictive Maintenance Approach" and digitalization projects developed at Bandırma I and II power plants, we will reduce breakdown maintenance by more than 28% y-o-y to reach the 20% level. With these and other improvements, we have made significant gains in reducing natural gas imports. In 2021, Bandırma NGPP has managed to reduce its carbon footprint by around 1,000 tons.

During the year, we carried out maintenance at the Tufanbeyli Lignite Power Plant, registering efficiency improvements of 1.5% at Unit 1 and 0.4% at Unit 2. At Unit 3, we achieved a 0.8% increase in net yield and an 8% increase in gross production, which equates to savings in energy that would meet the electricity consumption of approximately 50,000 households each year.

We also carried out improvement maintenance on the gas turbine, switchyard and chimney emission measurement platforms at the Kentsa Natural Gas Power Plant. This plant is critical for supplying continuous energy to factories located in the campus it shares with them.



Wind and solar power plants do not generate meaningful carbon emissions and their water consumption is minimal. Compared to conventional lignite-fired power plants our wind and solar power plants have reduced industrial water use that is equivalent to savings of 0.78 tons per unit MWh. By this calculation, every 1 TWh of wind and solar electricity generated saves 780 tons of water.

CLIMATE CHANGE & ENVIRONMENT

Digital Transformation

We have invested significant resources and devoted large amounts of funds to digitalization and new information technologies. Digitalization investments not only increase productivity but also improve all our processes, enabling our employees to do their jobs faster and with greater ease, paving the way for Enerjisa Üretim to become an innovation leader in different areas. In this respect, our primary goals are to make big data⁴ uninterruptedly accessible to the entire company thanks to cloud computing, to create a team with high digital skills that uses data successfully, and to establish a horizontal organization that will enable learning based on the constant updating and changing of technology.

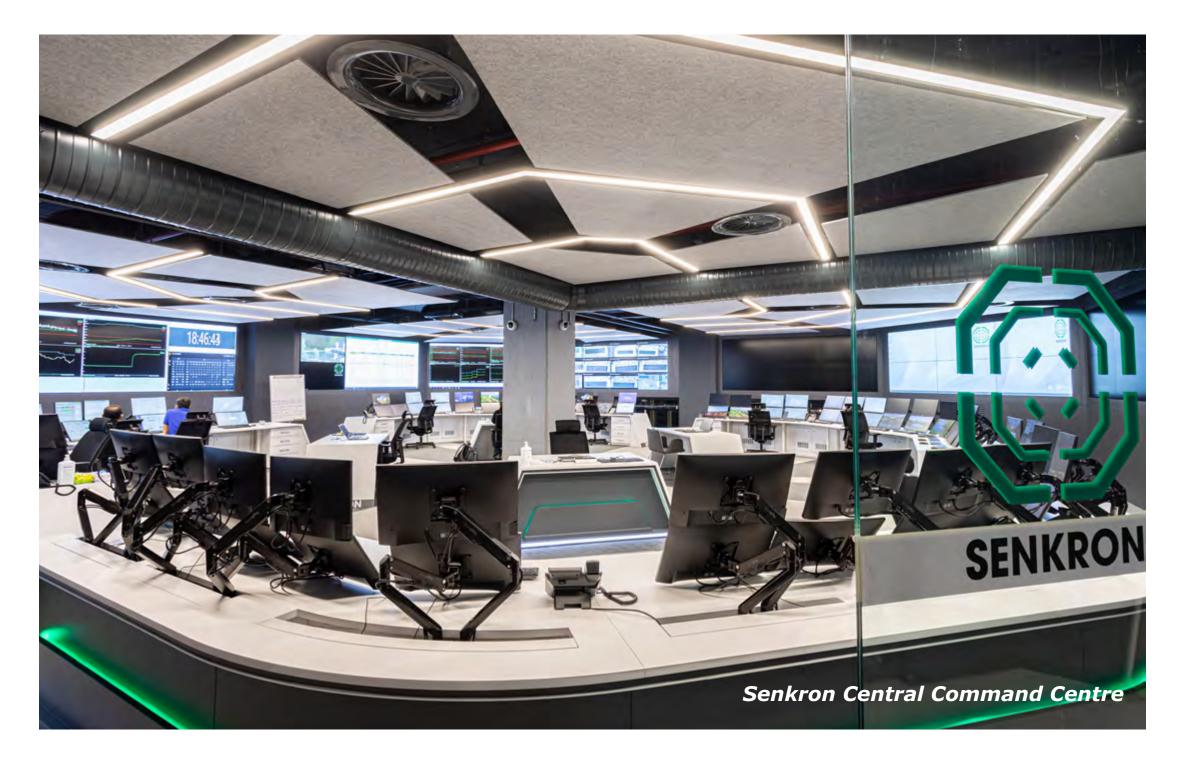
4 Big Data is the name given to the meaningful and processable form of all data collected from various sources such as social media posts, network logs, blogs, photos, videos, log files.

As there is usually less wind in sunny weather and less sun in windy weather, hybrid power plants built on both solar and wind power, such as our Balıkesir WPP are among the most advantageous systems.

Hydroelectric plants are the most efficient and can operate at 90%, wind power plants at up to 50%, solar is 20% and thermal power varies between 45% and 50% efficiency. Wind and solar energy systems are mutually balancing.



<u>Hydroeletric</u> • <u>Wind</u> • <u>Solar</u> • <u>Natural Gas</u> • <u>Coal-fired</u>



In line with our "data democratization" strategy, which means that data analysis can be performed without the need for IT support, we have increased the operability of our technical infrastructure and data governance processes from the perspective of viewing data as a corporate asset. Under our I7 business partnership structure, we have strengthened the ties between our business divisions and the IT unit. Business divisions have been asked to form partnerships to develop innovative projects

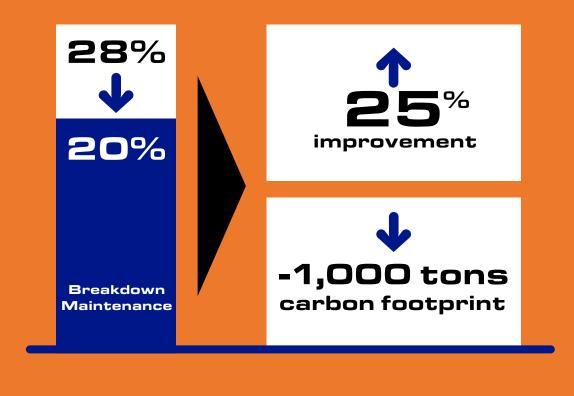
and to adopt cutting edge technologies that relate to their business areas. We also rolled-out the use of 'low-code' platforms⁵ that enable business divisions access and analyse the data they need with greater ease, to create their own reports and applications without the need to know how to code.

Our platforms are powered by Microsoft Power BI data visualization technology that enables our employees to analyse data in creative ways and produce reports.

2021 BANDIRMA I AND II NATURAL GAS COMBINED CYCLE POWER PLANTS

CLIMATE CHANGE & ENVIRONMENT

Thanks to our "Predictive Maintenance Approach" and our digitalization projects, we achieved a 25% y-o-y improvement by reducing breakdown maintenance from 28% to 20%. These improvements saved a significant amount of natural gas and reduced our carbon footprint by approximately 1,000 tons in 2021.



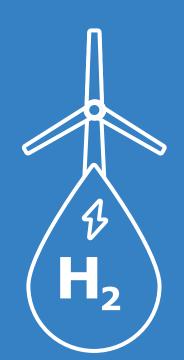
TUFANBEYLI LIGNITE POWER PLANT

Process maintenance resulted in 1.5% and 0.4% greater efficiency at Units 1 and 2 respectively. For Unit 2, we achieved a 0.8% increase in net efficiency and an 8% increase in gross production. In 2021, we reduced energy consumption that is equivalent to powering the electricity consumption of approximately 50,000 households.



HOW IS GREEN HYDROGEN PRODUCED?

