

SUSTAIN-ABILITY REPORT





## Akenerji 2017 Sustainability Report Index

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From the moment it has realized, humanity has been attracted by the stones and believed that the energies in them will provide good health and good future. Some stones with crystallized structures have always attracted particular attention of humans, with their mineral contents, luminescence in warmth, and the energy they spread with this luminescence. This focus has also led mankind to search for the cosmic energy of the universe in the stones and seek metaphysical and spiritual forces in them. Today, this hidden energy of stones continues to be the subject of examination even in science. Beyond the mystical side, the ability of stones to collect the energy and spread it in a variable and controlled manner according to tutes a special field of study of alternative medicine. Just like stones, the miracles of nature, we are trying and striving to turn all our power plants into treasures that will offer goodness to the health and future of mankind. We see each of our powthat collect the energy that nature presents to us and sustainably offer to the good of mankind.

#### **ABOUT THE REPORT**

Akenerji has managed to become a well-established company from past to present, shaping Turkey energy sector with its future-oriented studies as well as successful governance in both environments and social aspects. Keeping compliance with national and international standards always on the agenda Akenerji continues to invest in the future of both Turkey and the World on the road of sustainable energy

The sixth Akenerji Sustainability Report published this year, has been prepared taking into consideration the expectations of all stakeholders (employees, customers, creditors, shareholders and investors, the people in the regions in which Akenerji operate). Performance values for both the reporting period of 1 January-31 December 2017 and for the past years were presented for the purpose of analyzing environmental, social, ethical and economic performance at a glance. The majority of these performance data were obtained from Akenerji Quality, Environment, OHS and Information Security Management Systems.

Unless stated otherwise, the financial, environmental, occupational health and safety performance data presented in this Report includes all Akenerji companies and its subsidiaries listed in "Akenerji Group Companies Included in the 2017 Sustainability Report" in the reporting period as well as 9 electricity generation plants operating within the structure of these companies in Turkey in 2017 and the Head Office in Istanbul. I Compliance with GRI standards | Akenerji Sustainability Committee has worked with consultancy services in the collection of sustainability report data and the arrangement and development of the content. The content and preparation of the report has progressed based on the outcome of the materiality analysis attended by the departments and all stakeholders. This report has been prepared in accordance with the GRI Standards: Core option. Important and material issues have been developed in compliance with the GRI Standards "Core" option requirement of the Global Reporting Initiative [GRI] Sustainability Reporting Guide. Compliance with these requirements is detailed in the GRI Standards Content Index, which is included in the last section of the Report. Our report is prepared in two languages, Turkish and English. I Feedback I Your feedback is important to us... We present our Sustainability Report, which we aim to publish on a regular basis every year, to our stakeholders for the sake of an active communication platform. For suggestions, comments and questions about our sustainability performance and practices, please contact us at the following address with indicating "Sustainability" in the subject line.

E-mail: info@akenerji.com.tr

# Akenerji Group Companies Included in the 2017 Sustainability Report Operational Companies: Akenerji Elektrik Üretim A.Ş.

Akenerji Elektrik Uretim A.Ş. [Power plants: Ayyıldız WWP, Uluabat HEPP, Burç Bendi HEPP, Bulam HEPP, Himmetli HEPP, Gök-kaya HEPP, Feke | HEPP, Feke | HEPP]

Egemer Elektrik Uretim A.Ş. [Power plants: Erzin NGCCPP]

#### Investments in Project Phase:

Ak-El Kemah Elektrik Üretim A.Ş. (Kemah HEPP)

#### Other

Akenerji Elektrik Enerjisi Ithalat Ihracat ve Toptan Tic. A.Ş.

**Note 1:** Ak-El Yalova Elektrik Üretim A.Ş. and Akenerji Doğalgaz İthalat İhracat ve Toptan Tic. A.Ş., the subsidiaries of Akenerji, were not included in the report because they did not operate in 2017.



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#### Message from the CEO

MESSAGE FROM THE CEO

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Dear Stakeholders,

Security of energy supply is one of the most important issues for businesses operating in the energy sector. However on the other hand, as well as the technical equivalent of this general expression in the industrial sense, we should mention that the meaning can vary for each company.

As Akenerji, within the frame-work of our policy aiming to contribute to building a sustainable future for Turkey and hence the world, security of supply represents a much broader meaning for us. For us, supply security includes not only the supply of energy but also the safety and sustainability of all activities during the process of this supply.

MESSAGE FROM THE CEO

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102-7 / 102-12 / 102-14 Through our work in the field of sustainability in 2017, we followed the developments in the world and the decisions made to secure the future of our world, in depth. We have also initiated policy studies considering Akenerji's corporate business objectives together with the sustainable development goals of the world, aligning all of our targets with global targets, developing strategies for all of our performance areas and in accordance with these strategies.

Where we stand now, the topics of "decent work and economic growth" and "accessible and clean energy", among the Sustainable Development Goals announced by the United Nations, have been selected by Akenerji as areas of performance for which we will focus for the next five years.

As Akenerji, as a result of our strategic work, in order to guarantee the security of future energy supply we aimed to improve our positive performance in the areas of "operational health and safety", "environmental management", "diversification of energy resources" and "innovation and productivity studies" with the same determination and increasing momentum.

As Akenerji, occupational health and safety is at the forefront of all our materialities in all areas of operation. Beyond occupational health and safety policies, the creation of decent work environments is a fundamental principle of work.

On the other hand, we have decided to continue to support our economic growth by committing to our high standards of business ethics and continuing our support for the development of employment by creating decent workplaces.

In addition, we would like to continue our efforts in accelerating the development of women's employment, starting from our own sector and encouraging women's employment in the energy sector, which is another issue that is very important for us. Therefore, we are institutionally among the leading supporters in Turkey for the "30 Percent Club Campaign".

It is not possible to limit the value we give to human only as activities that promote occupational health and safety, understanding of equality and qualified employment. The value given to people represents a meaning together with the value given to the future of man and therefore to the environment. We believe that the energy sector and therefore Akenerji have a great responsibility and share in ensuring the sustainable future of the planet we live on, together with all living things, including human beings.

Today, environmental management systems have been established in

all operations of Akenerii and are all of our internal stakeholders, all being improved as days pass. The applications we do beyond our basic obligations appreciated and awarded by Carbon Disclosure Project presented in a way that sets an example to our industry as well as to all businesses outside our industry in Turkey and around the World, both makes us proud and encourages us to do better work in this direction.

Carbon Disclosure Project (CDP) Turkey 2017 Water Leadership Award granted to us as the result of the steps we have taken as Akenerji about water which holds an important place in the future of the world and our work in this area, has the first place as the greatest achievement we want to share with you.

As Akenerji, we are continuing our sensitivity towards the environment during our activities, also in planning our investments and our understanding of production. In 2017, we are also pleased to have met 11% of our 5.70 TWh generation from renewable resources

As Akenerji, we are aware that sustainable achievement can only be achieved through the participation of all of our stakeholders and their performance in the direction of the same goals. We are also aware that our country and our world can have a more reliable and sustainable future, together with our team and suppliers who make up Akenerji, as well as all our external stakeholders, our customers being in the first place.

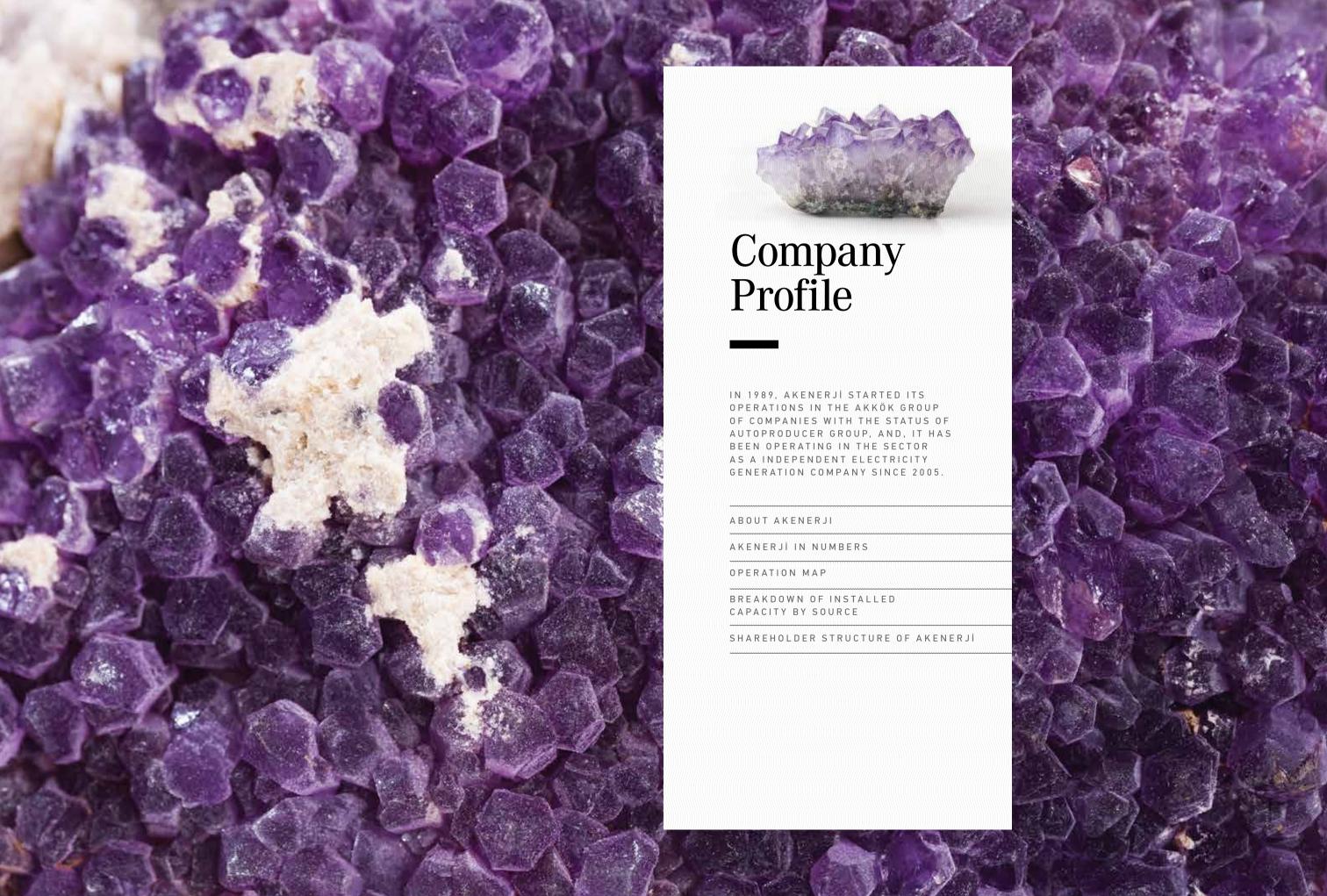
With this report, we are delighted to share with you our goals for the future with our work and inform you on the developments in our understanding of investment and doing business for a sustainable future.

Sincerely,

MESSAGE THE CEO

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### ABOUT AKENERJİ

COMPANY PROFILE

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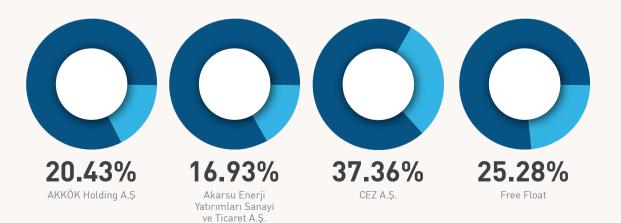
102-2 / 102-5 / 102-6 / 102-7 In 1989, Akenerji started its operations in the Akkök Group of Companies with the status of autoproducer group, and, it has been operating in the sector as a independent electricity generation company since 2005. Consisted of an equal partnership of Akkök Holding, Akarsu Enerji Yatırımları San. ve Tic. A.Ş. and CEZ Group, one of Europe's leading energy companies, the Company has the production capacity to meet 3% of Turkey's power need all by itself with a total installed capacity of 1,224 MW by the end of 2017.

With more than 28 years of know-how and pioneering position, the Company aims to maintain a balanced portfolio structure in order to protect its strong position in the sector and make its electricity supply more secure. It has expanded its renewable energy portfolio with 7 hydroelectric power

plants and 1 wind power plant deployed in succession and the share of renewable energy power plants in total installed power has reached 26% by the end of 2017. Akenerji completed and started up the 904 MW Erzin Natural Gas Combined Cycle Power Plant in Hatay in the third quarter of 2014. With a production capacity of 7,4 TWh, the plant is one of the most important projects of Akkök Holding - CEZ a.s. strategic partnership. The 198 MW Kemah Hydroelectric Power Plant project planned to be established in Erzincan is ongoing.

As one of the strongest companies in the industry, Akenerji continues to be a visionary company in the industry thanks to its innovative steps in the areas of energy production, energy services and energy trading.

THE PAID-UP CAPITAL OF AKENERJİ IS 729,164,000 TL AND THE MAIN INVESTMENT PARTNERS ARE AKKÖK HOLDING A.Ş. AND ČEZ.



## Leading company setting standards in the industry!

In 2017, Akenerji focused on operating existing plants at optimum prices according to market prices and the development of new projects to create added value and the total trade volume in 2017 was 10.2 TWh.

As one of the pioneers of Global trend movement of renewable energy in Turkey, Akenerji has increased its electricity production by 54% in 2017 compared to 2016, producing 5.7 TWh of electricity, including 11% of it from renewable sources.

Akenerji has increased the capacity of Ayyıldız Wind Power Plant by 88% from 2016 to 2017 and continues its market research with the aim of improving the percentage of profitable and renewable energy.

Energy efficiency is another issue that is at least as important as renewable energy. In order to ensure energy efficiency, we follow up new technologies and select and apply appropriate options to our production portfolio. In addition, with vocational trainings given to employees during the year, studies are carried out to make employees a part of this development. The target is to increase the competitiveness of industrial and commercial customers by lowering their energy costs and new ideas and projects are being developed to increase their energy efficiencv. It is aimed to continue to be an exemplary institution within the sector with investments following market conditions.





VISION

To maintain its leading position in the Turkish energy sector and become one of the largest integrated companies that shape the industry.



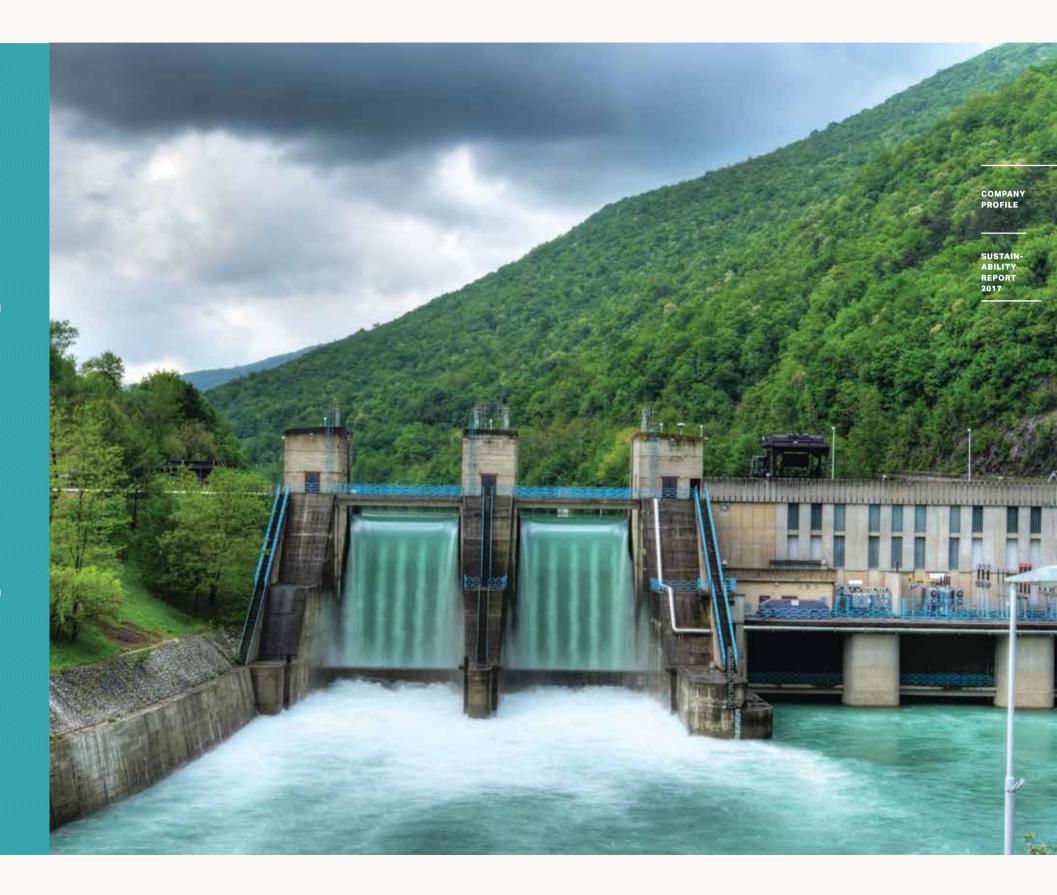
#### MISSION

To make reliable and longterm contributions to Turkey's energy needs by operating with a quality-focused approach at every stage of the energy sector value chain



### CORPORATE VALUES

Reliability, Integrity, Accountability, Transparency, Customer Satisfaction, Social Responsibility



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#### AKENERJI IN NUMBERS



Installed Capacity By Year End of 2017

## 1,244 MW

natural gas hydroelectric wind



Investment In Project Phase

## 198 MW

Kemah Hydroelectric Power Plant Project

Power Plants Active as of 2017

206

Average Number of Employees

1,855

Million TL Revenue









Wind Energy Hydroelectric Power Plant Power Plants





Natural Gas Power Plant

### Operations Мар





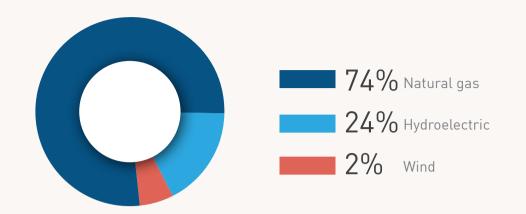




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#### **Breakdown of Installed Capacity by Source**



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Installed Power		
Power Plants	Operation Start Date	
Erzin NGCCPP	2014	904 MW
Ayyıldız RES	2009	1st Phase 15 MW 2st Phase 28.2 MW
Ayyituiz ICL3	2017	13.2 MW
Bulam HES	2010	7 MW
Burç Bendi HES	2010	28 MW
Feke I HES	2012	30 MW
Feke II HES	2010	70 MW
Gökkaya HES	2012	30 MW
Himmetli HES	2012	27 MW
Uluabat HES	2010	100 MW
Investments in Project Phase		
Kemah HES		198 MW

#### **Economic Performance**

Through our corporate activities, we contrib- low. Our operating costs correspond to 97% our energy needs while creating economic our Company. value for our stakeholders.

the year 2017 is summarized in the table be- tal equity amounted to 1,803,554,589 TL.

ute to our country's economy by supporting of the total economic value distributed by

Of the companies included in Akenerji's con-The distribution of the economic value we sortium, the net sales were 1,855,097,831TL, have created as a result of our activities in total liabilities were 3,994,021,361TL and to-

Economic Value Created (Million TL)	2017	2016	2015
Direct Economic Value Produced			
a) Revenues	1,855	1,421	1,803
Distributed Economic Value			
b) Operating Costs	1,785	1,634	1,636
c) Employee fees and other benefits	11.5	9.6	7.6
d) Payments made to the capital provider	0.0	0.0	0.0
e) Government payments	49.2	45.6	38.9
f) Community investments	0.1	1.1	0.4

Notes: The above figures are presented as of December 31, the end of the fiscal year.

