

IF THERE IS
ENERJİSA ÜRETİM

THERE IS
ENERGY

EVEN IF THIS IS AN
ACTIVITY
REPORT!



CORPORATE PROFILE

Enerjisa Üretim manages an integrated portfolio in two main business lines comprising of electricity generation and trading. We pursue these business activities with different dynamics while creating and integrating value with an efficient and flexible portfolio strategy that is focused on operational excellence. We also aim to create value for our partners, customers, employees, suppliers and the community by capitalizing on opportunities within the sector. Operating in line with our mission to respect life and generate energy for a better future, we are the leading private company in electricity generation with our diversified, balanced and efficient electricity generation portfolio of 3,607 MW, which mostly includes renewable energy sources and which has a high trade volume. We provide significant contributions to sustainability by means of our efficient and environmentally friendly power plants, carbon reduction through renewable energy-based generation and our investments, which focus on technology and efficiency.

The share of domestic and renewable resources in Enerjisa Üretim's portfolio is 56 percent. The renewable energy ratio will increase in the coming years with the introduction of a new wind project that has a capacity of 500 MW as part of the Wind Renewable Energy Resource Areas (YEKA) tender the company won in 2019.

As the leading player in energy trading and electricity generation, Enerjisa Üretim enjoys a high trading volume while creating value for its shareholders by optimizing its diversified generation portfolio in the future markets, day-ahead, intraday and balancing power market; and for its business partners with structured products such as virtual power plant, capacity leasing and balancing services.

Our business, which operates in electricity generation, trade, and natural gas, is managed through the operational companies, namely Enerjisa Enerji Üretim A.Ş., Enerjisa Elektrik Enerjisi Top-tan Satış A.Ş. and Enerjisa Doğalgaz Toptan Satış A.Ş., under the roof of Enerjisa Üretim Santralleri A.Ş.

We generate energy for a better future by respecting life



Turkey's largest private sector electricity generation company with a flexible and efficient electricity generation portfolio of 3,607 MW, Enerjisa Üretim greatly contributes to the security and competitiveness of Turkey's energy supply with its portfolio, which consists of 56 percent domestic and renewable energy.



Domestic and renewable energy sources account for 56 percent of its installed power.

Enerjisa Üretim contributes sustainability with efficient and environmentally friendly renewable energy-based power plants, carbon reduction advantage, technology and efficient focused investments.



We generate energy for a better future by respecting life. Enerjisa Üretim, leading private company in electricity generation with diversified, balanced and efficient electricity generation portfolio of 3,607 MW, which mostly includes renewable energy sources and which has a high trade volume.



OUR MISSION



We generate energy
for a better future by
respecting life.

OUR GOAL



To be an energy company
that continuously develops
knowhow, sets standards
and leads the future of the
sector.

OUR PRINCIPLES

WE ARE IN PURSUIT OF EXCELLENCE

WE DO NOT ALLOW MEDIOCRITY,
WE ALWAYS WORK FOR THE
SUPERIOR.



WE TAKE OWNERSHIP OF OUR WORK

WE TAKE RESPONSIBILITIES
AND INITIATIVES.



WE HONOR OUR PROMISES

WE COMMIT TO OUR WORD, WE
DON'T MAKE PROMISES THAT WE
CAN'T KEEP.



WE ARE A TEAM

WE WIN TOGETHER,
WE LOSE TOGETHER.

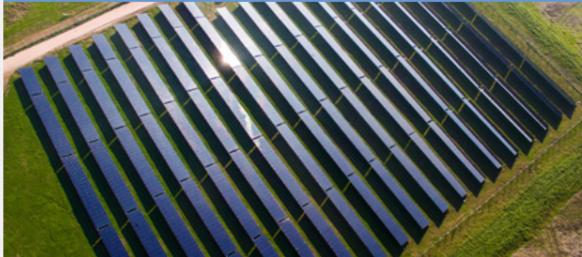


ENERJISA ÜRETİM AT A SINGLE GLANCE



3607_{MW}
TURKEY'S LARGEST PRIVATE
ELECTRICITY GENERATION
COMPANY WITH INSTALLED
POWER

THE ONLY COMPANY
GENERATING ELECTRICITY WITH
5 SEPARATE TECHNOLOGY



ONE OF TURKEY'S LARGEST
NATURAL GAS POWER PLANT
OPERATORS WITH
1583_{MW}

ONE OF TURKEY'S LARGEST
HYDROELECTRIC POWER
PLANT PORTFOLIOS WITH
1353_{MW}



IN 2020

15.6 TWh
TOTAL GENERATION

7.2 TWh
DOMESTIC AND
RENEWABLE

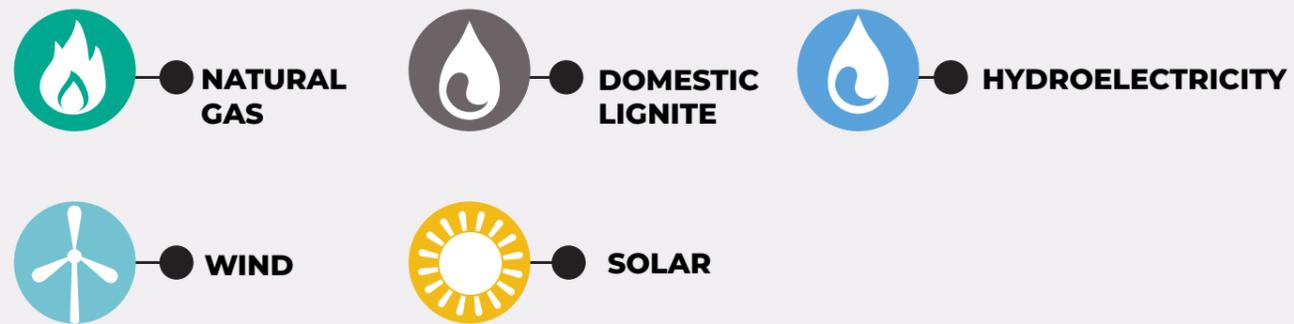
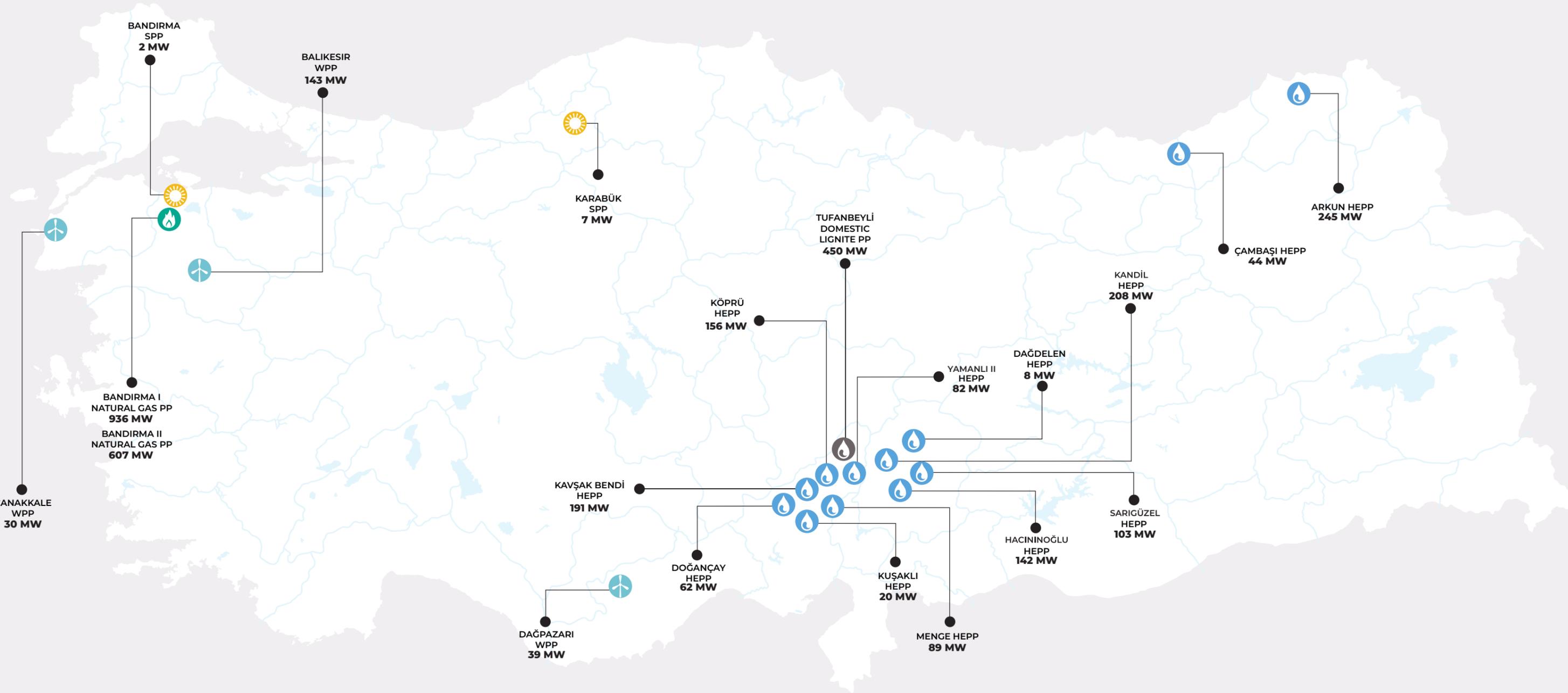
TURKEY'S LARGEST
PRIVATE SECTOR ENERGY
GENERATOR WITH
5%

IT HAS
ESTABLISHED
4% OF
INSTALLED POWER
IN TURKEY

IT HAS MET
30%
OF TOTAL ACTUAL
COMMERCE
VOLUME IN TURKEY

ONE OF TURKEY'S
LARGEST
ELECTRICITY
COMMERCE PLAYERS





CAPITAL AND PARTNERSHIP STRUCTURE

HACI ÖMER SABANCI HOLDİNG A.Ş.

The basic interest areas of Sabancı Community are banking, financial services, energy, industry, construction materials and retail, as rapidly growing sectors of Turkey. Sabancı Holding's shares as well as the shares of its 12 associates are being traded at Borsa Istanbul (BIST). Sabancı Holding's international business partners include world's leading names such as Ageas, Aviva, Bridgestone, Carrefour, E.ON, Heidelberg Cement, Marubeni and Philip Morris.

E.ON SE

E.ON is an energy company based in Essen, Germany that focuses two main business lines, management of distribution grid and customer solutions. The company provides service more than 30 million customer. E.ON is one of the biggest companies in DAX.

Enerjisa Üretim continues its operations with the power of Hacı Ömer Sabancı Holding and one of the leading energy and natural gas suppliers E.ON.



%50

**HACI ÖMER SABANCI
HOLDİNG A.Ş.**

**MORE THAN 60 THOUSAND
OF EMPLOYEES**

ACTIVITY IN 14 COUNTRIES

9 GLOBAL PARTNERSHIP

%50

E.ON SE

APPROXIMATELY 78.000 EMPLOYEES

**ASSET BASE SUBJECT TO
REGULATION OVER 30 BILLIONS
EUROS**

**APPROXIMATELY 1.4 MILLION KM
OF ELECTRICITY DISTRIBUTION
NETWORK**

AWARDS



BRANDON HALL EXCELLENCE AWARDS

Under Excellence Awards held by Brandon Hall Group; Enerjisa Health project aiming at investing physical and mental health of its employees has earned the Silver award; Premium and Awarding Systems established for providing different solutions to different needs of the employees has earned the Bronze award.

IDC TURKEY CLOUD TECHNOLOGY AWARDS

In IDC Turkey Cloud Technology Awards held within IDC Cloud & Datacenter Summit held by the international consultancy company IDC every year, Enerjisa Üretim has earned the second prize. With CPRO application that power plants make generation plans and manage market transactions, it has earned award in the best IaaS/PaaS category of the year with its redevelopment project suitable to the new generational cloud platform standards.



ENERGY IS OUR FUTURE

In Turkey Energy and Natural Resources Summit, Tufanbeyli Social Development Project has granted an award under "Our Energy is Our Future" corporate social responsibility awards.



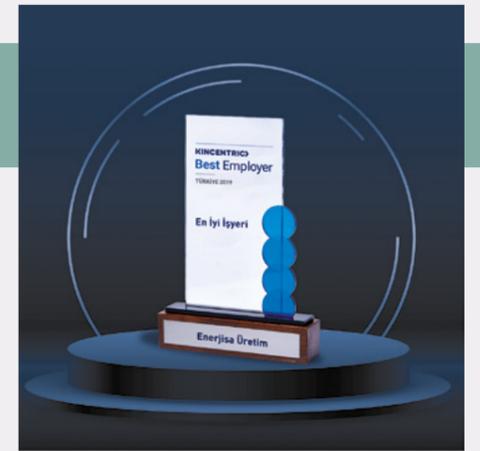
BRITISH SAFETY COUNCIL SAFETY AWARD

In the International Safety Awards held by British Safety Council, Enerjisa Üretim has granted an award at "merit" level thanks to its sensitivity to occupational health and safety throughout 2019.



KINCENTRIC BEST EMPLOYER

According to KINCENTRIC Best Employers results as one of the world's most prestigious awards of which the evaluations are made according the dedication measurements of the company employees, Enerjisa Üretim has earned the award of "Turkey's Best Employer".



STEVIE AWARDS

It has earned the gold award in "Employer of the Year – Energy" category, the bronze award in the category of "Achievement in Human Resources Administration" with its Premium and Awarding Systems project.



12th PERYÖN VALUE TO PEOPLE AWARDS

In 12th Peryön Value to People Awards organized by People Management Association of Turkey, it has earned "Employee Health and Safety" award in the category of Value Creating Applications.



CHAIRMAN'S LETTER



Dear Shareholders,

In 2020, the pandemic that had devastating impacts all around the world proved once more how important and vital the efforts of the employees working in the energy sector are. All Enerjisa Üretim teams have devotedly put and are still putting all their efforts day and night to sustain the electricity production. I would like to thank each and every member of these teams for their commitments.

2020 was a challenging year with economic and operational fluctuations endured in the energy industry as well as many other sectors due to the effects of the pandemic. Despite the adverse conditions, Enerjisa Üretim, the leading energy production company in Turkey, continued to contribute to the security of supplies in the country with its strong portfolio and development and deepening of the energy market with its commercial activities.

Health of our employees have always been a material issue for Enerjisa Üretim regardless of the pandemic. During this period, we took further new measures for the Coronavirus and were granted "TSE Covid-19 Safe Production Certificate" for all power plants and the headquarter of Enerjisa Üretim. During the pandemic, Enerjisa Üretim successfully completed two major maintenance projects that had different dynamics and included hundreds of sub-contractors. Maximised measures and pandemic management plans resulted in successful outcomes regarding the processes.

In 2020, Enerjisa Üretim sustained its dynamic production portfolio advantage, which is among its significant competitive advantages, with its installed capacity of 3,607 MW from diversified, flexible, dynamic and high-efficiency energy resources. Carrying out all its activities to achieve a reliable and sustainable energy production with a particular focus on operational excellence, Enerjisa Üretim maintained the maximum availability of its power plants.

Abiding by the environmental laws and regulations while carrying out its operations, the company fulfilled the environmental standards at a maximum level. Despite the instability in financial markets and serious fluctuations in

currency exchange rates, Enerjisa Üretim seized the emerging commercial opportunities as well as the optimisation activities in the electricity market and created significant value in 2020.

Enerjisa Üretim signed the largest Sustainability-linked Loan Deal in Turkey by signing a 650-million-Euro worth sustainability-related loan agreement with 7 banks. Thus, the contract replaced the long-term loans that Enerjisa Üretim had taken during its establishment period with this new financing and strengthened its already concrete financial statement more. The company decreased its total debt amount while providing great support to its renewable energy investments that it will take over in the following periods with the agreement. Furthermore, Enerjisa Üretim completed the required structuring for the sustainable dividend to be provided to its shareholders as from 2021 thanks to its concrete financial structure.

Enerjisa Üretim was successfully managed in 2020 with the contribution of the advantage facilitated by its stable and flexible production portfolio, operational excellency, commercial and portfolio optimisation activities. Electricity trade licenses were obtained in Hungary, Bulgaria, Romania and Serbia in order to transform the company's trade experience into value at foreign markets.

56% of the total installed capacity of Enerjisa Üretim is composed of domestic renewable energy resources. This significant percentage highly contributes to the goals related to the competitiveness of the portfolio of Enerjisa Üretim, as well as the energy supply security in Turkey and improvement of current account balance. As the pioneering and leading player in the developing and deepening energy trade in Turkey, Enerjisa Üretim facilitated the effective optimisation of the largest production portfolio operated by the private sector in Turkey in futures market, days-ahead, intraday and balancing power markets; and created value for its stakeholders. Thus, the company successfully manages commerce activities related to electricity and natural gas products through futures and option contracts in Turkey and Eastern European countries in particular, besides neighbouring countries.

2020 was also a year that witnessed several record-breaking achievements of Enerjisa Üretim. At its Tufanbeyli Power Plant, the company broke its wind and solar power plants production record in 2020. Limited resources optimisation works were carried out for Tufanbeyli Power Plant and the power plant's operational actions were supported by the optimisation outcomes despite the challenging winter conditions. Enerjisa Üretim hydroelectric power plants achieved a record-breaking production of 3.6 TWh and increased its availability to 97.4%. On the other hand, company's wind power plants achieved a record-breaking production of 713 GWh with an availability of 97.9%.

In 2020, Enerjisa Üretim stood out with its growth steps in renewable energy field. In March 2020, the company signed Renewable Energy Resources Zone (YEKA) contracts with the Turkish Ministry of Energy and Natural Resources. At the same time, works regarding Erciyes Wind Power Plant were also continued and the process related to getting a construction permit is ongoing. When Erciyes Wind Power Plant project and YEKA projects are completed, Enerjisa Üretim will be including a total of 565 MW renewable energy to its portfolio.

Enerjisa Üretim, beyond doubt, will sustain its successful performance in 2021 and continue to add value to its stakeholders. Hence, the material issues of the company in 2021 will be operational excellence and digitalisation, creating value in commerce with cross-border and innovative products, growth in non-capital-intensive areas, seize new opportunities that may emerge from renewable energy resources and dynamic portfolio management. Effective management of cash flow and financial sustainability is an essential part of the company strategy.

I would like to take this opportunity to thank particularly our CEO and all our managers and employees for their successful performances despite the challenging conditions we endured.

DR. ERIC RENE C. DEPLUET
CHAIRPERSON

BOARDS OF MANAGEMENT



ERIC RENE C. DEPLUET
CHAIRPERSON

Dr. Eric René C. DEPLUET, graduated from RWTH Aachen University from Business Administration and holds a PhD. Starting his career at Klöckner & Co. AG, he worked as Head of Controlling and Business Administration between 1990-1991 and Senior Vice President of Controlling, Business Administration and Accounting between 1992-1993. He joined Ruhrgas AG in 1994 and worked in several leading roles before he became Executive Vice President of Corporate Planning, Economical Planning, Analysis and Billing between 2001 – 2004.

Dr. Depluet joined E.ON Hungary in 2004 as Board Member between 2004 – 2007. From 2007 – 2009 he served as Senior Vice President of Corporate Responsibility at E.ON AG. Between 2009 and 2018 he was Chairman and CEO of E.ON Hungary in Budapest.

Since Mid of 2019 he took over the role as Senior Vice President Turkey of E.ON AG. In this function he is now the Chairman of the Board of Enerjisa Üretim and the Vice Chairman of the Board of Enerjisa Enerji.

Eric Depluet is married and proud father of two sons.



KIVANÇ ZAIMLER
VICE CHAIRMAN OF THE EXECUTIVE BOARD

Mr. Kivanç Zaimler graduated from the Industrial Engineering Department of Istanbul Technical University in 1991. After completing his studies at Technische Universität Berlin, he started his professional career in 1992 and, until 2008, held several senior management positions (in chronological order) in Turkish Electricity Industry, RAM Foreign Trade and Aygaz companies.

Zaimler joined Sabancı Group in 2008 and served as the Commercial Director, General Manager of Distribution Companies, General Manager of Sales Companies and, finally, as the CEO of Enerjisa. Since July 1, 2018, Zaimler has served as the Head of Sabancı Holding Energy Group. Actively participating in non-governmental organizations, Zaimler is the Vice President of the World Energy Council Turkey; the President of TÜSİAD Energy Working Group; a Board Member at YASED, Elder and Sabancı University Istanbul International Center for Energy and Climate (IICEC); a member of SHURA Advisory Council; an Executive Board Member at Sabancı Holding; the Chairman of Enerjisa Enerji and a Board Member at SabancıDX.



JOHAN MAGNUS MÖRNSTAM
BOARD OF MANAGEMENT

Johan Magnus Mörnstam Board Member Johan Mörnstam received his diploma in business administration and business law in Lund and Växjö, before completing his Executive MBA education at the University of Lund, Sweden. He started his professional career in 1988 as business controller at Fylgia Invest. In 1995, he joined the energy company Sydgas, which later was acquired by the E.ON Group. After holding several managerial positions, Mr. Mörnstam was appointed Vice president of Commodity Portfolio Optimization at E.ON, in 2007. From 2010 until 2014, he served as the director of various positions in Germany and Sweden. Between 2014-2019 Mr. Mörnstam held the role as CEO of E.ON Energidistribution AB, one of Sweden's largest power and gas distribution companies. Since 2020, Mr. Mörnstam serves as the Senior Vice President of Energy Networks – Europe, responsible within the E.ON Group, for power and gas distribution in Sweden, Poland, Slovakia, Czech, Hungary, Romania, Croatia and Turkey.



HAKAN TİMUR
BOARD OF MANAGEMENT

Hakan Timur graduated from Istanbul University Economics and received his master degree in Energy and Technology Management from the Sabancı University.