Green Hydrogen is produced by the electrolysis of water using electricity derived from renewable energy sources. The power used must be wholly from renewable sources (e.g. solar or wind) for it to be classed as green hydrogen, regardless of the type of electrolysis

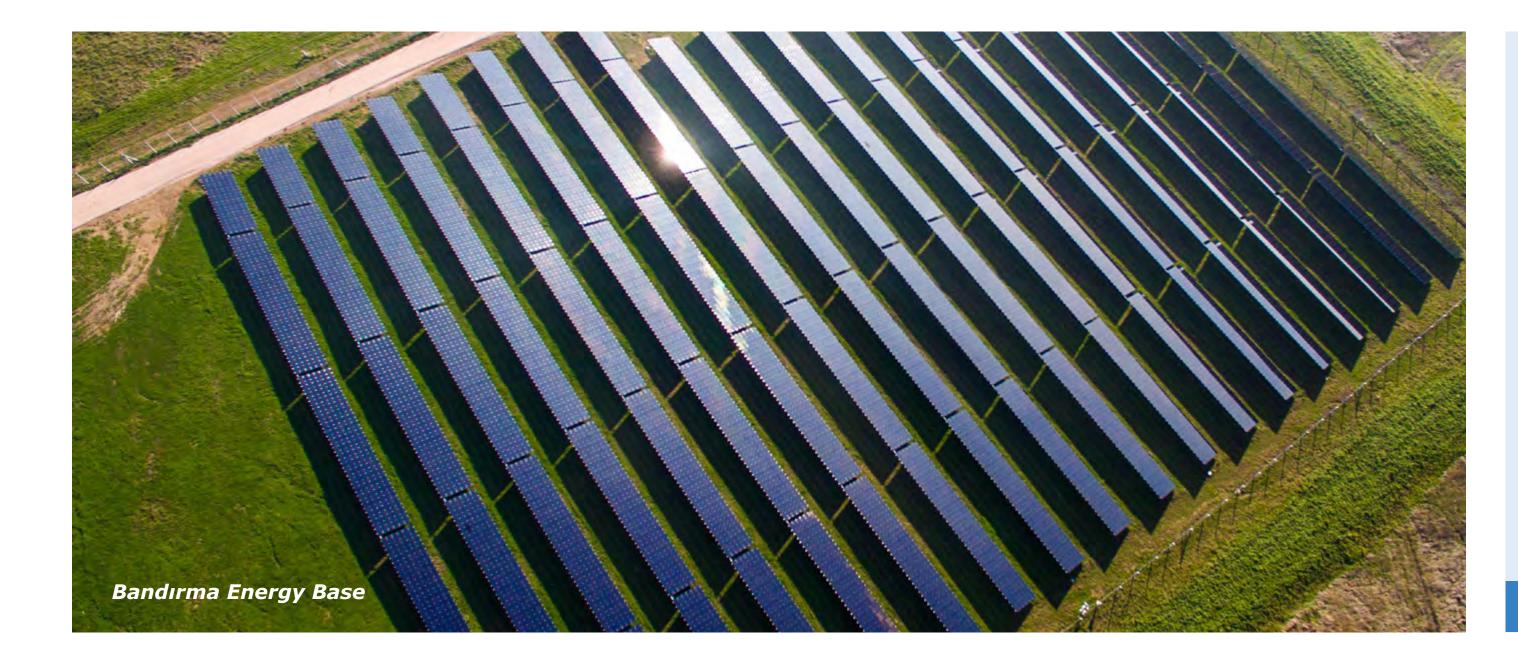


used. In other words, its final use must not result in any carbon emissions. Since its combustion and production does not lead to the emission of any harmful gases it is sustainable and is versatile because it can be stored and transported.

The fact that our company's growth strategy is based on sustainable and renewable energy assets significantly increases the importance of digital transformation. This is because renewable resources are located in a more dispersed structure outside of centralised plants, where live data is only available by intensive use of technology. For example, live OHS monitoring of employees in wind farms can only be achieved through the use of advanced technology. In addition, employees' instant access to data through the cloud allows for quicker intervention in case of malfunction and error. The future of energy production will be shaped by the

fast, efficient and skilful management of data by employees. One of the other benefits of digitalization is the positive contribution it has on reducing our carbon footprint and we will continue to support these projects in the future.

In the last three years, we have saved approximately 38 tons of carbon thanks to transitioning to the cloud as part of our digital transformation.



CLIMATE CHANGE & ENVIRONMENT



Green Hydrogen

KAHRAMAN ÇOBAN

Process Monitoring and R&D Process Monitoring and R&D

- **1.** How is green hydrogen positioned in the global renewable energy transition?
- 2. What makes green hydrogen different from other renewable energy technologies?
- 3. Could you briefly describe Enerjisa Üretim's approach to green hydrogen and the work completed in 2021?

Scan the QR code to watch the video.

Innovation and Product Development

The third pillar of our strategy is to develop new generation technologies through innovation, and to support the continuous innovative use of existing processes and infrastructure. In order to achieve this strategy, we have initially set targets for the relatively more advantageous green hydrogen, such as replacing some of the natural gas in our natural gas thermal power plants with green hydrogen, commissioning energy and hydrogen storage pilot projects and producing our first green hydrogen.

To adopt and adapt the technology on using hydrogen as an alternative fuel in power plants and to take the lead in its production in Turkiye, we initiated a feasibility study of establishing a small-scale hydrogen production facility in 2021. We partnered with Sabancı University on the project to produce green hydrogen using electrolysis, with the purpose of using it to cool generators at our Natural Gas Combined Cycle Power Plant at our Bandırma Energy Base.

Our hydrogen technology project consists of two main pieces of equipment: an electrolyser for hydrogen production and a hydrogen storage tank. Since we plan to use the produced hydrogen for generator cooling, we aim to meet this need by producing hydrogen in the field instead of using industrial cylinders. The installation of hydrogen technologies should be completed by March 2022. Once this pilot project is up and running, our goal will be to reduce emissions by replacing hydrogen produced using methane with green hydrogen. In fact, initiatives that provide the highest availabil-

ity and capacity factors may be also be possible through a more efficient or simply different utilization of existing processes or infrastructure. For example, in 2021, we reduced turbine start-up time by improving natural gas "cold start" conditions by collaborating to develop software with the manufacturer. This allowed our power plant to start up more quickly with less fuel, saving a significant amount of valuable fuel. We were able to achieve a more efficient and energy-secure result by making better use of innovation and technology.

The HYDROV Profiler Project, allows us to perform tunnel inspections without evacuating the tunnel. This means;

CLIMATE CHANGE & ENVIRONMENT

- Minimizing water loss,
- · Minimizing the risk of tunnel damage,
- Eliminating the risks posed by sending employees into the tunnel,
- Developing a preventive care strategy,
- Being the first organization in the country to accumulate experience in this space,
- The opportunity to develop special software and applications with this knowledge,
- Providing similar services to increase the efficiency of other power plants.

The project also prevents planned or unplanned down time, the amount of water wasted and OHS risks at the power plant.

We have developed the HYDROV Profiler underwater robot, which can perform visual inspection and high-precision mapping in all underwater engineering environments, especially in hydroelectric power plants, by collaborating with start-ups working in underwater technologies. The HYDROV Profiler is the first of its kind Turkiye that performs measurements and observations underwater at depths of up to 300 meters and at a distance of

7,000 meters. It has the ability to measure even in zero visibility water conditions thanks to its modular structure and integrated sensors. In 2021, the HYDROV Profiler was chosen by TÜBİTAK for financial support under its 1707 R&D call for a proposal.

While we consider innovation as being a key part of our internal strategy, we also continue to support external start-ups. As an exemplary project, we gave the Safety Vision approximately USD 4 million in seed capital support in 2021. Safety Vision, a first in Turkiye and one of the leading applications worldwide in the field of occupational health and safety, utilizes the existing camera infrastructure of power plants, works with artificial intelligence technology, and can measure and report processes such as equipment control, physical distance, and area violation detection in real time with an accuracy rate of over 90%.

We use our know-how to support the companies we invest in by offering them new business models and vision to enrich their IT competencies and infrastructure security. One example is our collaboration with 20 different start-ups at the 2-day "Demoday" event we organized with the Cube Incubation Hub in Teknopark Istanbul. Omreon, a company we met at the Demoday and Enerjisa Üretim cooperated to execute a KVKK data inventory project led by our legal team.



Developed by Momentum R&D at the ODTU University Teknokent, a company we launched in 2020, the "Karayel Wind Turbine" is a small-scale wind turbine with a flow accelerator, which we piloted at the Bandırma Energy Base in 2021. Once the installation is completed, we will continue to contribute to researching this technology by reporting on

its performance. As part of our declared support for SDG 7.a, we are also looking at increasing energy efficiency, expanding international cooperation to facilitate access to clean energy research and technologies, including advanced and cleaner fossil fuel technologies, and supporting investments in clean energy infrastructure and technologies.