#### **Corporate Memberships**

As a signatory and member of national and international initiatives, Akenerji is making every effort to make sustainability an integral part of its corporate profile.

#### **Initiatives Provided Active Participation**

Since 2011, we have been regularly reporting, on voluntary basis, our climate change adaptation strategies and greenhouse gas emission management within the framework of ipate in the CDP Turkey Water Program.

the most reputable and global environmental initiative of CDP Climate Change Program, which is an international corporate platform for companies to voluntarily disseminate their strategies towards climate change. Moreover, as of 2015, CDP Water Program has been initiated in our country. We have been among the pioneer companies that started to report to the program in its initial year and conveyed our water management system. In 2016, Akenerji continued being the one and only electricity generation company to partic-

AKENERJÍ HAS CONTINUED TO BE THE ONLY POWER GENERATION COMPANY PARTICIPATING IN THE CDP TURKEY WATER PROGRAM IN 2017.

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Besides, Akenerji has been the first institution to enroll in the National Carbon Registry by registering in 2011, an application started by The Ministry of Environment and Urban Planning to record the projects developed and executed in Turkey for the voluntary carbon market.

In addition, Akenerji is actively involved • Energy Traders Association (ETD) in environmental and energy working groups in the Turkish Industrialists' and Businessmen's Association (TÜSİAD), and supports industrial growth by fighting against climate change.

Evaluated for the first time on a voluntary basis in the context of the BIST Sustainability Index, which is comprised of companies listed on the Stock Exsustainability performances are at a high level, Akenerji has been granted the right to be listed among the 44 listed companies in the period November 2017 to October 2018.

The index reveals how companies approach sustainability issues such as global warming, depletion of natural resources, reduction of water resources, • Istanbul Minerals and Metals Exporters Assohealth, safety, and employment.

#### **Memberships to Associations and Working Committees**

Akenerji is a member of the following associations and organizations focused on different areas:

- World Energy Council Turkish National Committee (DEK-TMK)
- Electricity Producers Association (EÜD)
- Hydroelectric Power Plants Industry and Business Association (HESİAD)
- Petroleum Platform Association (PETFORM)
- Wind Power and Hydropower Plants Businessmen's Association (RESSIAD)
- Sabancı University İstanbul International Center for Energy and Climate (IICEC)
- Association of Turkish Electricity Industry (TESAB)
- change Istanbul and whose corporate Turkish Association of Human Resources Management (PERYÖN)
  - Turkish Wind Energy Association (TÜREB)
  - Turkish Industry and Business Association (TÜSİAD)
  - International Investors Association (YASED)
  - Turkey Union of Chambers and Commodity Exchanges of Turkey (TOBB)
  - Turkish Investor Relations Society(TÜYİD)
  - ciation (IMMIB)

**EVALUATED FOR THE FIRST TIME ON A VOLUNTARY BASIS** IN THE CONTEXT OF THE BIST SUSTAINABILITY INDEX, WHICH IS COMPRISED OF COMPANIES LISTED ON THE STOCK EXCHANGE ISTANBUL AND WHOSE CORPORATE SUSTAINABILITY PERFORMANCES ARE AT A HIGH LEVEL, AKENERJI HAS BEEN GRANTED THE RIGHT TO BE LISTED AMONG THE 44 LISTED COMPANIES IN THE PERIOD **NOVEMBER 2017 TO OCTOBER 2018.** 

# DIGITAL ENERGY AGREEMENT FROM AKENERJI



Akenerji takes a "digital step" for increasing Egemer Erzin Natural Gas Combined Cycle Power Plant's performance.





2017 IN SHORT

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#### Significant Developments in the Reporting Period

Adding value to Turkey's economy and energy sector, Akenerii's Kemah Dam and Hydroelectric Power Plant project is indicative of the importance given by Akenerji to renew- - Evaluated for the first time on a voluntary able energy production.

The approval by the State Hydraulic Works (DSI) of the final designs belonging to the Kemah HEPP project was completed in 2017.

The Kemah HEPP project, with its installed power of 198 MW, is of particular importance with its being the largest hydro- - 15 HEPP Information Training sessions electric power plant project in Akenerji's portfolio. The project, which is expected to produce an average of 560 GWh of electric- - Akenerji Energy Services has achieved 47% ity a year, is extended for 19 months due to the railway investment program of TCDD for the pre-construction period in License and it is envisaged that the investment will be commissioned in 2023.

Ayyıldız Wind Power Plant: Regarding the Ayyıldız WPP project which is a demonstration of Akenerji's continued portfolio diversification and continued investment in renewable ener- - 20.488 trees have been planted since 2010 in orgy, the investment phase for increasing the current 15 MWm installed power to 28.2 MWm in 2016 was completed in January 2017 and the temporary acceptances were made by the Ministry of Energy and Natural Resources and the plant was put into operation.

- Kemah Dam and Hydroelectric Power Plant The share of Akenerii's renewable energy resources in total installed power has reached 26% by the end of 2017.
  - basis in the context of the BIST Sustainability Index, which is comprised of companies listed on the Stock Exchange Istanbul and whose corporate sustainability performances are at a high level, Akenerji has been granted the right to be listed among the 44 listed companies in the period November 2017 to October 2018.
  - were fulfilled in 2017.
  - efficiency in Electric Energy and 89% efficiency in Natural Gas with its projects which are continuing without any additional investment to the enterprises and has carried its own record in 2016 to a further level.
  - In 2017, Akenerji has recycled 99.5%, meaning nearly all of its wastes
  - der to enrich the natural life and afforest the land in the regions where Akenerji plants are located.
  - 92.5% of the findings detected in the field inspections carried out within the scope of OHS were resolved and closed by the end of 2017.

#### **Awards**

8. Turkey Energy Summit "social responsibility" category "Gold Voltage Award"

With the contribution of Akenerji employees, the "book donation project" applied in Yeşiltepe Primary School and Secondary School in Adiyaman was granted the award.

Bond & Loans Awards "Best Structured Financing Agreement of the Year" award:

With the refinancing contract signed with Yapı Kredi in 2015, Akenerji has been in the finals and awarded in "Best Structured Financing Agreement of the Year" category at the Bond & Loans Awards, which are called Oscars of the World of Finance.

Akenerji; Carbon Disclosure Project (CDP) Water Program A- Rating Note:

Akenerji took "A-" rating in 2017 Carbon Disclosure Project Water Program and joined within the companies in "Leadership" classification in Turkey.

Our projects are among "Stars"

The most ambitious projects competed this year again in "Yıldız Akköklüler (Stars of Akköklüler)", where the most successful projects are awarded under the Akkök Holding umbrella.

The project "Increasing the Operational Flexibility of the Erzin Power Plant and the Reservation Capacity of the Secondary Frequency Control", which competed on behalf of Akenerji, won the first prize in the "Operational Excellence" category.







CORPORATE

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#### **Corporate Structure**

Our corporate governance approach is shaped by the goal of creating continuous value for our shareholders, our customers and our employees.

Akenerji is fully aware of the importance of corporate governance as well as financial performance in an environment of intense competition and change. High quality of corporate governance, creates positive results such as low capital costs, opportunities for additional financing, and increased liquidity and in return increasing the competitiveness of institutions. In accordance with our corporate governance approach, Akenerji has shown utmost attention to implement the elements in the Corporate Governance Principles of the Capital Markets Board (CMB).

#### **Shareholder and Investor Relations**

Akenerji relations with shareholders and investors are managed by the Investor Relations Department.

The Department plays an active role in facilitating the exercise and protection of shareholders' rights, primarily the right to obtain and analyze information. All inquiries submitted to the Department, with the exception of information classified as confidential or trade secret, are replied either verbally or in writing after consulting the most senior officer related with the topic at hand.

With all of stakeholders, Akenerji organizes periodical informative sessions, hold on-demand focus meetings, and respond to questions posed over email with an accessible and transparent communication platform that Akenerji establishes. The demands of financial intermediaries, corporate investors and individual investors are met periodically -quarterly- or on ad hoc basis, by emails and/or meetings that are organized

upon request. All written or verbal information requests of shareholders, potential shareholders, analysts evaluating Akenerji, or academics and students conducting company or sectoral research are replied as soon as possible, using the aforementioned means, with the exception of any information undisclosed to the public or classified as confidential and trade secret.

The details of the information that are covered in this Report and that are within the scope of the Investor Relations as well as the contact information regarding the Investor Relations Department can be reached from Akeneriji website.

#### **Public Disclosure Policy**

Akenerji's Public Disclosure Policy contains information on issues regarding the data to be disclosed to the public apart from those determined by regulations; the method, frequency and means of disclosure; the frequency of the press meetings of the Board of Directors or executives; the frequency of public disclosure meetings; methods to be used in replying questions posed to the Company, and the like.

Information that is to be disclosed to public is disseminated through online means as accurate, complete, interpretable, timely and accessible at low cost, in a manner that will enable those; persons or institutions that will use to make decisions.

Public Disclosure Platform: http://www.kap.gov.tr

Corporate Website:

http://www.akenerji.com.tr

e - Governance Corporate Governance and Investor Relations Portal of the Central Securities Depository Institution: https://www.mkk.com.tr/wps/portal/MKK/

#### Akenerji Board of Directors

Akenerji Board of Directors is the most senior governance body responsible for defining the strategic goals of the Company, determining the corporate governance, identifying the human and financial resources needed, auditing performance of the management, and ensuring compliance of operations with the regulations, Articles of Association, internal regulations and policies.

As of December 31, 2017 the Board of Directors consists of a total of 8 members, including two independent and two executive members. All members have 3-year term of office, but Jiri SCHWARZ, who is an independent member of Board of Directors, has 2-year term of office.

Gender and age distribution of the Board Members are given in the tables below.

## Distribution of Board Members by Gender (number of members)

2017		20	16	2015	
Male	Female	Male	Female	Male	Female
7	1	8	0	12	0

As of December 31, 2017 Akenerji Board of Directors is composed of the following members

Ahmet Cemal DÖRDÜNCÜ

Chairman of the Board of Directors

Tomas PLESKAC Vice Chairman of the Board of Directors

Özlem ATAÜNAL\*

Member of the Board of Directors

Petr DOKLADAL\*

Member of the Board of Directors / Deputy General Manager

Ahmet Ümit DANIŞMAN

Member of the Board of Directors

Vratislav DOMALIP

Member of the Board of Directors

Yahya Mehmet İzzet ÖZBERKİ

Independent Member of the Board of Directors

Jiri SCHWARZ

Independent Member of the Board of Directors

\* Has executive duties.

#### Distribution of Board Members by Age (number of members)

	2017			2016			2015	
Under 30	30-50	50 and over	Under 30	30-50	50 and over	Under 30	30-50	50 and over
0	0	8	0	1	7	0	5	7

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members with and without executive duties. The members without executive duties are elected among individuals who have no administrative duty in Akenerji other than the membership of the Board of Directors and are not involved in daily workflow and routine activities of the Company. Six members of the Board of Directors are non-executive. Within the Board, there are two independent members who have the capacity to perform duties without any influence. Independent member of Board of Directors Jiri SCHWARZ, has 2-year term of office; Yahya Mehmet İzzet ÖZBERKİ has 3-year term of office. There was no incident to terminate the independency of these members in 2017.

Consistent with the Articles of Association of the Company, the Board of Directors convenes when the company business requires or otherwise at least four times a year. Each member has one vote in the Board of Directors. None of the members of the Board of Directors has casted a vote against any decision in the meetings in 2017.

Members of the Board of Directors allocate sufficient time for Company business. In case a member is an executive or a member of the Board of Directors in another company or provides consultancy service to another company, it is the fundamental responsibility of the

Akenerji Board of Directors is composed of member to avoid any conflict of interest and negligence of duties at Akenerji. Resumes of the Board members are included in the General Assembly information document and submitted to the shareholders' information.

> Although excluded in the Articles of Association, the powers of the Chairman of the Board of Directors and of the CEO are clearly identified and separated. The CEO and Chairman of the Board of Directors are separate persons and their duties and powers are defined by the Company Organizational Chart.

> The Board of Directors plays a role in maintaining effective communication between the Company and shareholders as well as in settling and resolving potential disputes. In pursuit of these tasks, it cooperates with the Corporate Governance Committee and Investor Relations Department.

> All performance indicators identified within Akenerji are monitored and assessed. The success of the Board of Directors, as the highest level managing authority, is assessed by monitoring the degree of attainment of the main business targets in line with corporate goals and by the realization of strategies. As the performance indicators of main business targets are the results of the basic performance indicators of all senior execution processes, including sustainability management,

the most senior governance body, therefore, also evaluates its own performance in economic, environmental and social issues.

As members of the most senior governance body that has the authority to perform, represent and bind Akenerji, the Board Members must be fully competent. The Board Members are elected among professionals with full power of discernment, having competency and expertise to steer the economic. environmental and social strategies of Akenerji. In this election process, the candidates' past experience and educational background is also considered. The Board is elected in line with the mandatory corporate management regulations set forth by the Capital Markets Board and Board Members perform their duties accordingly.

#### Committees Reporting to the Board of Directors Audit Committee

The Board of Directors carries out its operations in a transparent, accountable, fair and responsible manner. The Board establishes internal control systems, including the risk management and information systems and processes that can minimize the impacts of risks that may affect the stakeholders, particularly the shareholders, by also taking the opinions of relevant Board of Directors Committees into consideration. Within this scope and in accordance with the Capital Markets

Regulations, Audit Committee, Corporate Governance Committee and Early Detection of Risk Committee that directly report to the Board are created.

Committee Members reporting directly to Akenerii Board of Directors as of December 31, 2017 are as follows:

#### **Corporate Governance Committee**

Name	Title
Jiri SCHWARZ	Chairman
Yahya Mehmet İzzet ÖZBERKİ	Member
Özge ÖZEN AKSOY	Member
Petr SEDLAK	Member

ÖZBERKİ

Addit Committee	
Name	Title
Yahya Mehmet İzzet ÖZBERKİ	Chairman
Jiri SCHWARZ	Member
<b>Early Detection of Ris</b>	k Committee
Name	Title

Yahva Mehmet İzzet Chairman

Jiri SCHWARZ Member

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#### **Corporate Governance Committee**

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The Corporate Governance Committee is established in order to monitor compliance of the Company with the Corporate Governance Principles, to carry out related improvements and to submit suggestions to the Board of Directors. The Committee has a total of four members, including two independent members of the Board of Directors and two executives at the managerial level, one of which is from the Executive Board of the Company. The Corporate Governance Committee chairman is also a member of the Audit Committee and Early Detection of Risk Committee. In addition to its duties stated in the regulations, Akenerji Corporate Governance Committee performs tasks and responsibilities of the Nomination Committee and Remuneration Committee.

Akenerii authorized the Corporate Governance Committee to perform the duties of the Remuneration Committee as stipulated by the regulations. Within the scope of these regulations, during remuneration of independent members of the Board of Directors, stock options or payment plans based on the Company's performance are not employed. Wages of the independent Board members are set during the General Assembly by making sure that they are at a decent level to ensure the members' independence.

The Board of Directors is responsible for ensuring that the Company achieves its operational and financial performance objectives as identified and disclosed to the public. Remuneration principles for Board members and senior executives are recorded in writing and submitted to shareholders as an individual article at the General Assembly, thus giving

shareholders the opportunity to express their opinions. The Remuneration Policy for the Board and Senior Executives prepared for this purpose is issued on Akenerii website. Wages and all other benefits given to members of the Board of Directors and senior executives are disclosed to the public entirely through the annual report and in the footnotes of financial statements. Akenerji does not extend loans or credits to any Board members or senior executives and does not give assurances such as pledges in favor of them.

#### **Audit Committee**

The current internal control system, particularly in terms of improving effectiveness and efficiency of Akenerji operations, ensuring reliability in financial reporting and compliance with laws and regulations, is audited within the framework of the annual internal audit plan, by the Audit Group within Akkök Holding A.S. and CEZ a.s., and the results are reported to the Audit Committee. In the aforementioned annual internal audit plan, primary risks within the framework of corporate risk management are prioritized. The effectiveness of the internal audit activities is reviewed by the Audit Committee in the meetings held at least four times a year. At these meetings, when required, the opinions of the internal auditor, independent auditor or other Company executives are taken.

The Board of Directors reviews the effectiveness of risk management and internal control systems at least once a year. Information regarding the existence, functioning and effectiveness of internal controls and internal audit is presented in the annual report.

#### **Early Detection of Risk Committee**

The Committee ensures early detection of the risk and the necessary measures to be taken regarding the risks identified and the management of the risk. Akenerji Independent Board Members Mr. Yahya Mehmet Izzet Özberki has been appointed as the Committee Chairman and Mr. Jiri Schwarz has been appointed as a Committee Member and the Committee reports the Board of Directors bimonthly on the execution of roles and duties. The Strategic Planning and Risk Management Department identifies and evaluates risks in accordance with the Company's risk procedures and limits and in cooperation with the assigned Unit Risk Officers for each unit.

#### Shareholder Involvement in Company Management

Akenerji shareholders benefit from the opportunity to make suggestions and give instructions to the highest governance body of Akenerii in the most extensive way at the General Assemprovided to all shareholders. "General Assembly Briefing Documents" drawn up to include aspects stated in the Communiqué of Corporate Governance by Capital Markets Board (CMB) are issued prior to General Assembly meetings.

Akeneii's shareholders have the opportunity to inform the Investor Relations Department in writing, on issues requested to be handled at the General Assembly meetings. For material issues of the agenda, related members of the Board of Directors, other related people, executives responsible for the preparation of financial statements and auditors are present at the General Assembly meetings with the aim of informing shareholders and answering related inquiries All shareholders have the right to obtain and

review any kind of information that is not classified as a trade secret, within the framework of the regulations in effect. All shareholders. including minority and foreign shareholders, are treated equally. The right to obtain and review information is neither removed nor restricted by the Articles of Association or by a decision of any corporate body.