Starting his career in 1997 at Marsa-Kraft Foods International, Hakan Timur worked as “Human Resources Manager” at Sabancı Food Group, “Human Resources Manager” at Sabancı Holding, “Global Human Resources Director” at Kordsa Global, “Human Resources Vice General Manager” at Akçansa and “Chief Officer, Human Resources and Corporate Capabilities” at Enerjisa respectively.

Mr. Timur was appointed as Human Resources Group President at the Sabancı Holding A.Ş. on February 1, 2018. In addition to his current role, Mr. Timur is also serving as Executive Committee member at Sabancı Holding and Executive Board member at Çimsa, Avivasa, Carrefoursa, Enerjisa Enerji, Enerjisa Üretim Santralleri, Teknosa and Sabancı DX.



DR. EVA-MARIA VERENA VOLPERT
BOARD OF MANAGEMENT

Dr. Verena VOLPERT holds a university degree in Business Administration. She joined E.ON in 2006 and is responsible for Treasury, Corporate and Structured Finance, Finance Controlling, Financial Settlements, Asset Management and Insurance. Before joining E.ON she headed the finance department of the media company Bertelsmann She is member of the BoDs of Enerjisa Enerji A.S., Enerjisa Üretim Santralleri A.S., innogy SE, Vibracoustic AG, E.ON Energie AG, PreussenElektra GmbH, E.ON International Finance B.V., E.ON Verwaltungs SE.



BARIŞ ORAN
BOARD OF MANAGEMENT

Baris Oran is the CFO of Sabancı Holding. He started his career as an auditor at Price Waterhouse Coopers and from 1998 to 2003, worked at Sara Lee Corp in Chicago IL, in audit, finance and treasury/capital markets. Between 2003 and 2006, he worked as Senior Manager at Ernst and Young initially at Minneapolis, MN and then in Europe, Middle East, Africa and India regions. He started working at Kordsa Global in 2006, and held positions of Internal Audit Director, Global Finance Director and CFO respectively. Oran has started at Sabancı Holding in 2011. He graduated from Boğaziçi University, Department of Business Administration, completed his MBA studies at the University of Georgia and Advanced Management Program at the Kellogg School of Management, Northwestern University.

Mr. Oran serves as the Chairman of the Board of Directors of Teknosa, Managing Director of Sabancı DX and he is a member of the Board of Directors of Brisa, Çimsa, Carrefoursa, Enerjisa Enerji, Enerjisa Üretim and Philip Morris SA. He is also a Member of the Board of TÜSİAD.

MESSAGE FROM THE CEO



Dear Shareholders,

Struggling so much as Enerjisa Üretim group, we have successfully left behind 2020, a year to be remembered with challenging market and pandemic conditions for both the whole world and our sector. We have left behind a year in which we gained successful outcomes despite the pandemic with the help of advantages emerged from our flexible, competing, fruitful, balanced and environment-friendly power plants and our timely cautions. In accordance with our mission of generating energy for a better future while respecting for life, we managed our projects without compromising our principles.

Our top priority is "Occupational Health and Safety" said we in 2020, either. Our biggest goal is to create an Enerji Üretim where we have realized our "No Work Accident" principle and everyone acts with an awareness of an Occupational Health and Safety expert. Within this context, we are managing our processes much more quickly and limberly integrating state-of-art technologies to our business processes. We are realizing various projects to improve and accelerate us in terms of Occupational Health and Safety in accordance with our digitalization goals. The artificial intelligence technology, engaged in 5 different power plants of Enerjisa Üretim, warns the relevant units immediately following the footages from security cameras and detecting any kind of condition and behavior risky for the health and safety of the employees in real time and thus increasing the productivity. This successful product, emerged out of our long hours spent with Intenseye company in the framework of our Safety Vision project and our mutual support for each other, has been able to receive an seed investment support of 4-million-dollars. Our organization is always open to various opportunities for trying new technologies and offering platforms to innovative approaches.

Our goal in Enerjisa Üretim is to keep struggling with a team spirit comprising of always happy and successful employees. We regard our employees, our companions in this struggle, not as sources but as values. This is why we have changed the name of our Human Resources Department to "People and Culture". In accordance with our human-oriented understanding, we regard our employees as the focal point of the corporation and offer opportunities for their improvement. Led by our Human and Culture team, each year we are building an Enerjisa Üretim where there are no hierarchical boundaries and employee loyalty is increasing.

Covid-19 Pandemic was our most important struggle in 2020, for sure. The employees in energy sector came to the foreground as the most important actors behind the scenes. I thank to all our employees of all power plants of ours who keep

generating with a great dedication and contribute to the national struggle of our country while being far away from their families and homes working day and night.

Our all wind, hydro-electrical and thermal power plants in Enerji Üretim portfolio including our headquarters completed their controls for TSE COVID-19 Safe Production Certificate with zero non-conformance successfully, which made us feel honored. We did our best to protect our employees' health and sustain electric generation without interruption and we still do.

Enerjisa Üretim founded Senkron forming an infrastructure with the goal of digitalization to manage the whole portfolio under one roof. Breaking a new ground in Turkey, Enerjisa Üretim put Senkron Central Operation Room into use and thus operations of all hydroelectric power plants began to be conducted in this office located at Istanbul Headquarters. Senkron started remote operation processes of 12 hydroelectric power plants within on 16th November 2020 and in addition to these processes, it manages control systems of Wind, Solar and Thermal power plants and realizes process monitoring. I feel so proud that Enerjisa Üretim is one of the best examples of a realized goal of digitalization and excellency. We always dream better as Enerjisa Üretim and take firm steps forward as a leading company in digitalization.

Enerjisa Üretim is a structure that directs the sector with the help of operational excellency works focusing on environmental and social performance and constant improvement culture. It is also strong with high generation performance and cash flow. It keeps generating for constant energy supply with its 21 power plants whose 56% comprises of national and renewable resources and its investments. We gained a capacity of 500 MW in Wind Renewable Energy Resource Fields (YEKA) tender realized in 2019 for second time. With the help of wind power plants that we will found in Aydın and Çanakkale, we caught the possibility and potentiality for heightening our total generation capacity to 4107 MW and increasing the share of green investments in our portfolio. As Enerjisa Üretim, keeping this acceleration and making investments in the renewable field, one of our strategical priorities, are among our top priorities. Turkey's biggest Loan Contract Related to Sustainability which we signed with 7 banks will support us while realizing this potential. Assuring all our shareholders, we will continue with the goal of "creating sustainable value". I firmly believe that this step we have made with the banks, which we collaborated in journey for growth, would contribute a lot to Turkey's economy and supply safety.

In 2020, we, as the leading energy generation and trade company of Turkey, produced nearly 50% energy from national and renewable energy sources with our portfolio comprising of our power plants in the operational field of 3607 MW. With the help of our improvements and ameliorations, we, as Enerjisa Üretim, increased our availability rates to a very good degree. We generated 3.6 TWh electricity with a 97,35% availability in our hydroelectric power plants, 0.7 TWh electricity with a 97.88% availability rate and 2.8 TWh electricity with 87.73% availability rate in our Tufanbeyli Power Plant. These technical achievements we have gained in all branches strengthened our financial position, too. Tufanbeyli Power Plant, Turkey's most modern national lignite power plant founded by private sector, set a record with the energy it generated despite the pandemic conditions in 2020. We are happy that we set generation record for three years in this constant generation journey and take firm steps forward after excellency. Our only record was not generation record in our national lignite power plant, we also broke another record having the best year of generation performance of our Wind and Solar Power Plants. In 2021, we will keep generating for a better future while respecting for the life itself.

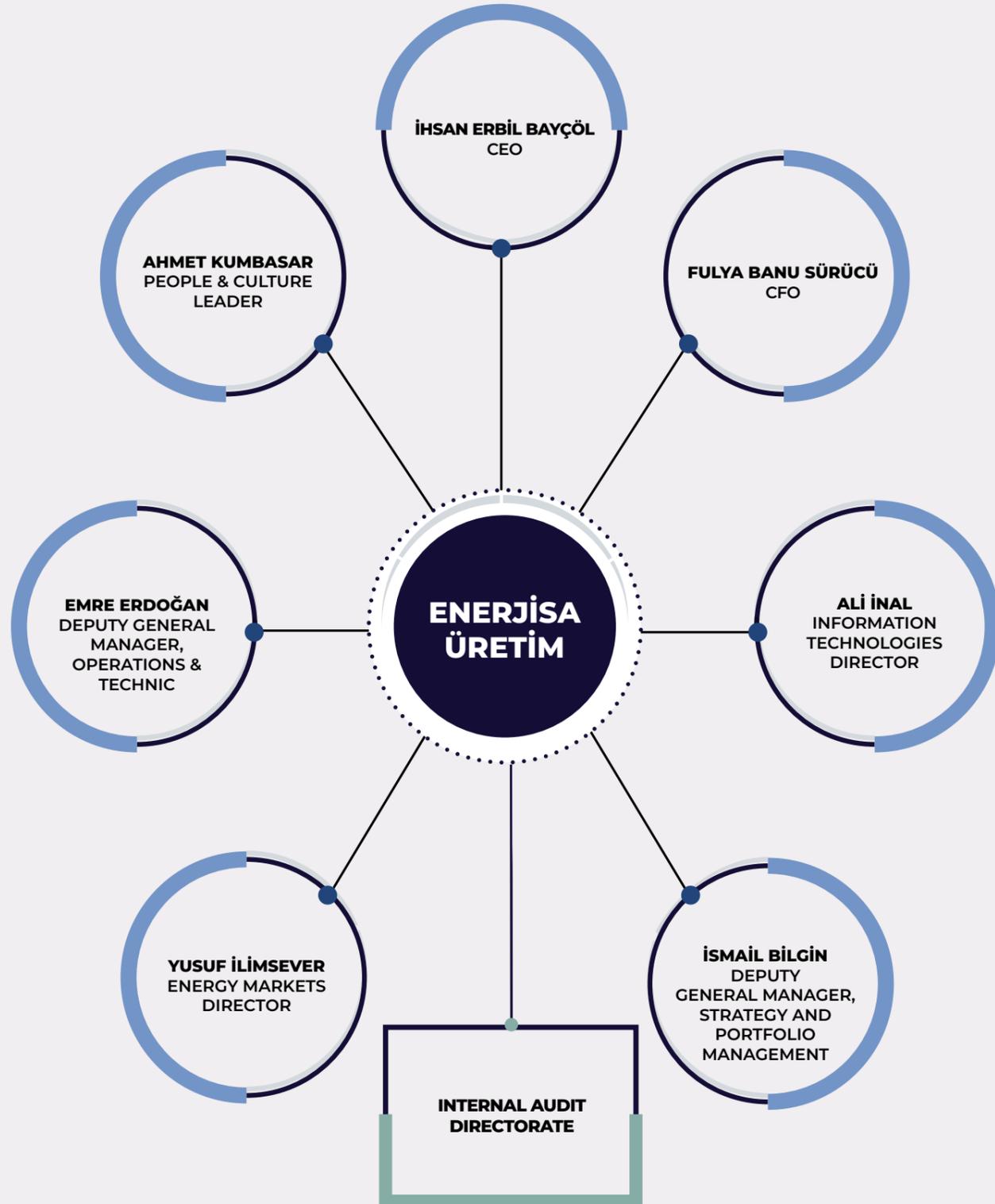
2020 was the year when everything turned upside-down with the effects of the pandemic. One of the most important factors of this change is to consider the needs of our shareholders and our world rather than to care about only financial data. Accordingly, as per our mission "generating energy for a better future while respecting the life", we handle "Sustainable Energy Generation and Trade" our top priority in our business strategy and put it in the center of our studies. With our sustainability approach to serve United Nations' Sustainable Development Tools, we realize many environmental and social projects. As a team, we conduct and manage these projects in consonance with our principles. And we are also being the breath for the future with more than 100.000 saplings we have planted.

2020 was a successful year in operational and financial terms for Enerjisa Üretim despite all the challenging factors. I owe a sincere debt of gratitude to my precious teammates, who share the same goal with us and avoid no self-sacrifice, for your invaluable contributions to achieving this.

If you have Enerjisa Üretim, then you have the constant Energy!

İHSAN ERBİL BAYÇÖL
CEO

ORGANIZATIONAL CHART



EXECUTIVE TEAM

1 İHSAN ERBİL BAYÇÖL
CEO

2 FULYA BANU SÜRÜCÜ
CFO

3 AHMET KUMBASAR
PEOPLE & CULTURE LEADER

4 EMRE ERDOĞAN
DEPUTY GENERAL MANAGER,
OPERATIONS & TECHNIC

5 İSMAİL BİLGİN
DEPUTY GENERAL MANAGER,
STRATEGY AND PORTFOLIO
MANAGEMENT

6 YUSUF İLİMSEVER
ENERGY MARKETS DIRECTOR

7 ALİ İNAL
INFORMATION TECHNOLOGIES
DIRECTOR



EXECUTIVE TEAM

You can scan QR codes to watch the videos of the leaders.



İHSAN ERBİL BAYÇÖL
CEO



He graduated from Bogaziçi University Civil Engineering Department before his mba degree at Sabancı University He successfully completed the Advanced Management program of WHU Otto Beisheim School of Management. He got started in business at the Project Control Engineer position at the Bechtel-Enka joint venture before being hired at Enerjisa in 2008. He is now Enerjisa Üretim CEO since January 1, 2020. His number one passion is riding a bicycle and loves team sports and basketball. He is married and the father of two.



FULYA BANU SÜRÜCÜ
CFO



She has graduated from the Business Department-Orta Doğu Technical University before completing the MBA program in 2002 at the University of Wisconsin, before being . She launched her career in 1997 in Turkey, at the Coca-Cola İçecek company. She has about 24 years of business experience And now works as Enerjisa Üretim CFO since September 2019. Writing historiettes and poems and painting are among her area of interests. She is married and the mother of two.



AHMET KUMBASAR
PEOPLE & CULTURE LEADER



He completed his undergraduate program at the Public Administration department of Marmara University before completing his postgraduate at the Georgia Southern University. The launched his career in 1991 at Mutlu Akü company. He has about 30 years of business experience, and has been hired by Enerjisa Üretim in 2017 at the Human and Culture Leader position. He is fan of Beşiktaş football team and watching football matches and playing basketball and bowling are among his fields of interest. He is father of two.



EMRE ERDOĞAN
DEPUTY GENERAL MANAGER, OPERATIONS & TECHNIC



Graduated from the Engineering Department of Bogaziçi University in 2001 before completing his postgraduate at the Department of Business of Koç University. He launched his career at the Planning Engineer position of the Bechtel-Enka Joint Venture, and has about 19 years of business experience. He has been hired by Enerjisa Üretim for the Business and Technical Vice President in 2018. Sailing and motorsports are among his fields of interest. He is married and father of two.



İSMAİL BİLGİN
DEPUTY GENERAL MANAGER, STRATEGY AND PORTFOLIO MANAGEMENT



Graduated in 2005 from the Boğaziçi University Economy Department, before completing his MBA with the collaboration of Sabancı University - M.I.T. Sloan Management School. Launched his career at the Black-River Asset Management company at the position of Analyst, -he has about 16 years of business experience hold different positions at the Strategy and Business Development function while creating the expansion portfolio of Enerjisa between 2009-2018. Performs the duty of Vice President-Strategy and Portfolio Management at Enerjisa Üretim since 2018. Sailing and cinema are among his fields of interests. He is married and the father of one.



YUSUF İLİMSEVER
ENERGY MARKETS DIRECTOR



He graduated from Orta Doğu Technical University Industrial Engineering department before completing his International Business Management degree at Kingston University in 2009. Launched his career in by 2010-2011 at JJ Food Service company. In 2011 returned in Turkey and has been hired the same year by Enerjisa at the positions of specialist and executive of Energy Trading and Risk Management. He has about 11 years of business experience, and works as Energy Markets Director at Enerjisa Üretim since July 2019. Football, history and traveling are among his fields of interests. He is married and is father of two.



ALİ İNAL
INFORMATION TECHNOLOGIES DIRECTOR



He has graduated from Doğuş University Industrial Engineering department before completing his postgraduate in Austria, at the IT Business Solutions Department of the Alpen-Adria University, has completed a senior executive program named Business Leaders in France, at HECV Business School. He launched his career in 2001, at Advancity İnternet Çözümleri company, and has about 20 years of business experience. Has been hired by Enerjisa in July 2019, at the position of Director of Information Technologies, Technology, music, amateur astronomy and whiskey culture are among his fields of interests. He is married and is father of three.

IF THERE IS

ENERJİSA ÜRETİM

THERE IS
HUMANITY



PEOPLE & CULTURE

In line with its vision of adding value to the industry and Turkey, everyone contributing to company performance and corporate culture is being considered as a value in Enerjisa Üretim where opportunities for the development of its employees is being created in an employee-oriented way. **We aim to be among the best employers that hold top preference by talents by increasing the value of our employer brand through employee satisfaction and loyalty.**

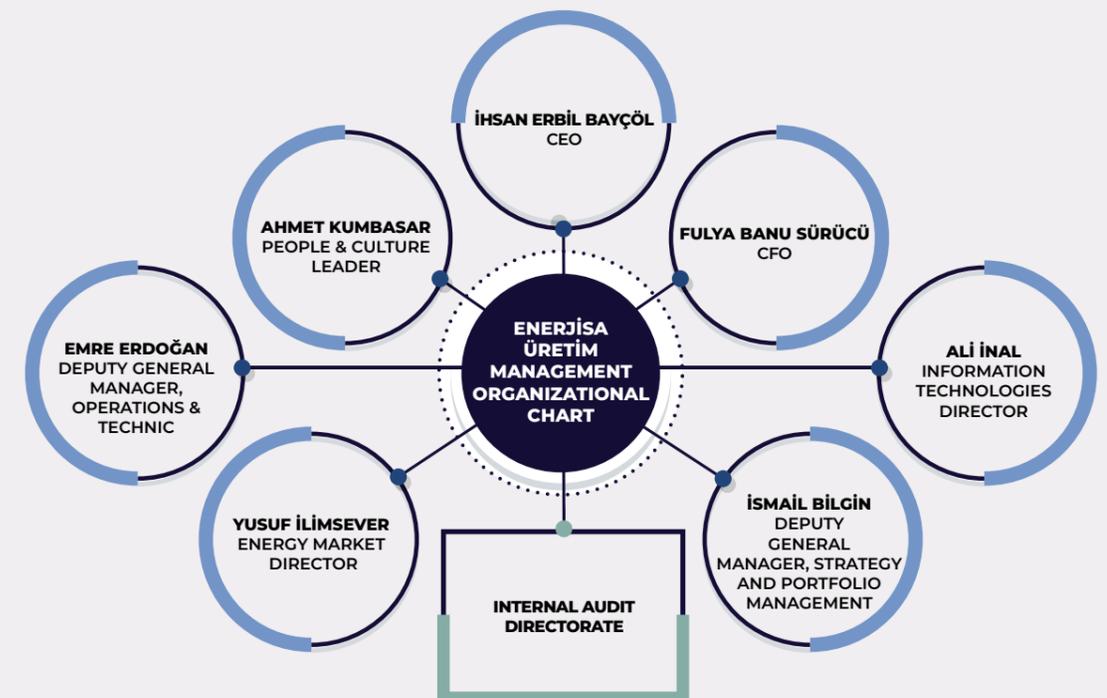
Throughout its journey to a successful and sustainable production, Enerjisa Üretim has taken its biggest power from its people. With this in mind, by human-oriented investments, we create systems that support continuous development of our employees, showcase their skills, unlock their potential, and recognize those who make a difference.

Enerjisa Üretim considers everyone as a value who contributes to company performance and corporate culture. With the mission of hiring, developing and retaining talent in the company; we adopt practices that meet the needs of all employees and future requirements.

We aim to contribute to the industry in terms of knowledge, know-how and competent people through these practices.

- We continuously work together with our employees to ensure we fully understand them while leveraging the benefits of technology.
- We put flexibility, transparency and speed to the forefront; we aim at an approach which adapts systems and organizational structure around agile and lean principles, which is open for experiencing, supporting team spirit and cooperation development among employees together with feedback and performance culture.
- We aim to increase organizational network productivity to its highest level. It also hugely supports both managerial competency development and technical expertise.
- We attach importance on balancing professional and personal lives of employees as well as their well-being.
- We encourages voluntariness of employees in social responsibility initiative.

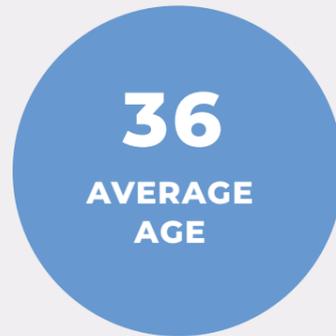
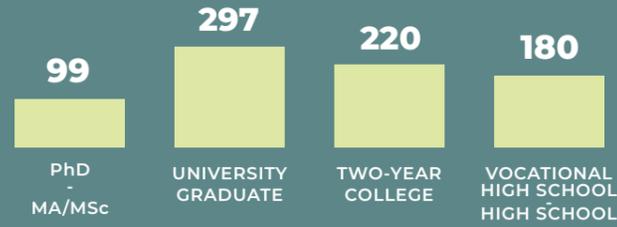
We place emphasis on an approach where opinions of our employees through committees working on the development of Human & Culture practices and improvement of work environment, suggestion systems and our open-door policy.



DEMOGRAPHIC INFORMATION

As we aim to support local employment, we prioritize applicants residing in regions close to our plants. We also keep in touch and collaborate with local institutions, professional chambers and universities located close to plant vicinities.

EDUCATION LEVEL



CAREER & DEVELOPMENT

In line with the Career & Development Programs, Enerjisa Üretim offers two paths: individual career path and administrative career path.

Individual career path: Employees have the goal to have a unique knowledge of a specific subject or area, or possess a theoretical or conceptual expertise gained through experience.

Administrative career path: Employees work towards achieving goals with the help of the teams they lead.