OUR CONTRIBUTION TO SOCIETY









3. Our Employees

Our goal is to recruit at least 20% women every year until 2025.



OUR PRIORITY ISSUES

3. Our Employees

Operating in 21 different locations with 856 colleagues, Enerjisa Üretim owes its successful operations and financial performance to its employees. To maintain this success, we offer our colleagues a career path in their areas of expertise or in any other areas in which they want to develop themselves, and we strive to continuously invest in supporting them on their journeys.

As part of our corporate and operating culture, we engage in our business activities by paying attention to our environmental and social impact in compliance with international laws and regulations, particularly the Universal Declaration of Human Rights, International Labour Organization (ILO) and United Nations Sustainable Development Goals (SDGs). Our colleagues are both our sustainability stakeholders and our most valuable assets.



When designing our physical spaces in accordance with pandemic measures, we prioritized protecting our employees' health by maximizing their access to digital platforms.

In addition to our priority to protect health, we also consider financial, environmental and occupational well-being as integral parts of complete well-being. We held events to inform our employees about these issues and ensured that their families were also involved in the process. We provided parental counselling support for our employees who have children aged up to 18. Our employees can still receive unlimited service 24/7 at 444 58 54. This service includes psychological counselling; legal, financial and medical information services; crisis management; back, neck and neck pain prevention and office ergonomics; newborn care and in-

SUSTAINABLE **DEVELOPMENT GOALS**



The 17th and final SDG, "Partnerships for the Goals", aims to strengthen the means of implementation and revitalize the global partnership for sustainable development.



CLIMATE CHANGE & ENVIRONMENT



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formation services; health nutrition counselling, social life and general information services; technological consultancy and veterinary consultancy services. Our employees can also choose face-toface psychological counselling for themselves and their families for up to 12 sessions. In addition, our employees receive monthly activity bulletins for themselves and their children via e-mail.

CLIMATE CHANGE & ENVIRONMENT

Investing in employees is divided into three main areas:

- 1. Occupational Health and Safety
- 2. Training and Development
- 3. Diversity and Equal Opportunity

Occupational Health and Safety

Occupational health and safety (OHS) is directly related to SDG 3.9 on reducing deaths and illnesses from hazardous chemicals and pollution and to SDG 8.8 on protecting the rights of workers and promoting safe working environments for all.

In line with our mission to, "generate energy for a better future by respecting life" and "Integrated Management Systems Policy", we adopt occupational health and safety as a natural part of our business.

We aim to be one of the leading energy companies in its sector globally in terms of OHS. The ISO 45001 Occupational Health and Safety Management System, in which we are certified, shows our commitment to taking responsibility for OHS and managing it. We also encourage employees and stakeholders at all levels of our organization to participate in this process collaboratively.

ENERGY SUPPLY SECURITY

In order to increase employee engagement and stakeholder participation in these processes, to keep mutual learning alive and to continue to improve our business, we use a program called the Proactive Health and Safety Culture for Enerjisa Üretim Employees', Communication, Management Improvement Program (PEKİYİ for short).



In 2021, we identified our focus themes as Leadership and Employee Engagement, Process Safety (fire, chemical and incident management) and Traffic Management. We developed our leadership goal under the first of these themes, Leadership and Employee Engagement, by creating a competency and training matrix, ensuring that our employees play a more active role in the system with the support of industry psychologists and communication experts.

In process safety, we improved fire protection and extinguishing systems, chemical substance management processes, and incident reporting and investigations. As part of traffic management, we identified safe routes to be followed for getting to our power plants and provided training to ensure that relevant personnel are specialized in road safety.

In the next two years (2022 - 2023), we aim to maximize our ecosystem's health and safety culture including our employees and stakeholders by adding in our other focus themes into the PEKIYİ program. This program will helps us set an example both in our country and in the world by digitalizing our OHS processes, using innovative, creative approaches that go beyond what is required by legislation and other mandatory requirements, based on our principle of continuous improvement.



CLIMATE CHANGE & ENVIRONMENT

OHS DIGITAL TRANSFORMATION

Constantly improving the accumulation of knowledge, setting standards to become an energy company that leads the future of the industry through leveraging digitalization, we offer mobile applications and web-based platforms that enable our employees to participate in the OHS system and protect our employees through the power of digitalization, increasing the use of technology, enabling data to be created instantly by all employees and enabling our employees to access data instantly.

With three prominent applications in this field -ENSAFE, FARK@ and Digital Transformation in Health Surveillance - we have made rapid progress in OHS digital transformation in 2021. With the Contractor Integrated System software (YES), we contributed positively to the supply value chain by digitalizing the OHS processes of our contractors, who are our most important stakeholders after our employees.

ENSAFE is an OHS and legal compliance management software that simultaneously ensures that the OHS system is accessible to all Enerjisa Üretim employees, that incidents occurring in power plants are instantly reported to other power plants, and that hazard and "near-miss" notifications from employees are transparently displayed, reported and monitored. In addition to the instant reporting of all statistics, non-compliance, reminder messages are escalated up the management chain via e-mail and it ensures the timely and appropriate tracking and updating of legislation that affects our company (environmental, energy-related, etc.). The data obtained in the ENSAFE software is prepared in such a way that it can be monitored instantly by all company employees through the POWER BI program. With this data, a live feed on power plants and throughout the company allows us to monitor events and take measures rapidly.

FARK@, a mobile application, ensures that the system is accessible to all Enerjisa Üretim employees, that employees can make instant notifications, that faults are resolved quickly, and that transparent reporting is available for employees to see.

The Health Surveillance Digital Transformation is a series of projects in which our employees are considered individually and the socio-economic, cultural, educational level and similar parameters of the workplace are evaluated. Each of these projects is designed and structured according to the needs based on the data obtained from periodic checks performed by our workplace physicians. All health data obtained has been digitized so that only our workplace physicians can access it. Statistics of all medical data can be evaluated by our physicians and their suggestions can be implemented by the relevant units.

For example, with our "Thanks to Your Energy" project, we maintained and increased the well-being of our employees under eight headings (Physical, Environmental, Social, Emotional, Intellectual, Financial, Spiritual, Professional). In order to raise awareness of the rules that need to be considered for our employees' bodies and minds to be healthier and fitter, we have developed a balanced diet, sports, adequate sleep routines and we encourage the adoption of habits that will keep both the mind and body dynamic, such as yoga and meditation. Our mobile application enables us to monitor how many steps our employees take per day, their emotions and sleep states, and their socialization rates within the company, and by comparing them with the data of previous years we shared results with our employees.

YES is a software that provides integration between the contractor and our company. Its aim is to digitize the OHS processes of our contractors and increase their awareness on this issue. It is a program that enables the contractor company to digitize and send information and documents such as risk assessment, work structuring techniques, employee health reports, employer's copy, material safety data sheets, vocational training documents, basic OHS trainings, SSI employment documents and similar information and documents needed for OHS specifications. The software enables information and document assessments to be made not only by the occupational safety unit, but also by

related departments such as the maintenance department, administrative affairs and operations. YES ensures that contractors' entry processes into our power plants do not compromise quality. It is a very important supply chain sustainability measurement mechanism that also enables further acceleration, reduction of paper consumption and monitoring of inappropriate behaviours of contractor employees in terms of OHS.

	2020	2021
Recordable Event Frequency Rate (TRIF)	2.9	3.1
Lost Time Incident Severity Rate (LTISR)	9.7	44

Training and Development

SDG 4, Quality Education, aims to ensure that all individuals have access to quality education and vocational training. In line with this goal, we strive to provide all our employees with a planned, innovative and continuous learning environment with an egalitarian approach. While we contribute to the personal development of our employees to strengthen their professional and leadership competencies in line with their needs, we also increase their competencies with technical training to take firm steps forward in their careers. Our training programs are structure to make use of techniques



such as coaching and mentoring as well as experience-based learning methods. In addition to physical training, we provide e- orientation, technical, information and training programs on the E-Development portal, and our training platform can be accessed 24/7 from both computers and mobile devices.