In addition, Akenerii website is designed and updated in compliance with the Communiqué of Corporate Governance by Capital Market Board. Stakeholders can contact related officials through the Company email address: info@akenerji.com.tr or via the Communication Form available at http://akenerji.com.tr/en/iletisim-formu. All basic information in Turkish website is also presented in English for foreign investors.

#### **ETHICAL PRACTICES**

Akenerji's Ethical Principles, which every employee must comply with regardless of the scope and nature of the task, is published in the Document Management System, which blies. In order to ensure that this opportunity is everyone can easily access. The Ethical Principles are prepared in accordance with the Turkish regulations and laws and by considering the best practices in the world. Compliance with these principles is ensured and monitored through the Ethical Principles Procedure and Personnel Regulations. The Personnel Regulations distributed to and signed by all of Akenerji's employees gives information about the need for compliance with all Company procedures and regulations including Ethical Principles, the rules workers must comply with at work, and the sanctions that do not comply with them. Akenerji's employees witness a manner incompatible with the Ethical Principles can notify their complaints via e-mail address etik@akenerji.com.tr and can help in investigation of the subject.

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#### ETHICAL PRINCIPLES

#### Integrity, reliability and fairness

It is a fundamental principle to build trustbased, steady and honest attitudes and communication with all business-related people and institutions.

Integrity and mutual trust is the basis of all internal and external relationships and processes.

Our Company offers a healthy and safe working environment and a professional development foundation based upon equal opportunity to all employees.

Our Company does not make discrimination, it adopts an equal and fair approach.

Our employees do not behave in a distressing or harassing manner towards other employees or third parties.

#### Responsibility

Our Company pays attention to fulfill its responsibilities towards customers, employees, suppliers and business partners, competitors, environment, and society.

Our employees clearly distinguish beliefs, world views and political opinions from their working environments, duties and responsibilities.

Our employees are responsible for reinforcing and protecting the name and reputation of our Company and using the resources efficiently. They avoid any images, behaviors or actions that may harm this responsibility and put the Company in a difficult situation.

Our employees act in full awareness and responsibility of producing more than consumed and save resources while performing their duties.

We pay attention to share the value we create through our operations with our country and society. All donations and sponsored social responsibility projects are publicly announced.

#### Confidentiality

Confidentiality of all commercial and personal information on employees and customers is a fundamental principle.

Our employees are aware of the confidentiality of private information on the Company, other employees and stakeholders. They must keep such information confidential. Such information can solely be used with professional purposes required by the job and duty and in full compliance with the related laws and regulations. This information can be shared only with the related authorities.

Our employees do not reveal any secrets, Our Employees do not offer or take bribes confidential information, information subject to intellectual property rights or re la t e d documents (whether duty-related or not) to unauthorized people or bodies outside the Company, including their family members.

This liability continues even after the employee's relation to our Company is terminated.

#### **Avoiding conflict of interests**

Our employees avoid conflict of interest and perform their duties in line with the accountability and transparency principles. Conditions in which individual interest may conflict with the interests of Company or related people and institutions are monitored and prevented.

Our Employees do not have any personal debt-credit relationships with parties directly or indirectly related to their duties. They do not accept any benefits offered or use our Company's reputation for personal benefits.

While performing their duties, our employees hold the Company's interests above everything else and avoid actions or behaviors that may mean capitalizing on the Company's resources or reputation for benefits to oneself or kinsmen.

while working with third parties. Exorbitant hospitality services, presents, etc. are neither offered nor accepted.

#### Adherence to laws and regulation

Our Company performs within the framework of Ethical Principles, laws, codes, regulations, and legislations and in full conformity with sustainability principles. We respect the environment, natural life and public health. Our employees also perform in the light of these principles.

Our Company and employees avoid any acts that may harm free and fair competition. We compete efficiently and only in legal and ethical grounds. We refrain from unfair competition, but support and promote initiatives that serve a fair competition-based business structures.

#### **Bookkeeping and records**

Keeping Company books and records fully and completely is a fundamental principle. All reports, presentations, financial statements, and footnotes to be publicly disclosed and presented to authorities are prepared and kept timely, completely, clearly and transparently in line with the laws, legislations, Company regulations and Ethical Principles.

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#### Risk Management

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Risk Management establishes systems and monitors actions to define and assess risks and opportunities that could impact the Company's targets; it ensures that these are managed according to the policies set by the Board of Directors. With the Enterprise Risk Management (ERM) project initiated in 2012 and completed in June 2013, risk inventories were formed in the Company, which enabled the creation of a corporate risk map and the description of roles and responsibilities. Risk Management Committee meets monthly and reports to the Board bi-monthly. The Company Risk Appetite Statement updated according to sectoral and corporate developments and approved by the Board, is used as a guide for all business units for the implementation of risk mitigating activities.

At Akenerji, risk management is done to protect company assets and values in principal. Therefore, it entails the sustainability principles that holistically cover all factors including the intangible assets of the Company. In the light of this approach, the economic, environmental, social and governance risks of the Company are defined, hence managed. With an understanding beyond risk mitigation, Akenerji strives to create value in these fields. Awareness raising trainings given to local community living in proximity of the hydroelectric power plants, various trainings given to employees to avoid work and vehicle-related accidents are some of the actions taken to prevent and lower Akenerji's environmental and social risks.

In order to abide by the Article 378 of Turkish Commercial Code No.6102 effective as of July 2012, Early Risk Detection Committee was formed on September 24, 2013 under the supervision of Akenerji Board of Directors. The committee ensures early detection of risks as well as their management, and that

necessary precautions are taken for detected risks. Akenerji independent Board members Mr. Yahya Mehmet İzzet Özberki and Mr. Jiri Schwarz have been assigned as the Committee Chairman and the Committee Member respectively. The Committee reports to the Board bi-monthly towards the fulfillment of its duties and responsibilities.

The Akenerji Strategic Planning and Risk Management Department determines and evaluates the risks in accordance with Company risk procedure and limits in cooperation with the Unit Risk Responsible assigned for each business unit. The Management prioritizes reports and monitors the risks in line with the risk appetite.

While the risks are managed within the framework of Enterprise Risk Management, the Risk Management Committee was established in March 2015 to make quicker decisions and take immediate actions due to the changing market conditions (more liquid and competitive). The Committee members are composed of the General Manager, Deputy General Managers, Directors, and Strategic Planning and Risk Manager. The Committee convenes on a monthly basis, and it is ensured that the necessary actions are taken by discussing the risks that the company incurs or may incur in the changing market conditions.

Risks in Akenerji are assessed and followed up under 5 main headings:

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







DIALOGUE WITH STAKE-HOLDERS

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#### Dialogue with Stakeholders

Our stakeholders are companies and institutions as well as people and communities that affect or are affected by the operations of our company. The selection, identification and limitation of stakeholders are the most effective factors in determining sustainability strategies, key issues and materialities.

Within the framework of our sustainability strategies, we try to prioritize our stakeholders with the participation of the sustainability committee every year and update our dialogue platforms we have established with them. In this respect, we are adapting to possible changes both national and global.

As a result of the workshop held with the Akenerji Sustainability Committee in 2017, we reaf-



firmed our stakeholders who were most affected by our activities and which had the greatest impact on our corporate achievement. Recognizing that stakeholders are among the most important factors affecting company success, we have divided our stakeholders into categories according to the degree of interaction in order to better manage our sharing.

As seen in the graphic below, the stakeholders which affect the activities and are affected by the activities and whose ideas on priorities considered are, primarily employees, customers, shareholders / investors, creditors, requlators, competitors and local residents.

#### Dialogue Platforms with Stakeholders

Stakeholder opinions and feedbacks are important elements to improve our business practices and processes. Therefore we have tried to create a more efficient and effective communication environment by reassessing our dialogue platforms with our stakeholders.

that affect our corporate success

Stakeholders	Stakeholder Engagement Platform	Content / Practice	Period of Dialogue
	Quality, Environment, and OHS suggestion system	Using this system, power plant employees share their opinions and suggestions mainly on technical issues.	Suggestions are reviewed within the scope of monthly Quality, Environment, OHS Committee Meetings
Employees	Individual Suggestion System	We offer employees a platform to freely share their ideas. Suggestions that have the potential to contribute to the Company are selected and suggestion owners are rewarded symbolically.	All suggestions are evaluated by a Social Committee named "Akenerjik" every three months.
Customers	Customer visits and introductory brochures	During customer visits, we introduce Akenerji Energy Services and we deliver related brochures.	During customer visits.
Creditors	Annual monitoring reports	We regularly present environmental and social performance monitoring reports to creditors.	Information is shared and site visits are made continuously.
Local communities	Face-to-face meetings	We exchange information with the local communities and authorities in the cities where our power plants operate and provide information on developments.	Information is shared regularly and continuously.
and Local Authorities	Informative brochures and trainings	We prepare brochures to explain potential dangers and means of protection for the local communities. We also transfer this information through trainings and answer questions of the local people	For each power plant, trainings are organized every year. Brochures and posters are distributed in the schools where the trainings are realized.
Investors	Meetings, informative memorandums, and investor presentations	We reply inquiries of the responsible investors on the performance and practices of Akenerji. Annual reports within the scope of Akenerji Sustainability Report, CDP Climate Change and Water Program are issued to the public.	Up-to-date information is shared continuously in the "Investor Relations" section of our corporate website. In addition, inquiries sent to info@akenerji.com.tr are replied.
Regulatory Institutions and Sectoral Associations	Meetings, statements of opinion	We take part in efforts to develop, to liberalize and to ensure that regulations for the sector are implemented in the most impartial and efficient way.	By attending meetings, dialogue is carried out with regulatory institutions, such as Energy Market Regulatory Authority (EMRA) and Ministry of Energy, and with the sectoral associations that we are members of.
Suppliers	Supplier evaluation	While selecting a supplier, existence of Quality, Environment and OHS Management Systems is a part of the evaluation procedure. Service procurement contracts are reviewed by EQOHS and required conditions related with environment, quality, OHS and information security are added to the contracts.	Applied during each procurement operation.
Society and the Media	Press releases and interviews	We issue press releases and give TV, newspaper and journal interviews about our recent sustainability practices and performance.	Depending on the requirement by the agenda of our Company and the market.

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DIALOGUE WITH STAKE-HOLDERS

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# Sustainability Approach and Management

WHILE OUR COMPANY'S PERSPECTIVON SUSTAINABILITY CREATES VALUE FOR BOTH OURSELVES AND OUR STAKEHOLDERS, THE AIM IS TOMINIMIZE SOCIAL AND ECONOMIC, PRIMARILY ENVIRONMENTAL IMPACTS.

SUSTAINABILITY APPROACH AND MANAGEMENT

OUR SUSTAINABILITY MATERIALITIES

OUR POLICIES

INTEGRATED MANAGEMENT SYSTEMS

SUSTAINABLE DEVELOPMENT GOALS AND AKENERJI



SUSTAINABILITY APPROACH AND MANAGEMENT

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#### Sustainability Approach and Management

While our company's perspective on sustainability creates value for both ourselves and our stakeholders, the aim is to minimize social and economic, primarily environmental impacts. While ensuring this, we act without sacrificing our quality, corporate governance and customer satisfaction standards and our ethical principles. We support clean and safe energy sources for a sustainable future. With our material issues that we have identified through stakeholder engagement, we provide reliable, economical, customer oriented and environmentally conscious energy by investing in renewable energy sources and highly efficient technologies. Our corporate policies and principles that we have developed based on international standards and approaches include Quality, Environment, OHS, Information Security, HR Policies and Ethical Principles.

Having adopted the mission to contribute to Turkey's reliable and long-lasting energy needs by operating with a quality-oriented approach at each stage in energy sector value chain. Akenerji adopts common values with its employees in all units and operating areas. With the awareness that reliability, honesty and stability are indispensable values for the energy sector, Akenerji shares accurate and up-to-date information with its customers, shareholders, sup-

**Corporate Values** 

Accountability Transparency

Customer Satisfaction

Social Responsibility

Reliability

Integrity

pliers and employees through honesty, high ethics and professional value perception and pays utmost attention to fulfilling its commitments fully and in a timely manner.

The Board of Directors and senior management of Akenerji fulfill the duties holding the profitability of the company and the interests of the shareholders in the foreground with the consciousness of accountability to the legal entity of the company and shareholders. In addition, with its sensitivity in transparency, Akenerji simultaneously discloses financial and non-financial information about the Company to the public in an accurate, understandable, interpretable and easily accessible manner, with the exception of trade secrets and information not yet publicly disclosed.

As well as protecting the consistency in customer satisfaction with its sustainable quality and superior service approach, it adds value to the regions of operation with its collective and environmentally conscious approach. Adopting the vision to maintain its leading position in the Turkish energy sector and become one of the largest integrated companies leading the industry, Akenerji aims to be a leading energy company in its lane adhering to all these corporate values.

the Company's senior management are important when our environmental, social and ethical responsibilities are integrated into our Company's strategies and culture. The Board of Directors is ultimately responsible for managing these matters that affect our company's reputation and profitability. We have adopted an effective management model in all decision-making processes, including all of our plants, with the vision and leadership of the top management.

The management of the environmental and social elements in our operating power plants is under the responsibilty of the Directorate of Environment, Quality, Occupational Health and Safety under Production Directorate. The units responsible for the project undertake the management of the OHS and environmental performance during the period from the projecting phase to the commissioning of the plants. Key environmental and social performance data on our plants and project sites are reported to the Board of Directors. In addition, annual or periodic environmental and social performance monitoring reports and annual sustainability reports to financial institutions originating from signatories and contracts are also reported to the Board of Directors through the Executive Board.

Processes such as recruitment, training, and performance management related to our employees are managed by the Human Resources Unit. However, corporate governance and business ethics are mainly the responsibility of the Corporate Governance Directorate.

The knowledge, awareness and leadership of A Sustainability Committee was established in Akenerji in 2013 in order to contribute to the management and reporting of the issues covered in the scope of sustainability with a more holistic approach. The following units, represented in the Sustainability Committee, play a key role in the management of important and material sustainability issues that fall within their jurisdiction. While risks and opportunities for important and material issues in the sense of sustainability are evaluated by the relevant units, attention is paid to the holistic consideration of the environmental, social and economic impacts of the actions to be taken.

> The Sustainability Committee monitors sustainability issues throughout the year and tries to make performance indicators a part of sustainability management by incorporating them in their follow-up systems.

#### Units Represented in Akenerji **Sustainability Committee:**

- Environment, Quality and OHS
- Trade
- Energy Services
- Legal
- Human resources
- Corporate communications
- Accounting and Tax Management
- Projects
- Procurement
- Strategic Planning and Risk Management
- Natural Gas Supply and Trading

AS AKENERJİ, OUR PRIMARY GOAL IS TO MAKE SUSTAINABILITY A PART OF THE CORPORATE CULTURE. SUSTAINABILITY APPROACH AND MANAGEMENT

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#### **Our Sustainability Materialities**

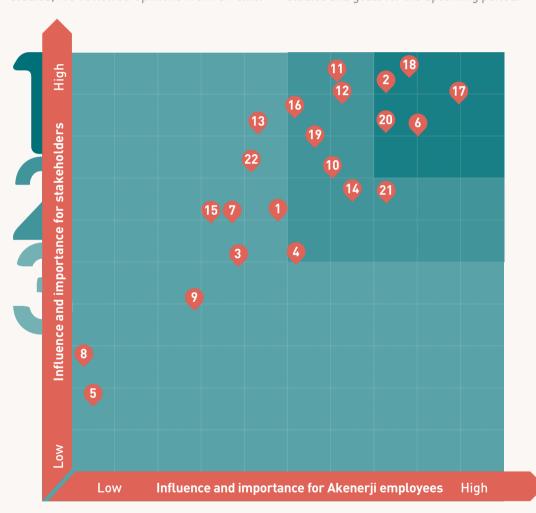
As Akenerii, we pay attention to our key stakeholders every year as we determine our strategies for economic, social and environmental issues and our goals accordingly, and strive to create future plans together with our stakeholders.

In this context, a study has been carried out to update material sustainability issues that have been done in the past years in Akenerji, taking into account both employees and other stakeholders we that have established relationships with. In our sustainability materialities update studies, we reviewed opinions from 34 exter- studies and goals for the upcoming period.

nal stakeholders and 118 Akenerji employees, making a total of 152 stakeholders

The material issues for both our stakeholders and Akenerji shown in the following matrix of material sustainability issues are evaluated in the 3rd chapter.

Occupational health and safety, energy supply security, energy, water and waste management, the use of high-efficiency technology are among top material issues (Level 1) for Akenerji in our



- 1 Social contribution
- **2** Economic performance
- 3 Diversity and equality in opportunity
- 4 Employee talent and career
- 5 Local procurement policies
- 6 Energy supply security
- **7** Sustainability in supply chain
- 8 Biodiversity

- 9 Creating employment in power plant regions
- **10** Corporate governance
- 11 Ethical Principles
- 12 Risk Management
- 13 Client satisfaction
- **14** Employee engagement
- **15** Relationship with local community
- 16 Environmental and social effects of investments
- 17 Occupational Health and Safety
- 18 Energy, water and waste management
- **19** Adaptation to climate change
- **20** Use of high-efficiency technology
- 21 Information security
- 22 Complaint mechanisms

#### **OUR POLICIES**

Our Quality, Environment, OHS, Human Resources and Information Security policies. which determine how we do business under the leadership of our sustainability committee, are updated according to our material issues and business understanding.

#### **Our Quality Policy**

As one of Turkey's largest private sector electricity generation companies: Akenerii and its affiliates respond to national energy demand reliably, economically and in an environmentally conscious manner and with the quality-oriented approach, it meets the highest efficiency with increasing energy needs and expectations. We commit;

#### **Source Diversity In Energy**

To be a leader in the competitive market by diversifying fuel sources according to changing world and country conditions,

#### **Compliance With The Law**

To follow the changing conditions in the energy sector and in our country closely and to realize electricity generation and supply in accordance with the current legislation,

#### Our Subcontractors And Suppliers,

To select, evaluate and approve according to the criteria that we have determined, working in cooperation and supporting the continuous improvement

#### **Sustainable Development Goals**

To improve our processes in line with the United Nations Sustainable Development Goals,

#### **Technology Selection**

To increase the company performance

and productivity by using the latest technology products in our processes in line with sectoral developments,

#### **Employee Value**

Being aware that each of our employees is the biggest "energy source" for us, to support our employees to be multifaceted, adaptable team members and to be an institution that is an example in the sector with our quality work power and everyone chooses to be a member of,

#### Processes

To ensure continuity and continual improvement of business processes by effectively managing risks in line with company goals,

#### Our Stakeholders

To give all of our stakeholders the privilege of working with a transparent and reliable company.