The biggest difference between these two career paths is that the manager following the administrative career path does not complete the task fully or most of it by himself but this is achieved by his team under his guidance; even if the manager personally has been assigned to the operation of the task.

Titles are determined according to the roles expected from each position and its related department. Employees have the chance to receive feedback on their progress through Development Center Activities, exercised at certain levels, and monitor their development with the help of development plans. Both career management systems are implemented

throughout the year and employees are appointed to suitable positions if there is a vacancy and if they meet the position criteria. In 2020, the outputs of career management project organized with the participation of employees from various departments and power plants using an agile methodology were shared with the Senior Management and approved actions are being carried out in 2021.

YOUNG IDEAS

With the Young Ideas program initiated in 2020, young employees under the age of 30 share their ideas with the executive team with the purpose of supporting better understanding with regards to the perspectives of next generation, enabling different generations to work together and learn from each other.

Members of the first Young Ideas team have been included in the decision-making processes regarding “the issues that touch people”, attending to the meetings of Enerjisa Üretim Leadership Team, participating in the Reverse Mentorship program with the Leadership Team and carrying out the developed projects with the support of the senior management.



CAREER INTERVIEWS

Enerjisa Üretim Career Interviews are online conversation events that are organized in order to enable Enerjisa Üretim employees to inspire and promote the organization and its culture by telling their career stories to new college graduates or students who will graduate soon.

Videoları izlemek için butonlara tıklayınız.



University Collaborations

Meetings with young people are being organized as part of the “Young Energy of Üretim” program conducted in order to convey Enerjisa Üretim’s knowledge and experiences to col-

lege students and to gain them as talents for the sector. Employees experts in their respective fields participate in such meetings as guest lecturers in ITU Fuel Technology Undergraduate Program and Industrial Engineering Undergraduate Program as well as Boğaziçi University Civil Engineering Undergraduate Program. Additionally, various collaborations are being made with Sabancı University.



Organizational Success Plan

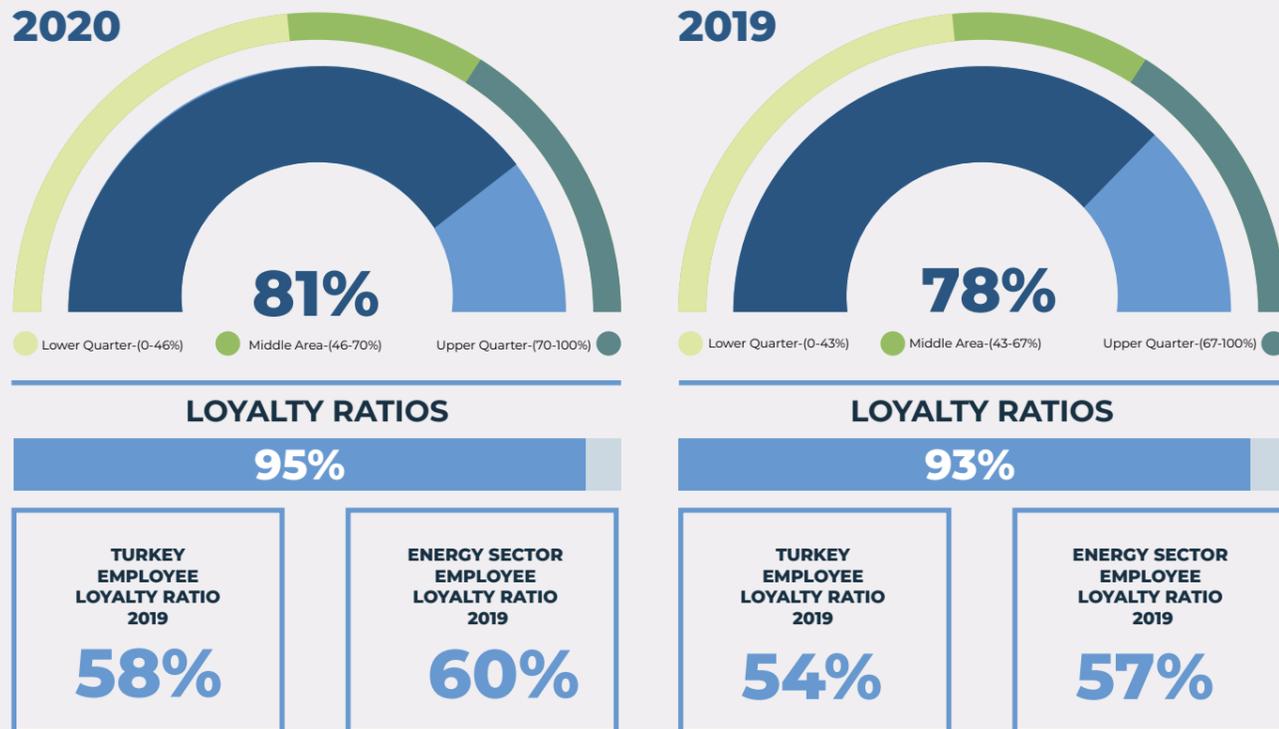
The company undergoes the “Organization and Career Management” process annually to assess the potential of its employees, track their development and develop backup plans.

The plan aims to review organizational structure and Human & Culture objectives, strategies and processes in line with company objectives and strategies.

Internal (assessment question set) and external (inventories) assessment tools are also used during evaluations. The Organizational Success Plan is performed every year and provides input for the organization and human planning of the company.

Research on Employee Loyalty & Experience

In 2020, the annual Research on Employee Loyalty & Experience was conducted with a participation rate of 95 percent. 81% of Employee Loyalty score is also above Turkey’s best work place score of 73% recorded in 2019.



FEEDBACK CULTURE

Performance System Supporting Continuous Feedback

With the New-Generation Performance approach, Enerjisa Üretim’s main objective is to support the performance culture, which is one of its strategic priorities. The process consists of three steps: goal-setting, continuous performance and year-end assessment.

Designed to support continuous development, the system allows for the revision and cancellation of goals. Employees can see each other’s goal cards, allowing them to provide feedback accordingly. They can also request feedback from each other and breakdown goals into tasks and see milestones. At the end of the year, employees are assessed according to their goals. Through this system, the company can readily identify and work on employees’ development needs.

360-Degree Principles Evaluation

As part of the New-Generation Performance approach, a 360-degree evaluation of principles is carried out once at the end of the year. With the evaluation of principles, employees are evaluated by themselves, their managers, internal customers / internal suppliers, and team members with a 360-degree approach in line with the four principles of Enerjisa Üretim, i.e., “We Seek Excellence, We Take Charge In Our Business, Our Word Is Our Bond, We Are A Team”, which correspond to four performance indicators. The assessment results are directly reflected in the results of the performance principles.



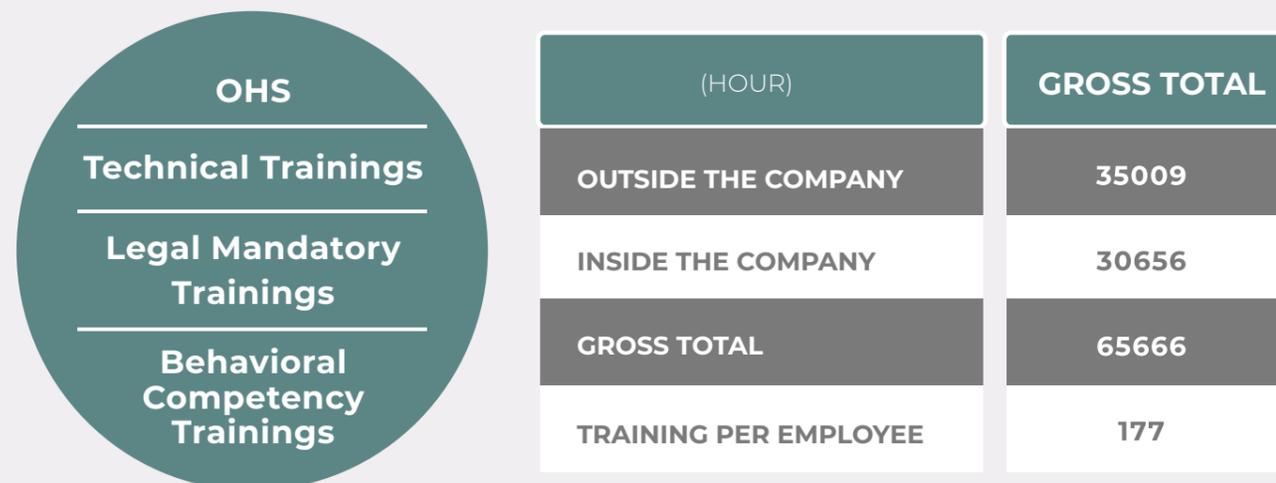
Participation of Employees in Management

Enerjisa Üretim shapes and improves its internal processes and practices around its employees' opinions and suggestions. The company also developed a system called "UretEN-ler Suggestion System" which allows employees to make suggestions directly to management.

Following the suggestion evaluations performed at quarterly period, the best suggestions coming forth in these periods are reviewed by the senior management at the end of the year and most contributing suggestions among these are further rewarded.

Employee Committee

An Employee Committee was formed to promote a free flow of information among employees, to discuss problems of general interest and to devise solutions on a common platform. With the completion of approvals following the Committee decisions, all employees are communicated through communication channels such as bulletin boards etc.



TRAINING & DEVELOPMENT

Enerjisa Üretim designs training and development products in order to strengthen behavioral, professional and leadership competencies of employees in line with its strategic goals as well as the needs of its employees.

Besides training, these designs include various tools such as coaching/mentoring opportunities, language courses, professional development and experiential learning methods.

In the E-Development portal which is the online training platform of Enerjisa Üretim, there are face-to-face options along with E-Orientation, Technical Trainings, Information Technologies Trainings, Mandatory Trainings and Managerial Competency Trainings as innovative and rich educational content. We provide options when required upon the needs of our employees that enrich the journey of learning by designing combined experiences consisting of in-class, digital and individual learning methods.

Technical Training

Technical requirements are identified according to the dynamics of each location. Following this, an annual training program is prepared and notified to employees. Moreover, a Technical Training Program for technicians and engineers is being developed, which will be carried out in 2020.

Master & Doctorate Study Support

Master & Doctorate Support has been provided for employees that started their Master's and Doctorate education in 2020, where Enerjisa Üretim contributed half of the amount to its employees requested by educational institutions.

PEOPLE & CULTURE PRACTICES

Flexible Benefits

"For You" is a flexible benefits program designed for Enerjisa Üretim, covering all white-collar employees. The program allows employees to manage their existing benefits according to their personal needs.

88% of office employees participated in the Flexible Benefits program which enables the employees to structure their benefits upon their choice.

Hobby Clubs

Enerjisa Üretim aims to encourage employee bonding outside of work hours, strengthen communication among inter-department employees, facilitate the adoption of hobbies and provide employees with a place to enjoy their hobbies. In 2020, the company formed hobby clubs under four main subjects (Travel, Cinema-Theater, Games, Gastronomy, Sports) in 21 diffe-

rent places. A total of 490 employees participated in club activities.

Health to your Energy

In accordance with the philosophy of Wellness, the company carries out a well-being program called "Health to your Energy" at 21 different locations to improve the physical and mental health of its employees. The program aims to create opportunities and awareness for employees to lead a healthier life. Through this program, employees can work out with trainers to improve their physical health, develop healthier dietary habits with the help of dietitians, and relieve work stress with massage therapies. With the visits to different locations, the aim is to improve lives of employees whereas all relevant services have been moved to online environment during the pandemic period.

Avita Employee Support Program

Avita Employee Support Program offers 24/7 unlimited service on Psychological counseling and Guidance (by phone and face-to-face), Crisis Critical Situation Management Support, Manager Support Tools, Medical Consultancy and Information Services, Neck and Back Pains and Office Ergonomics, Financial Information Services, Legal Information Services, Social Life / General Information Services, Newborn Care Information Services, Healthy Nutrition Counseling, Techno Support, Veterinary Consultancy to Enerjisa Üretim employees. The program also includes face-to-face psychological counseling services. Employees and their families can receive up to 6 sessions.

BİBOT

The chat bot application BiBOT was activated to support employees 24/7 regarding Human and Culture processes (Payroll, Leaves, Individual Pension, Performance System, Overtime notification, etc.) and Purchasing processes (procedure, implementation and the status of purchase demands). Persons can search using key words and get answers of their questions regarding Human and Culture as well as purchasing processes quickly.



OCCUPATIONAL HEALTH & SAFETY

Enerjisa Üretim introduced an OHS policy to lay emphasis on the subject:

Enerjisa Üretim considers occupational health and safety an important value of its corporate culture. As such, the company reviews its activities annually, renews all required processes and continuously raises its standards.

At Enerjisa Üretim, occupational health and safety (OHS) is the most important pillar of our corporate culture in line with our mission of **“WE GENERATE ENERGY FOR A BETTER FUTURE BY RESPECTING LIFE.”** We identify all employees as OHS volunteers and each and every employee at Enerjisa Üretim is an Occupational Health & Safety Specialist.

We never compromise on occupational health and safety (OHS).

OHS is a natural part of our business.

We believe that occupational accidents and diseases are preventable.

By incorporating the best industry and global practices, we create measurable targets, monitor them regularly and focus on continuous improvement.

We ensure the cooperation of our employees and stakeholders from all levels of our organization.

ENERJİSA ÜRETİM GOLDEN RULES

 <p>1. WORK-SPECIFIC RISK ASSESSMENT</p> <p>The working operation should not start before finalizing the work-specific risk assessment.</p> <p>The work specific risk assessment shall be carried out by the teams granting permission which are responsible from the related operation.</p>	 <p>4. PERSONAL PROTECTION EQUIPMENT</p> <p>Specific personal protection equipment for the related working area and operation must be used.</p>
 <p>2. WORKING AT HEIGHT</p> <p>The necessary precautions for fall arrest shall be taken before working at height.</p> <p>If a parachute type seat belt is to be used, the belt shall be checked and the related control form shall be filled.</p> <p>The staff who will work at height shall be trained.</p>	<p>5. LTSI (LOCK, TAG, SECURE AND INSPECT)</p> <p>LTSI shall only be performed by trained staff.</p>  <p>For LTSI only the authorized lock equipment shall be used and no alternative methods shall be allowed.</p> <p>At least one locking equipment per each working team shall be used.</p> <p>The required information to be filled on the tag, lock and insulation form shall be complete.</p> <p>LTSI equipment shall not be touched and operated without permission.</p>
 <p>3. TRAFFIC</p> <p>When the vehicle is on the move, all occupants shall use a seat belt.</p> <p>Speed limits shall be obeyed while driving the vehicle.</p> <p>The driver shall not use its mobile phone while driving.</p>	

OHS Structuring at Enerjisa Üretim

OHS issues are addressed in monthly OHS Executive Board meetings with the participation of the CEO, Operational and Technical Deputy General Managers, Human & Culture Leader, Asset Management and Sustainability Leader, Occupational Health and Safety and Culture Leader to address business processes and plant/watershed managers. The Board determines the objectives and strategies that concern the entire company and monitors developments.

Keeping track of the occupational safety with its internal organization, Enerjisa Üretim collaborates with Joint Health and Safety Units, which are qualified to provide services to all its power plants within the framework of minimum number of legislations, for its employees' health.

With a proactive approach, representatives from each plant attend weekly and monthly meetings and share OHS development areas, as well as lessons learned from other plants with their employees.

OHS PERFORMANCE INDICATORS

The impact of all OHS-related investments and initiatives undertaken by Enerjisa Üretim is regularly monitored based on the following indicators:

Reactive indicators;

Total Recordable Incident Frequency Rate (TRIF): The number of injuries not led to lost time but required medical attention, lost time injuries and fatal injuries per million hours worked.

Lost Time Injury Severity Rate (LTISR): The rate of lost time led injuries per million hours worked.

TRIF & LTISR Calculation methods;

TRIF = Total Number of Accidents / (Total Working Hours)X1,000,000

This may be defined as the rate of accident amount which occurred in total working hours to one million man hour.

Total Number of Accidents : This number includes all the accidents that involved medical intervention, lost days and death, except near-miss and first aid incidents.

Total Working Hours : 1.000.000 : Constant, 40 (Hours)X50 (Weeks Per Year)X500 (Number of Employees)

RTRIF (Rolling TRIF) : This is a calculation that is made taking into account the cumulative accident amount for the last 12 months and working hours.

LTISR = Total lost time / (Total Working Hours)X1,000,000

This may be defined as the rate of lost time occurred in total working hours to one million man hour.

Total Lost time : This is the total lost time for all the accident occurred.

Total Working Hours : 1.000.000 : Constant, 40 (Hours)X50 (Weeks Per Year)X500 (Number of Employees)

RLTISR (Rolling LTISR): This is a calculation that is performed taking into account the cumulative accident amount for the last 12 months and working hours.

In 2020, LTISR value decreased by 72% and TRIF value increased by 21% compared to the year of 2019.

TRIF	2019	2020
	Realized	Realized
Enerjisa Üretim	2.4	2.9

LTISR	2019	2020
	Realized	Realized
Enerjisa Üretim	34.2	9.7

Proactive indicators;

Safety Improvement Plan (SIP)

The purpose of the SIP is to identify areas open to improvement, determined at the beginning of the year, and to ensure that these are collaborated with relevant stakeholders.

In the beginning of 2020,

 Leadership

 Special Offers

 Contractor Management

 Golden Rules of OHS

 Electrical Safety

- EKED (Lock Out, Tag Out, Try Out)

 Chemicals Management

- Job-Specific Risk Assessment

 HAZOP

 Skills Development

- Personal Protective Equipment

 Process Safety &

- Traffic Management

Emergency Management

- Working at Heights

a total of 13 goals were set as mentioned above, various works were conducted with the participation of the management with a total of 143 different personnel and outputs of these works were shared on a monthly basis with employees throughout the company.

Activities carried out as part of SIP;

In accordance with the continuous learning and development culture, training programs that inform employees about safe working conditions and promote OHS culture play an important role in OHS management. In 2020, Enerjisa Üretim provided 4915 hours of periodic OHS training, as stipulated by the legislation.

In total, 41,305 hours of OHS training was held at Enerjisa Üretim in 2020. Most of these trainings were provided online on the e-development platform due to pandemic conditions.

In 2020, 16745 hours of online OHS training on the e-development platform was provided at Enerjisa Üretim.

**OHS
TRAINING
TIME PER
PERSON
IS 18.27
HOURS**

Innovative Applications Supported by Technology

Enerjisa Üretim continued its digitalization process of OHS field in 2020 as well and improved previously developed applications.

YES (Integrated System for Contractors):

Below benefits were obtained with YES, initiated in 2020;

- Inclusion of contractors into our OHS processes & increasing awareness
- Initiation of occupational health and safety related regulations with purchase request
- Performing information and documentation evaluations not only by occupational health and safety department, but by all departments (e.g., maintenance dept., administrative affairs, operation, etc.)
- Monitoring misconducts of contractor employees according to OHS.

Safety Vision:

Thanks to this project, implemented with a start-up cooperation in 2020, Enerjisa Üretim is the first company in Turkey as well as being among the leading companies in the world in occupational health and safety field. In summary, the project involves artificial intelligence technology by using existing cameras in power plants and measures factors given below in real-time with an accuracy of 90% and compiles reports;

- Employee & Equipment Check
- PPE Analysis
- Area Breach Detection
- Detection of Anomalies
- Analysis of Temperature Maps
- Pedestrian & Vehicle Road Breach Detection
- Safety Checks
- Physical Distance Analysis

It measures and reports its processes in real time with over 90% accuracy.



PURCHASING DEPARTMENT

The goal of purchasing department is to develop effective and efficient long-term relations with suppliers and form strategic collaborations. Both supplier development support and Enerjisa Üretim process improvement through received supplier feedbacks is achieved via tools used within this framework.

In cooperative studies with the site team and suppliers, another important goal is to lower costs without compromising quality, sustain continuity of the operation and increase efficiency in operations with innovative approaches.

As part of this, we expect all our suppliers to conduct all their activities according to national and international laws and regulations whereas we accordingly conduct supplier audits. On the other hand, as long as conditions are suitable and no additional costs occur, another important supply principle is to collaborate with local suppliers from our region of activity, award a contract to a woman owned firm supplier or if no such case exists, to the supplier having more woman employees.

Suppliers benefited from easy terms of payment provided during the pandemic, protecting them and our operation from the crisis.

**In 2020,
we collaborated with
1,267 suppliers, processing
14,547 orders worth
614 million TL in total.**

Kokpit

Digitalization activities for Enerjisa Üretim processes were accelerated upon the pan-

demical period. In line with this, Kokpit was activated consisting of a material main data management system, created completely using domestic sources of Enerjisa Üretim. This system will enable the usage of common codes in all the power plants of Enerjisa Üretim, prevent duplicate code usage, automate the approval processes, enable control and traceability with regards to stocks and support decreasing stock and supply costs.

INTERNAL AUDIT DIRECTORATE AND ITS ACTIVITIES

The Internal Auditing Directorate carries out auditing activities of Enerjisa Üretim and its subsidiaries for the effectiveness of the internal control system. Pursuant to the independence principle, the Internal Audit Directorate reports directly to the Audit Committee, comprised of two members of the Board of Directors. Audit Committee supports the Executive Board by providing counsel fundamentally in regards to the integrity of financial tables and internal control system, effectiveness of internal audit processes and functions of the organization, independence of external auditors, their qualifications and performance, conformity to effective laws and regulations, and improvement potential in business processes.

Internal Audit Team uses data analysis software and techniques in order to understand and interpret big data and carries out three main activities, namely conducting auditing activities, counseling services and ethical review works.