Our technical training is intended to support the skills and expertise of head office and plant employees on a continuous basis. There are nearly 600 training modules in our technical training catalogue and in 2021, we provided a total of 83,541 hours of face-to-face and e-development platform training. Enerjisa Üretim contributed to the development of its employees by providing an average

Type of Training	2020	2021
Training hours per employee	71	99
External training hours	24,178	37,518
In-house training hours	30,656	46,023
Training hours in total	54,834	83,541

of 99 hours of vocational and technical training per employee. As stated in the report published by the Turkish Education and Development Platform Association (TEGEP) in 2020, while the av-

erage number of training hours per employee in Turkiye is 29.3, our numbers are nearly triple this figure. When conducting essential training which is extremely dangerous and risky to implement in real life, we use our ManeVRa virtual reality training program, to ensure we do not put employees in jeopardy. We support our employees with one-to-one English speaking and grammar training so that they can take an active participant role in technical development around the world. As of 2021, 90 employees had completed their first course of foreign language training.

CLIMATE CHANGE & ENVIRONMENT

Our employees are regularly evaluated based on their performance. In 2021, 91.5% of our employees underwent performance reviews.

	2020		2021		
Regular performance	Women	Men	Women	Men	
review (no of employees)	98	658	110	673	

ENERJİSA ÜRETİM POWER MBA PROFESSIONAL DEVELOPMENT PROGRAM

Our Power MBA program is designed to help us execute our vision of continuously improving knowledge and leading the energy sector. For those of

our employees that want advance their career in the energy sector, this program offers a unique educational opportunity. The Power MBA, which companies and public organizations involved in the energy sector can also participate in, is a master's degree program. The program's themes revolve around SDG4 Quality Education and SDG 8 Decent Work and Economic Growth, to improve the perspective of participants in the sector and enhance their existing knowledge and experience by providing information on new technologies. The program sponsor is Enerjisa Üretim.

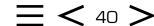
Power MBA's first semester was completed in seven months during the 2021-2022 academic year. The Power MBA Program is available not only to Enerjisa Üretim employees but also to all our stakeholders in the energy ecosystem. In its first semester, of the 21 graduates approximately 50% were non-Enerjisa Üretim employees. In addition to a total of 128 hours of the course curriculum, the program featured 9 guest speakers and 26 Enerjisa Üretim employees as volunteer trainers. During and at the end of the program, evaluation surveys were conducted to obtain feedback from participants.



The feedback we received during the two semesters of this program, in which participants were quite diverse, showed the importance fostering greater communication and knowledge sharing between sector professionals to advance the sector as a whole. Thanks to this training program, both Enerjisa Üretim participants and employees from different countries and companies were able to not only improve their professional and personal competencies, but also to broaden their perspectives through knowledge and experience sharing. We are proud to have contributed to SDG 17 Partnerships for the Goals by revitalizing global partnership, accepting competitors as stakeholders, increasing access to know-how and supporting idea sharing and innovation.

ORION INTERNSHIP PROGRAM

Orion is an internship program designed for 4th year university students and recent graduates. The program is designed as a 6-month internship that will prepare new graduates for business life with various workshops, group work, one-to-one mentoring on their career path, plant visits, professional and behavioural competency trainings, seminars, guest speakers and a final project. It aims to supply candidates assigned to different departments at each phase with the technical competencies of the relevant department. Approximately nine thousand people have applied to the program, which consists of two semesters.



Diversity and Equal Opportunity

CLIMATE CHANGE & ENVIRONMENT

Enerjisa Üretim offers its employees an ethical working environment in line with the principles of equal opportunity, gender equality and inclusiveness in line set out in SDG 5 Gender Equality.

Our People and Culture policy provides equal opportunities for our employees from the moment they are recruited and throughout their employment. Together with our **Equal Energy** community, we implement both internal and external gender equality practices. Our **Equal Energy Manifesto** reinforces confidence in inclusiveness and equal

opportunity fostering equality between women and men throughout the organization. With our "equal pay for equal work" approach, wage differences between employees performing the same duties are objectively determined without discriminating between the wages of men and women.

An analysis by the International Energy Agency (IEA) and the OECD, based on data from approximately 2,500 companies in energy-related sectors, shows that the share of women in senior management (with stronger female representation in the electricity sector) is below 12%. Although the ratio of female employees in our sector has not yet reached the targeted level, between 2018 and 2021, it has shown 16.4% compound annual growth. In addition, we aim to increase the proportion of female employees in our managerial roles from 15% in 2021 to 18% in 2022. By 2022, we also aim to increase the proportion of women who are in supporting managerial roles from 15% to 20%.

With our "Flexible Benefits That Suit You", program we offer our employees the opportunity to choose their benefits in line with their own needs and wishes. This ensures each of our employees can shape their benefit package according to their priorities and preferences. The main purpose of the Flexible Benefits Program is to enable our employees to manage their annual budgets in line with their own wishes and needs.

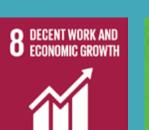
Initially implemented as a digital appreciation-recognition system that supports company strategies, loyalty, goals and objectives, the **Good To Have You With Us** project aims to contribute to the formation of the way we do business and the positive development of our corporate culture. The system is designed in such a way that appreciation, likes and comments can be seen by everyone with full transparency. Spendable badges earned from the system can be used in the shopping portal, which includes more than 900 suppliers and brands.

15% of our employees are female and 85% are male. In 2021, a total of 19 disabled colleagues, including 4 women, joined us. From the perspective of the average age of our employees, we note that the largest sub-set has been in the 30-50 age range for the last five years and that our employees under 30 (18%) and over 50 (3%) are predominantly men. These ratios reflect the averages of Turkiye and the energy sector, and we are endeavouring to evolve towards a more diverse and inclusive workforce in the coming years.