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#### **Our Environmental Policy**

Akenerji and its subsidiaries are establishing environmentally compatible and highly efficient facilities for sustainable energy; and aim to keep the environmental impact of the electricity generation activity to a minimum, in order to ensure that our future tomorrow can be as bright as it is today. We commit,

#### **Source Consumption**

To use energy and natural resources in velopment Goals the most efficient way,

#### Wastes

To minimize the waste with effective use of resources and to dispose of the systematically collected waste in accordance with the regulations,

#### **Continuous Development**

By ensuring the active participation of all our employees through the commitment and leadership demonstrated by our managers; to continuously improve our processes with environmental impact through the approach of sustainability, taking into account the prevention of pollution and the protection of the environment.

#### **Sustainable Development Goals**

To improve our processes in line with

the United Nations Sustainable Development Goals

#### **Gas Emissions**

To follow up, report and verify our greenhouse gas emissions with our Carbon Management System that we have set up.

#### **Waste Water**

To discharge our wastewater in the most environmentally friendly way to accommodate the environment of disposal,

#### **Compliance With The Law**

To fulfill our legal obligations and responsibilities encompassing environmental aspects and other relevant conditions in full, and to work to establish new standards that will guide the future,

#### Awareness

To strive to raise awareness of all stakeholders, especially our employees, on the sustainable environment.

#### **Our OHS Policy**

Akenerji and its subsidiaries ground on operational health and safety at every stage of electricity generation, adopting "Human First" philosophy. We commit,

#### Legal And Technological Compliance

To prevent injuries and health risks by providing a healthy and safe working environment in harmony with all legal obligations, other relevant conditions and technical developments,,

#### **Emergency Situations**

To evaluate possible emergencies and prepare the necessary action plans to ensure the safety of our stakeholders,

#### Training And Awareness

To raise awareness of all our stakeholders against possible risks and to take the necessary precautions against these risks,

To train our employees to raise aware- achieve the ness, knowledge and experience to dent" goal...

work in a safer environment

#### **Sustainable Development Goals**

To improve our processes in line with the United Nations Sustainable Development Goals.

#### **Continuous Development**

By ensuring the active participation of all our employees through the commitment and leadership demonstrated by our managers; to improve the working conditions and the physical and mental well-being of our employees, continually improve our health and safety performance with risk assessments and achieve the sustainable "Zero Work Accident" goal..

#### Our Human Resources Policy

The basic elements of our human resources policy are listed below:

We give everyone equal opportunity.

As a result of the job evaluation we pay fair wages.

We increase productivity by creating motivation and commitment.

We work collaboratively by ensuring the continuity of business peace.

We match the right work with the right person.

We evaluate success with measured performance and exhibited competencies.

We recognize and appreciate each other's successes in time.

We provide timely, accurate, clear and versatile information.

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#### **Our Information Security Policy**

As one of Turkey's largest private sector electricity generation companies; Akenerji and its affiliates; to manage all kinds of risks to our business continuity and information assets; We commit,

#### **Compliance With The Standard**

To establish and operate an Information Security Management System that complies with the TS ISO / IEC 27001 standard (describes the framework of the process approach that sets out the necessary steps for the establishment, implementation, monitoring, maintenance and development of the Information Security Management System)

#### **Risk Assessment**

To manage risks related to information assets by evaluating them according to privacy, integrity, accessibility,

#### **Our Subcontractors and Suppliers**

To provide appropriate awareness training on organizational policies and procedures related to their business functions,

To decide on the information securi-

ty requirements with the supplier to reduce the risks associated with the supplier's access to the Company's

#### **Compliance With The Law**

To comply with all legal and contractual obligations on information security,

#### **Awareness**

To realize activities and trainings to improve technical and social competencies in order to increase the awareness of information security and to be an example organization within the Akkök Group in terms of information security,

#### **Continuous Improvement**

In line with the company's objectives, to manage information security in a way that integrates with other management systems by creating a continuously improving and evolving structure that does not allow new risks to occur.

#### **Integrated Management Systems**

We carry out a significant part of our work within the scope of sustainability through the management systems listed below

System, ISO 14001: 2015 Environmental Management System and OHSAS 18001: agement System owned by all of our plants, the documents has been ensured.

1st intermediate control audits have been successfully accomplished and the continuity of the documents have been ensured. Similarly, for the Head Office, Erzin Natural Within ISO 9001: 2015 Quality Management Gas Combined Cycle and Uluabat Hydroelectric Power Plants, ISO 27001: 2013 2nd intermediate control audits have been suc-2007 Occupational Health and Safety Man- cessfully accomplished and the continuity of

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#### Locations with certificates within Akenerji Elektrik Üretim A.Ş.:

Location / Standard	ISO 9001:2015	ISO 14001:2015	OHSAS 18001: 2007	ISO 27001: 2013
Head Office	<b>✓</b>	<b>V</b>	<b>V</b>	<b>✓</b>
Ayyıldız Wind Power Plant	<b>/</b>	<b>/</b>	<b>V</b>	
Uluabat Hydroelectric Power Plant	<b>V</b>	<b>✓</b>	<b>V</b>	<b>V</b>
Burç Bendi Hydroelectric Power Plant	<b>✓</b>	<b>V</b>	<b>V</b>	
Bulam Hydroelectric Power Plant	<b>✓</b>	<b>V</b>	<b>V</b>	
Feke I Hydroelectric Power Plant	<b>V</b>	<b>✓</b>	<b>V</b>	
Feke II Hydroelectric Power Plant	<b>V</b>	<b>✓</b>	<b>V</b>	
Himmetli Hydroelectric Power Plant	<b>✓</b>	<b>✓</b>	<b>V</b>	
Gökkaya Hydroelectric Power Plant	<b>✓</b>	<b>✓</b>	<b>✓</b>	

#### Locations with certificates within Egemer Elektrik Üretim A.Ş.: Erzin Natural Gas Combined Cycle Power Plant

Location / Standard	ISO 9001:2015	ISO 14001:2015	OHSAS 18001: 2007	ISO 27001: 2013	ISO 14064: 2016
Head Office	<b>V</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Erzin Natural Gas Combined Cycle Power Plant	<b>V</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>













#### SUSTAINABLE DEVELOPMENT GOALS AND AKENERJI

The Sustainable Development Goals (SDG), announced by the United Nations in 2015, form a guiding framework for the business world and, in particular, the energy sector in which Akenerii operates, to determine the strategic roadmap until 2030. The agreed-on seventeen goals also encourage companies to develop rational strategies and turn to measurable business results.

As Akenerji, we have developed our strategies by identifying our priorities in each topic, keeping in mind the compliance of our corporate business objectives with the global sustainable development targets we address in the six main topics. The policies to be created from these strategies will be decisive in the work of Akenerji in the upcoming period.

Akenerji Corporate Performance Indicators (KPI) are aligned with global sustainable development goals under the topics of "environmental goals", "corporate employees", "corporate and final consumers", "energy generation", "energy market" and "corporate economic targets". Akenerji senior management and specialist staff worked together in alignment studies to perform deep analyzes and set out strategies in all areas. Accordingly, the SDG alignment and strategic directions for each performance domain are presented in detail in this report.

The link between global sustainable development goals and Akenerji's corporate business targets and the strategies and policy targets that are created in this framework are presented to our stakeholders are below.



Both the corporate and the final consumers constitute the most important stakeholder group of the energy sector. Even though thegeneration and the supply of energy are supposedly dependent on consumption, in other words demand, it is understood that every kind of improvement work in the energy sector depends on the increase of customer consciousness. Therefore, as Akenerji, we have decided to participate more actively in efforts to raise awareness of our corporate customers and final consumers in the coming period. It is known that support of demand will be a significant influence for achieving the target of renewable energy generation composition aimed by Akenerji.

#### **GENERATION GOALS**

Akenerji aims to increase the share of renewable resources in its generation composition by 2030. The balanced development of the global reachable and clean energy target with the need for economic growth targets is a crucial focus point in the determination of the generation strategy. It is known that production development and R&D activities will have positive contribution in ensuring the compatibility with the climate action targets, especially the protection of the water while increasing energy generation on the one hand in order to meet the demand. As Akenerji, it is aimed to increase the investment ratio by reviewing investment plans for these two areas in the future. In addition to technical production, it is also aimed to diversify existing developments in market activities and services.

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#### **OUR ENVIRONMENTAL GOALS EMPLOYMENT TARGETS**

The realization of Akenerji's environmental objectives in compliance with global climate action and water conservation efforts constitutes our basic strategy. It has been adopted as a basic policy to continue with determination with the current studies to reduce Akenerji's carbon and water footprint and to follow the innovative developments in the energy sector and develop these improvements in order to meet zero waste target and to reach this goal by 2030.

Expanding the scope of investments made by Akenerji in occupational health and safety and to develop good practices that will contribute to the interpretation of the business goal befitting the global human have been recognized as the basic strategy to. In addition, improvement of equality in employment and the establishment of policies aiming at promoting women's employment in the energy sector, especially Akenerji, is also one of the corporate targets. In order to secure the increased qualified employment needed by the developing energy sector, intensification of relations with sector-oriented educational institutions has also been accepted as a policy.













#### **MARKET GOALS**

Akenerji with deep-rooted structure and knowledge has gained attention as an innovative player in the Turkish energy sector. Strategic decisions have been taken to develop the efficient generation and consumption of energy in the coming period such as the virtual power plant presented in the market in 2017. However, market development activities to be carried out in such areas can be achieved through platforms and collaborations that will be created through the participation of all sectors. Therefore, Akenerji has recognized it as a fundamental policy to lead and support all kinds of development that will enable the development of sectoral cooperation in the future.

#### **ECONOMICAL GOALS**

It is a priority for Akenerji to provide energy supply security for achieving business goals related to its economic performance for its shareholders. However, it is also known that the supply of energy depends on the demand and therefore the development of the demand in the market. Therefore, as Akenerji, the healthy development and growth of other sectors are followed in the energy supply markets. Akenerji is closely following the work of establishing and developing a business environment in which economic growth in general and entrepreneurship for production in particular is supported. As Akenerji, the establishment of policies to support the public or civil initiatives to be carried out in the future is accepted.

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**RESPONSIBILITY IN OUR VALUE CHAIN** 

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At Akenerji, all stages are included in value chain from generation to after sales. As we follow our performance in generation, business and employees in our value chain; we also continue to carry out our activities with the same sensitivity to our customers and suppliers.

#### Our Approach

Akenerji directly influences its customers and suppliers, who are significant stakeholders within our value chain with sustainability practices and high performance expectations, and supports its customers in that meet the same selection criteria. improving their sustainability performances with smart electricity solutions that it offers. Along with this awareness. Akenerii encourages contractors and other suppliers who are currently carrying out investments in project construction phase to operate with high sustainability performance.

#### Sustainability in Supply Chain

For Akenerji, it is a priority to establish and maintain appropriate relations with the suppliers in line with the law and the provisions of the contract, therefore, when providing the products and services it takes into consideration the international and sectoral standards and pays utmost attention to their confidentiality considering this as confidential business information. Akenerji pre-evaluates candidate suppliers in order to be able to decide the most appropriate candidate

before having to work with any supplier under the Supplier Selection and Evaluation Procedure. This assessment questions the existence of studies related to Quality, Environment and OHS Management Systems as well as criteria such as conformity with Akenerji specifications and delivery time, price and payment method. Suppliers are also expected to share the vision of responsible approach to occupational health and safety and environmental issues. Therefore, suppliers with ISO 9001, ISO 14001 and OHSAS 18001 certifications are preferred among suppliers

The performance of the raw materials purchased from the suppliers that start to work in accordance with the Supplier Selection and Evaluation process is evaluated when the products and services are received in order to assess the suitability of the of the product or service with the desired quality, delivery time, payment forms, price and the compatibility with Akenerji. As a result of the evaluation, Akenerji continues to work with suppliers as approved suppliers that meet the appropriate criteria and sustain their performance.

In 2017, the list of documents to be provided to certify that the serviced suppliers are operating in accordance with the laws and regulations prepared in 2014 in order to comply with the law and to obtain better quality services was re-examined for each service

criteria prepared. For example, work related documents such as documents of equipment subject to periodic control and tests. certificate and / or competency certificate. entry and periodic medical examination re- areas. port of persons who will work in the field, OHS trainings, vocational trainings, Social Security Institution (SSI) service breakdown, risk assessment of the work to be done, chemical material safety data sheets to be used in the field are required before start of work from suppliers who will provide regular service such as planned maintenance, waste disposal, disinfection and health screening.

By the end of 2015, declarations that the suppliers are in compliance with the law have started to be added to the contracts, with the general procurement conditions established in 2016 the issue of controlling of services and products for quality, environment and OHS has been developed, and in 2017 this was added to related service procurement ing energy efficiency.

 Carbon neutral certification

purchase and evaluated according to the contracts. As a result of the additions, revisions and evaluations made in this process. Akenerji was able to identify suppliers' open areas for development and encourage the implementation of studies to improve these

> In addition, in 2017, when purchasing services and products, Akenerji has paid attention to select suppliers from the regions where the plants are located.

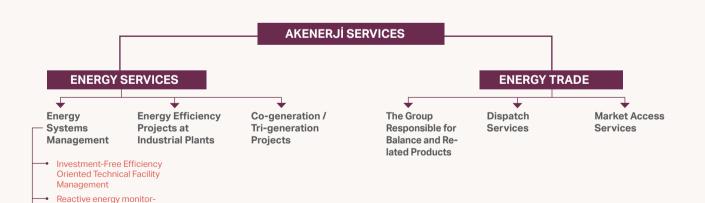
#### **Value Added to Our Customers**

Akenerji has been increasing and diversifying the value added to its customers each year through the products and solutions that it creates with its vision, sector experience and innovative point of view. Akenerji continued to add value to its customers by offering services besides electricity generation in 2017. These services are "Akenerji Energy Services" and "Energy Trading" services focused on creat-

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#### **ENERGY SERVICES**

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vide maximum gain with energy efficiency in commercial buildings. These models, which are services with no investment requirement, are free of charge for the exploration for design and working models produced as a result of engineering studies are presented with guarantee. Having taken an innovative step in the sector with the Energy Services in 2015, Akenerji has proven its value added and recognition through the projects it has realized and has shown the guarantee that it will progress this area with fast, innovative and competitive steps.

Working on both raising awareness of users in the industry and using the existing potential for energy efficiency which is an important topic in Turkey's energy policy, Energy Services department has worked on projects to increase customers' energy efficiency in 2017 with energy systems optimization and

Akenerii offers working models that will pro- management services in line with the sustainable profitability target. Energy Services, the first and only name that proves that productivity can be achieved without investing and can offer quarantee on this area, has increased its service package by presenting Survey and Reporting, Analysis and Consultancy, Project Development, Finance, Maintenance, Operation and Verification services according to the needs and requirements of the enterprises under one roof with integrated performance quarantee.

> In addition, Akenerji provides emission reduction certificates, by its renewable energy investments, accredited by internationally recognized institutions to customers with high environmental awareness who aim to minimize or end carbon-footprinting generated by electricity use and other reasons, and enables their electricity usage to be carbon-neutral.

In 2016, Akenerji Energy Services has succeeded to increase its investment-free energy efficiency rates, which reached 40% in 2016 with the involvement as "Energy team" to the current staff in the plants, with new business models developed in 2017. With its projects which are continuing without any additional investment to the enterprises, Akenerji Energy Services has achieved 89% efficiency in natural gas and 47% efficiency in electric energy, and has carried its own record in 2016 to a further level. In addition to the productivity values it has created, it has added value to its facilities and strengthened its sustainability goals by bringing comfort standards to the optimum level, reducing operating maintenance costs and extending device life.

#### **ENERGY TRADE**

In order to meet Turkey's and our stakeholders' needs with effective methods, Akenerji successfully continues its activities through innovative approaches in Virtual Power Plant, Dispatch Services and Market Access Services which started in 2016, now in 2017 also by increasing the number of customers.

#### **Virtual Power Plant**

Akenerji has started to implement the first virtual power plant auction system in Turkey by tendering certain parts of generation capacity rights of Erzin Natural Gas Combined Cycle Plant for the use of consumers over a specified period. With Virtual Power Plant tender system, at the time when the overthe-counter market volume dropped and the forecast was decreasing, it has aimed to increase the market volume by offering the participants option product, gave the market a new product and due to the product structure enabled the creating of the market price for unpopulated peak / off-peak products.

Since Akenerji is able to give the right to use the generation capacity without being affected by power plant installation costs, failures, maintenance and crises during the determined periods by Virtual Power Plant, Akenerji's customer is also renting the efficiency and flexibility of the state-of-the-art plant. It is sufficient for the company with the right of use to realize the generation by notifying the hours that electricity should be produced the day before. In addition, risks of the company such as "buy or pay", which is mandatory in the gas market, are eliminated.

Another important advantage of companies using this product is that the allocated capacity is available every hour during the supply period.

The capacity allocated to the users of the Virtual Power Plant give service every hour throughout the procurement period, even if the power plants operating with natural gas are disconnected in the gas crises that are experienced every year due to the country's current energy generation portfolio.

In addition, users of Virtual Power Plant can benefit from low 'Day Ahead Prices' without using the allocated capacity during periods when prices are low, and have a price forecast by turning high day ahead prices to advantage.

Opening the bids to electronic media, Akenerji has completed the last VPP activity in August 2017.

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#### The Group Responsible for Balance

In 2017, cooperation with one of the leading companies in the sector was provided within the scope of activities of group responsible for balance with the aim of reducing the imbalance costs. As a result, Akenerji has improved the added value created by increasing the volume and synergy of the group responsible for the balance.

In 2017, many new products have been designed for the needs of the companies in the sector and important steps have been taken in this regard. Particularly, depending on the changes made in the legislation of YEKDEM in 2016, electricity producers within the scope of YEKDEM with generation portfolios not as large and varied as Akenerji were exposed to high imbalance costs. In this context, Akenerji has conducted negotiations with various companies based on the imbalance synergy amounts provided in the group by Group Responsible for Balance (DSG) activities in 2017 and designed new business models by fixing the imbalance costs of many companies.

#### **Dispatch Services**

Akenerji provides Power Plant Management Services with the knowledge, expertise, the attributes of being the pioneer follower of the energy industry and the first electrici-

ty generation company in auto production group status in Turkey. With this service, the commercial management of the investors of the sector is fulfilled by the specialized staff through the basic principles of maximum profitability, zero data entry failure risk, minimum imbalance cost and transparency.