CARRYING OUT AUDITING ACTIVITIES

With the internal auditing activities, Executive Board is reasonably ensured through Audit Committee with regards to the efficiency and competency of the in-house processes and internal controls. With the auditing extent created by the directorate, all the processes that may be audited inside the company are determined and risk assessment works are conducted every year periodically with regards to the processes that are included. Yearly internal audit plan prepared as a result of studies is subject to the approval of the Audit Committee and the Executive Board. In the audits that are conducted as part of this plan, the goal is to support the performance of objectives given below:

- Complying with legal regulations, contracts, authorization plan, policy and internal procedures
- Preventing mistakes and misconducts
- Establishing an effective internal control system for ERP systems, other databases and business applications

- Protecting assets
- Ensuring effectiveness and efficiency of operations
- Ensuring the integrity and accuracy of financial and operational information
- Ensuring conformity with corporate management principles
- Ensuring conformity with ethical values
- Ensuring efficiency in performance and risk management
- Determining improvement opportunities and spreading good practices

Findings and recommendations regarding the audit activities are discussed with the audited function managers to define action plans. The audit report issued is submitted for the audit review and the results are reported to the Audit Committee. The Internal Audit Team also monitors the implementation of action plans and informs the Audit Committee about the developments.

PERFORMANCE ASSESSMENT & CONTINUOUS DEVELOPMENT

Activities of Internal Audit Directorate are conducted every year according to the International Internal Audit Standards and Ethical Principles. Conformity was also approved and documented by an independent Quality Assurance Review (QAR), conducted most recently in 2019 as it is required to be conducted every 5 years according to the standards.

Team members in the directorate are all members of Turkish Internal Audit Institute in order to expand and share their professional knowledge and experience.

ADVISORY SERVICES

Consultancy activities may also be conducted in line with the demands coming from the Directorate Executive Board, Audit Committee or senior management.

ETHICAL REVIEWS

Company employees or stakeholders may report all kinds of possible ethical, legal or Company policy breaches by calling Ethics Hotline at '0216 512 4242' or by sending emails to "enetik_uretim@enerjisauretim.com" to reach the Internal Audit Directorate. Internal Audit Directorate has the sole authority to access these notifications and to inquire about the breaches. Results and suggestions are discussed and resolved during the Board of Workplace Behavior Assessment.

ENERJİSA ÜRETİM CODE OF CONDUCT RULES

Enerjisa Üretim prioritizes respectability, reliability and responsibility in all its business processes as core values and maintains the culture of meeting these requirements at every step of the way. Enerjisa Üretim Code of Conduct (EnEtik) act as a compass that was created for the Company to implement this culture in a sustainable manner.

Relevant ethical rules cover various subjects such as acting according to the business ethics in internal and external relations of the Company, protecting all kinds of Company assets and information, preventing conflict of interest, fighting against corruption and bribe, etc. Along with the legal responsibilities of the Company, they also indicate the responsibilities before the customers, employees, stakeholders, suppliers and business partners, competitors, society as well as Enerjisa

Üretim's responsibilities for its employees. As the Code of Conduct booklet of the Company, EnEtik is publicly shared on the corporate website.

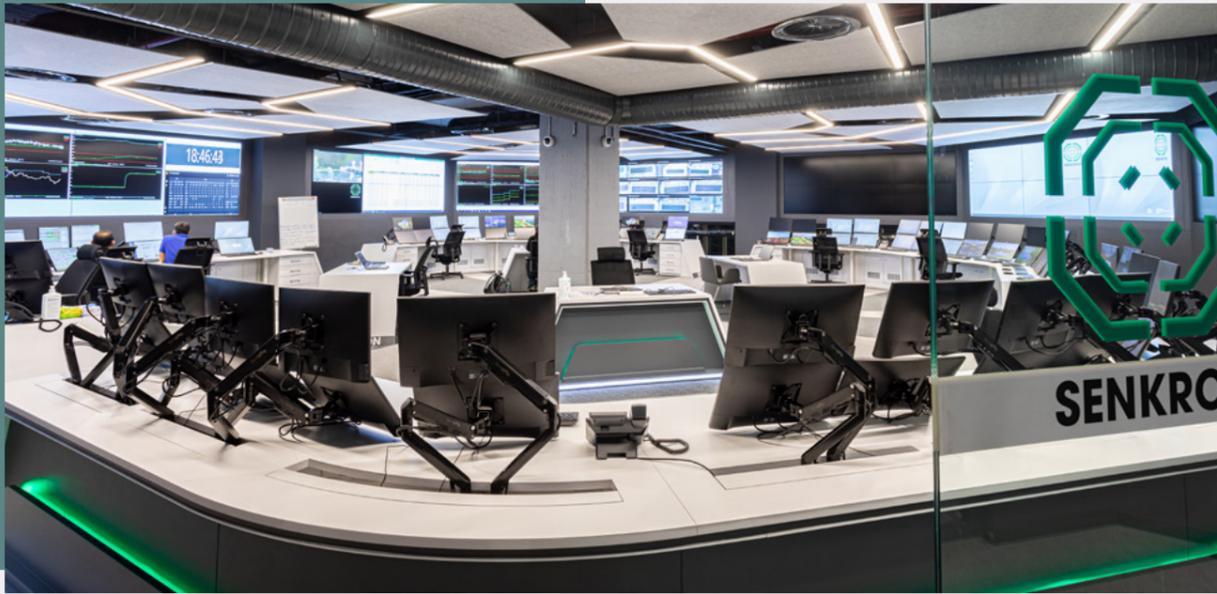
EnEtik Rules

https://www.enerjisauretim.com.tr/files/PDFLER/EnEtik_Etik_Kurallar_Kitapc_g_TR.pdf

Employees complete their training periodically every year over the e-learning platform in order to update their knowledge regarding the code of conduct and principles that have been personally assigned and renew their commitment to these rules with "Code of Conduct Conformity Declaration" Ethical Board Advisor who presides over Work Place Code of Conduct Evaluation Board in the company is announced across the organization as the contact person with regards to ethical subjects.

IF THERE IS
ENERJİSA ÜRETİM

THERE IS
A SUSTAINABLE
FUTURE



TECHNICAL

Renewable Energy Power Plant Investments

In terms of renewable energy, Enerjisa Üretim is generating energy in 12 hydroelectric, 3 wind and 2 solar power plants. Aiming to further increase the share of renewable energy in its generation portfolio, the share of renewable energy in total installed power of Enerjisa Üretim in Turkey is increasing regularly through investments. With the start of operation of total 9 MW solar power plant in Karabuk and Bandırma in 2017, Enerjisa Üretim continues with new investments with 1 MW Hybrid SPP project initialized in 2020. An approximate of 1 MW solar power construction in which 395 kWp for Balıkesir RES and 573 kWp for Tufanbeyli Power Plant are completed by the end of 2020 and power generation has started.

In addition to one of Turkey's first hybrid investment BARES SPP and Tufanbeyli SPP, Enerjisa Üretim will continue to regularly invest in solar energy in its existing power plants, by that, both support for growth objectives in the field of renewable energy will be ensured and also experience will be gained with project works throughout the power plants.

In line with the growth goal in renewable energy area, we offered 4.56 Dollar cent per kWh in Aydın and 3.67 Dollar cent per kWh in Çanakkale in the WPP YEKA-2 tenders organized by the Ministry and we received a total capacity of 500 MW, as 250 MW at each tender session. As part of this, we signed YEKA utilization right contracts in 2020 with the Ministry of Energy and Natural Resources. Enerjisa Üretim will be able to sell the electricity it will generate using the company's forthcoming wind power plants in these provinces at prices mentioned during the tender for 15 years following the signing of the contract.

We conducted site visits by taking all the necessary measures in 2020 despite the challenging pandemic conditions in order to be able to develop YEKA projects to be presented to the Ministry of Energy and Natural Resources and tried to carefully determine all the risks with regards to the projects. In this process, we installed more than 20 measurement stations to accurately determine the wind potential.

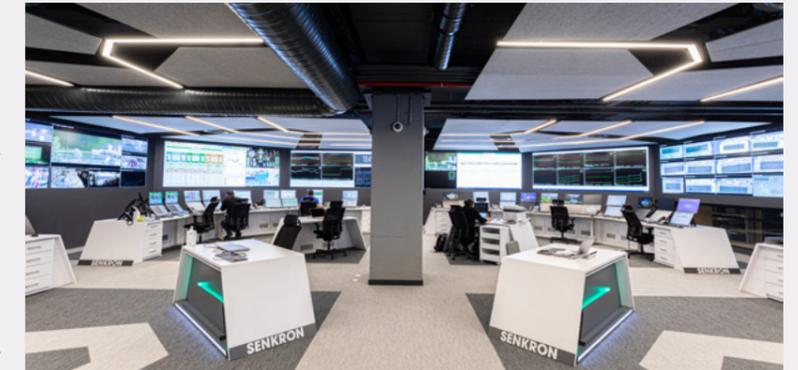
We submitted the prospective YEKA projects that were prepared with devotion to the Ministry of Energy and Natural Resources and thus we completed another important step in the investment process. Following the determination of final project, we will fulfill all the obligations found in the regulations and the contract and we will continue to work with the same sensibility in order to bring these projects to life for our country. One of the strategic priorities of Enerjisa Üretim is to ensure new investments in renewables. In the TEİAŞ Capacity Allocation Tenders held in 2017, we gained the rights for 65 MW of capacity allocation for Erciyes WPP. In addition to this, we gained 500 megawatts of capacity with YEKA Tender held in 2019, thus we increased our total installed power capacity to 4 thousand 172 MW with wind power plants to be built in "Aydın and Çanakkale regions and we gained the potential to increase the share of green investments in our portfolio. In 2020, we continued our activities in order to develop these projects.

In addition, we supported renewable energy plants with hybrid power plant investments made in 2020. Accordingly, electricity was generated at Enerjisa Bandırma Power Generation Base with Bandırma I and Bandırma II Natural Gas Power Plants along with the 3 MW hydroelectric plant built on the cooling water discharge system at Bandırma I and with the 2 MW solar power plant. And we started test works at Bandırma Energy Base for wave and wind energy.

We continue our renewable energy investments with hybrid solar plants located at Balıkesir Wind Power Plant and Tufanbeyli Plant which were commissioned in 2020.

SENKRON CENTRAL OPERATION ROOM

Senkron Central Operation Room (Senkron) established at the Istanbul Ataşehir Headquarters started its remote operation process for 12 hydroelectric power plants belonging to Enerjisa Üretim as of 16 November 2020. In addition to remote operation of hydroelectric power plants, Senkron also includes control systems for Thermal, Wind Power and Solar Power Plants and monitors their processes. Senkron is one of the best examples that implemented by Enerjisa Üretim regarding digitalization and struggle for excellence. With its process and infrastructure specifications that were designed by aiming to reach excellence in Asset Management, Senkron was certified with ISO 55001 Asset Management Certificate.



Some of the prominent specifications of the center which includes the most advanced skills of technology and sector practices are as follows:

- ▶ Junction point for 20 plants with 4 different technologies. Thanks to 62 Barco Vision screens, operations and process efficiencies of all power plants are monitored.
- ▶ 12 hydroelectric power plants are managed through a telecommunication network with 70 thousand signal capacity and all regulators, dam and radial gate systems are being monitored in real time.
- ▶ Process monitoring and performance evaluation are conducted in natural gas and coal plants with 2100 MW installed power capacity and maintenance and improvement works are being monitored instantaneously.
- ▶ SCADA signals are moved onto online analysis software and thousands of signals are analyzed at the same time. Following these analyses, daily performance reports are created and submitted to Senkron employees.
- ▶ The server room which includes IT and OT systems infrastructure was designed according to Tier 3 data center categorization.

ENERJİSA ÜRETİM ACADEMY

Enerjisa Üretim Academy started its activities in order to create and implement technical development and legal training programs. With “Turna” at Bandırma Natural Gas Plant, “Lotus” at Arkun Hydroelectric Plant and “Spektrum” at Tufanbeyli Thermal Power Plant, a conference hall of 125 people as well as a lecture theater with a capacity of 25 people, a computer lab with a capacity of 20 people and a lecture hall with a capacity of 50 people were opened to be used for culture and arts events.

In these days in which changes occur very rapidly as never before, the elements of this learning approach which takes its name from the extensive Spectrum that it covers were designed under 8 titles as “Learn”, “Share”, “Try”, “Read”, “Explore”, “Enjoy”, “Lab” and “Have Fun” with the purpose of creating a development journey that all employees can experience learning most up-to-date professional information, using the latest technologies, learning from their own experiences, developing new perspectives and having fun while learning.



This path was created to establish technical and mandatory trainings for employees according to their competencies and to design a personal training journey. Training competency matrices were created by taking into account technical equipment in the plant, processes, occupational health and safety, environment, legal, quality systems and technological developments. In addition to this, digital library enables access to many paper websites, technical books and international standards.

Maneuver VR training system was completed in 2020 which was Turkey's first virtual reality environment created by preparing one-to-one models of medium and high voltage systems of the power plants using innovative digital education solutions. A simulation was created for the training of employees in relation to the systems that are not safe to maneuver within in the existing conditions since they are constantly energized. Thus, systems were simulated one-to-one within the virtual plant. In scope of the training, employees who work under the existing conditions experienced this activity in the safest way and enhanced their technical experiences. Total statistics of technical and competency trainings are as below.

*OHS and mandatory trainings are not included in these rates.

HOUR	OUTSIDE THE COMPANY	IN HOUSE & E-DEVELOPMENT	GROSS TOTAL	TRAINING PER EMPLOYEE
GROSS TOTAL	26667	11469	38136	102,5

● **In its journey “to become the energy company that constantly develops its know-how, that determines standards and guides the sector’s future”, Enerjisa Üretim became the first electricity generation company in Turkey that obtained ISO 55001 Asset Management Certificate for Kandil HEPP and Senkron Control Center.**

● **All of Enerjisa Üretim Power Plants implemented effective measures with regards to the pandemic and received TSE Covid-19 Safe Generation Certificate. Enerjisa Üretim’s Dağpazarı WPP and Tufanbeyli Thermal Power Plant were the first wind and thermal power plants in Turkey to receive these certificates.**

● The company succeeded in becoming the first electricity generation plant in Turkey that was integrated into this system which aims to create maximum value from all assets during their whole life cycles.

● 15 power plants received Zero Waste Certificate from the Ministry of Environment and Urbanization following the completion of the works in scope of Zero Waste Regulation.

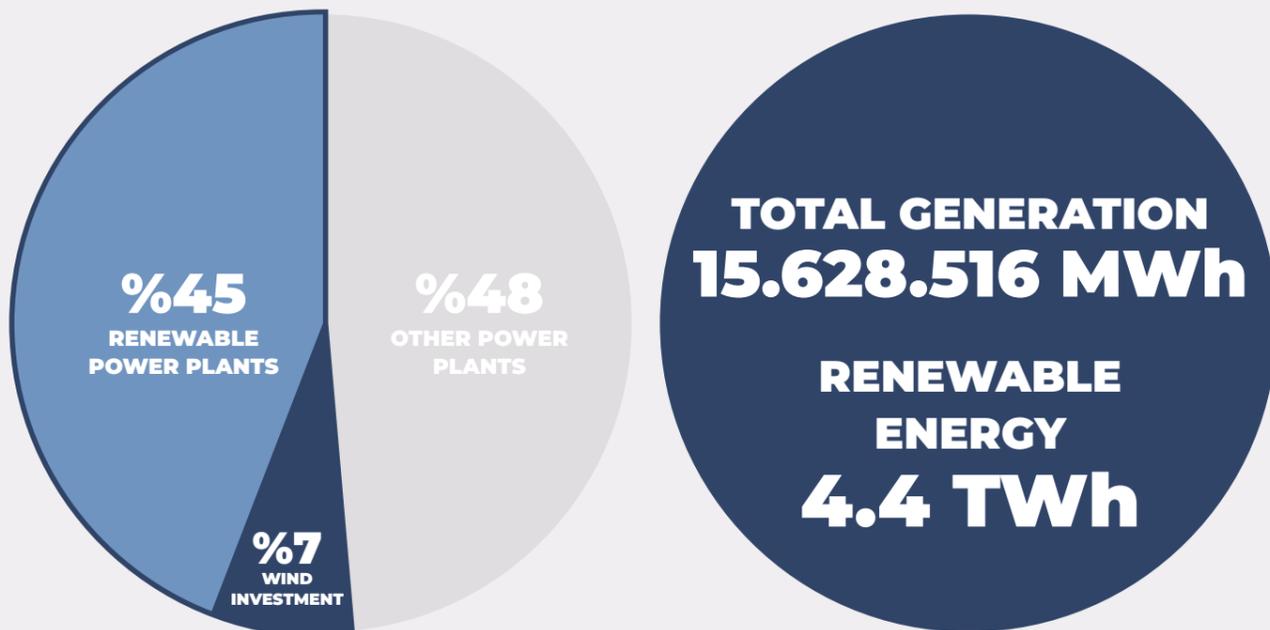
● As a result of successful internal and external audits conducted in scope of ISO 9001, 14001, 27001, 45001 and 50001 management systems, recertification processes of all power plants were completed without detection of major or minor nonconformities.

RENEWABLE ENERGY POWER PLANTS

THE BIGGEST PLAYER OF ITS INDUSTRY HAVING TURKEY'S MOST VARIED AND LARGEST GENERATION COMPOSITION OF 3607 MW FROM 5 DIFFERENT TECHNOLOGIES

Enerjisa Üretim generates renewable energy with 12 hydroelectric, three wind and two solar power plants. Enerjisa Üretim continues with new investments with the 1 MW Hybrid SPP project, energized in 2020, further increasing the share of renewable energy in its generation portfolio. The share of renewable energy in total installed power in Turkey is regularly increased with realized investments.

While 45% of Enerjisa Üretim's installed power consists of renewable power plants, this ratio will rise to 52% with the 565 MW wind power investment.



HYDROELECTRIC POWER PLANTS (HEPPs)

ARKUN DAM AND HEPP



Starting operation in the second quarter of 2014, Arkun HEPP is located on the Çoruh River on the provincial border of Erzurum-Artvin. The plant's total installed capacity is 245 MW with three main turbines with a 78-MW capacity and two environmental flow plants with a 5.4-MW capacity.

COMMISSIONING DATE (MW)	RESERVOIR SIZE (HM ²)	COMMISSIONING DATE
245	283	2014
TURBINE TYPE	MAIN EQUIPMENT PROVIDER	LOCATION
FRANCIS	ALSTOM	ARTVİN ERZURUM

ÇAMBAŞI HEPP

HYDROELECTRIC POWER PLANTS (HEPPs)



Starting operation in 2013, Çambaşı HEPP is located in Çaykara, Trabzon, on the Solaklı Stream. The plant has a 44-MW installed capacity with two separate regulators, a 2-km energy tunnel and two Pelton turbines with a 22.05-MW capacity.

COMMISSIONING DATE (MW)	RESERVOIR SIZE (HM ²)	COMMISSIONING DATE
44	REGÜLATÖR	2013
TURBINE TYPE	MAIN EQUIPMENT PROVIDER	LOCATION
PELTON	VOITH	TRABZON

HYDROELECTRIC POWER PLANTS (HEPPs)

DAĞDELEN HEPP



Starting operation in 2013, Dağdelen Regulator and HEPP is in Kahramanmaraş, in the Ceyhan River Basin. The plant has two tiger turbines, each with a 4-MW capacity.

COMMISSIONING DATE (MW)	RESERVOIR SIZE (HM ²)	COMMISSIONING DATE
8	REGÜLATÖR	2013
TURBINE TYPE	MAIN EQUIPMENT PROVIDER	LOCATION
KAPLAN	ORIENT	KAHRAMANMARAŞ

DOĞANÇAY HEPP

HYDROELECTRIC POWER PLANTS (HEPPs)



Starting operation in 2017, Doğançay HEPP is located in the Seyhan Basin, Adana, on the Doğançay Creek. This plant, which has a capacity of 62 MW, is built using a tunnel boring machine (TBM) instead of traditional methods. All of the plant's units are subterranean, except for the regulator area.

COMMISSIONING DATE (MW)	RESERVOIR SIZE (HM ²)	COMMISSIONING DATE
62	REGÜLATÖR	2017
TURBINE TYPE	MAIN EQUIPMENT PROVIDER	LOCATION
FRANCIS	ORIENT	ADANA

HYDROELECTRIC POWER PLANTS (HEPPs)

HACININOĞLU HEPP



Starting operation in 2011, Hacınınoğlu HEPP is located in Kahramanmaraş, in the Ceyhan Basin. The plant is connected to TEİAŞ' Kılavuzlu and Narlı switchyard of 154 kV, and has an installed capacity of 142 MW.

COMMISSIONING DATE (MW)	RESERVOIR SIZE (HM ²)	COMMISSIONING DATE
142	REGÜLATÖR	2011
TURBINE TYPE	MAIN EQUIPMENT PROVIDER	LOCATION
FRANCIS	ANDRITZ	KAHRAMANMARAŞ

KANDİL HEPP

HYDROELECTRIC POWER PLANTS (HEPPs)



Starting operation in 2014, Kandil Dam and HEPP is located in Kahramanmaraş, in the Ceyhan Basin. The project, which includes a rock fill dam with a concrete-covered front, has a total installed capacity of 208 MW. Its two Francis turbines have a 102-MW capacity and its single environmental turbine has a 4-MW capacity.

COMMISSIONING DATE (MW)	RESERVOIR SIZE (HM ²)	COMMISSIONING DATE
208	439	2014
TURBINE TYPE	MAIN EQUIPMENT PROVIDER	LOCATION
FRANCIS	ANDRITZ	KAHRAMANMARAŞ

HYDROELECTRIC POWER PLANTS (HEPPs)

KAVŞAK BENDİ HEPP



Starting operation in 2014, Kavşak Bendi HEPP is located in Adana, on the Seyhan River. The rock fill plant with a concrete-covered front has the highest installed capacity on the Seyhan River. It has three Francis turbines with a 62-MW capacity and a single environmental turbine with a 5.4-MW capacity.