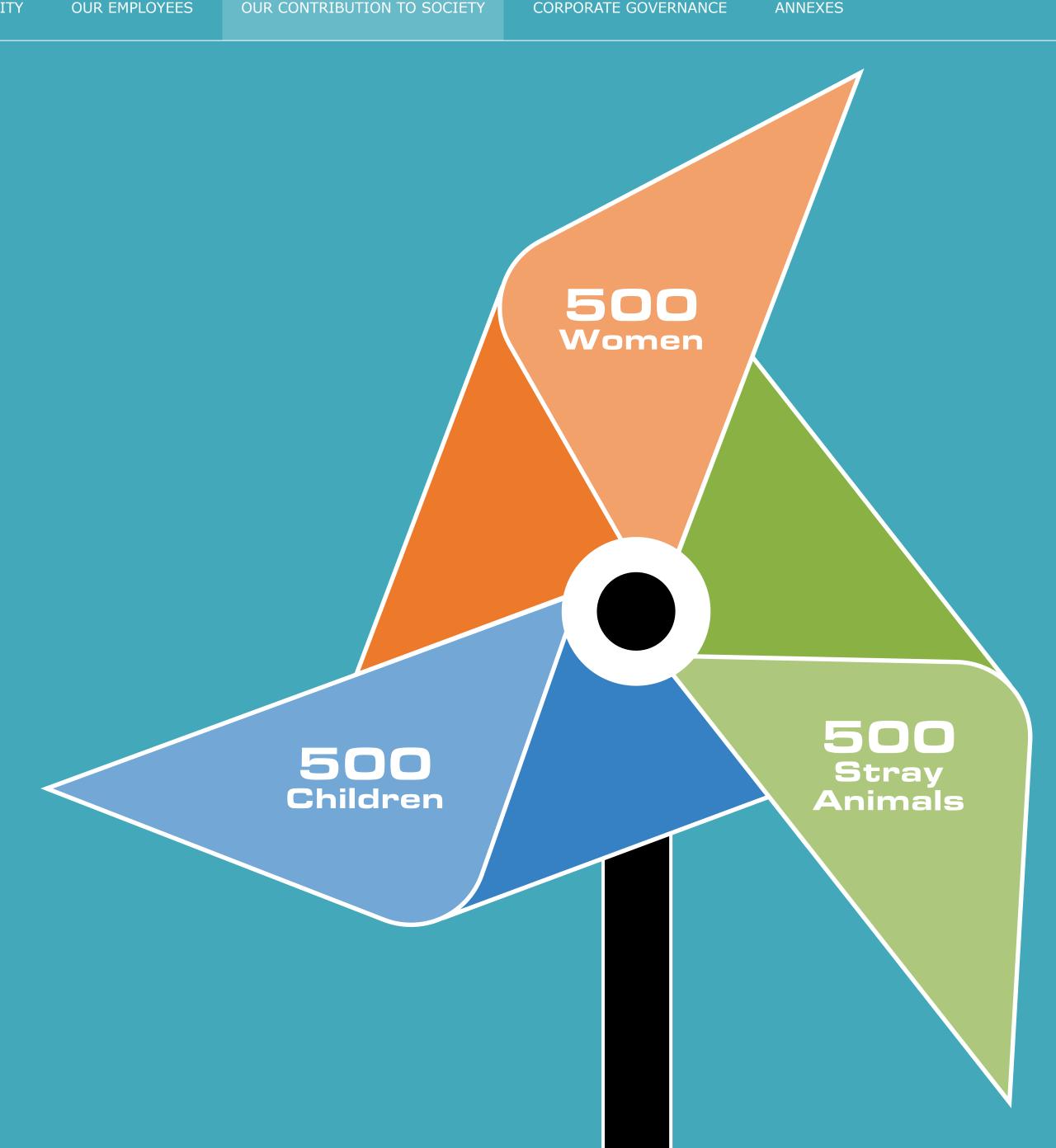




OUR PRIORITY ISSUES

4. Our Contribution to Society

By 2025, finance 500 children around digital competence and climate change, and provide training to 500 women to increase their income levels and aim to improve the conditions of at least 500 stray animals.



OUR PRIORITY ISSUES

4. Our Contribution to Society

CLIMATE CHANGE & ENVIRONMENT

We execute projects that create a positive impact in the regions where we operate in line with the requests of our regional communities. In line with

the United Nations Sustainable Development Goals

WHAT ARE THE DIFFERENCES BETWEEN CORPORATE SOCIAL RESPONSIBILITY AND INVESTING IN SOCIETY?

Corporate Social Responsibility (CSR), describes the work an organization engages in to further the general interests of society, in addition to furthering their own interests. It can also be thought of as an individual's duty to work towards achieving a balance between the economy and the ecosystem. The main topics that concern CSR are education, health, aid and the environment. It manifests in how a business might initiate various projects in accordance with its besides turning a profit. CSR helps support sustainability goals by acting ethically and the creation of shared value, the establishresponsibly towards society and thus adding value to its community and society. Investment in Society or Social Investment is cation thereby contributing to the reduction work that creates a positive social impact of business risks. Social Investments are the benefits and effects of which are mea- projects that contribute to the development surable. It comprises strategic relationships and progress of society and they target the or joint ventures with people or companies social and economic benefit of individuals on social or environmental issues with the that form that society.

goal of achieving long-term corporate benefits and to enhance their brand's reputation. CSR focuses on the image and visibility of the institution. At the same time, it is designed to increase commitment, advocacy, motivation amongst employees so that they also contribute to the development of the brand, increase the reputation and reliability of the brand, realize that the institution is a part of society and should have other concerns ment of stronger relations with society and the strengthening of stakeholder communi-

we carry out our social investment projects with a focus on SDG 5 Gender Equality and children, education and sports (SDG 4 Quality Education), health and local development.

Our Contribution to Children and Young People's Education

We reached out to approximately 2,000 of our region's students in 2021 providing inventory support and donations to improve local education and sports opportunities (education inventory support, sports courses, computer and robotic coding workshops and structural renovations). We provided 304 children with our "We Code as a Family" coding program, which we designed to teach children about the digital world and to unleash their creativity. In support of children learning foreign languages and finding out about different cultures, we organized an English conversation program led by Erasmus students. We collaborated with the Güler Legacy to provide basketball training to 40 students. Our joint work with the District Directorate of National Education helped support summer sports courses. The Akdam Secondary School Girls' Volleyball Team was promoted to the top league on becoming district champion and we were proud that the team finished the season in 4th place in the Adana II Championship Final Four. In addition, our company volunteers provided mentoring support to support the development of students. Apart from the 3 Enerjisa named schools, and



CORPORATE GOVERNANCE

the 11 schools whose maintenance and needs we support, we also provide equipment and training support for students to engage in robotic coding.

CLIMATE CHANGE & ENVIRONMENT

Health and Local Community Development

We ensured access to treatment services in our regions, providing health care access to 110 people. We tried to mitigate the effects of the pandemic in the regions where we operate by providing masks and disinfectants. As part of Tufanbeyli District's Agriculture and Forestry Fruit Growing Development Project, targeting rural and disadvantaged areas, our 5 year **Fruit Growers Development** Project, begun in 2020 covers Tufanbeyli Center and its neighbourhoods. We planted 3,750 walnut saplings in the first year of the project, 5,000 in the second year, and 8,750 walnut saplings in total, and touched 108 farmers lives as of 2021. The **Tufanbeyli Aromatic Plant Growing Project**, oversaw the planting of 2,500 lavender plants around the power plant and a further 6,750 sage plants were planted at the Yamanlı Village. In October and November 2021, the plants were harvested thereby proving their suitability for the climate of the region.

In Tufanbeyli, we provided 1,100 kg of clover seeds support to farmers. This seed support met the 1-year fodder need for 250 cattle. We sup-



ported producers in 70 households living in our impact areas, who make most of their livelihoods from animal husbandry, by improving the water conditions of cattle and sheep and fighting against phosphorus disease.

By upgrading their irrigation canal, we contributed to more efficient irrigation of wetlands and the prevention of water leakage. Further improvements on the roads to agricultural lands helped approximately 190 agricultural producers. A protocol was signed with Çukurova Development Agency regarding our Pulses Packaging Facility Project, joint venture with the Tufanbeyli Municipality and feasibility studies began immediately. Concurrently, we are trying to include more female suppliers in our purchasing processes to support more gender equality along the supply chain.

Supporting Society

To support the post-fire rehabilitation process across the Taurus fire zones, three trucks of feed sufficient for 2,500 small cattle in our region were delivered to Kozan Kızlarsekisi, Salmanlı, Gökgöz, Akarca, Aladağ Boztahta, Topalli local official's offices accompanied by the District Directorate of Agriculture. We delivered 60 hives to families who lost their hives in the fire and who make a living from beekeeping, together with their bees and honeycombs, in a condition that can generate income quickly, contributing to SDG 15.4- Ensuring the protection of mountain ecosystems and biodiversity.

We provided veterinary support to small cattle alongside HAYTAP. In cooperation with the Kozan District Governors Office, a temporary living house delivery plan was made for 11 families with low income who will spend the winter in the region. Children living in areas affected by the fire were given pre-school education at kindergarten, primary and secondary schools in Akdam, where there are 240 students in total. We provided students with a library, robotic coding sessions and sports equipment. We fertilized and soil rehabilitated 4,200 income-generating trees on 8.5 hectares with 8,500 kg of fertilizer. On October 27, we planted a total of 1,000 saplings, 500 red pine trees on forest land and 500 pistachio pine trees on our Enerjisa Üretim land.



Corporate Governance

At Enerjisa Üretim, we are committed to helping our customers, stakeholders and society as a whole transition to a more sustainable future. We are also committed to directing our company with a responsible and transparent management approach. For this reason, we have built our company's governance structure in a way that is effective, where responsibilities and duties are clearly defined and for which sustainability is at the centre of the processes.

Systematic Risk Management

Our company's understanding of risk culture includes making risk management an integral part of all departments and processes and addressing risks and opportunities from all angles in decision-making. With our integrated risk management approach, we aim to identify, measure, evaluate and mitigate all risks and opportunities that may affect our operational, strategic and financial plans using various methodologies. Our risk management approach covers legal, regulatory, operational, financial and strategic risks related to information security. Our Annual Report details the techniques and processes we use to manage risks. Our systematic risk management

approach is integrated into all our business lines in order to minimise risk, monitor it and take action in response. The aim of the risk management framework is to bring transparency to all functions and strengthen decision-making through regular reporting and monitoring.