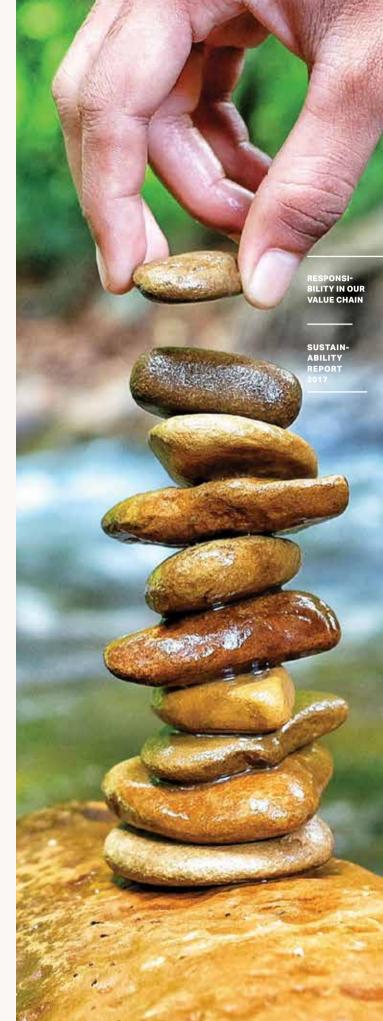
Due to its fast changing dynamic structure, Akenerji, which provides great opportunities while satisfying the needs and requirements of the energy sector with great risks (insufficient assurance, incorrect data entry, legislative changes and imbalance management, reporting, settlement, billing errors), is committed to providing high and sustainable added value for its partners and stakeholders.

Investors are given service in the scope of Power Plant Management Services; ranging from sectoral consultancy to legislation follow-up, from daily and monthly electricity market operations (Day Ahead Market, Balancing Power Market, Intraday Market, settlement and billing consultancy, order management, etc.) to assurance management and reporting. Providing this service to the investors included in the balancing group, Akenerji offers better opportunities to its stakeholders with its expanding portfolio

In the power plants managed with this service, a contribution is made for the energy obtained to reach the market in the most efficient way.

#### **Market Access Services**

With market access services it is aimed to solve the problems of the companies operating in the Turkish energy sector, especially the foreign companies, created by intensive in-house processes in undersigning contracts with other sector players and getting credit approvals, to reduce financial risks, eliminate credit risks and provide their easy and reliable access to electricity markets. By providing market access services to stakeholders demanding service, Akenerji makes it possible for firms to access the markets and trade more actively. Customers who receive market access services can reduce the counterparty risk to a single company by having Akenerji as an intermediate. At the same time they have the opportunity to reduce their operational load and provide easy access to over-the-counter market prices. Thus, customers who receive this service increase the number of firms they can work with and find quicker response to the products offered to the market, and therefore increase market liquidity.



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#### **INVESTMENTS IN PROJECT PHASE**

#### Kemah Dam and Hydroelectric Power Plant

Kemah Dam and HEPP project, which are implemented by Akenerji to add value to the Turkish Economy and the energy sector, is an indicator of the importance that Akenerji attaches to renewable energy generation.

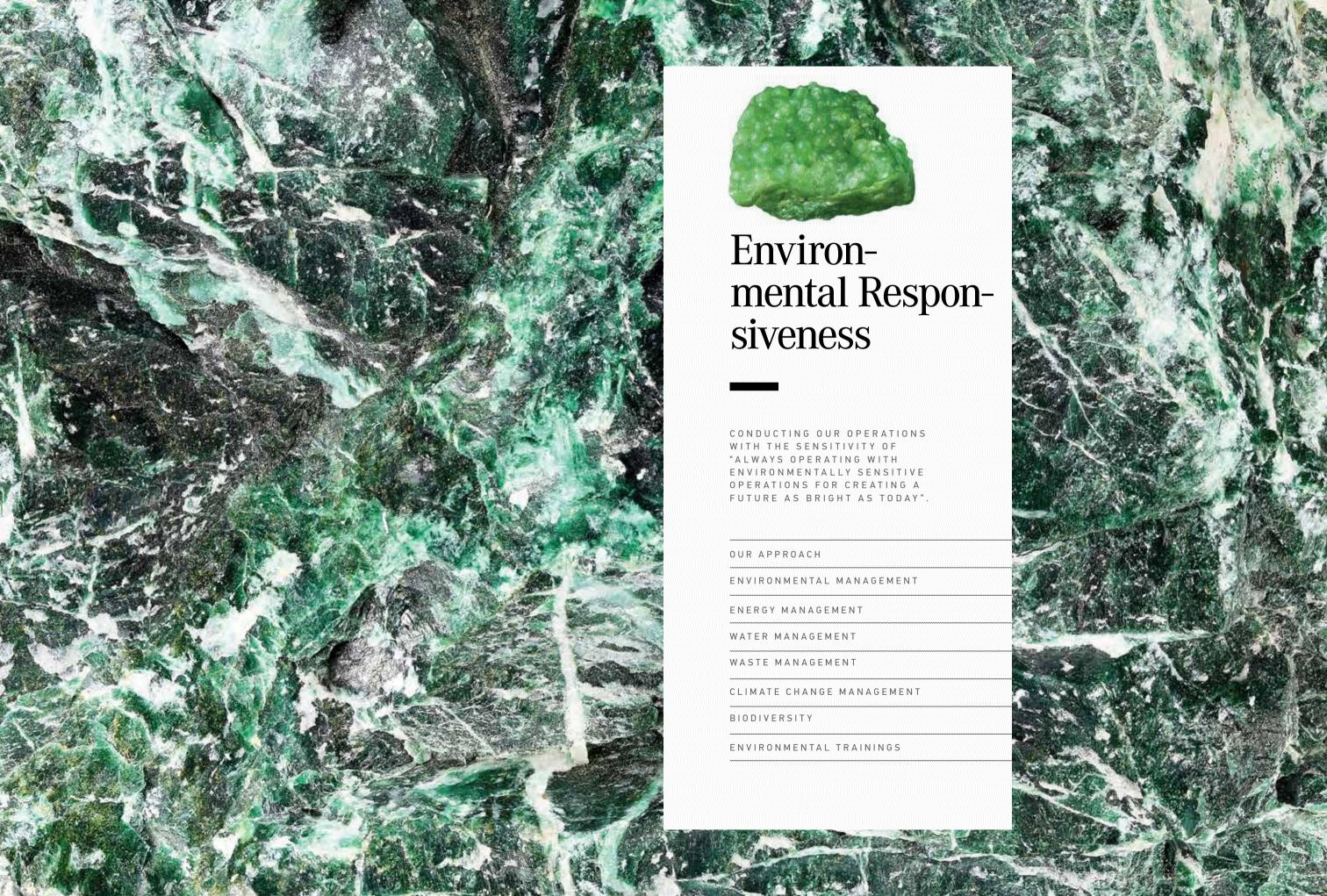
The approval of final projects regarding Kemah HEPP from State Hydraulic Works (DSi) is completed.

Kemah HEPP project, with an installed capacity of 198 MW, is of particular importance as being the largest hydroelectric power plant project in Akenerji's portfolio. An extension of 19 months was taken due to the railway investment program of Turkish State Railways (TCDD) for the pre-construction period in License, for this project with an expected capacity to generate 560 GWh of electricity per year, and it is expected to be operational by 2023.

#### **Ayyıldız Wind Power Plant**

As for the Ayyıldız WPP which is an indicator that Akenerji maintains a diverse portfolio and continues to invest in renewable energy resources, the investment period regarding the upgrade of 15 MWm installed capacity in 2016 to 28.2 MWm is completed in January 2017, the temporary admission has been done by Ministry of Energy and Natural Resources and the plant started to operate.







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#### **ENVIRONMENTAL RESPONSIVENESS**

While performing its operations, Akenerji's aim is to make investments for a clean and sustainable future of energy, to minimize potential risks by considering environmental impacts of our operations and to use natural resources in the most efficient way with the help of advanced technological solutions.

#### Approach

Conducting our operations with the sensitivity of "always operating with environmentally sensitive operations for creating a future as bright as today", Akenerji presents in this report environmentally sensitive data and applications for the seven hydroelectric, one wind and one natural gas power plant operating in 2017 and the Headquarters in Istanbul Akhan. In addition, the environmental and social management practices in the Kemah Hydroelectric Power Plant Project, which is in the investment stage by the end of 2017, has been discussed in the "Responsibility in Our Value Chain "section of the report.

# **Environmental Management**

Akenerji implementsthe ISO 14001: 2015 Environmental Management System, documented through independent audits, to measure, reduce and manage the environmental impact of its operations. Obligations for environmental legislations and regulations are followed by Directorate of Environment, Quality and OHS, and there are Environmental Specialists who

Environment and OHS Management Systems in each plant that have regular trainings in this subject. There is also an Integrated Management Systems Specialist in Adana Power Plants and Environmental, Quality and OHS Specialist in Erzin NGCCP Plant. In addition to each unit within Akenerji Environment, Quality and OHS Directorate being responsible for the proper functioning in compliance with the regulation, all departments bear equal responsibility for defining and reducing the environmental effects that occur during these operations

Compliance with the requirements of operations, such as the legal obligations and the requirements of the creditors, is regularly audited, including internal and external audits. These audits are internal audit carried out once a year within the scope of the Integrated Management System, external audits carried out by an independent external organization, and internal environmental inspections carrier out in all plants at least once a year conducted by the Environmental Management Unit within the scope of the Environmental Audit Regulation. If the nonconformities identified are within the scope of the regulations, they are recorded with Environmental Internal Audit Reports and Monthly Evaluation Minutes prepared in the format of the Ministry of Environment and Urban Planning and if they are within the scope of the Integrated Management System, they are carried out with corrective actions for the legislations and standards. Thus, the actions related to compliance with the environmental have internal auditor certifications of Quality. legislation and deficiencies are followed.

# **Energy Management**

Power Plant as well as receiving in-house needs. In Akenerji, a large part of energy consumption includes also the conversion of natural gas to electricity.

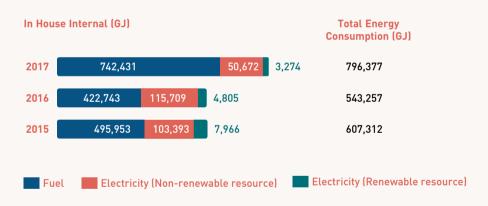
The most important place among the fuels Akenerji's consume is natural gas. "Non-renewable sources of electricity" refers to the electricity Akenerji buys from outside and use in its own consumption. The electric energy that sumption of natural gas from generation has is produced in Akenerji's hydroelectric and increased, a decrease is achieved in emiswind power plants and used in its domestic sions per unit electricity generation.

Akenerii uses natural gas for electricity gen- consumption is shown as "renewable energy eration in Erzin Natural Gas Combined Cycle source" in the table. The table of detailed energy consumption data is included in the "Performance Evaluation" section of this report.

> In 2017, the Erzin Natural Gas Combined Cycle Power Plant has operated approximately 60% more than the previous year and gross electricity generation has increased by approximately 80%. The increase in natural gas consumption was 76%. Although its con

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<sup>\*</sup> In 2016, the domestic energy consumption experienced a significant decline. The most important reason for this is the decrease in natural gas consumption. Vehicle fuel consumption has also declined significantly. While there is a decrease in generator fuel consumption, there is an increase in fuel oil and electricity consumption. Due to the overwork of Erzin NGCCPP in 2017, natural gas consumption increases compared to other years. Other energy consumption decreases.



# **Water Management**

Depending on the geographical location of the operation area, Akenerji can use spring water, ENVIRON-MENTAL REsea water or municipal water. In order to en-SPONSIVENESS sure water-saving usage, savings projects are carried out within the scope of efficiency targets set for raw water consumption.

Erzin NGCCPP supplies the cooling water

plant. In hydroelectric power plants, water taken from surface water sources is taken to be re-discharged to river or stream without any water loss in principle. Additionally, water is consumed while meeting the needs such as hygiene and cleaning in the Head Office and power plants. Looking at these consumptions, the highest water consumption is in Erzin NGCCPP. In addition, Akenerji is carrying out savings projects in its plants within the scope of efficiency targets set for raw water con-

needed for its operations from the sea. Water used in high pressure steam and turbines is withdrawn from the sea by reverse osmosis and is used by high technology treatment sumption. In the Cumulative Impact Assessment study conducted beyond the legal requirements in the projecting phase of the HEPPs in the Adana Region, the flow measurements and the ecological characteristics of the water have been determined, taking into account the areas where there is a high risk of change in surface water quality measurements and hydrological characteristics of the water (low flow rate).

Downstream Water Rights Reports\*, which were prepared within the scope of the "Regulation on the Procedures and Principles for the Signing of the Water Usage Treaty for Production in the Electricity Market" and approved for the hydroelectric power plants in operation in 2014 were renewed due to the merger of Akenerji Elektrik Üretim A.Ş. with Akkur Enerji Üretim Ticaret ve Sanayi A.Ş. and Mem Enerji Elektrik Üretim San. and Tic. A.Ş. in 2016.

\* The purpose of preparing such reports is to determine and calculate the use of water in the fish farms, mills, agricultural land, etc., in the area where the plant is located, besides 
The landfills in the power plants have been the amount of water that should be left for natural life in hydroelectric power plants. During the preparation of the reports, apart from carrying out site visits, opinions were also received from the relevant institutions such as Provincial Special Administration, Provincial Food, Agriculture and Livestock Directorate, Municipality, Provincial Bank.

# **Waste Management**

Akenerji carries out waste management in the plants and Head office according to the Waste Management Procedure in order to prevent environmental pollution and protection of natural resources. Solid wastes and wastewater generated by the operations are managed according to the laws and regulations. In this direction, it conducts various trainings on environmental legislation and waste management on sites and in the headquarters office. Waste registrations are filled in monthly by the environmental representatives in charge within the scope of the Waste Management Procedure and are delivered to the Directorate of Environment, Quality and OHS Directorate within the Head Office within the knowledge of the Plant Manager for follow up. These wastes are temporarily stored in landfills constructed according to the Environmental Legislation, and when the wastes reach a certain quantity, they are carried by with licensed vehicles to licensed waste companies accredited by the Republic of Turkey Ministry of Environment and Urbanization

designed in accordance with the Environmental Legislation and internal tests have been carried out in order to protect the characteristics they have and complementary works have been carried out according to their results. In the power plants there is an enclosed separate compartment for each waste type

with the name of the waste written on each AKENERJİ HAS RECYCLED 99.5%, NEARLY ALL, OF ITS **WASTES IN 2017.** 

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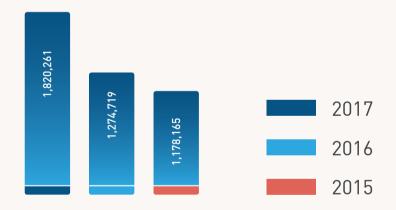
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#### Total Water Consumption m<sup>3</sup>



Notes: In Erzin Power Plants there is a closed circuit cooling water cycle, so the amount of water used does not include the cooling water data.

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partition, on reinforced concrete imperme- rized by the Republic of Turkey Ministry of Enable floor, with fire extinguishers and warning plates for emergency situations, pool shaped grids against leaks, spills and splashes, and

Akenerji distinguishes wastes according to the legal categories and disposes of them with the most appropriate methods depending on their properties. During the waste management, they are sent to licensed institutions autho-

vironment and Urbanization under the control of Environmental Management Unit for reuse and recycling of the appropriate waste, and if absorbance material for immediate response. not appropriate, to be disposed of by incineration and sanitary landfill. Waste quantities are regularly monitored, and the information on waste collected by licensed institutions authorized by the Ministry of Environment and Urbanization is reported to the relevant Environment and Urbanization Directorates.



The amount of waste for the year 2017 was obtained through the following graphs. The density of the waste amount results from the Erzin power plant due to the filter change and similar processes.

The figures are based on the amounts of wastes generated at the power plants and the Head office as of the end of the year. Packaging wastes - paper wastes are collected in bulk by the Municipality of Akcah where the Head office is located and there is no separation of companies. In this regard, in the year 2017, 4550 kg of packaging wastes-paper waste was delivered to the Municipality of Beyoğlu in all Akhan buildings.

# **Waste Recovery and Disposal**

The sensitivities of Akenerji employees to environmental considerations as part of their corporate culture have also been demonstrated in the collection of recyclable wastes. Approximately 9.7 tons of waste paper and packaging were collected and handed over to the recycling company during the paper and packaging collection process carried out in Akhan and all Akenerji plants in 2017. In addition, in 2017, waste batteries were continued to be collected separately from other wastes in Akhan and when a certain amount of batteries are collected, they are delivered to Portable Battery Manufacturers and Importers Association (TAP).

# Paper Consumption and Recycling

Paper consumption and recycling is a field Akenerji monitors by location based. Total consumption of paper in the operating plants and the Head Quarters was realized as 1,525 kg in 2017. Papers separated and temporarily stored by employees are collected by the municipality and recovered by the licensed company contracted by the municipality.

Waste Management Plans of Burç, Bulam, Feke II power plants were sent to Provincial Directorate of Environment and Urbanism, and waste sites were visited by the Provincial Directorate of Environment and Urbanism within this scope. Subsequently, no shortcomings were observed under the legislation and Waste management plans were approved.



# **Wastewater Management**

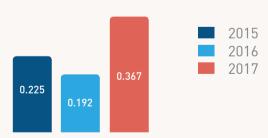
the criteria and methods specified in the req-ENVIRON-MENTAL REulations. Except for Erzin NGCCPP, domestic SPONSIVENESS wastewater is collected in cesspits in all power plants and withdrawn by the sewage trucks of the municipalities or authorized companies. SUSTAIN-Apart from these, antifreeze wastewater, tur-**ABILITY** bine washing chemical wastewater which REPORT changes according to years is given to licensed 2017 disposal facilities according to the regulation.

> In Erzin Natural Gas Combined Cycle Power Plant, the waste water from the domestic wastewater treatment plant, cooling water bluff, industrial wastewater treatment plant, seawater reverse osmosis system is collected in a discharge pit and discharged within the parameter limit values of deep sea discharge. In addition, Akenerji has a remote wastewa-

Waste water is discharged in accordance with ter monitoring station in the plant and the discharge water is monitored simultaneously by the Ministry of Environment and Urbanization. In addition to all these: within the scope of environmental permission on Air Emission and Deep Sea Discharge, internal monitoring of wastewater is carried out by the authorized laboratory in compliance with legislation and the local authority is notified.

> In 2016, the approval of the 'Continuous Waste Water Monitoring Station' approval has been obtained from Ministry of Environment and Urbanization and internal monitoring and analysis are being carried out every week, cooling bluff water monitoring being extended to once in 3 months. The monitoring in 2017 was carried out within this scope.

#### The amount of water discharged per electricity generation (m³)



Notes: In 2017, the amount of water discharged increased due to electricity generation.

# **Climate Change Management**

Being aware of the importance of climate and has started its renewable energy operchange in energy generation sector, Akenerii has created an environment and climate strategy within this scope and carries out its operations and investments within this strategy. With this strategy, it has placed in the center of its operations and investments the use of modern and environmentally friendly technologies in energy generation, investing in renewable energy sources, carbon neutral electricity supply investments for customers who are aiming to reduce or neutralize its emissions.

# Modern and Environmentally Friendly **Technologies**

Adopting high efficiency and low emission targets in power plants, modern and environmentally friendly technologies are preferred in order to obtain the highest possible operational efficiency and innovations are made in existing systems. For example, in the Erzin Natural Gas Combined Cycle Power Plant, which has a high electricity gen- Another area where Akenerji has pioneered targeted and a high technology combustion system is used. In this way, it is aimed to obtain relatively low greenhouse gas emission values and on the other hand, make a saving in natural gas consumption. In addition, with the "Close Monitoring System", the operation of the plants is monitored and the generated energy fluctuations are detected instantaneously and intervened.