COMMISSIONING DATE (MW)	RESERVOIR SIZE (HM ²)	COMMISSIONING DATE
191	30	2014
TURBINE TYPE	MAIN EQUIPMENT PROVIDER	LOCATION
FRANCIS	ALSTOM	ADANA

KÖPRÜ HEPP

HYDROELECTRIC POWER PLANTS (HEPPs)



Starting operation in 2013, Köprü HEPP is located in Adana, on the Göksu Bayou of the Seyhan River. The dam has an RCC body and twin Francis turbines, each with a 78-MW capacity. Its total installed capacity is 156 MW.

COMMISSIONING DATE (MW)	RESERVOIR SIZE (HM ²)	COMMISSIONING DATE
156	93	2013
TURBINE TYPE	MAIN EQUIPMENT PROVIDER	LOCATION
FRANCIS	ALSTOM	ADANA

HYDROELECTRIC POWER PLANTS (HEPPs)

KUŞAKLI HEPP



Starting operation in 2013, Kuşaklı HEPP is located in Adana, on the Seyhan River. The plant has twin Tiger turbines, each with a 10-MW capacity, and a total installed capacity of 20 MW.

COMMISSIONING DATE (MW)	RESERVOIR SIZE (HM ²)	COMMISSIONING DATE
20	REGÜLATÖR	2013
TURBINE TYPE	MAIN EQUIPMENT PROVIDER	LOCATION
KAPLAN	ORIENT	ADANA

MENGE HEPP

HYDROELECTRIC POWER PLANTS (HEPPs)



Menge HEPP is located in Feke, Kozan, Adana on the Seyhan River. It has an installed capacity of 89 MW. The first phase of the provisional acceptance of the plant was completed on December 22, 2011, and the second phase was completed on January 27, 2012.

COMMISSIONING DATE (MW)	RESERVOIR SIZE (HM ²)	COMMISSIONING DATE
89	51	2012
TURBINE TYPE	MAIN EQUIPMENT PROVIDER	LOCATION
FRANCIS	ALSTOM	ADANA

HYDROELECTRIC POWER PLANTS (HEPPs)

SARIGÜZEL HEPP



Starting operation in 2013, Sarigüzel Dam and HEPP is located in Kahramanmaraş, on the Ceyhan River. The project, which is filled with sand, gravel and rock, has a concrete-covered front and two Francis turbines, each with a 49-MW capacity.

COMMISSIONING DATE (MW)	RESERVOIR SIZE (HM ²)	COMMISSIONING DATE
102	59	2013
TURBINE TYPE	MAIN EQUIPMENT PROVIDER	LOCATION
FRANCIS	ANDRITZ	KAHRAMANMARAŞ

YAMANLI II HEPP

HYDROELECTRIC POWER PLANTS (HEPPs)



Starting operation in 2015, Yamanlı II HEPP is located in Adana, on the Göksu Bayou of the Seyhan River. The plant has an installed capacity of 82 MW.

COMMISSIONING DATE (MW)	RESERVOIR SIZE (HM²)	COMMISSIONING DATE
82	2	2015
TURBINE TYPE	MAIN EQUIPMENT PROVIDER	LOCATION
FRANCIS	YUNHE	KAHRAMANMARAŞ

WIND POWER PLANTS

BALIKESİR WPP



Starting operation in 2013, Balıkesir WPP is located in Balıkesir and has a capacity of 143 MW with 52 turbines. The plant is connected to the TEİAŞ' Poyraz and Balıkesir 154-kV switch. The project was awarded the "Carbon Gold Certificate" by The Gold Standard Foundation.

COMMISSIONING DATE (MW)	COMMISSIONING DATE
143	2013
MAIN EQUIPMENT PROVIDER	LOCATION
GENERAL ELECTRIC	BALIKESİR

ÇANAKKALE RES

WIND POWER WPP



Starting operation in 2011, Çanakkale WPP is located in Mahmudiye, Çanakkale, and has an installed capacity of 30 MW with 13 turbines. The project was awarded the “Carbon Gold Certificate” by The Gold Standard Foundation.

COMMISSIONING
DATE (MW)**30**COMMISSIONING
DATE**2011**MAIN EQUIPMENT
PROVIDER**SIEMENS**

LOCATION

ÇANAKKALE

WIND POWER PLANTS

DAĞPAZARI WPP



Starting operation in 2012, Dağpazarı WPP is located in Mut, Mersin, and has an installed capacity of 39 MW with 13 turbines. The project was awarded the “Carbon Gold Certificate” by The Gold Standard Foundation.

COMMISSIONING
DATE (MW)**39**COMMISSIONING
DATE**2012**MAIN EQUIPMENT
PROVIDER**SIEMENS**

LOCATION

MERSİN

BANDIRMA SPP

SOLAR POWER PLANTS

SOLAR POWER PLANTS

KARABÜK SPP



Starting operation in 2017, Bandırma SPP is located in Bandırma, close to two natural gas power plants. The plant is built on approximately 40 acres of land and includes solar panels that employ PV thin-film technology.

Starting operation in 2017, Karabük SPP is located in Bölükören, Eskipazar, Karabük. Built on 140-acre land, the plant includes solar panels that employ PV thin-film technology.

COMMISSIONING DATE (MW)	COMMISSIONING DATE
2	2017
MAIN EQUIPMENT PROVIDER	LOCATION
FIRST SOLAR	BALIKESİR

COMMISSIONING DATE (MW)	COMMISSIONING DATE
7	2017
MAIN EQUIPMENT PROVIDER	LOCATION
FIRST SOLAR	KARABÜK

HYDROELECTRIC POWER PLANTS 2020

Net Generation (MWh): 3.641.308

Availability: 97,35%

Enerjisa Üretim generates electricity at 12 hydroelectric power plants with an installed capacity of 1,353 MW in Adana, Kahramanmaraş, Erzurum, Artvin and Trabzon.

**Seyhan Basin**

Seyhan Havza hidroelektrik santralleri üretim hedeflerinin %16 ötesine geçerek seneyi tamamlamıştır.

Seyhan Basin hydroelectric power plants closed the year by going beyond their generation targets by 16%. Thanks to the effective management of risks, all planned Electromechanical and Hydromechanical maintenance works were realized fully compatible with time and quality targets.

Along with all these works, other improvement activities were conducted in power plants in order to fulfill technological and cyber security requirements. In this context;

- Menge HEPP Control System was renewed.
- Doğançay and Yamanlı II HEPP turbine governor systems were renewed using completely open source codes and new technologies.

Necessary improvements were made at access roads and facility areas as well as at locations with rock falling and land sliding hazards at all the power plants and the risks were minimized.

At Seyhan Basin, Enerjisa Üretim supported Adana Metropolitan Municipality and the villagers by completing road improvement and pavement works on a total of 27 km on the common transportation roads of Kavşakbendi and Doğançay Hydroelectric Power Plants, Karahan, Kışlak Gökgöz villages.

Ceyhan Basin

Ceyhan Basin hydroelectric power plants closed the year by going beyond their generation targets by 52%.

Improvement activities were conducted at the power plants located in the basin. In

this scope, Hidro 4.0 software was started to be used to ensure monitoring of turbine performances and anomaly detection whereas the software was developed completely with company resources.

Kuzey Basin

North Basin hydroelectric power plants closed the year by falling short of their generation targets by 12%.

Improvement activities were conducted at the power plants located in the basin. In this context;

- Arkun HEPP SCADA system was rehabilitated.
- PSS tests were successfully conducted in order to contribute in the safe, reliable and stable operation of the transmission system.
- Secondary Frequency Control capacity was increased by 50% and updated as 30 MW .

WIND POWER PLANTS 2020

Net Generation (MWh): 712.702

Availability: 97,88%



Enerjisa Üretim generates electricity with an installed capacity of 212 MW in three wind farms located in Çanakkale, Dağpazarı and Balıkesir.

In 2020, Enerjisa Üretim's wind farms had their best years in terms of generation performance. We achieved the highest level in the amount of power fed into the grid at our wind power plants since the day they started generating energy, which have been generating energy since 2011 and 2012 as we retrofitted these plants.

Enerjisa Üretim prioritizes the availability of its power plants. In line with this, we developed a software for performance control and anomaly detection at Balıkesir WPP by using machine learning and artificial intelligence algorithms. The software in question was used to start predictive maintenance works and the same works continue to be spread among other wind power plants.

Enerjisa Üretim Wind and Solar Power Plants had their best year in terms of generation performance in 2020 and reached electricity generation of 729.791 MWh.



SOLAR POWER PLANTS 2020

Net Generation (MWh): 14.205

Enerjisa Üretim generates electricity with two solar power plants with a total installed capacity of 9 MW in Bandırma and Karabük.

Our solar power plants were designed using advanced technology and Tier-1 products were employed in their installation. In 2020, generation at both solar plants were higher than the targeted amount. In 2020, generation at both solar power plants was above the targeted amount. The construction of the 395 kWp solar power plant at Balıkesir WPP and the 573 kWp at Tufanbeyli Power Plant, reaching up a total approximately to 1 MW, was completed at the end of 2020 and energy generation started at these plants already.

NATURAL GAS POWER PLANTS 2020

Net Generation (MWh): 8.418.901

Availability: 93,93%

At Enerjisa Üretim Bandırma Energy Center located in Bandırma, Balıkesir; Enerjisa Üretim generates energy according to its eco-friendly energy generation mission with Bandırma I Natural Gas Power Plant, which has an installed capacity of 936 MW; Bandırma II Natural Gas Power Plant, which has an installed capacity of 607 MW; and

Kentsa Natural Gas Power Plant, which has an installed capacity of 40 MW, in İzmit.

The Bandırma I Natural Gas Power Plant was put into operation in 2010. The plant has two Mitsubishi M701F4 gas turbines, each with a capacity of 304 MW; two Nooter/Eriksen heat recovery steam generators, each with a capacity of 500 tons/hour; and a Mitsubishi steam turbine with a capacity of 328 MW.

The Bandırma II Natural Gas Power Plant was put into operation in 2016. This single-shaft plant uses a Siemens generator and includes a Siemens SGT5- 8000H gas turbine with a capacity of 402 MW, a Siemens steam turbine with a capacity of 205 MW, a NEM waste heat boiler (HP BENSON bottle, IP and LP drums) and an air-cooled condenser.

The efficiency and location of Bandırma Power Plants play a crucial role in the security of our national electricity supply and are an active part of the balancing power market. These plants have a major role in balancing the diversification of energy generation during wet periods on the East-West axis. The large capacity of their secondary and primary frequency control reserves helps them actively restore the regional balance. Kentsa Natural Gas Power Plant was established in Kocaeli, İzmit in 1997 at the Kentsa Facility. With a power generation capacity of 40 MW, the plant continues to provide electricity to Sabancı plants through its 154-kV transmission system.



BANDIRMA ENERGY BASE

With their efficiency, ability to support flexible working regimes, environmentally friendly designs and experienced staff, the 1583 MW Natural Gas Power Plants located in Bandırma Energy Base contribute to Enerjisa Üretim, serve grid security and are the assurance and supporter of the increase in wind installed power in Turkey.



Bandırma Energy Base has become Turkey's first and pioneering energy base for micro generation technologies applications and R&D studies, featuring 2 Natural Gas Power Plants, 1 Solar Power Plant, 1 Hybrid Hydro Power Generation Facility.



Bandırma I & Bandırma II Natural Gas Power Plants

Digitalization project implementations continued increasingly to standardize the ways of doing business in all the processes and to speed up information access in Bandırma I and II Power Plants. As part of monitoring and evaluation works based on data which were started in the previous year, instant monitoring of the power plants and system performances was sustained. In line with this, timely actions were taken with regards to the necessary improvement and maintenance opportunities and optimization works were conducted.

HP Steam Mismatch value which is one of the commissioning requirements for the steam turbine was updated, significant amount of natural gas was saved in the process of commissioning under "Hot Start" conditions and a total carbon footprint reduction of 1025 tons was achieved for the year of 2020. In connection to that, the commissioning process of steam turbine was shortened and improved by 9%.

As part of Bandırma Energy Base works, innovative project works started to be conducted in order to catch up on developing technology and to implement compatible technologies in our power plants in frame of sustainability. In this context, various activities are aimed to be conducted increasingly in 2021 as well such as researching Hydrogen technologies and installing a pilot electrolytic facility, benefiting from EU funds and conducting feasibility studies with domestic universities.

Maintenance processes conducted at

Enerjisa Üretim's natural gas power plants contribute in the sustainability goal that was defined for economic, efficient, reliable and environment-friendly power generation in the power plants with high availability. Thanks to Predictive Maintenance Approach and developed digitalization projects, open work rates were decreased from 4% to 2% and incidental maintenance rates were decreased from 55% to 28%, thus these were improved by approximately 50% compared to the previous year.

In 2020, BI (Borescope Inspection) was conducted at Bandırma-1 Natural Gas Power Plant to assess the status of parts of gas turbines that are subject to high temperatures since 2019 TI (Turbine Inspection) and no negative status was encountered.

In 2020, HGPI (Hot Gas Path Inspection) Extensive Maintenance Works that take 44 days to complete was completed with the main turbine manufacturing company at Bandırma-2 Natural Gas Power Plant within the scheduled time frame, under the budget and with the desired quality.

We came together with other domestic and foreign natural gas power plants for technical meetings and the issues and improvements were assessed from a technical perspective.

Kentsa

Kentsa Natural Gaz Power Plant was established in Kocaeli, Izmit in 1997 within Kentsa facilities. The power plant has an electricity generation capacity of 40 MW and continues to provide electricity to Sabancı Holding Group Companies' Factories via the 154 KV transmission system.

Natural Gas POWER PLANTS

BANDIRMA I



COMMISSIONING DATE (MW)

936

COMMISSIONING DATE

2010

MAIN EQUIPMENT PROVIDER

MITSUBISHI

LOCATION

BALIKESİR

BANDIRMA II

Natural Gas POWER PLANTS

Natural Gas POWER PLANTS

KENTSA



COMMISSIONING
DATE (MW)

607

COMMISSIONING
DATE

2016

MAIN EQUIPMENT
PROVIDER

SIEMENS

LOCATION

BALIKESİR

COMMISSIONING
DATE (MW)

40

COMMISSIONING
DATE

1998

MAIN EQUIPMENT
PROVIDER

**GENERAL
ELECTRIC**

LOCATION

KOCAELİ

TUFANBEYLİ DOMESTIC LIGNITE POWER PLANT 2020

Net Generation (MWh): 2.841.401

Availability: 87,73%

Located in Tufanbeyli, Adana, Enerjisa Üretim Tufanbeyli Domestic Lignite Power Plant commenced operation in 2016. It is one of the largest private and domestic lignite power plants in Turkey with an installed capacity of 450 MW.



Designed to minimize water consumption, the 450-MW plant consists of three units and uses fluidized bed technology.

The plant with dry cooling systems includes a limestone pit and processing systems to provide limestone for the CFB boilers and flue gas desulphurization (FGD) systems. The plant's flue gas treatment system allows the limestone to be added to the boiler and to the wet FGD system.

In 2020, Tufanbeyli Lignite Power Plant, the followings were achieved:

- Installation of our solar power plant with a capacity of 496 kW which directly addresses internal needs was completed and was commissioned.
- Various modifications were performed in systems such as filter systems, ash hoppers, etc. in order to minimize dust emissions inside and around the plant and emission rates were taken down to the lowest level.
- Following the completion of major maintenance works, productivity was increased by 6% in the High Pressure turbine.
- As a result of the improvement works conducted on the units, primary frequency control rate was raised up to 98% from 60%.

In the year 2020, more than 6 million tons lignite was fed according to the needs of the power plant. The rate of cover excavation within the year occurred as 0,6 m³/ton and TFB Lignite field is considered as one of the most economic fields of mining sector due to these characteristics.

A total of 3 million tons of limestone was produced to enable the power plant to generate energy within SO₂ emission limitations. Facility exemption was obtained for the field next to the currently licensed field in order to ensure sustainability of limestone production.

Monitoring probable mass movements that may be encountered at mining excavations-filling slopes has a critical importance in terms of OHS and process safety for mine safety and generation sustainability. Therefore, "IBIS SAR Georadar" system was established that enables measurement of mobility at the mine field slopes with 360° live monitoring and millimetric accuracy and monitoring activities were started.

Tufanbeyli Power Plant, which is Turkey's largest and most modern domestic lignite power plant constructed by private sector, has broken the electricity generation record with 3.410.000 MWh in 2020 despite pandemic conditions.

3 successive generation records in the journey of continuous generation



TUFANBEYLİ POWER PLANT



INSTALLED
POWER

450

COAL CALORIC
VALUE

**1100-1300
kcal/kg**

COMMISSIONING
DATE

2016

DESIGN

**FLUIDIZED
BED**

STEAM TURBINE
MANUFACTURER

SIEMENS

LOCATION

ADANA

IF THERE IS

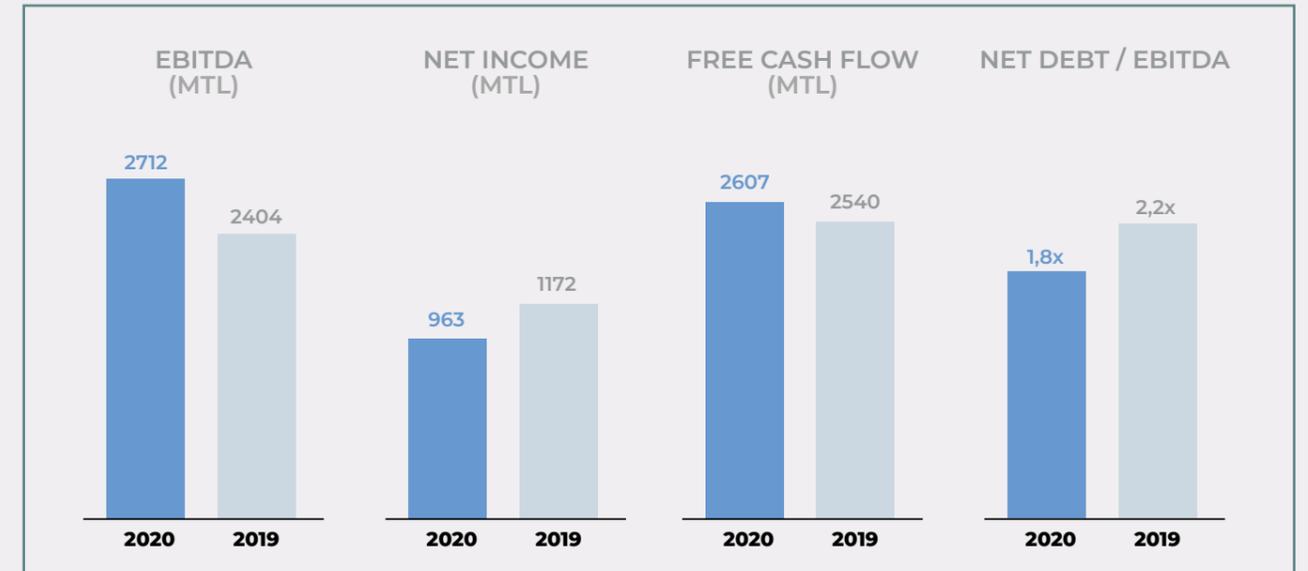
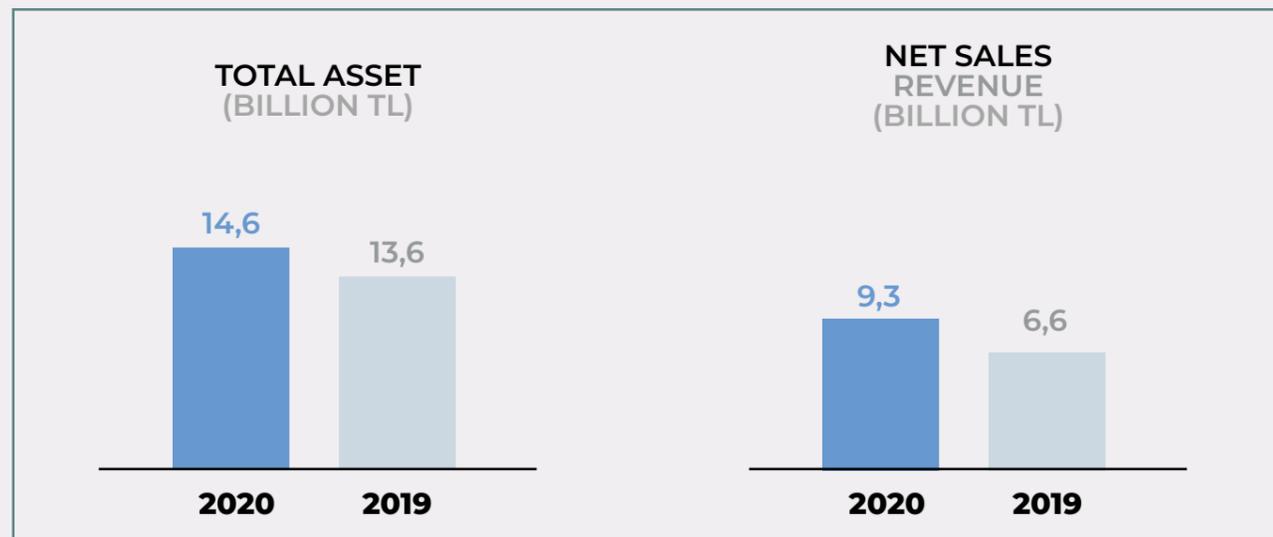
ENERJİSA ÜRETİM

THERE IS
FINANCIAL
POWER



FINANCE

Despite all the uncertainties and challenges that was brought by the pandemic in 2020, Enerjisa Üretim was able to protect its profitability by combining operational excellence with commercial skills.



New financial package:

Despite all the uncertainties and challenges that was brought by the pandemic in 2020, Enerjisa Üretim was able to protect its profitability by combining operational excellence with commercial skills.

As the leading power generation company in Turkey, we signed a 650-million-Euro worth “Loan Agreement Related to Sustainability” with 7 large banks in line with the long-term financing strategy.