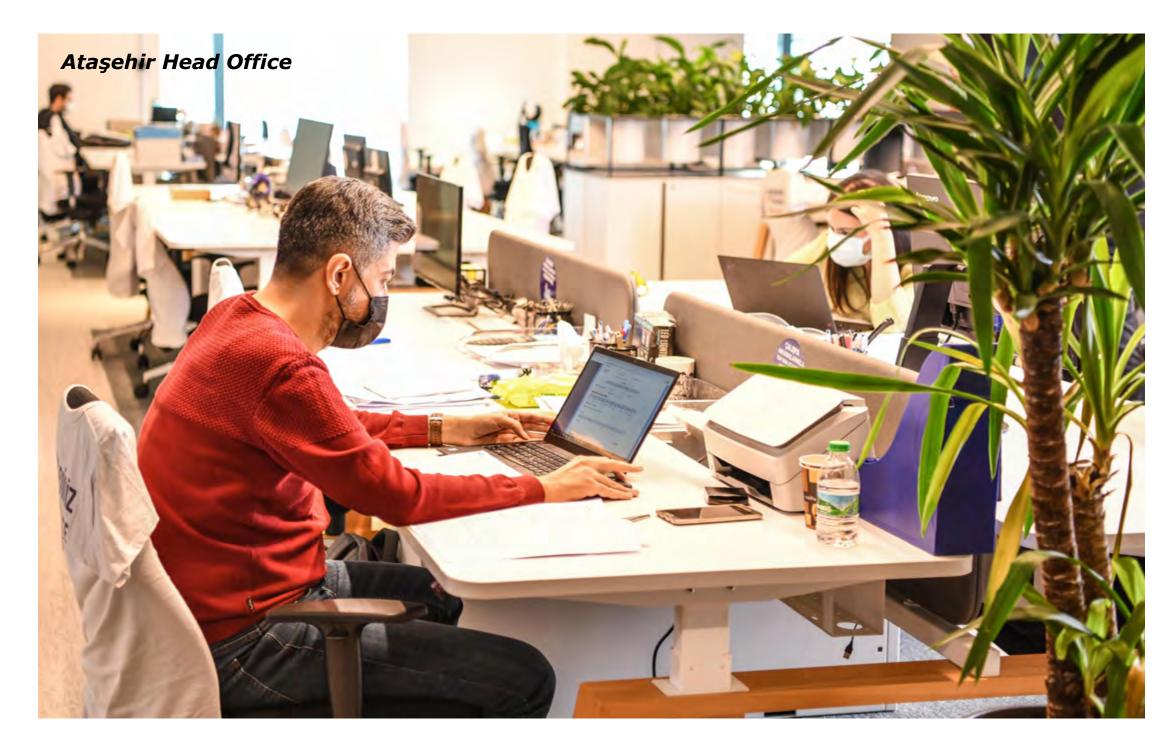
Two different departments are responsible for risk management within Enerjisa Üretim and carry out risk management activities in their respective business areas. The Asset Management and Sustainability department focuses on the management of technical risks for power plants, while the Risk Culture department focuses on the management of optimization risks, commercial, financial and corporate risks.

Our Risk Culture

Commercial and operational risks include changes in the prices of and the additional costs of the electricity we generate or trade and the commodities we consume or trade, such as natural gas, petroleum products, lignite, etc., in free and regulated markets over time and their impact on profitability. Our Commercial Risk Management team comprises our CFO, Portfolio Management EVP,



CORPORATE GOVERNANCE



CLIMATE CHANGE & ENVIRONMENT

the Director for Energy Markets and Risk Culture Leader and they are directed by the **Trading and Optimization Risk Management Committee** and within the scope and limits set out in our Commercial Risk Policy, they are tasked with monitoring our commercial risks. The profitability of each trade, any optimization activity and the majority of the risks involved are reported on a daily basis. We also maintain risk capital for trading activities. Thus, we set trading limits based on risk capital

and risk appetite, monitoring them on a daily basis. We use advanced Value at Risk (VaR) models to measure commercial risks.

ENERGY SUPPLY SECURITY

Financial Risk Management involves our receivables, payables and foreign exchange risks arising from purchase guarantees in different currencies which represents a significant share. In addition, we are exposed to foreign exchange risks arising from deposits, loans or term debt and receivable.

ables. We have established an **Assets and Liabil- ities Committee** comprising senior management
to assess financial risks and plan actioning. This
committee meets regularly and evaluates our current and prospective deposit and loan positions,
income and expenses in different currencies, currency and interest rate risks. The committee also
determines the positions to be taken and risk
management actions and provides input for the
Financial Risk Management Policy.

In order to ensure the continuity of our business processes, we started Business Continuity Management System studies in 2021. For this, we prepared Business Recovery Plans on a departmental basis in line with the business impact analyses and risk assessments carried out at a departmental and process level. We continue to work to minimize the impact of a possible interruption on our processes.

We are in the planning stage for the formation of a sub-committee that will work under the guidance of the **Sustainability Committee**. This committee will be composed of the leaders of Sustainability, Risk, Portfolio Management, Strategy, Compliance, Corporate Communications, Corporate Finance departments and will develop strategies in line with the company's sustainability policies; identify and monitor risks, opportunities and actions; establish and manage the necessary task forces.

Operational Risk Management

The Technical Risk Management system is designed to identify and eliminate risks that may reduce the availability values of power plants, harm people and the environment, and cause legal non-compliance, and to identify and realize opportunities that can create value. The impacts of technical risks and opportunities are assessed mainly in the areas of Occupational Health and Safety, Environment, Reputation and Financials. While conducting these studies, systematic risk analysis methods based on international standards are used.

In line with the guidance of the **Technical Risk Committee** consisting of the CEO, Executive Vice
President for Operations and Technical, Technology
Leaders, and Asset Management and Sustainability
Leaders, risks arising from climate change and the
measures to be taken are also monitored by the Asset Management team within the scope of Operational Risk Management. In the coming period, detailed
scenario analyses will be carried out on drought,
flood, forest fires, global temperature increase and
similar topics to come up with suggestions for adaptive solutions.

We hosted the Physical Asset Management in the Energy Sector Conference, which was the first of its kind in our sector in Asset Management. At this conference, we aimed to raise awareness on sustainability by sharing our efficiency efforts with **CLIMATE CHANGE & ENVIRONMENT**

our stakeholders in the sector. Internal Audit and Control

Enerjisa Üretim Santralleri A.Ş. and its subsidiaries ensure the effectiveness and adequacy of internal controls in their business processes. Internal Audit and Control has three main tasks: conducting process audit activities, consultancy services and ethical reviews. It prepares a riskbased audit plan annually incorporating evaluation criteria appropriate to the strategic and sustainability priorities of our company. In 2021, 19 audits were performed. In 2021, we devoted 63% of our resources to audit, consultancy and ethical review activities; 11% towards following up on audit findings, audit committee preparations and administrative work; 5% on internal and external trainings and 5% on project work.

Internal Audit's main responsibilities are to conduct audits on whether Enerjisa Üretim is compliant with legal regulations, Group regulations and its own business ethics rules. It also works on operation and maintenance processes at power plants and occupational health and safety; using data analysis tools that are part of our overall digitalization targets.

Acting on the principle of independence, Internal Audit reports directly to the Audit Committee, which consists of two Board members. In 2021, the Audit Committee and the Internal Audit held 5 meetings. Enerjisa Üretim's Board of Directors stays informed of any relevant issues by continuously monitoring the activities of the Internal Audit which are presented to them via periodic information and presentations at the Audit Committee. Internal Audit complies with International Internal Audit Standards and the company's Code of Ethics. This compliance has been confirmed and documented by the Quality Assurance Assessment (QAR) document, reviewed every 5 years in accordance with the QAR standards and which was last conducted by independent audit firms in 2018. All team members that work for our unit are members of the Internal Audit Institute of Turkiye where they strive to expand and share their professional knowledge and experience.

Business Ethics and Compliance

"Enerjisa Üretim Compliance Booklet" and "Enerjisa Üretim Code of Business Ethics and Supporting Policies" have been prepared in compliance with the business ethics rules of our shareholders Sabancı Holding and E.ON. These are in line with the Universal Declaration of Human Rights and the basic conventions of the International Labour Organization, and include mutual responsibilities with employees and all stakeholders. These documents are our most important governance guiding principles on how we engage in our business. These compliance and ethical rules are designed to en-



sure compliance and business ethics in Enerjisa Üretim's internal and external relations, and to provide protection for all kinds of company assets and information, to prevent conflicts of interest, anti-bribery, anti- money laundering and anti-corruption, competition law and personal data protection. They also describe Enerjisa Üretim's governance responsibilities towards their employees, customers, shareholders, suppliers and other business associates and to society as a whole.