#### Renewable Energy Generation

Today, with WPP and HEPPs, Akenerji has increased its renewable power to 320 MW

ations by joining with the first hydroelectric power generation facility tender opened by Energy Market Regulatory Authority (EMRA) in 2005. As a result, the share of Akenerji's renewable energy resources in total installed capacity reached 26% by the end of 2017.

# **Energy Efficiency Consultancy**

The Energy Efficiency Consultancy, an Akenerji service, allows companies to reduce unit energy consumption quantities and thereby reduce energy consumption, which is a significant part of the cost. Companies that want to benefit from this service apply to energy consulting companies that Akenerji cooperates with and perform energy screening, and alternative energy saving alternatives are offered according to the screening results.

# Carbon Certification and Emission Trading

eration capacity, a high efficiency of 58% is the industry is emissions trading. Carbon certification processes are carried out for all the renewable energy plants. Ayyıldız Wind Power Plant and Bulam Hydroelectric Power Plant are registered according to "Gold Standard" criteria, Akocak, Burc, Feke I, Feke II and Uluabat Power Plants according to Voluntary Carbon Standard (VCS). Uluabat HEPP is the largest hydroelectric power plant with a dam in Turkey registered according to the Voluntary Carbon Standard (VCS) by the registration date. The registered emission reduction certificates of Ayyıldız, Akocak, Feke II and Uluabat Power Plants are actively traded ENVIRON-MENTAL RE-SPONSIVENESS

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on the market. The certification works of It is aimed to eliminate greenhouse gas emis-Himmetli and Gökkaya HEPPs, which were sions of up to 1 million tons per year on the commissioned in 2012, were completed in 2013 and registered according to the Vol- existing renewable power plants, in other untary Carbon Standard (VCS) and Social words make a contribution equivalent to clean Carbon (Standard) standards.

basis of the total generation capacities of the air provided by approximately 42.2 million.

Power Plant	Number of Certificates Traded in 2017 (t-CO <sub>2</sub> -e)	Approximate Electricity Consumption Corresponding to Amount (kWh)	Type of Certificate
Ayyıldız	33,141	57,082,130	GS
Akocak	28,959	51,555,018	VCS
Feke II	50,000	91,411,245	VCS
Uluabat	46,407	83,153,843	VCS

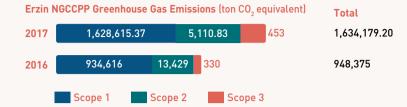
#### **Carbon Neutral Electricity**

Carbon neutralization means that a third party compensates for carbon (greenhouse gas) emissions that are generated from and cannot be avoided by the activities of companies or consumers, with projects that have carbon emission reduction certificates. With carbon neutral electricity service, Akenerji supplies carbon neutral electricity to customers who are aiming to reduce and

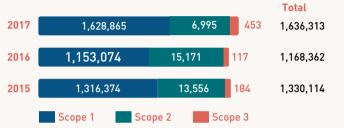
neutralize emissions, and the verification certificate is obtained from an independent verifier. Carbon neutral electricity is also supplied to the customers who are sensitive about carbon footprint by presenting the emission reduction certificates of the renewable energy plants as a package, as well as electricity. This is one of the most important aspects of Akenerji's work on combating climate change.

#### **Greenhouse Gas Verification**

Erzin NGCCPP emissions of the year 2017 have been verified under the ISO 14064-1 Greenhouse Gas Emissions monitoring and reporting standard and are as follows:



#### All Power Plants Included in the Head Office Greenhouse Gas Emissions (tons CO, equivalent)



Notes 1: Emission figures are the ones given in Akenerji's reports under the CDP Climate Change Program. Scope 1 greenhouse gas emissions include emissions from all fuels used for energy consumption as well as its own internal consumpti The decrease in the Scope 2 emissions is resulting from the decrease in the amount of electricity purchased in 2017 due to the high generation at Erzin natural gas plant

Notes 2: Emissions constituting 2015 and 2016 Scope 3 Emissions are calculated by EPA Climate Leaders: Optional Emissions from Employee Commuting, Business Travel and Product Transport May 2008 methodology. In the year 2017, Scope 3 emissions are natural gas used in combi boilers and burners at the gas heating unit in the RMS station during natural gas supply at Erzin Natural Gas Combined Cycle Power Plant.

erations are presented in ton CO2 equivalent in the graph. Almost all of the Scope 1 greenhouse gas emissions are from natural gas burned in the natural gas power plant. In addition, diesel and gasoline fuels consumed by company rental-cars, and natural gas and fuel oil used for heating in the premises are causing Scope 1 emissions even in small quantities.

Scope 2 emissions are derived from the electricity used in the Head Quarters in Istanbul and from the electricity purchased from the outside, which is consumed in the plants. The amount of greenhouse gas emissions from air travels and 2017 compared to 2016.

Greenhouse gas emissions generated from op- natural gas supplies used in combi boilers and burners located in the gas heating unit of the RMS station during and natural gas supply in Erzin NGCCPP is reported under Scope 3.

> The emission performance from Erzin NGC-CPP, which is the only natural gas power plant operating in 2017 and which constitutes almost all of the Scope 1 emissions, is satisfactory. Despite the increase in the amount of emission compared to 2016 due to more hours of operation and gross electricity generation in 2017 than in 2016, there is a decrease in the amount of emission per unit electricity generation in

# **Emission amount per unit** electricity generation (Scope1 +2)



THE AMOUNT OF ELECTRICITY GENERATION IS INCREASED. **HOWEVER, EMISSION AMOUNT** PER UNIT ELECTRICITY **GENERATION IS DECREASED AT 2017 AS COMPARED TO 2016.** 

ENVIRON-MENTAL RE-SPONSIVENESS

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# **Biodiversity**

ENVIRON-MENTAL RE-SPONSIVENESS

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Environmental impact assessment (EIA) studies may be required on the conservation areas and biodiversity impacts of capacity building operations in new and existing facilities in accordance with the Environment Law. If it is a project that requires EIA studies, all elements of biological diversity are taken into consideration, measures are taken to reduce potential adverse effects, and studies are carried out by setting targets. As explained in the 2016 Sustainability Report, the legal processes have been followed in order to minimize the negative effects that the plants may have on the natural ecosystem in accordance with the EIA Regulation, taking necessary precautions during both investment and operation phases. In 2017, the obligations under the EIA Commitments were limited to sea water quality and measurements were made and measurements were made in June and December. In this context, monitoring of the environmental effects of the power plant as well as the obligations to be provided by the Power Plant within the scope of the Environmental Legislation is continuing.

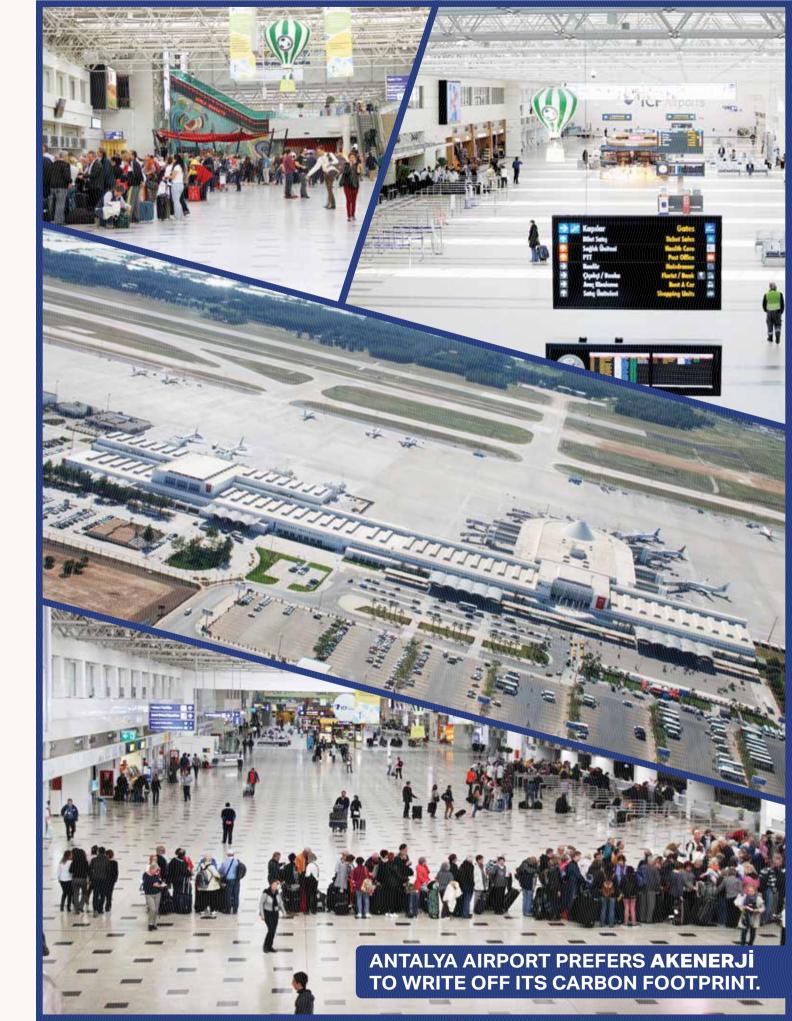
Performing, analyzing and evaluating the results of the environmental monitoring operations specified in the "Environmental Impact Assessment Report" and the "International Environmental and Social Impact Assessment Report" of the Erzin Power Plant, were carried out since March 2011 covering the pre-construction period and the effects of construction operations were monitored by noise, air quality and water quality measurements in addition to the studies detecting environmental and biological factors. As an extension of these studies, evaluation reports, management and monitoring plans were prepared to guide the construction period and the operating period.

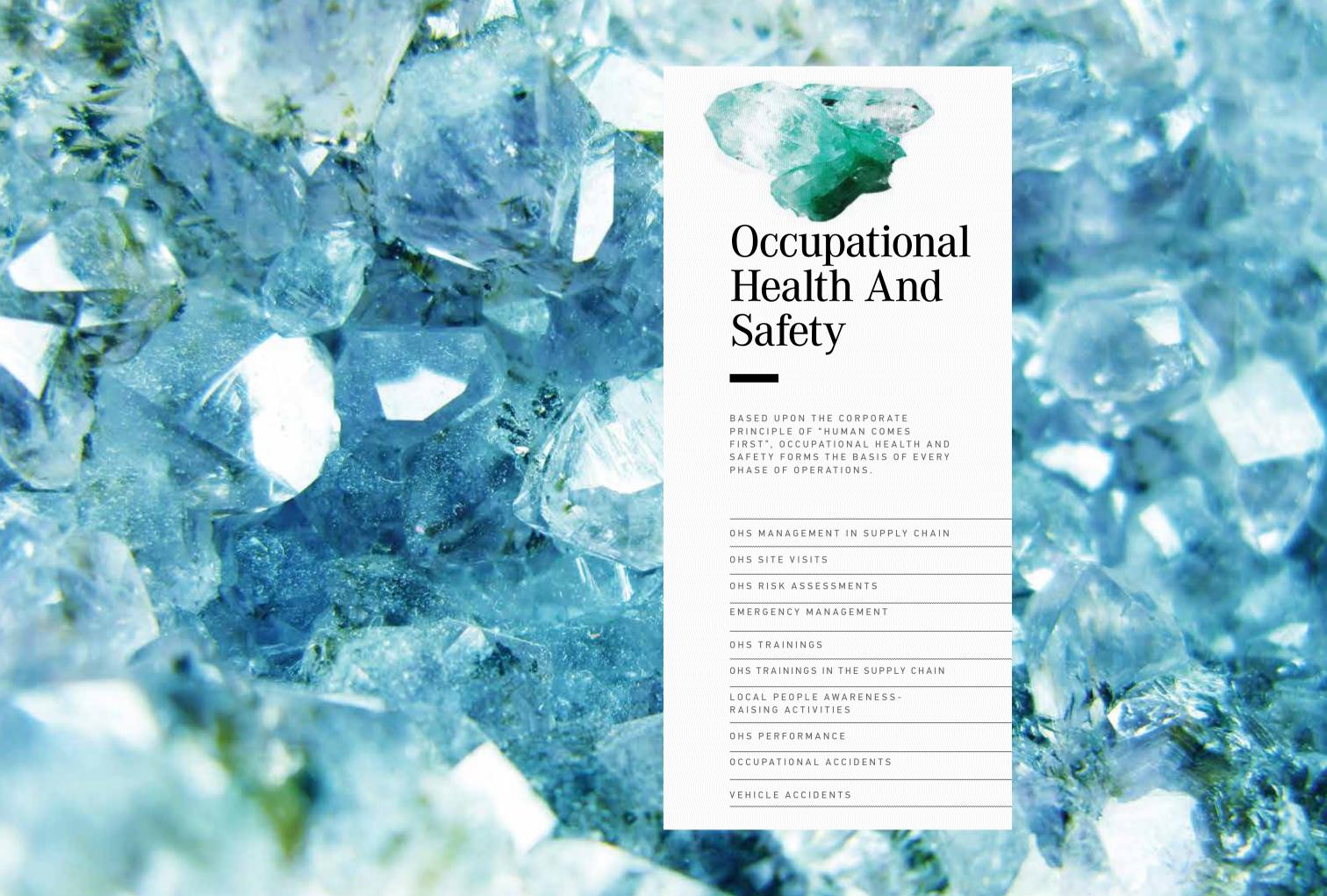
20,488 trees have been planted since 2010 in order to enrich the natural life and afforesting the land in the regions where the plants are located. Also, environmental rehabilitation studies are performed in addition to tree planting in many of the sites.

Avvildiz Wind Power Plant's installed power has been increased from 15 MWm to 28.2 MWm with the addition of 4 turbines to the existing 5 turbines. The Ministry of Forestry and Water Affairs Directorate of Nature Conservation and National Parks is given commitment to prepare Ornithological and Mammalian Monitoring Report to determine the impact on existing or migrating bird species and inland mammal species. The study is planned to be carried out in autumn and spring seasons, which are the migration season for birds in 4 terms for 2 years. The first semester was held in October and November 2016, the second semester in March, April and May of 2017, and the third semester in August, September, October and November. 'Ornithological and Mammalian Monitoring Report' was prepared based on the data obtained as a result of the 15-day field work done in the region and the presentation was made to the relevant official authorities.

#### **Environmental Trainings**

Akenerji aims to improve its employees' awareness and improve their performance by providing trainings to its employees on environmental, waste, energy and productivity. In 2017, a total of 230 person hours training was given on environmental subjects and environmental exercises were carried out in all the fields to explain how the process would work in case of an emergency environmental accident. In 2017, trainings were given on environmental legislation and waste management in hydroelectric power plant and wind power plants, and greenhouse gas monitoring, environmental legislation and waste management in Erzin power plant. In addition to this, environmental awareness training was given to the employees of the Head Quarters and the environmental legislation practices and waste management practices in Akhan building were explained. Additionally, new beginners are given information about their practices in environmental legislation within orientation training.







OCCUPATION-AL HEALTH AND SAFETY

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#### **OCCUPATIONAL HEALTH AND SAFETY**

Based upon the corporate principle of "human comes first", occupational health and safety forms the basis of every phase of operations.

It is Akenerji's priority to ensure that its employees work in a happy and peaceful environment and that they commute between their homes and workplace safely. And it also aims to reach the highest Occupational Health and Safety (OHS) performance by integrating all practices stipulated by law into its business model.

The work on occupational health and safety in the power plants and Akenerji Head Quarters is carried out in the light of OHSAS 18001 Occupational Health and Safety Management System. Occupational health and safety is respected in all kinds of activities. but is a responsibility of the top management and in the definition of every employee. The communication and coordination within the scope of OHS in the company is provided by the employees of the Directorate of Environment, Quality and OHS affiliated to the Production Directorate, and by the Health and Safety Representatives and their assistants selected by the Power Plant Directorates. Besides, there is one OHS committee in each plant and the OHS Board in the Head Office.

OHS training and awareness studies, risk assessment, hazard prevention and control activities, monthly environmental and OHS committee meetings in power plants, out by Akenerji.

change management and internal and external audits are some of the steps that Akenerji take to achieve the highest Occupational health and safety performance.

#### **OHS Management in Supply Chain**

Akenerji demonstrates its sensitivity to occupational health and safety when choosing a firm for service procurement and takes full compliance with the OHS criteria set out in the procurement procedure as prior condition. In line with these criteria, risk analysis, OHS training of employees, occupational proficiency of employees, health reports of employees, personal protective equipment and debit records of such equipment, safety data sheets of the chemicals used and periodical control documents of work machines they use are required from the suppliers. It is aimed to increase the awareness of the OHS in the service areas by making these documents a necessity before the start of service procurement. In order to keep the standards of the subcontracting companies and Akenerji on the same level, the organization and monitoring of the Joint Health and Safety Unit (JHSU) services and all OHS processes are done by the Akenerji Environment, Quality and OHS Management itself. In this scope, OHS services of the suppliers / subcontractors, OHS trainings of the employees, accident reports, organization and follow-up of vocational trainings are carried

#### **OHS Site Visits**

The Akenerii Environment, Quality and OHS Directorate makes OHS visits to the plants both operating or at the project level, announced or unannounced, for the purpose of follow up, evaluate, improve and the work done within the scope of OHS and integrate to the work plan.

As of the end of 2017, 92.5% of the findings of site visits were resolved and closed.

#### **OHS Risk Assessments**

It is aimed to evaluate OHS risks and to take the necessary precautions in the operational plants and the Head Quarters through Risk Assessment Teams and evaluation procedure established in 2013. In 2014, Risk Assessment studies were carried out at the Erzin Power Plant, which was newly commissioned in 2014. In 2017, Risk Assessments of Ayyıldız WPP, Uluabat HEPP, Burç and Bulam HEPP and Feke I, Feke II, Himmetli and Gökkaya HEPP were revised.

# **Emergency Management**

accordance with emergency situations such as possible fire, natural gas leak, earthqu-

restructured on emergency management in 2017, and selected employees to take part in the Emergency Team received fire extinguishing, search-rescue-evacuation and first aid training for 3-5 days. In 2017, the number of members in First Aid Teams has been increased with the reinforcement of employees. Emergency drills were also carried out with the attendance of employees of the Head Quarters.

#### **OHS Trainings**

Akenerji organizes educational and informative trainings to protect the health and safety of its employees, suppliers and the people living in the effect area of the power plant regions

#### Trainings for Employees

With OHS trainings provided to its employees, Akenerji aims that its employees have the necessary knowledge about OHS particularly in activity sites such as power plants and the competence to prevent the risks that may arise with the measures taken.