Thus, Enerjisa Üretim strengthened its financial structure despite the pandemic by benefiting from the Loan Mechanism related to Sustainability

which is one of the sustainable debt instruments reaching a total volume of 1.5 trillion USD in August 2020.

The aforementioned long-term loan contract means a new financial package towards realizing the strategic goals of the company despite decreasing the amount of loan by taking into account the balance of cash and foreign currency. Deciding on adapting its financial structuring in line with its operational structure and strategic targets, Enerjisa Üretim provided great support to its renewable energy investments that it will take over in the following periods upon a contract worth 650 million Euro.

Signed by Akbank, Garanti BBVA, Isbank, HSBC, ING, TEB and Isbank AG, the finance package was considered by the financial world to be a concrete proof of the confidence in the Turkish renewable energy markets and particularly in Enerjisa Üretim and referred by several agencies as the financial agreement of the year in Turkey.



Financial Digitalization:

Enerjisa Üretim Treasury and Corporate Finance team took another step towards operational excellence in 2020 and brought SAP-TRM module (Project Pareto) into life in order to manage all the transactions and risks inside the company. Operations were adapted through “Best Practices” in the sector as a result of an intense study carried out approximately for 6 months and many manual operations were systematically organized in order to minimize operational risks. Thanks to the project, almost 35% time was saved per month in data collection and analysis processes that were conducted manually. Additionally, all the transaction data were systematically recorded and this enabled the company to create both corporate memory and data open to process for the future.

IF THERE IS
ENERJİSA ÜRETİM

THERE IS
ENERGY



ENERGY TRADE



Enerjisa Üretim guides the industry as Turkey's leading energy trading player with its electricity and natural gas trading companies. We create value for our shareholders by optimizing our generation and commercial portfolios in over-the-counter and organized markets, and for our business partners with structured services such as price-fixing, capacity leasing and balancing services.

As a pioneer and leading player in energy trade, an emerging field of activity in Turkey, Enerjisa Üretim optimizes its diversified electricity generation portfolio of 3.6 GW in over-the-counter and organized markets.

In addition, Enerjisa Üretim shows activities in the following subjects:

- Implementation of energy trade strategies (proprietary trading), independent of its power plants' generation
- Cross-border energy trade;
- Natural gas trade
- Options trade and offers virtual power plant (VPP) solutions
- Providing fixed-price purchase guarantee and other special solutions for WPPs, SPPs and HEPPs
- Balancing services
- Market access services for spot and futures markets
- Energy solutions for large end-users

and creates value for business partners and stakeholders in every link of the trading value chain with structured commercial products such as integrated electricity and natural gas supply and storage solutions for sophisticated customers.

Enerjisa Üretim interprets market dynamics well, analyzes the needs of its stakeholders correctly, manages estimated risks with tools developed by the company and creates value for internal and external stakeholders. And the company never compromises on contractual reliability while managing all these processes.

Expertise in Market Analysis

Climatic and seasonal effects, regulatory changes, macroeconomic and political indicators, and the relationships between them are the primary factors that shape the market. The market analysis team provides a prediction of the future by using these factors along with mathematical models. It also helps relevant departments create their commercial strategies. These models, which are based on main indicators, are useful for many scenarios. This allows our company to develop a strategy and places us in an advantageous position against unexpected market conditions.

Enerjisa Üretim stands out in the industry thanks to its acclaimed market analysis efforts. These efforts can be attributed to its expert staff, digitalization steps, internally developed sophisticated models, and diversified portfolio. The Market Analysis Department, which is crucial for teams that make commercial and strategical decisions, has advanced its knowledge of both the domestic and global energy markets.

The year 2020 was highly productive for Enerjisa Üretim in terms of market analysis. The Market Analysis Team carried out significant studies on data analytics, such as database creation, data processing, and data automation, and helped the company prepare for the future. Thanks to the team's efforts, we made great progress in expediting data access and understanding.



OTC AND VIOP MARKETS WITH
20 TWh TRADE AND
SALES VOLUME

LEADER PLAYER IN



STRUCTURE PRODUCTS SUCH
AS POWER PLANT RISK
MANAGEMENT, OPTION
TRADING, VIRTUAL PLANTS,
BALANCING GROUPS

MARKET LEADER IN



REGARDING INNOVATIVE AND
GREEN CUSTOMER PROCESSES,
CARBON NEUTRALIZATION
AND GREEN ENERGY

**SUSTAINABILITY
SUPPORTER**

Electricity and Gas Trade & Structured Products in Energy

Trading volume in energy markets for the year of 2020 occurred lower than expected due to the uncertainties brought by the pandemic. Despite all challenges Enerjisa Üretim secured its position as the industry leader by trading 17 TWh of electricity. Enerjisa Üretim was either the buyer or the seller in 40% of the transactions executed in OTC* markets. Along with the electricity trading, commercial gas activities were also started in 2020 other than purchasing gas for the power plants and 200 mcm of gas was traded.

Structured products in the trade and energy markets cover the development and implementation of commercial strategies independent of plants, cross-border electricity trade, natural gas trade, balancing services, solutions specific to renewable power plants in the market, and solutions for end consumers.

Trade teams can determine strategies, independent of electricity generation activities, according to energy price expectations within the framework of certain risk limits and act accordingly in the energy markets. These strategies are shaped by market dynamics, expectations and market analyses. Making a significant contribution to Enerjisa Üretim in 2020, electricity trade teams sold more than 17 TWh of energy and gas trade teams achieved 200 mcm sales-purchase.

Cross-Border Electricity Trade

Enerjisa Üretim carried out 113 GWh cross-border trade through its electricity trade company in 2020. The purpose of this trade was to create the highest possible value for all stakeholders by applying various optimization techniques based on the change in electricity prices among Bulgaria, Greece, Serbia, Hungary and Turkey. In 2020, Enerjisa Europe company was established and licensing processes were completed in Bulgaria, Romania, Serbia and Hungary. The company is expected to be completely active in 2021 and to start its trading transactions. In addition, licensing processes were initiated for Greece and they are expected to be completed in 2021.

Natural Gas Trade

Enerjisa Üretim aims to provide additional profitability to the company through standard and non-standard commercial transactions by analyzing gas market dynamics in Turkey and the world, to contribute to the company's growth strategy and to prevent/reduce/transform existing risks.

Additionally, we strive to make our plants competitive in the market by signing structural gas purchasing agreements in line with the needs of our natural gas power plants and achieve the value expected from these assets.

In 2020, we carried out the following activities in line with this vision:

- ✓ We diversified our resources in order to make our plants more competitive and we signed flexible commercial purchasing agreements. We used optimization opportunities in the spot gas market with contract and plant flexibilities. In line with this, 1.4 bcm of gas which corresponds to 86% of Bandırma I and Bandırma II Natural Gas Power Plants' consumption was supplied via a natural gas company.
- ✓ End consumer portfolio created for natural gas for the year 2020 was successfully managed despite uncertainties created by Covid-19 pandemic.
- ✓ We closely followed the market developments in liquefied natural gas and cross-border gas trade.
- ✓ We established commercial dialogs with new market stakeholders in line with the growth target in commercial gas activities.
- ✓ Risks that emerge due to the impact of petroleum prices on gas prices were managed in line with the hedging strategy.
- ✓ We supported NGO works in order to manage important changes for Turkish gas market such as Forward Gas Market, End Consumer flexibilities and export/import needs.

Balancing Services

The purpose of these services is to match energy imbalances of power plants and consumer portfolios, thereby reducing losses incurred due to imbalances. In 2020, Enerjisa Üretim created value for its power plants and stakeholders by reducing the cost of its balancing services.

Tailored Solutions for Renewable Power Plants

Turkey is offering a purchase guarantee to renewable power plants at a 10-year fixed price to promote renewable energy. Renewable power plants that have completed the 10-year incentive period must trade and optimize the energy they generate. Enerjisa Üretim provides solutions for the needs of the power plants that would emerge out of the expertise and know-how of the commercial team and works to ensure profitability continuity for the power plants after the incentives. Some of the solutions we provide include, but are not limited to, services for securing revenue and reducing imbalances.

*Over The Counter

This area of activity will grow rapidly as of 2021, especially from the end of 2020, when plants start to exit long-term purchasing incentive system. Enerjisa Üretim has the necessary competencies and know-how to become a leader in the IT area with the arrangements made on its IT infrastructure. As of the end of 2020, we signed fixed price purchasing agreements and management agreements and started with the commercial management of the non-owned power plants.

Flexible and Diversified Customer Solutions

Due to its wide product range, strong financial structure and flexible pricing, Enerjisa Üretim can provide products to all market players according to their needs. Supply needs of end users may vary significantly. For example, a business or home with an unchanging daily average consumption, changing consumption points depending on the dynamics in their own sector or with seasonal consumption, consumers with high consumption or who do not want to be subject to energy risk by hedging.

These consumers with differing needs also constitute an extra trading channel for Enerjisa Üretim.

Enerjisa Üretim meets the expectations of its customers through alternative pricing options and by sharing its wealth of experience with infrastructure, legislation and practice in the sector.

The customer solutions unit carries out projects to supply the energy generated at plants or from the spot market to consumers who exceed a designated level of energy consumption, to reduce costs through a range of solutions, and to create alternatives with the support of the internal optimization/origination team. In scope of this activity, approximately 4.5 TWh trading was done in line with this activity and an additional turnover was created worth 1.4 billion TL. Becoming one of the sector leaders in these areas of activity in 2021 is among goals of Enerjisa Üretim.

Enerjisa Access Transfers Customers to the Digital World

Digitalization as a concept has increased its importance in the relation between the energy supplier and its consumer as it has in every other area. With the End Resource Supply Tariff in which dynamic pricing is implemented, "Energy Literacy" became even more critical for the customers. Concepts such as "Ptf", "Yekdem" (Support Mechanism for Renewable Energy Resources), "Imbalance", "Financial Cost", and "Consumption Estimate" entered into the lives of the customers. In terms of Digitalization which became increasingly important during the pandemic, we offer Digital Solutions that may reach the customers directly.

"Enerjisa Access" service which was brought to life by Enerjisa Üretim is positioned as an important tool that may provide answers to all the questions of the customers. Thanks to Enerjisa Access, customers may monitor all their performance (Monitoring) and calculate instantaneous costs. Thus, the monthly bills will not be a surprise for the customers and this will become an area where they can exert more control. Consumers will be able to create their own energy purchasing and utilization strategies thanks to the analysis screens that include not only a controlling and monitoring mechanism, but also future period estimates.



RENEWABLE ENERGY CONSUMPTION AND CERTIFICATION

Enerjisa Üretim is one of the biggest renewable energy generators in Turkey with its renewable's capacity of 1530 MW. Increasing emphasis on the concept of "Green" both in the international arena and especially in the Euro zone makes this area a developing business branch. Industrialist are increasingly emphasizing voluntary carbon offset needs in order to conduct exportation activities in developed economies. At this point, our primary goal is to develop decarbonization certification projects for Enerjisa Üretim assets and play an important role in the offset or trading mechanism establishment in the best way possible. Secondly, we want to position Enerjisa Üretim as a market actor known in the voluntary carbon market. With this purpose in mind, not only our large segment customers, but also medium scale export companies and other organizations that need this certification in the international arena will be in our target market. Decarbonization certification project could

create a win-win situation for all parties involved. As Enerjisa Üretim, we started works in 2020 to increase "green markets" literacy of low scale renewable energy generators who do not have the necessary know-how and resources to improve and market their carbons as well as big/medium segment consumers. One of the important goals in 2021 is to increase the number of consumers for whom energy bills with green certificates are issued. We work with different resource types and different energy certificates in order to address the differing preferences of the companies and the countries they export. All of these certificates are internationally valid all over the world, from Africa to America, from China to India and they will provide benefits to the customers at different exportation points. Since we have different types of clean energy sources and different certificates (Gold Standard, Verra VCS, IREC) within the process, we will provide flexibility advantages for preferences of the consumers.

IF THERE IS
ENERJİ SAĞ ÜRETİM

THERE IS

DIGITALIZATION





IT & DIGITALIZATION

DIGITAL VISION & AGILE STRUCTURING

In line with the works that have been conducted in order to achieve the vision of “Digital Enerjisa Üretim”, Üretim IT transitioned into a lean, flexible and dynamic working model that is away from hierarchy. In this scope, Üretim IT continued to put product design in its center

while activating Information Technologies Business Partnership structure together with workmates that will walk together in this digital journey of business units. In the squad works that adopted an agile approach and planning to be done during the digital journey of business units, a mentorship structure was established in order to provide support at points where coordination and guidance is needed regarding multidisciplinary constructs.

UNINTERRUPTEDNESS & ACHIEVEMENTS

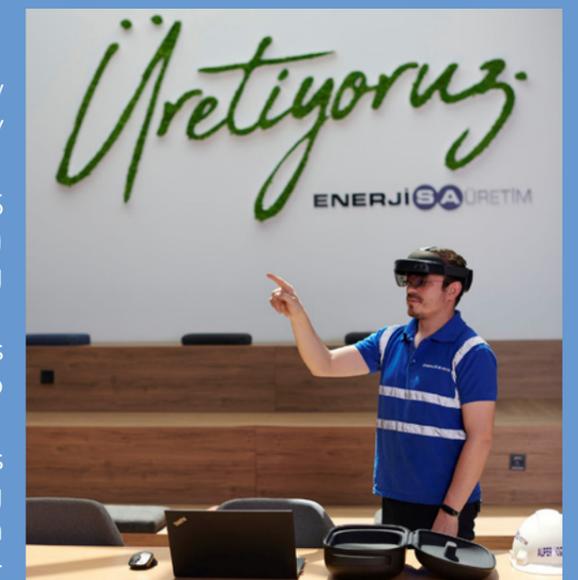


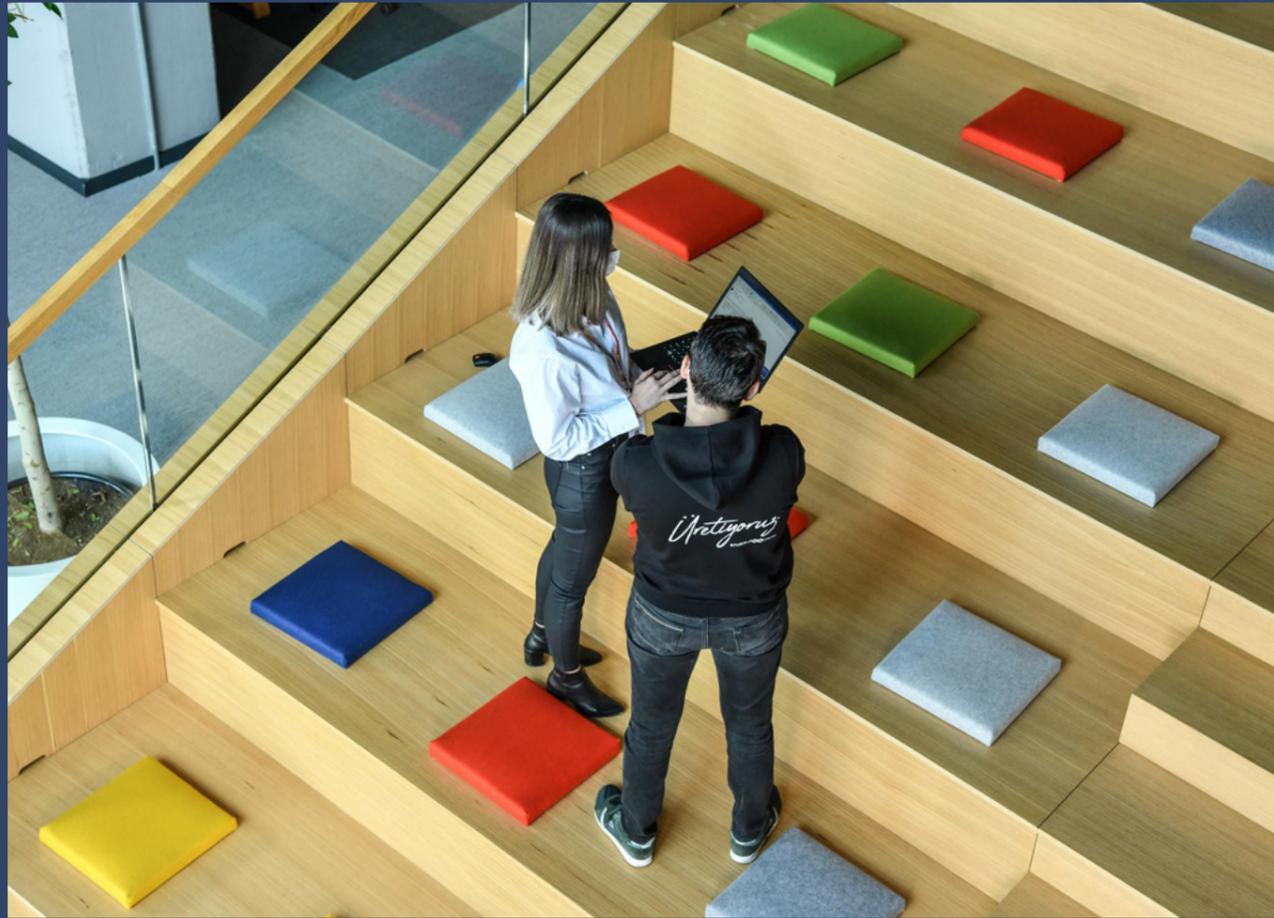
2020 was a “groundbreaking” year both for personal and business life. Many companies implemented the remote working model. Consequently, the transformation in business operations and social life increased the need for IT infrastructures. At this point, a single concept became the most required one: continuity. With 22 power points at 22 different locations in Turkey Enerjisa Üretim, benefited from this experience during the transition period towards the remote working model and ensured the continuity of its employees’ business operations. Productivity of the business operations in central offices and all of our power plants have been followed, and a fast intervention mechanism has been created for any kind of malfunctions, which as a result ensured continuous social and business

processes. 2020 was a year where “uninterruptedness” was the most prominent need, which in turn, no doubt, significantly increased the need for IT systems. In this respect, we can easily say that at Enerjisa Üretim, we always provided uninterruptedness. But, for the above-mentioned continuity concept, we have always been one jump ahead in terms of planning and from the IT infrastructures to the business processes, human relations, and teamwork, we at Üretim IT team, always remained faithful to our targets for improvement, progress, and becoming a benchmark in accordance with our promises and our roadmap and focused on “uninterruptedness” with the required intensity (and time to time even more strongly). In terms of uninterruptedness, we reaped the fruits of our previous investments and consolidated them with new ones.

Developments on infrastructure and work environment:

- IT infrastructure of Enerjisa Üretim is now managed by Enerjisa Üretim completely independently.
- With the transition to Microsoft Office 365 (Power BI, PowerApps, Teams and SharePoint) platforms, telecommuting and joint working opportunities increased.
- Special connections to Microsoft data centers were established via Orange Telecom in order to maximize connection security.
- Combined Reality Solution (Hololens2) was successfully implemented and was used during maintenance periods for various subjects such as know-how transmission, organizational inventory, etc.





Corporate practices and developments regarding data:

- Critical corporate applications were re-written to be compatible with cloud technology and were transferred into cloud platforms. Our work in this area was published on Microsoft's website as an exemplary work.
- CPRO application was developed in order to manage Enerjisa Üretim and commercial operations as well as making transactions for Day-ahead, Intra-day and Balancing Energy Markets for the power plants.
- PPM application was developed as a modular, flexible and user-friendly solution in order to increase operational efficiency, to simplify business processes and to centralize data.
- Accuracy optimization works that consume much time and resources were moved onto the cloud platform for a better performance and resource utilization.
- SAP-TRM module that is based on treasury operations was commissioned and various financial operations were digitalized.
- Thanks to the Kokpit application, uncertainties, repetitions and data pollution were prevented in material management and operational efficiency was ensured.

Corporate systems and developments regarding security:

- Corporate systems and infrastructure are monitored by experienced security analysts, protection is ensured at every layer of the environment network and automated responses are given to external threats.
- Security layer was put to use at every platform, from data to network security (cloud and in-house).



Developments on communication:

- Works to share information in different formats and raise awareness were conducted with Chit Chat.
- "Üretim IT Mag" magazine was published to share works regarding technology and current news.

SENKRON

Senkron ile Enerjisa Üretim portföyünü tek çatı altında yönetecek altyapı oluşturulmuştur. Türkiye’de bir ilk olarak, Enerjisa Üretim’in tüm Hidroelektrik Santrallerinin operasyonları İstanbul Merkez Ofis’te bulunan Senkron’dan gerçekleştirilmeye başlanmıştır.

Senkron Projesi ile, Hidroelektrik Santrallerin işletilmesi, su değerlerinin takibi, TEİAŞ rapor uygunluklarına göre elektrik üretim sürecinin yönetilmesi, santrallere ait süreçlerde dijital dönüşüm projelerinin yürütülmesi, performans, verimlilik analizleri ve raporlamaları ile veriye bağlı karar mekanizmalarının oluşturulması ve yaygınlaştırılması hedeflenerek yola çıkılmıştır.

- 12 different power plants are controlled from a single center.
- Sustainability of energy generation is ensured by increasing the performance of power plants and maximum efficiency with multi-facility management.
- By minimizing energy costs, assets are managed with hourly schedules under dynamic market conditions.
- Thanks to close communication with Dispatch, rapid action is taken to the generations that may create imbalances.
- The data of power plants is monitored from a single source with common reporting.
- Operation Values Reports of the hydroelectricity power plants are automatized by using digital transformation infrastructures.
- YAL-YAT instructions received by the power plants are monitored more effectively, using common reporting tool.



START-UP

Start-Up Cooperations:

Enerjisa Üretim technologic trends are in close contact with start-up ecosystem in order to evaluate digitalization examples that are developing in the industry and world. The purpose in start-up cooperations is to use the developed products for creating value in the processes as well as to enrich IT capabilities and infrastructure safety of the companies with Enerjisa Üretim expertise and to support them earning a new business model and vision.