Our Code of Ethics booklet "EnEtik", is also available publicly on our corporate website alongside our Compliance Booklet.



principles which are assigned to them regularly through the e-learning platform, and declare their commitment to these rules with the "Business Ethics Compliance Declaration". The Ethics Commit-

Employees are trained on business ethics rules and tee Advisor, who chairs the Workplace Behaviour Assessment Board is the organization's contact person for ethical issues. To ensure compliance rules are disseminated thoroughly, our employees are put through a compliance and code of ethics training assigned to them through the e-learning platform. The Compliance Advisor is the primary contact person for compliance and their name is known throughout the organization.

Company employees and all stakeholders can report possible ethical violations by calling the Ethics Hotline at **+90 216 512 4242** or by contacting the Internal Audit Department via e-mail enetik uretim@enerjisauretim.com. Only Internal Audit is authorized to access these reports and to conduct investigations and inspections on violations. The results of audits and investigations are reported to the related unit's management and the Audit Committee, and any action needed is then taken. In 2021, there were no cases involving any ethical violations, including bribery and corruption, both in the audits performed and in the complaints and notifications received.

If the Chief Legal Counsel and Compliance Advisor identify any non-compliance with the rules set out in the Compliance Manual and related policies, this breach is immediately notified to the Compliance Board, comprising the CEO, CFO, EVP for People and Culture, and Chief Legal Counsel, to be minuted and decided upon. In cases when when the code of ethics concerns one of the provinces where the Internal Audit Director serves, then the Director will also join the Board. In addition, all employees and other stakeholders (shareholders, customers, suppliers, public institutions) can re-

port non-compliance with the Compliance Manual and related policies by using any of our compliance violation reporting channels. The Chief Legal Counsel and Compliance Advisor are authorized to access these channels. Our notification channels are as follows:

> **Compliance Violation Notification** E-mail: uyum.ihbar@enerjisauretim.com

Compliance Violation Notification:

+90 216 512 40 60

Our Company complies strictly with the prevention of maltreatment and retaliation in ethical and compliance matters. Directors of our units are requested to fill out the "Legislation Compliance Catalogues" every six months and to declare their compliance with the legislation and regulations to which the relevant units are subject. The results are reported to the Chief Legal Counsel and Compliance Advisor and recorded.

ENERJÍSA ÜRETÍM & SUSTAINABILITY CLIMATE CHANGE & ENVIRONMENT ENERGY SUPPLY SECURITY OUR EMPLOYEES OUR CONTRIBUTION TO SOCIETY CORPORATE GOVERNANCE ANNEXES \equiv 50 >



ENERJİSA ÜRETİM & SUSTAINABILITY

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Annex I: Memberships

SHURA
GÜYAD – Energy Investors Association
EÜD – Electricity Producers Association
ETD – Electricity Trading Association
PETFORM – Oil and Natural Gas Platform Association
TÜREB – Turkish Wind Energy Association
TOBB Energy Committee
TOBB Natural Gas Committee

Borsa Istanbul Energy Committee	
ISO Energy Committee	
TUSIAD – Turkish Industry and Business Association	
SKD Turkey – Business World Sustainable Development Association	
Turkish Institute of Internal Auditors	
Institute of Asset Management	
International Institute of Risk and Safety Management	



Annex II - Awards



Kincentric Best Employer Award: awared by Kincentric for 2021 "Turkey's Best Workplace Award"

13. Peryön People Value Awards:

Creating Value in Future

Business Life and Learning

Organization and Training

for Employer Brands; and

Finalist in the Agility Category

"The Top Prize" for the Loyalty

and Corporate Culture Category

CLIMATE CHANGE & ENVIRONMENT



6. Felis Awards: for Corporate Reports in the PR section, competing against 211 projects "Felis Award"



Istanbul Marketing Awards: For 2021 in the Employer Brand for Corporate Communications **Gold Award 2021**



Galaxy Awards: Annual Report Design at the 2021 Galaxy Awards organized by USbased Mercomm: In the Non-Traditional Reports category







iNova Awards: 2021 iNova In the Online Annual Reports category for Awards 2021 **Energy Sector Bronze Award**



IDC CIO Awards 2021 Best Change Management category with our "Synchronous" project and Best Future of Work Human Machine Collaboration with the "Hololens 2" application in the Collaboration category and with our "Remote Support to Power Plants" project **Third place**



The Stevie Awards 2021 4 awards in the International Business: three Stevie Awards for Manager of the Year, **Best IT Technical Solution, Achievement in Organization Development** and one Stevie for Great Employers (Achievement in Learning **Technology Implementation**).



IDC Turkey Cloud Technologies in the "Best Saas" category with our "Predictor" application First Prize; and with our "CM Report" application in the "Best Cloud Transition" category with **Second Prize**

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Golden Leader 2021 Ihsan Bayçöl; Turkey's Most **Admired CEO Award**

4. Turkey Energy and Natural Resources Summit Our Energy is Our Future Award; and a **Sustainable Finance Award**



First place in two different categories at the DnA Awards: "The Highest Value-Creating **Project Award with WACOG** Optimization; and The **Highest Value-Creating Company Award** in the Sabancı Holding Group



Human Capital Management **Excellence Awards:** 4 gold, 1 silver and 3 bronze **8 awards** in total



Prida Communication Awards: Change Management in the Pandemic and Internal **Communications Category** "PRIDA Communications Award"

OUR CONTRIBUTION TO SOCIETY

Annex - III: GRI Standards Index

GRI Standard I		Indicators	
3RI 101	: Core 2016		
BRI 102	: General Indicators 2016		
RI 102:	CORPORATE PROFILE		
eneral Idicators	102-1 Organizational Details	Corporate Profile and Reporting Scope	
	102-2 Primary brands, products and services	Corporate Profile and Reporting Scope	
	102-3 Location of headquarters of the organization	Annexes	
	102-4 Number of countries in which the organization operates	Corporate Profile and Reporting Scope	
	102-5 Nature of ownership and legal structure, Shareholding Structure	Corporate Profile and Reporting Scope	
	102-6 Markets served	Corporate Profile and Reporting Scope	
	102-7 Scale of the organization	Corporate Profile and Reporting Scope	
	102-8 Information on employees and other workers	Our Employees	
	102-9 Supply chain	Our Journey Towards Our Sustainability Goals; Our Contribution to Society	
	102-10 Changes in the organization and supply chain	Detailed information on significant changes in the reporting period are available at the About Us tab at www.enerjisauretim.com	
	102-11 The precautionary approach or the principle of prudence	Sustainability Governance, Corporate Governance	
	102-12 Supported initiatives	Annexes: Memberships	
	102-13 Sector Associations and NGOs	Annexes: Memberships	
	STRATEGY		
	102-14 Declaration of the highest level decision maker	CEO and Chair of the Sustainability Steering Committee's Message	
	102-15 Impacts, risks and opportunities	Corporate Governance	
	ETHICS AND INTEGRITY		
	102-16 Values, principles, standards and norms of behaviour	Business Ethics and Compliance	
	102-17 Ethical complaint mechanisms	Business Ethics and Compliance	
	GOVERNANCE		
	102-18 Management Structure	Sustainability Governance	
	102-19 Delegation of Authority	Sustainability Governance	
	102-20 Economic, environmental and social issues	Sustainability Governance	

GRI Standa	rd	Indicators
	102-21 Stakeholder views	Our Sustainability Priorities
	102-29 Priority Issues	Our Sustainability Priorities
	102-30 The role of senior management in risk management	Sustainability Governance, Corporate Governance
	102-31 Review of economic, social and environmental issues	Sustainability Governance
	102-32 Sustainability Reporting	Sustainability Governance
	STAKEHOLDER PARTICIPATION	
	102-40 List of stakeholder groups	Sustainability Governance
	102-41 Collective bargaining agreements	There are no collective bargaining agreements at Enerjisa Üretim.
	102-42 Identification and selection of stakeholders	Sustainability Governance
	102-43 Stakeholder engagement approach	Sustainability Governance
	102-44 Key issues and concerns	Our Priority Issues
GRI 200: I	Economic Standard Series	
	ECONOMIC VALUE	
RI 204:	PROCUREMENT PRACTICES	
rocurement ractices 2016	103-1 Explanation of material issues and their boundaries	Our Priority Issues
	103-2 Management approach and its components	Sustainability Governance
	103-3 Assessment of management's approach	Sustainability Governance
	204-1 Proportion of spending on local suppliers	Annual Report p.32
RI 205:	COMBATTING CORRUPTION	
nti-Corruption 016	103-1 Explanation of material issues and their boundaries	Our Priority Issues
	103-2 Management approach and its components	Sustainability Governance
	102.2 Assessment of manufacture at the summer of	Sustainability Governance
	103-3 Assessment of management's approach	Sustainability Governance