In 2017, the target of four hours / year per person is exceeded by giving trainings ai-Akenerji has prepared Emergency Plans in med at improving performance other than legal requirements (safe driving techniques, orientation trainings, employee representaake, large chemical leaks, bomb report, tive trainings, first aid trainings). Furtherwater leaks etc. and regularly exercises ac- more, trainings on hygiene, basic first aid cordingly. In addition, Akhan in Istanbul was and emergency team trainings were organi-

AS OF THE END OF 2017, 92.5% OF THE FINDINGS OF SITE **VISITS WERE RESOLVED AND CLOSED.** 

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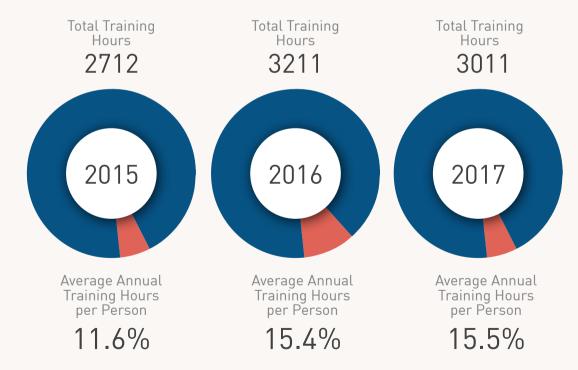
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gs, and "Safe Driving Techniques" training was given to the employees who actively use vehicles for work in the Head Quarters.

trainings are held for executives and senior executives in the plant, senior management is involved in basic OHS trainings, and employees who are new to Akenerji are informed

zed besides the targeted basic OHS trainin- about OHS during orientation. In addition, efforts are being made to improve the competencies of managers in power plants to reflect managerial sensitivities of Akenerji in OHS. As the energy sector is a sector open In addition to general OHS trainings, special to the various crises by its nature, Akenerji's senior management attaches great importance to OHS-oriented crisis management and communication and to continually improve its skills in this area.

# Total hours of training on OHS provided to employees



Trainings on OHS per person are over 15 hours in the last two years.

# **OHS Trainings in the Supply Chain**

Before starting work, it is checked that the contractors and sub-contractors who will work in Akenerji's activity areas have taken the necessary OHS trainings and are informed with a training video about the site rules in Turkish and English, about 15 minutes long. In 2016, a total of 1,456 person hours training was given to the subcontractors in the plants, and a total of 1,799 person hours in 2017.

# **Local People Awareness-raising Activities**

In order to raise awareness about the possible hazards that may be caused by HEPPs and protection methods, awareness raising trainings are organized in the power plants, brochures and posters are prepared and distributed and published on the web site. Within the scope of these trainings, a total of 2245 students and 121 teachers were reached by visiting the schools around Akenerji plants in Adana, Adıyaman and Bursa in 2017. Activities of Burç and Bulam HEPP operating in Adıyaman, Uluabat HEPP operating in Bursa and Feke I. Feke II, Himmetli and Gökkaya HEPPs operating in Adana, and the personal safety precautions the people should take in general regarding the operation of hydroelectric power plants were explained and information was given about renewable energy and electricity generation.

#### **OHS Performance**

It is Akenerii's prior aim that Occupational Health and Safety Culture is adopted by all employees and the performance in this area continuously increases to reach the highest standard. It regularly monitors indicators such as lost days, occupational accidents, traffic accidents and OHS performance during planned maintenance periods, and integrates the necessary measures into business plans to improve OHS performance.

#### **Occupational Accidents**

In any workplace, the events that occur within the criteria determined by the legislation and adversely affect the employees are considered as "occupational accidents". The frequency and severity of all business accidents in Akenerji plants are recorded. In 2017, one occupational accident has happened where an employee from the Head Quarters and Power Plant among all employees of Akenerji and its subsidiaries. Subsequent to these accidents, actions were determined as a result of the accident investigations to take the necessary precautions and were put into practice. The frequency and severity rate of the occupational accidents of the last three years are given in the table below.

"IN THE LAST 5 YEARS AKENERJI HAS REACHED A TOTAL OF 6159 STUDENTS AND 350 TEACHERS WITH AWARENESS-**RAISING TRAININGS.** "

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# Frequency of occupational accidents and Severity Rates

2017

FREQUENCY OF OCCUPATIONAL ACCIDENTS

2.29

SEVERITY RATE OF OCCUPATIONAL ACCIDENTS

38.87

2016

FREQUENCY OF OCCUPATIONAL ACCIDENTS

2.17

SEVERITY RATE OF OCCUPATIONAL ACCIDENTS

195.74

2015

FREQUENCY OF OCCUPATIONAL ACCIDENTS

6.04

SEVERITY RATE OF OCCUPATIONAL ACCIDENTS

66.43

**Notes:** The figures above include the plants operated by Akenerji. In addition, the data belonging to the Bozüyük and Kemalpaşa Power Plants, whose activities are terminated, are included in the data of 2014. The following formulas are used in rate calculations:

#### **Vehicle Accidents**

For the employees of the hydroelectric power plants, who drive in difficult terrain conditions, the number of vehicle accidents and their ratios must be monitored. No car accidents occurred in Akenerji in 2017.

In the last three years, the total number of vehicle accidents and vehicle accident rates, including Head Quarters data, show a significant decline trend as seen in the graphs below.

**2015,2016,2017**-0-

TOTAL NUMBER OF VEHICLE ACCIDENTS 2015,2016,2017

-0-

THERE IS NO VEHICLE ACCIDENT AT 2015,2016,2017.

Frequency of Occupational Accidents = 

With lost time

Total working hours 

X 1,000,000

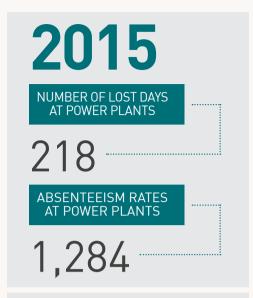
Number of days lost due to occupational accidents

Total working hours 

X 1,000,000

Number of accidents

#### **Lost Days and Absenteeism**



2016

NUMBER OF LOST DAYS
AT POWER PLANTS

207

ABSENTEEISM RATES AT POWER PLANTS

1,314

2017

NUMBER OF LOST DAYS AT POWER PLANTS

216

ABSENTEEISM RATES AT POWER PLANTS

1,183

#### Performance Data of Scheduled Maintenance

Scheduled maintenance is carried out at regular intervals, depending on the structure of the plants, in order to ensure the continuity of the activities and the quality of the works. By periodically checking and maintaining major and critical equipment, possible sources of problems are identified and corrective and protective actions are taken to prevent equipment and performance loss. During such maintenance, number of employees in plants may increase up to 10-fold since contractors and subcontractors work simultaneously on site.

Scheduled and extensive maintenance poses more specific dangers and higher risks, owing to its nature with non-routine operations and time pressure. During scheduled maintenance held at Akenerji power plants in 2017, similar to former years, mostly Akenerji employees has performed the maintenance works. Including the working hours of the contractor and subcontractor employees, a total of 23692 person– hours of operations were performed. Akenerji employees completed the maintenance without accident.

	2015	2016	2017
Total Time of Operation (person-hour	29,917	33,464	23,692
Number of Occupational Accidents (Akenerji employees)	2	1	0
Number of Occupa- tional Accidents (Contractor)	0	0	1

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WE VALUE PEOPLE

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There are two components of Akenerji's human-focused applications in its sustainability strategies. The contributions to the employees and to the local communities where Akenerii operates are among the basic components of Akenerji's approach to sustainability under the title "We Value People".

# Our Approach

Akenerji is fully aware that each employee is its biggest "energy source". This has made Akenerii the sector leader and an institution where everyone chooses to be a member of. The Human Resources Policy that is based upon equal opportunities and that respects human rights prevailed in 2017 as well. Akenerji does not make any religion, language, race, gender discrimination in any process, including selection and recruitment, and all processes are performed in an equal and fair approach to all employees. Not only by laws, but also by the Human Resources Policy, drudgery, forced labor and child labor are prohibited.

It is indispensable for Akenerji to ensure that employees receive the support they need in a proper and fair manner and to create equal opportunities for learning and development opportunities that will enhance their performance. The goal is to adopt human resources applications using internationally recognized models and integrated systems, and to use systems that enable the production of contemporary, integrated business results in all processes from recruitment to performance management systems, from development to wage management and cease of employment.

There is no union, but this is not a barrier to the effective recognition of the freedom of association and the collective agreement.

#### Competencies of Akenerji Employees

**Communication:** Attaching importance to sharing information and opinions, Akenerji employee benefit from various written and / or verbal tools. The staff ensures that all information they pass on to individuals and / or groups is understood clearly, and follows up developments related to that particular issue.

Persuasion: Akenerji employees carry out projects within the scope of corporate culture. to ensure the acceptance of opinions and plans that they believe. The staff demonstrates appropriate attitude and behavior towards different persons, situations and tasks, by means of their ability to communicate effectively.

Result Oriented: Focused on continuous development, Akenerji employees work determinedly to attain and exceed the high goals they set, both for themselves and for their team. They regularly measure developments they attain towards reaching their targets, and develop new strategies.

Creating Collaboration: Akenerji employees achieve their business goals effectively by means of robust collaborations that they establish between their work area and other areas, teams, departments and units.

Planning and Organization: Akenerji employees create action plans, both for themselves and their team, in order to complete their work in the most optimized manner, in terms of quality and efficiency.

**Decision Making:** In any a situation, the first action of Akenerji employee is to define and understand the problems and opportunities. They assess data incoming from other different sources. The staff determines the approach that will take to reach the most appropriate solution, and take action accordingly by considering data, restrictions and possible results.

Customer Orientation: Regarding customer needs and expectations as the focus of all business processes, Akenerji employees pay attention to efficiency and development of customer relations for this purpose.

#### **Employee Profile**

Behind the strong and reliable image of Akenerji in the sector, are its employees that sincerely embrace corporate values. The profile of its employees is shaped by the requirements of the sector. In this and "Performance" section of this Report, demographic structure and positions of the tute 3% of the total number of personnel.

employees at the power plants and the Head Office are presented.

Most of Akenerii employees work on a fixed-contract, full-time basis and there are no part-time employees. In 2017, only 3 out of 194 employees were on a definite-term contract. Disabled employees at the Company, consti-

# Number of Employees by Region

Position	2015	2016	2017
Head Office	107	97	81
Power Plants	141	112	113
Total	248	209	194

**Note:** The data above is as of 31.12.2017 and excludes the Board Members.

#### Number of Employees by Gender (%)

Position	2015	2016	2017
Female	22	22	21
Male	78	78	79

# **Gender Distribution by Position**

Gender Distribution	2015			2016			2017						
by Position	Male		F	Female		Male		Female		Male		Female	
Position	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	
Senior Management	100	5	0	0	80	4	20	1	80	4	20	1	
Mid-Level Management	67	16	33	8	68	13	32	6	62	8	38	5	
Non-managing White-collars	55	56	45	45	56	49	44	38	57	45	43	34	
Operational Level	99	117	1	1	99	97	1	1	99	96	1	1	
Total	78	194	22	54	78	163	22	46	79	153	21	41	

Note: The data above is as of 31.12.2017 and excludes the Board Members.

# **Number of Outsourced Employees**

Akenerji outsources some services such as cleaning, catering and security. Number of outsourced employees is given in the table below.

# **Outsourced Employees**

2015	2016	2017
173	157	150

**Note:** The fact that the number of outsourced employees is high when compared to the permanent staff is due to plants being located in different places and the outsourced services are needed at each plant.

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<sup>\*</sup> Senior Management: General Manager, Deputy General Manager, Director

<sup>\*\*</sup> Mid-level Management: Manager, Project Manager

<sup>\*\*\*</sup> Non-managing White-collars: Advisor, Deputy Manager, Executive, Engineer, Chief, Project Manager, Senior Specialist, Specialist, Assistant Specialist, Consultant, Operation Responsible, Administrative Executive, Assistant

<sup>\*\*\*\*</sup> Operational Level: Shift Responsible, Foreman, Warehouse Responsible, Operator, Technician, Mechanist, Employee, Laboratorian, Driver

# **Distribution of Seniority by Positions**

Distribution of seniority among all employ- while mid-level managers and operators el employees have a seniority of 0-3 years, was 6.1 years, in 2017 it is 6.4.

ees reveals that most of mid-level exec- and technicians at the power plants have a utives have an in-house seniority of 5-10 seniority of 5-10 years. While the average years. Approximately half of specialist-lev- seniority of Akenerji employees as of 2016

Distribution of Seniority by Position (%)		2017					
Positions	0 - 3 years (incl. 3)	3 - 5 years (incl. 5)	5 - 10 years (incl. 10)	Over 10 years			
Senior Management	20.0	20.0	60.0	0.0			
Mid-level Management	7.7	7.7	53.8	30.8			
Non-managing White-collars	39.2	16.5	31.6	12.7			
Operational Level	33.0	11.3	38.1	17.5			
Average	25.0	13.9	45.9	15.2			

**Note:** The data above is as of 31.12.2017 and excludes the Board Members.

# **Employee Turnover Rates**

Employee turnover rates at the Head Office and power plants in the last three years are presented in the table below.

Employee Turnover Rate and Number by Region	2015		2016		2017	
manuscript neglen	%	Number	%	Number	%	Number
Head Office	18.7	20	21	21	32.4	28
Power Plants	21.3	30	29	36	12.6	14
Total	20	50	25	57	21.2	42

Note: The data above is as of 31.12.2017 and excludes the Board Members.

Employee Turnover Rates by Seniority (%)	2017					
Locations	0 - 3 years (incl. 3)	3 - 5 years (incl. 5)	5 - 10 years (incl. 10)	Over 10 years		
Head Office	41.5	29.6	31.7	20.0		
Power Plants	2.9	33.3	10.4	11.1		
Average	22.2	31.5	21.1	15.6		

**Note:** The data above is as of 31.12.2017 and excludes the Board Members.

As Akenerji, although the employee turnover is also monitored by age and gender, this information is not presented in this Report as it is not considered 'material'. In employee turnover rate, location and seniority is considered more material than age and gender.

#### **Recruitment and Placement**

With the aim of serving the strategy and goals, during recruitment and placement process, the focus is on recruiting candidates who conform to the corporate culture and values of Akenerji; who possess the know-how, talents, experience and competence required for the job; and who have the capacity to carry the Company further. Throughout the process, contemporary assessment systems are used to support taking the most objective decisions and thus recruiting the right person for the right job.

Number of New Employees	2015	2016	2017
White-collar Employment	25	12	16
Blue-collar Employment	18	6	14
Total	43	18	30

In 2017, average age of employees was 37; whereas the average age of both white and blue collar employees was 31.

	EXCL. TEMPORARY EMPLOYEES AND CONTRACTORS							
	TOTAL NUMBER OF RECRUITED EMPLOYEES							
AGE	MALE	PERCENTAGE	FEMALE	PERCENTAGE				
BELOW 30	14	46.7%	3	10.0%				
30-50	10	33.3%	2	6.7%				
ABOVE 50	1	3.3%	0	0.0%				
TOTAL	25	83.3%	5	16.7%				

		EXCENTENT CIVILLE ENTERS AND CONTINUE ONC						
	тс	TOTAL NUMBER OF RECRUITED EMPLOYEES						
REGION	MALE	PERCENTAGE	FEMALE	PERCENTAGE				
Head Office	8	26.7%	5	16.7%				
Ankara Office	0	0.0%	0	0.0%				
Erzin PP	9	30.0%	0	0.0%				
Burç PP	0	0.0%	0	0.0%				
Bulam PP	0	0.0%	0	0.0%				
Ayyıldız PP	0	0.0%	0	0.0%				
Uluabat PP	2	6.7%	0	0.0%				
Feke 1 PP	2	6.7%	0	0.0%				
Feke 2 PP	1	3.3%	0	0.0%				
Gökkaya PP	2	6.7%	0	0.0%				
Himmetli PP	1	3.3%	0	0.0%				
TOTAL	25	83.3%	5	16.7%				

**EXCL. TEMPORARY EMPLOYEES AND CONTRACTORS** 

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portunities to university students. In 2017, a ture roles in their career plans. total of 40 students; 8 for obligatory and 32 for voluntary internships from a variety of universities and technical / vocational high schools practiced their internships at Akenerji.

# **Performance Management**

The Performance Management System is a process that aims to ensure that individuals embrace corporate goals and one that reinforces common corporate culture. Outputs of this process are used in the remuneration, training and development planning, and talent management practices of human resources. Consequently, Human Resources processes are realized within an integrated system.

All employees are covered by the Performance Management System. Employees are assessed on both on their targets set at the beginning of the year and on the competencies defined for their roles. This situation differs in some employee groups. For example, Team Members and Administrative Support employees are evaluated only through competencies, employees who work in Akenerji plants such as operators, technicians, laborants, shift responsible, and warehouse officers are evaluated only through targets.

In 2017, developments in goal setting and performance evaluation processes were shared with all employees and information training sessions were organized on Understanding Competencies for better adoption of the competency evaluation, which is an important part of these processes.

# **Development Planning**

By employee development planning, it is aimed to guide the employees in identifying and developing the competencies they require to support the development of high performing

Besides, Akenerji also provides internship op- to improve for their current and potential fu-

In the Development Planning process, each employee evaluates his/her own competence together with his/her supervisor. As a result of such evaluations, action plans are prepared for the competencies to be improved. When the process is completed, training and development programs are organized, in line with the Company goals as well as employees' knowhow, talents, experiences and competence.

In 2017, the focus is on the development of first-tier managers and seven managers participated in the Multidimensional Leadership training program, which is a first-tier manager development program. Within the framework of the Executive Development Program for mid-level managers, one executive was involved in the development program organized in cooperation with Sabancı University. 8 managers have participated in the Market Orientation training which is pre-requisite for the program.

28 executive and expert level employees have participated in Leading in Trust and Working with Confidence trainings and finance-intensive simulation program called Managing Today's Business. In 2017, four executives attended the training of the Managers with HR Cap Program first started in 2015, which aims to focus more effectively on the roles and responsibilities of managers in the Human Resources processes. Besides personal development and managerial development, trainings on Persuasion and Negotiation Skills, Finance and Presentation Techniques for Non-Financiers were organized in order to contribute to the development of professional skills of employees. 42 employees have been involved in these trainings.

In 2017, Philharmonic, the Mentoring Program that was initiated in 2015 has continued in order

employees who have great potential. After the mentors that are all senior executives and the mentees are determined, they receive required training about the program and their roles. The mentors meet regularly with their mentees to improve their learning about business life and they continue to add value to Akenerji.

Effective Team Dynamics training was organized with the participation of all directors and employees of the directors in order to better understand the team members themselves and each other following the developments in the organization of the Directorate of Commerce and the exchange process was supported with the feedback provided after the group work.

# **Talent Management**

By Talent Management, the aim is to identify talents within the institution and of potential employees and provide them with required professional know-how, skills and development opportunities.