Safety Vision project mentioned in detail in terms of occupational health and safety is a relevant example. In the days affected deeply by the pandemic and social distance has gained more importance, especially at the critically operated power plants in the country, thanks to the work performed with TrioMobil company, people contacted during working hours in the site can be identified, the fact that which people can be under the risk can be easily analyzed. In addition, the employees of Enerjisa Üretim can send a signal for help in emergency cases.



Safety Vision

Artificial intelligence technology launched in 5 different power plants of Enerjisa Üretim in 2020 and developed Intenseye company, monitors video images taken by security cameras 24/7, detects conditions and behaviors which may compromise health and safety of its employees in real-time, and warns the relevant departments instantly and ensures increasing productivity. **Intenseye succeeded to take 4 million of seed investment support thanks to a technology that is correct to above 90 percent, tested and developed in Enerjisa Üretim platform.**



Hololens2:

Thanks to Hololens-2 glasses offering a mixed reality solution, the employees of Enerjisa Üretim can contact whoever they want regardless of the location, can work in the site comfortably under the limits of occupational health and safety. In the maintenance made with this new mobile working support, Enerjisa Üretim employees can provide support with a quick connection in the external power plants and in the subjects requiring technical specialization.

[Click to watch the video.](#)

Products and Producers

Enerjisa Üretim has established squads with its agile structuring in order to design the products that it thinks that a better one cannot be found in the market. With its teams as The Benders that took quick delivery under any conditions as a mission, Codefellas that was inspired by the film "Goodfellas" holding each other in all challenges, ShapeShifters aiming at meeting all needs with its agile performance and Addams Family seeing each other as a family and working for creating difference, it continues to work on the products under their responsibility areas.

ADDAMS FAMILY	CODEFELLAS	SHAPESHIFTERS	THE BENDERS
<ul style="list-style-type: none"> PPM BiIBOT DMC 	<ul style="list-style-type: none"> SAP ERP EBA 	<ul style="list-style-type: none"> Mon-Rew Pera Cps-Pro Enerjisaccess Storm Fiziksel Arşiv 	<ul style="list-style-type: none"> Oregon Tesla Nikola Vega

IF THERE IS
ENERJİSA ÜRETİM

THERE IS
STRATEGY





STRATEGY

OUR STRATEGY



As Turkey's leading electricity generation company, Enerjisa Üretim generates electricity using five different technologies. Its hydroelectric, wind, solar, lignite and natural gas combined cycle power plants form a diversified portfolio of 3.607 MW in operation. Our company is positioned to manage



1 Operational Excellence

- ☑ Hydro Excellence
- ☑ Higher availability, efficiency, better reporting
- ☑ Maintenance strategy review for entire fleet
- ☑ TFB availability & reliability
- ☑ CCGT improvements
- ☑ Performance/condition monitoring
- ☑ Improving remote operation through Senkron
- ☑ Output to Outcome
- ☑ Opportunity Cost

2 Portfolio Optimization

- ☑ Execution of wind pipeline
- ☑ Opportunistic M&A

3 Commercial Optimization

- ☑ Monetizing kWh
- ☑ Maximizing forward value of our plants while optimizing resources
- ☑ Managing forward asset value risk

4 Asset-light Growth

- ☑ Maintain top position in power trading
- ☑ Becoming regional gas & power trader in SEE
- ☑ Acquire leader gas trader position in the market
- ☑ Providing power and gas solutions for sophisticated customers
- ☑ Commercial services to small IPP's

5 Sermaye Optimizasyonu

- ☑ Optimum financial leverage
- ☑ Working capital management

6 Digitalization

- ☑ Digital Dexterity
- ☑ Business function digitalization with correct tech equilibrium
- ☑ Advanced data analytics
- ☑ Extended digital workplace practices inc. Mobile experience
- ☑ Improved user collaboration. Increase utilization of cloud & edge computing for data analytics & HPC
- ☑ Remote assistance capabilities (e.g. via mixed reality headgears)

7 People & Culture

- ☑ Continuous learning w/Spectrum and Leadership Development
- ☑ W/L Balance - Well-being & wellness
- ☑ Collaboration Culture & Network Effectiveness
- ☑ Open Door & high quality feedback exchange
- ☑ Sustainability
 - Health & Safety
 - Process & dam safety
 - Environment & Social consciousness & voluntary participation in social responsibility activities
 - Legal compliance
- ☑ Agile approach & lean organization

Having 3.607-MW installed capacity, the leading private electricity generator Enerjisa Üretim maintained its privileged position in electricity and natural gas markets in Turkey in 2020 with its diversified portfolio, robust financial structure, predictable profitability, dividend potential, and a total of 565 MW wind portfolio including 500-MW Wind Renewable Energy Resources Zones and 65-MW Erciyes Wind projects with guaranteed purchase in foreign currency that ensures growth.

Continuing operations under its three main focus points, Enerjisa Üretim aims to manage growth in renewable energies and provide its shareholders with a regular dividend flow by maximizing the value created by its existing generation portfolio of 3.607 MW in medium term with effective capital and cash management strategies. Accordingly, 2020 was a successful year in which we achieved record-breaking availability and capacity usage figures in our plants in terms of our operational excellence goal. We also created high value through strong energy sales and fuel supply strategies; effective reservoir management strategies; and efficient operations in the day-ahead, intraday, and ancillary service markets. In addition to optimizing existing assets, in 2020, we also made significant contributions with our non-asset-based energy trade activities, energy supply solutions for sophisticated customers and origination activities. Another important subject in 2020 was the effective management of profitability and cash generated from operations against the risks posed by financial fluctuations. “C-Pro” application was implemented in 2020 using the company’s resources, providing balancing and ancillary services team to work together with the market and other teams inside the company at much higher efficiency to achieve an efficient commercial management. “PPM” application which was developed using company’s resources was also implemented in 2020 and enabled digital monitoring of all the generation, availability and maintenance schedules of our plants. Thanks to these digitalization projects, our high operational performance in 2020 turned into a net profit of 963 million TL. Despite macroeconomic fluctuations, our company finished the year with a robust financial structure.

Thanks to these digitalization projects, our high operational performance in 2020 turned into a net profit of 963 million TL. Despite macroeconomic fluctuations, our company finished the year with a robust financial structure.

In order to provide sustainable dividend flow for the shareholders and to create resources for the growth objectives in renewable energy despite the pandemics and the uncertainties in the markets, the largest sustainability loan contract in Turkey was signed with 7 banks amounting to 650 million Euros.



Enerjisa Üretim continued to successfully manage growth in 2020. With a vision of growth in renewable energies, our company signed contracts and gained a 500-MW total capacity in Çanakkale and Aydın in May 2019. Possible selected Renewable Energy Resources Zones are submitted to the Ministry of Energy. These projects comply with Enerjisa Üretim’s long-term growth strategies and play an important role for the future as they offer growth opportunities in renewable energies and a revenue guarantee in foreign currency for 15 years.

In 2020, our company continued taking significant steps for growth in non-asset-based businesses. In line with our goal to transition into a regional energy company, we established Enerjisa Europe in Hungary to facilitate the integration of Turkish and European electricity and gas markets and to better capitalize on opportunities arising from cross-border trade between the two regions.



ELECTRICITY GENERATION INDUSTRY IN TURKEY

2020 was a year in which the growth in total electricity demand stopped due to the effects of the pandemic, more generation was enabled from renewable energy, especially from hydroelectricity plants, and lignite plants suspended their generation as their environmental exemption was terminated and the exemption period was not extended.



Turkey's electricity demand reached a level (305 TWh) close to 2019 (300 TWh) despite the decrease due to Covid-19 pandemic especially in March-June period, thanks to the recovery in the following period. Most affected technologies from the decreased demand with the first Covid-19 case that was announced in the country were natural gas and import coal plants due to high marginal costs. Generation at hydroelectricity plants remained above the historical average in 2020 despite the capacity decrease compared to 2019 which included high levels of water. Another

important development that had an impact on the generation in 2020 was the mandatory filter requirement that was put into effect for thermal power plants with a regulation issued in 2019 and some of these plants which could not meet this requirement were not able to generate power.

In 2020, Enerjisa Üretim continued to generate electricity with five different technologies. The company managed to optimize revenues efficiently in all its power plants in accordance with energy market laws and regulations.

In 2020, all of our renewable power plants benefited from the Renewable Energy Resources Support Mechanism (YEKDEM), which includes sales guarantee in dollar terms. And with a higher exchange rate, our renewable power plants generated substantial revenue.

In 2020, Enerjisa Üretim's hydroelectric power plants enjoyed high profitability, despite the fact that the year was not as rainy as 2019. Our hydroelectric power plants with currents that occurred above long-term averages and high revenues from ancillary services created one of the most important revenues in our portfolio in 2020. Enerjisa Üretim achieved its highest availability and generation figures with its

successful reservoir management and accurate maintenance planning, despite the pandemic.

We also saw success in 2020 in terms of our wind and solar power plants. Carrying out the maintenance works of the WPPs in periods where the wind is light mitigated the loss of revenue. Similarly, there were no major breakdowns at our SPPs and we reached a high level of availability.

With a total installed capacity of 1.583 MW, Enerjisa Üretim's Bandırma 1 and Bandırma 2 natural gas combined cycle power plants contributed greatly to Turkey's supply security, as they did in previous years.

In addition to the negative impact of the pandemic on consumption, natural gas plants had low capacity utilization rates across the country due to high hydro generation. Despite these challenges that affected profitability of natural gas plants in a negative way, Enerjisa Üretim enjoyed a high profitability thanks to sales of natural gas and electricity for the use in its own plants, provided advantageously by private companies by reaching a high point between cost and sale price due to correct planning and timing. In 2020, Bandırma Plants brought in revenue through their capacity support mechanisms besides standard sales channels.

Tufanbeyli Lignite Power Plant, a base load power plant with the second-lowest generation cost after renewable power plants, generates electricity at a low cost thanks to its high efficiency and technologically advanced design, allowing it to operate even at low electricity prices. In 2020, Tufanbeyli Lignite Power Plant sold the majority of its electricity to Elektrik Üretim A.Ş. (EÜAŞ) as part of bilateral agreements and the purchase agreement of EÜAŞ.

Since Tufanbeyli Power Plant can operate at a very low cost and at low market prices, it is imperative that the plant's availability level remains high. In this respect, Enerjisa Üretim has yet again successfully overcome this challenge while Tufanbeyli Lignite Power Plant saw a major increase in its availability factor compared to the previous years. Tufanbeyli Power Plant also benefited from the capacity support mechanism in 2020.

As we mentioned before, high generation levels of hydroelectric power plants in 2020 which involved a current that was above the seasonal average for a long time created a low-price supply, decreased Market Clearing Prices (PTF), and in turn, these low PTFs decreased capacity utilization rates of natural gas plants which have high costs. As a result, the natural gas power plants were unable to play an active role in the ancillary services market. This led to a price increase for transactions for other power plants in the ancillary services market.

Enerjisa Üretim took advantage of this market opportunity and ended the year with high revenues in the ancillary services market.



PORTFOLIO MANAGEMENT

Our portfolio management strategy is designed to maximize the value that will be created by our portfolio in the day-ahead market, intraday market, balancing power market and ancillary services market to obtain the highest economic value from the company's power plants with a 3,607-MW installed capacity. This strategy also encompasses our medium- and long-term electricity sales and fuel supply strategies.



Natural Gas Combined Cycle Power Plants

In Turkish electricity markets, 2020 started with the lignite plants stopping their generation activities since their environmental exemptions were terminated and not extended. In addition to that, in 2020, hydroelectric power plants

generated energy with a lower capacity utilization compared to previous year due to rain that occurred at normal levels in the months of January and February. These two significant developments occurring at the supply side enabled natural gas power plants to start the year with high capacity utilization rates.

At the end of the first quarter, the decrease



in electricity demand due to the pandemic (Covid-19) conditions affecting the entire world as well as Turkey caused natural gas plants to generate low amounts of energy, however there was a recovery in electricity demand in the second half of the year with the partial normalization and high capacity utilization rates were achieved once again.

In 2020, the year of the pandemic, various factors such as oscillation in Turkish electricity demand, pricing of petroleum products in international markets and volatility of Turkish Lira against foreign currencies once again revealed the importance of portfolio management and middle to long term strategies for sustainable profitability. In the year of the pandemic in which international travels were restricted and international supply chains were broken, our power plants experienced some challenges in providing for their maintenance and spare part needs, however this period passed without any commercial loss thanks to the synergy created by Portfolio Management and Plant teams.

In the challenging year of 2020, Enerjisa Üretim managed to protect its asset value against such fluctuations with advance electricity sales strategies (hedge transactions) and effective fuel supply strategies. Thanks to the strategies created through decisions taken rapidly during the oscillations that were experienced throughout

the year, the company increased its profitability in forward transactions and experienced quite a successful year.

During the period in which pandemic restrictions were started in Turkey, Enerjisa Bandırma II Natural Gas Power Plant which executed its yearly maintenance works commissioned various operational applications that would be leading in the sector, adapted itself to the new conditions and managed to complete its maintenance works within the estimated time.

In order to maximize its asset value and minimize the risks that affect asset value, Enerjisa Üretim used electricity products and many derivatives in this period in forward markets and continued to differentiate itself from other actors by creating competitive advantage in fuel supply. In 2020, 3.2% of Turkey's natural gas consumption and ~25% of the amount imported by the private suppliers were consumed at Enerjisa Üretim's Bandırma I and II plants. The success of Enerjisa Üretim in commercial (gas supply from private suppliers, commercial transactions over electricity, Dollar and petroleum products) and operational decisions enabled the two natural gas plant to reach the highest capacity utilization rate and created a foundation for a successful year by increasing profitability.

Tufanbeyli Power Plant

The fruits of the investments and improvements that were made previously were collected after the challenges of previous years both at mining and plant operations. A high availability rate was achieved in 2020 as well due to investments and improvements on operational activities. Limited resource optimization that was developed for Tufanbeyli Power Plant was supported with the optimization outputs of operational actions of our plant against challenging winter conditions and hard winter conditions were managed without commercial loss. The plant broke a new record in 2020 in terms of availability rates by passing the rates recorded in 2019.

It was quite challenging to manage the



During the pandemic period at Tufanbeyli Power Plant where a crowded team conducts the operations and majority of that team lives at the accommodation and housing areas inside the plant. Enerjisa Üretim prioritized the health of its employees and immediately implemented restrictive measures and arrangements at Tufanbeyli Power Plant during this period. Sequential maintenance works of three units that were planned previous year for the spring period of 2020 were re-evaluated in the pandemic conditions and many actions were taken such as limiting the content of the maintenance works or postponing the works by taking risks into account.

The successful performance in 2020 availability rates was supported with advance electricity sales strategies, particularly sales made to Elektrik Üretim Anonim Şirketi (EÜAŞ), hedge operations, and effective fuel supply strategies and the company managed to close the year with a figure that was above the planned profitability level.

Despite this being a year that required revisions in maintenance plans due to the pandemic, high-value EÜAŞ Lignite Plants Power Purchasing Agreement (PPA) obligations were met with a rate above 99%.

In addition, we adopted commodity and foreign exchange hedging strategies to manage our costs and protect our profitability and cash flow from medium- and long-term uncertainties. Similarly, to eliminate uncertainties regarding our incomes, we sold electricity through bilateral agreements and financial



sales, and performed foreign exchange hedging transactions. The sales agreement of the electricity generated from domestic coal with EÜAŞ increased the plant's profitability.

As part of the signed power sales agreement, the plants meeting environmental standards that have been determined by EÜAŞ would be able to benefit from extra environmental incentives. Tufanbeyli

Thermal Power Plant was granted the Environmental Certificate, a legal requirement, in 2018 and the Environmental Permit in 2019 thanks to its high-technology generation processes and equipment, and the effective actions taken at its mine site. In 2020, EÜAŞ continued to benefit from price with 3% incentive in the Energy Sales Agreement.

Renewable Energy Power Plants

With a share of 1,353 MW, hydroelectric power plants have the largest share in Enerjisa Üretim's renewable energy portfolio. 2020 was a highly efficient year both for hydroelectric power plants and wind power plants. The heavy snowfall during winter created potential for increased water flow in Ceyhan, Seyhan and the northern basins, where Enerjisa Üretim's power plants are located. As a result, Enerjisa Üretim ended 2020 with 3,641 GWh of energy generation from its HEPPs. In 2020, Enerjisa Üretim's Wind plants also achieved a high capacity utilization and a total of 713 GWh power was generated at Bares, Dağpazarı and Çanakkale wind power plants. In the challenging year of 2020 due to the pandemic, periodical maintenance works of hydroelectric power plants were frequ-

ently reviewed and they were completed thanks to effective and efficient maintenance planning. In this process, maintenance plans of some plants were narrowed down in line with the needs and pandemic restrictions and maintenance works of some plants were postponed to timespans in which the conditions may be more favorable. Thanks to successful maintenance planning, availability rates of hydroelectric power plants occurred at high levels. Enerjisa Üretim places data management and advanced data analytics at the center of its operations to better manage its reservoir volume in hydroelectric power plants and to develop more accurate plans for generation processes and revenues. These operations accelerated in 2020.



We continued to make various developments on systems used for data management as digitalization became increasingly important under the current conditions. As part of this, we set some project goals in order to enable real-time monitoring and management of data where we achieved these successfully. For our short-term flow forecasts, we make use of European Center for Medium-Range Weather Forecasts (ECMWF) and The Global Forecast System (GFS), which are widely used international meteorological data sources. At Enerjisa Üretim, we analyze the data daily and prepare rainfall and temperature forecast data for each basin. We use these rainfall and temperature data as an early warning system against meteorological and hydrological risks that may emerge during real-time plant operation. We also take measures against risks that may emerge based on this data. We use Delft-FEWS (Flow Forecasting System) model to forecast flows through rainfall, temperature data as well as other data such as snowy area provided via different satellite images, soil moisture and snow-water equivalent. In 2020, we updated Delft FEWS model with its latest version and brought it to a point that will be able to meet all the modeling needs of today. The update work saves time in accessing the data necessary for modeling and enables convenience in the model's internal dynamics and upgrades. PERA optimization model is an application that assesses Delft FEWS flow forecast outputs, technical plant specifications, maximum-minimum flow limits and market conditions simultaneously and an advanced data analytics

application funded by our shareholders' equity. We plan to obtain the maximum energy from one unit of water in the most accurate time where the economic value is the highest using the PERA optimization model. In 2020, we developed solutions to enable Pera optimization model to work more efficiently within a shorter time.



The year 2020, as well as 2019, was particularly efficient for Enerjisa Üretim hydroelectric power plants thanks to the electricity generation optimization conducted with successful monitoring and decision-making efforts, high availability levels and commercial operations. Electricity generation in 2020 from HEPPs was 11 percent above the targeted generation level in response to the high rate of rainfall and a successful optimization strategy. Enerjisa Üretim also took a significant step towards adopting digitalization and other innovative practices in all operations in 2020. In operating hydroelectric power plants, 2020 was a year with continuous development of applications and monitoring meteorological and hydrological data is critical for rainfall and temperature forecast and generation optimization.

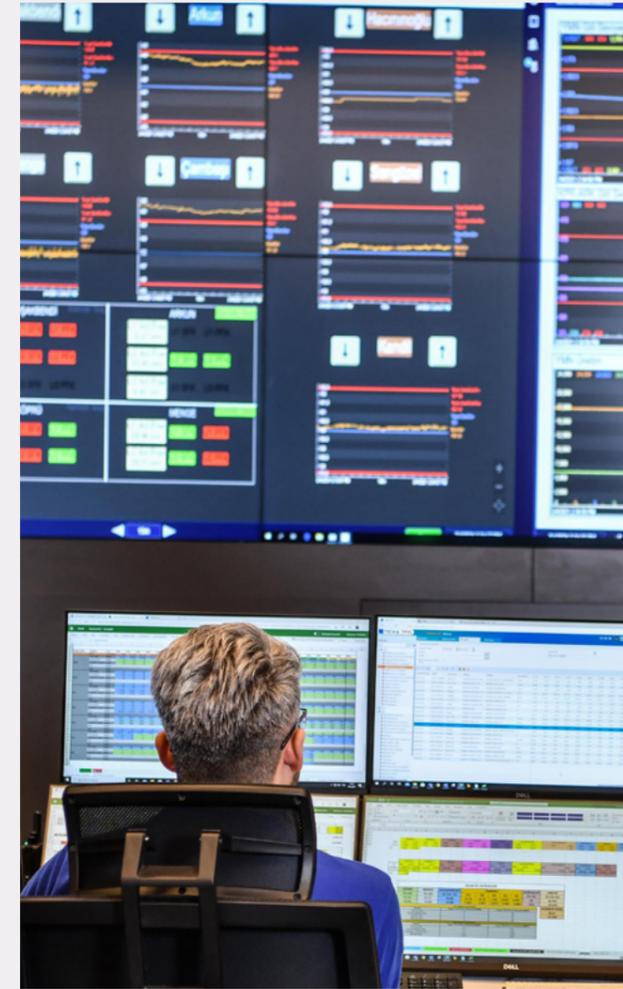
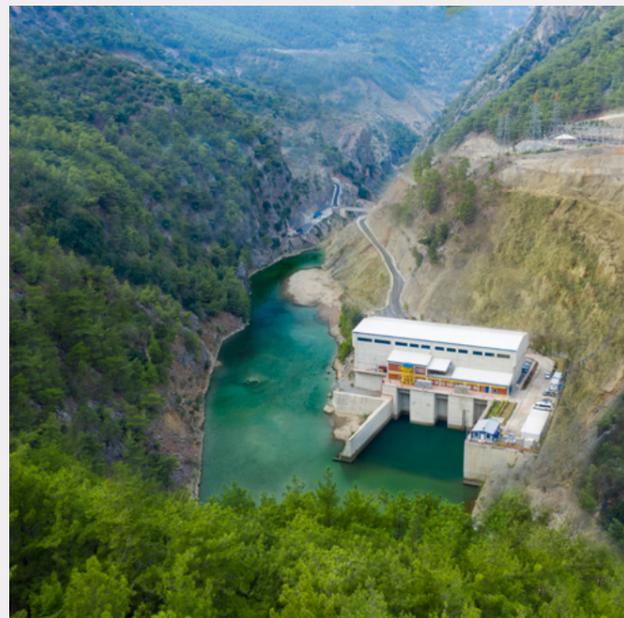
Storm project Hydro-meteorological Data Observations

We continuously monitor water basins and the streams feeding the basins, performing necessary measurements to make short- and long-term generation plans for hydroelectric power plants. In order to monitor hydrological and meteorological data in relation with basins we operate our hydroelectric power plants as Enerjisa Üretim, we monitor data from approximately 100 measurement stations installed by Enerjisa Üretim and provided by several public institutions. Providing these measurements and data in uninterrupted manner and conducting their controls are critical for a real-time and future electricity generation planning. With the Storm Project that was designed with this purpose in mind, we are able to monitor various hydro-meteorological data in real-time such as rainfall, temperature, snow depth and flow collected through meteorological observation and flow observation stations. Thanks to the convenience of digitalization in data monitoring, we were able to shorten the intervention time in case of faults and our purpose was to ensure uninterrupted service at the stations. As a result of the real-time monitoring conducted through Storm project, we established an early warning system against meteorological and hydrological risks that may emerge in our basins.