GRI Standard		Indicators	
GRI 300:	Environmental Disclosures		
	ENVIRONMENTAL RESPONSIBILITY		
GRI 103:	ENERGY		
Management Approach	103-1 Explanation of material issues and their boundaries	Our Priority Issues	
2016	103-2 Management approach and its components	Sustainability Governance	
	103-3 Assessment of management's approach	Sustainability Governance	
GRI 302:	302-3 Energy intensity	Energy Intensity	
Energy 2016	302-4 Reduction of energy consumption	Energy Supply Security	
GRI 103:	EFFLUENTS AND WASTE WATER		
Management Approach	103-1 Explanation of material issues and their boundaries	Our Priority Issues	
2016	103-2 Management approach and its components	Sustainability Governance	
	103-3 Assessment of management's approach	Sustainability Governance	
GRI 103:	BIODIVERSITY		
Management Approach	103-1 Explanation of material issues and their boundaries	Our Priority Issues	
2016	103-2 Management approach and its components	Sustainability Governance	
	103-3 Assessment of management's approach	Sustainability Governance	
	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Biodiversity and Nature-Based Solutions	
GRI 103:	EMISSIONS		
Management Approach	103-1 Explanation of material issues and their boundaries	Our Priority Issues	
2016	103-2 Management approach and its components	Sustainability Governance	
	103-3 Assessment of management's approach	Sustainability Governance	
	305-1 Direct (Scope 1) Greenhouse Gas Emissions	Annexes: Emissions	
	305-5 GHG emissions reduction	Our Journey Towards Sustainability Goals, Climate Change and the Environment	
GRI 103:	EFFLUENTS AND WASTE		
Management Approach	103-1 Explanation of material issues and their boundaries	Our Priority Issues	
2016	103-2 Management approach and its components	Sustainability Governance	
	103-3 Assessment of management's approach	Sustainability Governance	
GRI 306: Effluents and Wastes 2016	306-2 Management of significant waste-related impacts	Climate Change and the Environment	

GRI Standa	rd	Indicators
GRI 400: 9	Sosyal Standart Serileri	
GRI 103:	EMPLOYEES	
lanagement pproach 2016	103-1 Explanation of material issues and their boundaries	Our Priority Issues
	103-2 Management approach and its components	Sustainability Governance
	103-3 Assessment of management's approach	Sustainability Governance
RI 401:	401-1 New employee hires and employee turnover	Our Employees
mployment 016	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Our Employees
SRI 403:	OCCUPATIONAL HEALTH AND SAFETY	
Occupational Iealth	403-1 Occupational health and safety management system	Occupational Health and Safety
and Safety 2018	403-2 Types of injuries and injury rates, occupational diseases, lost days, absenteeism and work-related death number	Occupational Health and Safety
	403-3 Occupational health services	Occupational Health and Safety
-	403-4 Employee participation in occupational health and safety, consultation and communication	Occupational Health and Safety
	403-5 Employee training related to occupational health and safety	Occupational Health and Safety
	403-6 Promotion of employee health	Occupational Health and Safety
	403-7 Prevention and reduction of occupational health and safety impacts directly related to labour relations	Occupational Health and Safety
	403-9 Business-related injuries	Occupational Health and Safety
	403-10 Work-related patient cases	There is no diagnosis of occupational disease.
GRI 103:	DIVERSITY AND EQUAL OPPORTUNITY	
lanagement Approach 2016	103-1 Explanation of material issues and their boundaries	Our Priority Issues

Annex IV - Indicators

CLIMATE CHANGE & ENVIRONMENT

Social Indicators

EMPLOYEE PROETLE	2020		2021		
EMPLOYEE PROFILE —		Men	Women	Men	
Total number of employees	113	685	123	726	
Office Workers	106	271	116	311	
Blue-collar	7	414	7	415	
MANAGERS	20	2020		2021	
	Women	Men	Women	Men	
Total number of managers	14	48	18	62	
Under 30 years of age	1	0	0	0	
30-50 years old (inclusive)	13	45	17	57	
51 years of age +	0	3	1	5	
POARD OF DIRECTORS	20	2021		2020	
BOARD OF DIRECTORS	Women	Men	Women	Men	
Board of Directors	2	5	2	5	
NEW HIRES	20	020 2021		2020	
NEW TIRES	Women	Men	Women	Men	
The number of newly hired employees during the year	19	47	24	84	
Under 30 years of age	13	25	20	35	
30-50 years old (inclusive)	6	20	4	44	
51 years of age +	0	2	0	5	
EMPLOYMENT	2020 2021		21		
EMPLOTMENT	Women	Men	Women	Men	
Total number of employees who quit their jobs	12	24	14	50	
The number of employees under the age of 30 who quit	6	7	3	9	
The number of employees ages 30-50 years old (inclusive) who quit	6	15	11	34	
The number of employees 51+ who quit	0	2	0	7	
The number of positions filled by internal candidates	20	72	9	44	
The number of all vacant positions	1.	52	17	75	

	2020 2021		2020		
EMPLOYEES BY SENIORITY	Women	Men	Women	Men	
0-5 years	81	409	86	407	
5-10 years	23	211	25	201	
10 years+	9	65	12	118	
CONTRACTORS	20	20	20	21	
CONTRACTORS	Women	Men	Women	Men	
Number of subcontracted employees by gender	34	522	55	502	
TOTAL EMPLOYEE TURNOVER RATES	20)20	20	21	
Under 30 years of age	0,	69	%	08	
30-50 years old	%3 %7		o7		
51 years of age +	%18 %30		30		
Women employees	%	11	%	11	
Male employees	0,	6 4	%	₅ 7	
First level (N-1) manager	%0 %6		6		
Middle level (N-2) manager	%	14	%	8	
Upper level (N-3) manager	%	57	%114		
MATERNITY/PARENTAL LEAVE	20	2020		21	
MATERITITY PARENTAL LEAVE	Women	Men	Women	Men	
Allocated for maternity/paternity leave	5	30	2	42	
Returning to work after the end of maternity/paternity leave	2	30	2	42	
After returning to work following parental leave, continued to work for a minimum of 12 months	1				
The ratio of employees returning to work from maternity leave to total employees	%	25	%	24	
TRAINING DROCDAMS	20	2020		2021	
TRAINING PROGRAMS	Women	Men	Women	Men	
Total training hours by gender	6,804	48,030	10,673	65,204	
DEDECORMANCE EVALUATION	20)20	20	21	
PERFORMANCE EVALUATION	Women	Men	Women	Men	
Number of employees undergoing regular performance evaluation	98	658	110	673	

Environmental Indicators

	2021		
	Type Of Technology	Emissions (metric tons of CO ₂ e)	
SCOPE 1	Lignite Thermal Power Plants	4,060,135.90	
	Natural Gas Plants	3,505,641.20	
	Hydroelectric Plants	5,527.70	
	Wind Energy Plants	1,554.30	
	Solar Energy Farms	0.9	
	Ataşehir Head Office	181.4	
Total Scope 1		7,573,041.40	
Total Scope 2		14,836.10	
Total Scope 3		12,098.70	
	Non-Hazardous Waste (tons)	43.4	
	Hazardous Waste (tons)	521.2	
	Emissions intensity (g/kWh)	458	
	Saplings planted (each tree)	285,000	

OHS Indicators

HOURS WORKED	2020	2021
Total hours worked	4,559,489	4,729,686
OHS COMPANY EMPLOYEES	2020	2021
Number of accidents	4	3
Number of fatalities	0	0
Number of occupational diseases	0	1
Absenteeism due to accidents	22	93
Ratio of Lost Working Days	0.97	3.93
OHS SUBCONTRACTED EMPLOYEES	2020	2021
Number of accidents	9	12
Number of fatalities	0	0
Number of occupational diseases	0	2
Absenteeism due to accidents	22	117
OHS TRAINING	2020	2021
OHS Training for Employees (hours)	23,545	37,018
OHS Training for Contractors (hours)	17,760	9,846





ENERJİSA ENERJİ ÜRETİM A.Ş.

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