Delft-FEWS Hydro-Meteorological Modeling Program

Delft-FEWS is a platform that is being used at Enerjisa Üretim since 2013 for water flow estimation, one of the most

important inputs of electricity generation optimization. This platform facilitates the reporting of rainfall and temperature forecasts. The data can be used as an input to estimate the water basins flow amount. This platform also allows us to predict snowfall potential in our operating regions. In 2020, we updated Delft FEWS model with its latest version and brought it to a point that will be able to meet all the modeling needs of today. With the updated version, many functions on the platform were improved and many new modules were added into the platform content. All meteorological and hydrological procedures used in the old versions were updated to ensure a more accurate and 85% faster operation in the new version. With the updated version, data base of the platform that may also be used as a storage area became more compact and its structure was renewed to cover up 40% less area. Together with these updates, a faster and more effective structure was established for daily meteorological and hydrological forecasting works.



Pera Hydro

Pera optimization model is an electricity generation optimization model as part of the portfolio of Enerjisa Üretim hydroelectric power plant that evaluates flow forecast model outputs, plant technical specifications, low-high flow restrictions and market conditions in real time in order to create short / middle / long term electricity generation programs and was developed using our own resources. The objective of the optimization is to use the potential efficiently, maximize profitability and manage the commercial operations of the plants according to operational constraints. In 2020, various solutions were developed in order to enable Pera

optimization model to work more efficiently in a shorter time and Pera scenario analysis module was implemented as the first product of Enerjisa Üretim that operates in cloud environment. With this new version, the operating time of each optimization model was shortened and we are now able to evaluate much more different scenarios within the same amount of time. With this development, it is possible to evaluate what kind of changes will happen on the generation programs and income-expense balances according to criteria that vary for hydroelectric power plants in much shorter time through more different scenarios. Again, with the improvements made on Pera optimization model in 2020, we developed an algorithm that enables cascade modeling for hydroelectric plants that are located on 3 different basins and we enabled its operation in needed quality and time to meet our requirements.

Day-Ahead, Intraday, Balancing Power and Ancillary Services Market Activities (Dispatch)

Besides the medium- and long-term planning, Enerjisa Üretim's portfolio management includes our activities in the day-ahead, intraday, balancing power and ancillary services markets. Day-ahead market transactions involve the positioning of the existing generation portfolio in the electricity spot market and the natural gas organized wholesale market of EPIAŞ in a way that creates the maximum value. Day-ahead market transactions are followed by intraday market and balancing power market activities as the real-time delivery period approaches. With reservoir-sporting hydroelectric

power plants and new-generation combined natural gas cycle power plants in its portfolio, Enerjisa Üretim is one of the most important providers of the vital grid-balancing services. To ensure the grid security in real time, TEİAŞ asks for replacement reserve services, including primary frequency control and secondary frequency control, every day. To provide these services, the plants that pass the technical tests performed by TEİAŞ make daily bids during regular tenders for the next two days. The plants that offer the lowest bid can then generate revenues as a result of their contribution to grid security by providing these services. Enerjisa Üretim stands out as the leading energy company in this field, following EÜAŞ, thanks to the power plants in its portfolio with flexible generation capacities. We generated a record revenue from balancing power and ancillary services markets in 2020 thanks to our high levels of generation from HEPPs and successful bidding strategies, despite the challenging market conditions due to pandemic. As with long- and medium-term portfolio management, our operations in the day-ahead, intraday, balancing power and ancillary services markets stand out as an area where big data management and advanced data analytics practices create significant differences in operational success. Our company has managed to make its decision-making processes more data-driven by incorporating continuous improvement projects in the field of digitalization and advanced data analytics. In 2020, we redesigned the program we use for Day-ahead Market, Balancing

Power Market and Ancillary Services Market and we brought it to life. Thanks to our renewed commercial planning model C-PRO, we enabled

- **Faster and more reliable market transactions,**
- **Convenient reporting of control points with advanced level analysis and reporting tools such as Power BI,**
- **Easy integration for the plants that are newly added to the portfolio,**
- **Very fast activation of the backup system for cases of emergency,**
- **Recording of all operations.**

In addition, we started using “Bot” (automated operation algorithms) in order to make automated transactions in the Intraday Market. Moreover, thanks to our updated reporting tool, we enabled faster and more flexible reporting for all the data related to the markets and power plants by using Power BI.



RISK MANAGEMENT

Enerjisa Üretim's risk management approach aims to identify; measure using various methodologies; assess all risks and opportunities that may affect its operational, strategic and financial plans; and mitigate those risks. Two departments are responsible for conducting risk management activities in their respective fields. The Technical Risk Management Department focuses on managing technical risks while the Corporate Risk Management Department is responsible for managing optimization, commercial, financial and corporate risks.



RISK ASSESSMENT FOR 2020

Covid-19 pandemic was doubtless the most significant event of 2020 in terms of risk management as well. Although the pandemic started in the far east and some time passed until it reached Turkey, it had and still has an extraordinary impact on markets with its unprecedented consequences in modern times. Factors such as endurance and flexibility in operational

terms, strong financial structure, effective risk management and strong technological infrastructure were proven to be very important once again during the pandemic. We used the management model described under the titles of pandemic and crisis management to enable business continuity as well as to manage financial and commercial aspects of the

pandemic most effectively.

The fluctuations observed in Brent petroleum prices in 2020 showed us once again how significant the impacts of unexpected short-term changes in supply and demand balance could be, especially in the energy markets. As Enerjisa Üretim, we are in active trade in the electricity and natural gas markets as well as supply natural gas for natural gas combined cycle plants, therefore we follow the balances in the international markets closely and we shape our portfolio optimization and risk management activities by including these markets.

High volatility in the value of Turkish Lira against foreign currencies started in 2018 and continued increasingly in 2020 as well. . Foreign exchange and interest rate risks remained at the top of the list of risks that are required to be monitored and managed in 2020 as well.

Following the completion of the biggest sustainable funding in Turkey, we re-established and carried out our risk management strategy in the long-term cash balance as Enerjisa Üretim.



MANAGEMENT OF COMMERCIAL AND OPTIMIZATION RISKS

Trade risks and optimization risks include the effects on profitability of the changes in prices and additional costs of electricity generated or traded by Enerjisa Üretim; and commodities such as natural gas, petroleum products and coal used or traded by the company, in free and regulated markets.

We established an internal commercial and optimization risk policy to manage these risks. Risk management activities are carried out under the Corporate Risk Management Department. This department reports on the profitability and risk of each commercial and optimization activity periodically. Most of the risks are monitored and reported daily; and there is a risk capital reserved for commercial activities. Trade limits are determined based on this risk capital and current risk appetite, and are monitored daily.

We formed a Trade and Optimization Risk Management Committee to guide and supervise risk management activities.

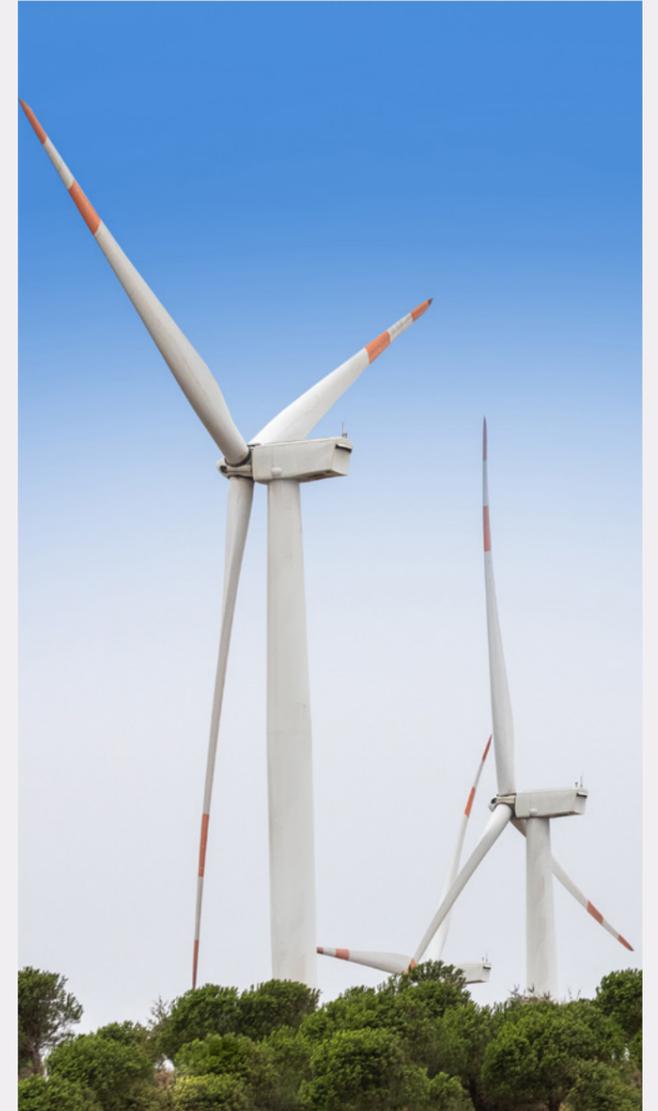
The Committee consists of the CEO, CFO, Portfolio Management Deputy General Manager and Energy Markets Director. This Committee meets regularly to determine the risk appetite, authorization to be granted, and the limits and commercial principles in line with the company's current risk-bearing capacity. It assesses the adequacy of existing systems and determines which areas require development. It also identifies risky situations for commercial operations and develops action plans to eliminate risks.

MANAGEMENT OF FINANCIAL RISKS

Financial risks include Enerjisa Üretim's receivables and payables in different currencies, and exchange rate risks that arise from purchasing guarantees. Interest risks and tax risks arising from deposits, loans, and/or deferred debts and receivables also fall within the scope of financial risks.

The Corporate Risk Management Department is responsible for the effective management of these risks. Main principles of financial operations, authorizations and limits, approval procedures, monitored metrics and risk management applications are determined with Financial Risk Management Policy.

An Asset/Liability Committee was established with the participation of executive management to assess financial risks and plan actions. This Committee meets regularly to assess the company's current and prospective deposits and credit positions, income and expenses in different currencies, exchange and interest risks, and determine the positions to be taken and risk management actions. This Committee



also provides input for Financial Risk Management Policy.

The company uses two different models to better manage the risks in cash flow and net profit/loss levels. The cash flow model foresees all income and expenses on the current deposit at a daily level and determines the cash flows in the future in different currencies on a daily basis. As such, it is possible to see deposit and liquidity estimates, identify cash risks with different exchange rate scenarios and take action in advance. With the cash flow model, it is possible to estimate future account activities up to 5 years. On the other hand, the

profit/loss model evaluates all commercial activities, deposits and loans with thousands of statistical exchange and interest rate scenarios.

It also shows the distribution of the impact of EBITDA and profit/loss in each scenario. Thanks to this, it is possible to forecast the impacts of foreign exchange and interest rate changes on both cash flow and profit/loss. Within different foreign exchange scenarios, it is possible to analyze not only value changes in Turkish Lira, but also value changes between Euro and American Dollar (parity). For Enerjisa Üretim, parity value is as important as Turkish Lira especially due to the difference between structures of liabilities and revenues.

CORPORATE RISK MANAGEMENT AND REPORTING



Corporate risk management and reporting involves consolidating risks that occur in different departments and units of the company, creating business continuity documents and reporting risks.

Risk management's input for decision making mechanisms has a strategic importance for Enerjisa Üretim. Thus, risks are defined in a consistent way with the key assumptions before decision making

stage during budget, yearly and interim planning, these are calculated, consolidated and presented. Yearly plans, goals and strategies are set by taking into account this risk and opportunity universe.

TECHNICAL RISK MANAGEMENT

Technical Risk Management aims to identify and eliminate risks that may harm people and the environment, lead to unlawful practices, and reduce plants' availability. It also aims to find and utilize opportunities that may create value for the company. The effects of technical risks and opportunities are assessed in the areas of Occupational Health and Safety, Environment, Reputation and Cost. Enerjisa Üretim's Technical Risk Management activities are carried out by the plant officers under the leadership of the Operations Technical General Manager. The process is coordinated by the Asset Management and Sustainability Department.



Technical risk and opportunities three-phase risk management process



is managed as follows.

Risk detection is comprised of two main processes as internal and external. Internal detection processes are planned and conducted by Enerjisa Üretim functions for methodological and systematic risk detection. In this context, in all locations, hazard detection methods (HAZOP, FMEA, etc.) recommended in the international standards are implemented with the participation of manufacturer company specialist, risk analysis specialist, etc. according to the technical need. Externally managed risk

detection processes are the audits performed under Credit Provider investigations, Insurance audits, Internal Audit process and ISO Management Systems. Risk assessment process is comprised of the phases of analyzing the risk, taking the required decision and identifying assignment related to the decision and the action. Risk intervention process is to carry out risk improvement context determined in the assessment stage safely, on time and adequately.

Thanks to the risk management software developed and used by Enerjisa Üretim, risk factors can be defined quickly and correctly, can be sent to the specialists and action players. All of the revisions, comments and status changes related to the risk factors can be monitored on the system.

All processes in the sites were reviewed and improvement actions were identified with the detailed hazard analysis studies performed in 2020. For reducing the risks of uncontrolled release of energy, mass and matter during the lifetime of our power plants, Process Safety Management Procedure, where general principles and methods are defined, has been accomplished. Emergency Action Plans were regulated according to the updated schedule and needs, and scenario-based process safety-oriented intervention instructions were established.

IF THERE IS
ENERJİSA ÜRETİM

THERE IS
LIFE





LIFE

Understanding of sustainability of Enerjisa Üretim is based on offering the value it has created for its shareholders not only today but also in future consistently. Enerjisa Üretim deals sustainable energy generation and commerce at the top level in the business strategy and considers it at the heart of its all activities.

ENERJISA ÜRETİM SUSTAINABILITY STRATEGY

- Protecting health and safety of its employees and society
- Environmental protection
- Uninterrupted electricity supply, essential for the society
- Legislative harmonization
- Physical asset security
- Performing commercial activities and commitments

It continues its works in order for ensuring long-term continuity in its above targets. Enerjisa Üretim manages all positive or negative environmental, social and economic effects occurred or may occur in its operational regions with this sustainability approach. The sustainability approach is a holistic approach that needs to be integrated to the decision-making and performance styles of all employees. Accordingly, adopting and monitoring the works conducted related to the sustainability by all employees is significant. For Enerjisa Üretim, performing and monitoring all activities concerning environmental, social and corporate management by adopting this sustainability approach and under the United Nation's Sustainability Development Purposes by all of the employees is essential.

Enerjisa Üretim's Strategic Sustainability targets are as follows.

STRATEGIC TARGETS

Many environmental and social projects are being performed with the sustainability approach that also serves for the United Nation's Development Purposes.

Environmental Protection

Within the scope of Environmental Protection priority, Climate Change, Emission, Circular Economy approach and Biodiversity are at the forefront.



People

The employees are evaluated for the subjects of Occupational Health and Safety, Employee Satisfaction (Attractive Employer), Ethics and Harmonization in accordance with their sustainability priorities.



Supply Security

Includes digitalization, process safety, innovation and renewable energy sources.



Stakeholder Participation

Shows activities in Voluntary Social Responsibility projects and Training subjects (academic and professional).



Subjects of High Priority



Enerjisa Üretim, became the first electricity generation company in Turkey to receive the ISO 55001 Asset Management Certificate. All Enerjisa Generation Plants have been awarded the TSE Covid-19 Safe Generation Certificate by implementing effective measures regarding the pandemic. Thus, it became the first electricity generation company to have this certificate among wind power plants and thermal power plants.



ENVIRONMENTAL

Energy Efficiency

At Enerjisa Üretim's power plants, selecting environment-friendly and efficient energy technologies and operating these in a productive manner are at the forefront. In line with this, Bandırma I and Bandırma II Power Plants operate with an approximate efficiency of 60% as high efficiency natural gas power plants. Tufanbeyli Thermal Power Plant is one of the highest efficiency power plants in Turkey thanks to the improvement works conducted in 2020 and prior. In 2020, energy consumption was decreased by approximately 8000 MWh with the fuel consumption reduction projects conducted at Tufanbeyli Power Plant.

GHG Monitoring & Green Certificates

In line with the Ministry of Environment and Urbanization's regulation on the monitoring of GHG emissions, the calculation of greenhouse gas emissions was verified by the accredited organizations, which have been authorized by the Ministry since 2015.

In addition to this, Gold Standard Certificate confirmation audits were successfully completed in 2020 at 3 power plants of Enerjisa Üretim (Balıkesir WPP, Çanakkale WPP, Dağpazarı WPP). Moreover, preliminary works are being conducted for YEK-G (Renewable Energy Resource Guarantee) that is planned to be created as per the Regulation on Renewable Energy Resource Guarantee Certificate.

Biodiversity

Biodiversity implementations of Enerjisa Üretim are evaluated in a manner specific to each power plant area. Ecological assessments on the regions where we will operate are conducted by the expert academicians prior to the construction stage.

Yamanlı - Arkun Wildlife

Special works for Wildlife Development Sites have been conducted by Arkun and Yamanlı Power Stations in order to observe wildlife. At these Wildlife Development Sites, observation studies are carried out as field observations, including camera traps. In this context, counting studies regarding wildlife were performed together with authorities from Nature Conservation and National Parks. Forage for wild animals that cannot find food in intense winter conditions has been laid into nature. Online magazine titled "Pearls from the Wild Life of the Northern Basin" has been announced as part of the education-promotion activities throughout Enerjisa Üretim and is available on the education portals of our company. Injured wild animals found in Verçenik Mountain WLDS were transferred to Caucasian Wild Animal Rescue and Rehabilitation Center.

Waste Management

The main element of Enerjisa Üretim's waste management is prevention of waste production. Relevant processes should be reviewed starting from the design stage of the power plants in order to prevent and minimize waste production at its source. In 2020, 15 power plants of Enerjisa Üretim received Zero Waste Certificates given by the Ministry of Environment and Urbanization. Zero Waste Certificates of the remaining 3 power plants and headquarter is planned to be received within 2021.

18 power plants and headquarter of Enerjisa Üretim has been awarded the ISO 14001: 2015 Environmental Management System Certificate. Certification audit performed in 2020 by independent organization was successfully completed with no major or minor findings.

Social Responsibility Projects

FORESTATION

We Green our Future:

Forestation works and contributions have been made by Enerjisa Üretim volunteers. As part of this project, more than a 100 thousand trees were planted and 256 Enerjisa Üretim personnel participated in these works.

[CLICK TO WATCH OUR MOVIE >](#)



SOCIAL GENDER EQUALITY

Equal Energy

"Equal Energy" is an in-house organization based on voluntariness that was established to encourage gender equality among company employees as well as in the

community and to empower women. Support Procedure against Domestic Violence was published in 2020 in order to raise awareness about domestic violence and to create a work place culture that involve solidarity in this issue. As Enerjisa Üretim, we published "Gender Equality Manifesto" that was developed in order to create gender equality in business processes and that was supported by good practices. Mentor-Mentee program was initiated inside the



company for woman employees in order to support women in their career journeys. A mask production workshop was established at Tufanbeyli with participation of 21 volunteering women with the purpose of fight against Covid-19 pandemic. With the support of Equal Energy Group, sewing machines, overlock machine and consumable materials were supplied for the workshop. A total of 35,000 masks were produced. In collaboration with the local public organizations, 35,000 reusable masks were distributed to the houses at Tufanbeyli. With this, we provided support to the fight against Covid-19 pandemic at a local level and we enabled women to develop their income generating skills.

CHILDREN

Smiling Eyes

Enerjisa Üretim continues its efforts to ensure that children receive a qualified education, that sport is a part of their lives and to raise a healthy, modern and visionary generation. A children's book series made up of 6 books is being prepared from which the children will learn electricity generation processes from various resources such as water, sun and wind in a fun way. "Where do they find so much energy?" and "Infinite Energy of the Wind" titled books were also published as audio books for children.



STREET ANIMALS

One Cup of Energy

Works have been performed with the purposes of improving life areas of street animals nearby power plant areas of Enerjisa Üretim, solving health problems of the animals with support of experts. 16 cat houses and 32 dog houses were built in the settlements, 5,500 kg of animal food were supplied. 20 feeding stations were built for street animals. A total of 99 animals were sterilized with the cooperation of Haytap. Periodical veterinary services were given for the animals. Employees supported the project on a volunteering basis which aimed at raising and increasing awareness for protection of animals.