Different tools are used in order to determine talents at different levels. Performance evaluations are made every year in line with competencies and targets, and as a result of the LPI (Leadership Potential Evaluations) implemented every 2 years, nine box grids are formed. According to these results, high potential employees are taken into the talent pool by being evaluated together with evaluation center applications.

With the Talent Management processes, it is aimed to carry the employees and organizations forward by planning the employees' career paths. To this end, it is aimed at the systematic evaluation of all employees, and planning of Human Resources process accordingly, as well as the development and retention of the employees with the potential to boost Company performance.



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# **Training**

The employees' technical and personal development needs in terms of training are taken into account, as well as the programs within the framework of legal requirements. Consequently, by considering the Company's needs and requirements, the training support they need is provided to help them achieve their assignments in the best way possible.

Total Trainings by Positions (man-hour)	2015	2016	2017
Senior Management	115	28,5	127
Mid-level Management	989	466.5	783.5
Non-managing White-collars	3,144	2,585	3,254
Operational Level	2,641	4,411	2,450.5
Total	6,889	7,491	6,615

Note: The data above is as of 31.12.2017 and excludes the Board Members.

Average Annual Training Time Per Employee (man-hour)	2015	2016	2017
Senior Management	23	6	25
Mid-level Management	47	25	60
Non-managing White-collars	28	30	41
Operational Level	21	45	25
Total	28	36	34

**Note:** The data above is as of 31.12.2017 and excludes the Board Members.

Total Training Hours by Gender (man-hour)	2017
Male	5136.5
Female	1478.5
Total	6615

Average Training Time Per Employee by Gender (man-hour)	2017
Male	33
Female	36
Total	34

# 2017 AVERAGE TRAINING HOURS PER EMPLOYEE 34

Although 2017 was not an intensive year in terms of the number of training hours, technical and personal development trainings in line with the employees' development plans and their needs are organized to improve both competence and occupational knowhow.

# Among the trainings provided to the employees in 2016 are:

- Technical Trainings: Project Analyst and Feasibility Reports, Finance for Non-Financiers, New UFRS Standards, Class B OHS Certificate, Spot Markets, Intelligent Networks and Modern Solutions, Project Management Professional Certification, Power Generation Valuation & Hedging, EEX Comprehensive Exchange Trading, 99FA/FB User Conference, Industrial Cooling and Air Conditioning Systems, Industrial Hydraulic Systems, and English.
- Quality, Environment, Occupational Health and Safety Trainings: General Rules of Occupational Health and Safety and Culture of Safety, Safe Use of Workplace Equipment, Basic Healthcare, Safe Driving Techniques, First Aid, Flash, Explosion, Fire and Fire Protection, High-Risk (License-requiring) Works, ISO 27001 Data Security, Root Cause Analysis, Easy Document Management System
- Personal Development Trainings: Management of Today's Business, Mid-Level Manager Development Program, First Level Manager Development Program, Market Focus, Leadership in Trust and Working with Confidence, Managers with HR Cap, Effective Team Dynamics, Presentation Techniques, Persuasion and Negotiation Techniques.





# **Employee Benefits**

An internationally valid and reliable job evaluation and remuneration model is used in the Company. This is an objective, transparent, equality and fairness-based payment and benefits model that reflects the realities of national and international business and that focuses on remuneration and fringe benefits according to the work performed

Meetings were held in 2017 together the consulting firm Akenerji works with in the Wage Management process to inform the employees on Business Assessment and Wage Man-

Within the scope of benefits to employees, meals, shuttles for commuting, personal accident insurance, private health insurance for white collar employees and their spouses and children, mobile communication devices or company depending on their duties or titles are offered.

#### **Employee Involvement in Company Management**

At Akenerji, the involvement of employees in management is achieved through annual goal setting and performance evaluation meetings, suggestion systems and various other meetings in the Company.

It was announced that, with the Employee Suggestion System procedure, all employees can share their requests, expectations and suggestions with the Social Committee Akenerjik founded in 2015. In this way, employees have the opportunity to inform senior executives on suggestions for a variety of issues by following the methods stated in the procedure. All proposals are evaluated by Akenerjik every 3 months.

Akenerji Human Resources Department organizes informative meetings at the Head Office and power plants. At these meetings, policies In addition to continuing its activities sucand procedures directly related to employees such as employee relations and basic human resources processes are explained; requests and suggestions of employees are gathered and significant issues are taken into consideration by senior management.

#### Internal Communication

In order to improve the motivation and efficiency of the employees, a variety of communication activities and events are organized within the Company. Some of these may be listed as follows:

- During development planning, internal communication is tried to improve by using evaluation processes that require combined decisions of supervisors and employees in setting performance goals, reviewing and evaluating these goals.
- Employee Suggestion System is a platform to encourage employees to share their suggestions and opinions. The suggestions, which have the potential to contribute to the Company and the employees, are selected and realized while the suggestion owners are awarded symbolically
- The Social Committee, Akenerijk that was formed to reinforce communication and improve loyalty among employees continued to organize a variety of social and cultural activities. The Committee organizes employee dinners, celebration of special days such as Women's Day, Mother's Day, Father's Day and "Social Meeting" activities, and sends messages for birthdays, losses, and newborn babies.

# Value Added to Community

cessfully, Akenerji focuses on answering the needs of the local people in locations of its power plants on social solidarity, education, environment, sports, and culture. Believing that education is the fundamental prerequisite for a better and safer future of the society, Akenerji contributes to education. In addition to them, it is a sponsor for Erzinspor football team since 2013.

In addition, Akenerii has sponsored and presented the art lovers in Istanbul "Theater on the Table", one of the leading experimental theater communities of the Czech Republic.

# Full Support for Arts from Akenerii!

"Masada Theater" from the leading experimental theater communities of the Czech Republic met art lovers in Istanbul under the sponsorship of Akenerji. The famous absurd theatre of the writer and the first President of Czechoslovakia, Vaclav Havel's play "Acceptance of the Blessing" and the Nobel Prize-winning writer Samuel Beckett's "Catastrophe" dedicated to Havel were exhibited at the Istanbul State Theaters Cevahir Stage. The performance made under the auspices of the Istanbul State Theater and with the contributions of the Consulate General Istanbul of the Czech Republic drew great interest. Akenerji's support for arts and artists will continue uninterrupted in the upcoming period.

One of the noteworthy projects of Akenerji, which attaches importance to social sensitivity and aims to add value to its environment, is the book project implemented in Yeşiltepe Primary and Secondary Schools in Adiyaman with the contributions of Akenerji employees.

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In addition, Akenerji power plants welcome both high schools and universities from different parts of Turkey foreign students and teachers.

#### The Power Plants Welcome Students

Akenerji power plants often welcome university students from all over Turkey. Erzin Power Plant, one of Akenerii's most visited facilities. welcomed students from Erasmus exchange program last season. Guests of Erzin Akenerji Sehit Uğur Ekiz Vocational and Technical Anatolian High School coming from various countries visited Egemer Natural Gas Combined Cycle Power Plant. During the event, which was organized by the school, students and teachers from Turkey, Romania and Portugal are hosted in the plant. Istanbul Kültür University Civil Engineering Department- Construction Club students also visited Uluabat Hydroelectric Power Plant. 1 faculty member and 35 students visited Uluabat power plant and received detailed information about electricity production. Power Plant Manager Serkan Akçay explained the working principles of the

HEPPs to the members of the Kültür University Construction Club and informed the students about the investments of Akenerji.

#### Feedback Mechanisms

Akenerii employees may report their complaints regarding environmental, ethical, human rights and labor force practices as described in Akenerji Environmental Accident and Complaint Reporting Procedure and the Ethical Principles Procedure. Training is provided to all employees on both procedures. In addition, local communities and all other stakeholders in the areas of operation can report their feedback on any issue to the Company through diversified channels. Among these channels, direct communication with power plant managers is a priority. This way, it is aimed to rapidly process every request, suggestion and complaint. On sites of the investment- phase projects, complaint and feedback processes are proactively managed. During environmental and social impact assessments, direct contact is constituted with local communities, NGOs and local administrations.



#### **RELATIONS WITH LOCAL COMMUNITIES**

# **Employment of Local Communities**

Within the framework of the community investment practices, great importance is attached to regional development and relations with local communities. Around 100 - 150 local people are employed for each power plant construction. Their employment is prioritized for different positions such as cleaning and security when the power plant starts operations. A significant number of people is employed in the power plants including those in Feke, Himmetli, and Gökkaya, this way. Besides, for the procurement needs of the power plants. attention is paid to choose subcontractors for services and products from within the region.

# Raising Awareness of Local Communities

In locations where Akenerji power plants operate, the aim is to raise awareness and provide information to local communities about the operations. Through the video training on electric-

ity generation, environmental and OHS regulations, the contractors, visitors, or interns who come to visit the power plants are informed.

In 2017, Akenerji has given trainings in Adıyaman. Adana and Bursa provinces where HEPPs are located, in order to raise awareness of the people of the region and to protect them from potential hazards with a management approach based on careful, sensitive and trustfulness. In these applications, brochures and posters about possible hazards and protection methods related to HEPPs have been prepared and distributed to public places within the neighborhood around hydroelectric power plants such as mukhtars, schools, municipalities, coffee houses and aviation facilities. In November 2017, HEPP Informative Presentations were done with 1937 students and 111 teachers in Adana, with 208 students and 5 teachers in Adıyaman, and 100 students and 5 teachers in Bursa.

Akenerji plans to increase the number of cities and distribution materials in the coming years for the efforts to raise awareness of the people.

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# **Economic Performance Indicators**

With our corporate operations, we, as Akenerji, not only contribute to Turkish Economy by helping to meet the energy demand, but also generate economic value for our stakeholders. The net sales, total debt and total equi-

2017 is summarized in the table below. Our operating costs amount to 97% of the total economic value distributed.

generated as a result of our operations in

# **Economic Value Generated and Distributed**

The distribution of the economic value we

ty capital of the companies included in the consolidated balance sheet of Akenerji were **1,855,097,831** TL; **3,944,021,361** TL and **1,803,554,589** TL in 2017, respectively.

Economic Value Generated (TL million)	2017	2016	2015
Direct Economic Value Generated			
a) Revenues	1,855	1,421	1,803
Economic Value Distributed			
b) Operating costs	1,785	1,634	1,636
c) Employee wages and other benefits	11.5	9.6	7.6
d) Payments to providers of capital	0.0	0.0	0.0
e) Payments to the government	49.2	45.6	38.9
f) Community investment	0.1	1.1	0.4

# Social Performance Indicators | Our Employees

Number of Employees by Region	2017	2016	2015
Akocak HEPP	-	-	12
Ayyıldız WPP	6	5	5
Bozüyük NGPP	-	-	1
Bulam HEPP	6	6	7
Burç HEPP	9	9	9
Erzin NGPP	47	46	46
Feke I HEPP	7	6	6
Feke II HEPP	7	7	5
Gökkaya HEPP	7	6	5
Himmetli HEPP	8	8	13
Kemalpaşa NGPP	-	2	2
Uluabat HEPP	16	17	17
Mardin NGPP	-	-	13
Head Office (İstanbul)	77	92	102
Ankara Office	4	5	5
Total	194	209	248

**Note:** The data above is as of 31.12.2017 and excludes the Board Members

As of 2016, Mardin NGPP stopped receiving Construction Management and Operations / Maintenance Services and Akocak HEPP ceased operations

Employee Turnover Rate by Seniority (%)	2017				
Locations	0 - 3 years (3 incl.)	3 - 5 years (5 incl.)	5 - 10 years (10 incl.)	Over 10 years	
Head Office	41.5%	29.6%	31.7%	20.0%	
Power Plants	2.9%	33.3%	10.4%	11.1%	
Total	22.2%	31.5%	21.1%	15.6%	

Average Annual Hours of Training per Employee (hour/person)	2017	2016	2015
Senior Management	25	6	23
Mid-level Management	60	25	47
Non-managing White-collars	41	30	28
Operational Level	25	45	21
Total Average	34	36	28

**Note:** The data above is as of 31.12.2017 and excludes the Board Members.

# Occupational Health and Safety | OHS Training Hours

Locations	Total Hours of Training (person-hour)	Hours of Training per Employee (hour/person)	
	2017	2016	2017
Ayyıldız WPP	100	21.0	18
Bulam HEPP	116	19.7	14.33
Burç HEPP	189	21	18.78
Erzin NGCCPP	893	21.3	18.3
Feke I HEPP	123	32.4	18.92
Feke II HEPP	145	38.3	16.50
Gökkaya HEPP	167	37	16.57
Himmetli HEPP	179	33.7	17
Uluabat HEPP	307	23.1	16.63
Ankara Office	8	2.8	2
Head Office	296	3.7	3.6
External Institution	488	-	-
Overall Average Hours of Training		15.4	15.5
Overall Total Hours of Training	3,011		

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	2017		2016	
Total Vehicle Accident Number and Rate	Number of Vehicle Accidents	Total vehicle accident rate	Number of Vehicle Accidents	Total vehicle accident rate
Ayyıldız	0	0	0	0,0
Erzin	0	0	0	0,0
Burç	0	0	0	0,0
Bulam	0	0	0	0,0
Feke II	0	0	0	0,0
Uluabat	0	0	0	0,0
Feke I	0	0	0	0,0
Himmetli	0	0	0	0,0
Gökkaya	0	0	0	0,0
Head office	0	0	0	0,0
Total	0	0,0	0	0,0

**Note:** The following formula has been used in calculating vehicle accident rates:

Total vehicle accident rate=

Total vehicle accident rate

Total driving distance (km)

X 1,000,000

**Environmental Performance Indicators | Environment & Quality Training Hours** 

	20	16	2017	
Locations	Quality (person- hour)	Environment (person- hour)	Quality (person- hour)	Environment (person- hour)
Ayyıldız WPP	5	10	14	15
Bulam HEPP	6	14	12	15
Burç HEPP	8	23	16	20
Feke 1 HEPP	4	9	12	24
Feke 2 HEPP	5	12	14	27,5
Gökkaya HEPP	4	12	12	27,5
Himmetli HEPP	10	21	12	24
Erzin NGCCPP	10	17	15	12
Uluabat HEPP	9	28	28	28
Ankara Office	-	-	-	-
Head Office	10	17	43	23
External Institution	135	169		15
HO ISMS Awareness	234	-	103	-
Erzin ISMS Awareness	80	-	63	-
Uluabat ISMS Awareness	78	-	23	-
TOTAL	598	332	367	231

Water Consumption (m³)	Source	2017	2016	2015
Erzin NGCCPP Total	Sea Water	1,813,412	1,266,691	1,169,002
Uluabat	Well	2755	2,619	2,694
Akocak	Well	-	-	141
Feke I	Waterworks	437	560	461
Feke II	Spring water	234	680	765
Himmetli	Waterworks	1162	1,444	1,599
Gökkaya	Waterworks	603	616	768
Burç	Well	220	216	240
Bulam	Spring water	88	92	144
HEPP Total		5499	6,227	6,812
WPP Total	Well	54	120	120
Head Office	Waterworks	1296	1,681	2,231
Total		1,820,261	1,274,719	1,178,165

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Note: Erzin NGCCPP has closed circuit cooling water cycle, therefore amount of water used excludes cooling water data.

NO	POWER PLANTS	NON- HAZARDOUS WASTE	HAZARDOUS WASTE	RECYCLE	DISPOSAL	TOTAL WASTE AMOUNT
1	Erzin	28,100	61,040	89,140	0	89,140
2	Uluabat	180	3,735	3,910	5	3,915
3	Ayyıldız	5,170	1,240	6410	0	6,410
4	Burç	21	61	82	0	82
5	Bulam	18	25	43	0	43
6	Feke I	270	540	810	0	810
7	Feke II	193	945	1,138	0	1,138
8	Himmetli	250	442	692	0	692
9	Gökkaya	135	250	385	0	385
10	Head office	0	78	78	0	78
TOTAL (KG)		34,337	68,356	102,688	5	102,693

<sup>\*</sup> Erzin NGCCPP became operational in September 2014.

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Greenhouse Gas Emissions (tCO <sub>2</sub> -e)	2017	2016	2015
Scope 1	1,628,865	1,153,074	1,316,374
Scope 2	6,995	15,171	13,556
Scope 3	453	117	184
Total	1,636,313	1,168,362	1,330,114

**Note 1:** Emission data given in the table are the data acquired from Akenerji CDP Climate Change Program Reports. Scope 1 greenhouse gas emission data include not only the emission caused by the fuels used for our consumption, but also all fuels used for energy generation.

The decrease in our Scope 2 emissions is resulting from the decrease in the amount of electricity purchased in 2017 due to the high production at Erzin natural gas plant.

**Note 2:** Scope 3 emissions for 2015 and 2016 were calculated by using the EPA Climate Leaders: Optional Emissions from Employee Commuting, Business Travel and Product Transport May 2008 methodology. Scope 3 emissions in 2017 are natural gas used in combi boilers and burners at the gas heating unit in the RMS station during natural gas supply at Erzin Natural Gas Combined Cycle Power Plant.

Power Plant	Number of Traded Certifi- cates in 2017 (t-CO <sub>2</sub> -e)	Approximate Electricity Consumption Corresponding to the Amount (kWh)	Type of Certificate
Ayyıldız	33,141	57,082,130	GS
Akocak	28,959	51,555,018	VCS
Feke II	50,000	91,411,245	VCS
Uluabat	46,407	83,153,843	VCS

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# Strategic Sustainability Goals

Achieved

In the direction of our policies, evaluation of 2017 goals and defined 2018 goals for Sustainability Management; Quality, Environment and OHS Integrated management system are as shown in the following table.

Goal Subject	2017 Goals	2017 Realization Status	2017 Status Evaluation	2018 Goals
Sustainability Management	Prepare our sustain- ability report for 2016 according to the GRI G4 principles.	А	The Sustainability Report for 2016 was prepared and published.	Prepare our sustainability report for 2017 according to the GRI Standards taking United Nations Sustainable Development Goals into account.
	Make our reports for the 2016 period under Carbon Disclosure Project (CDP) Climate Change and Water Program and to keep the performance note above the program average grade.	A	CDP climate change and water reports for the 2016 operating period were prepared. The CDP Climate Change Report sector average, overall average and the average of Turkey is "C" whereas Akenerji grade is "B". The CDP Water Report sector average, overall average and the average of Turkey is "B" whereas Akenerji grade is "A-".	Reporting our works 2017 interim report in the scope of Carbon Disclosure Project (CDP) Climate Change and Water Programme
Management Systems	To keep the maximum number of corrective action requests in audits at 3 in ISO 9001:2015 Quality, ISO 14001:2015 Environmental and OHSAS 18001 OHS Management Systems Standards in all of our power plants.	Δ	In 2017, one nonconformity was found in the external audit of ISO 9001: 2015, ISO 14001: 2015 and OHSAS 18001: 2007 Management Systems, and the nonconformity was closed.	
	Have a year-end corrective action resolution at 90%.	Δ	Year-end corrective action resolution was realized as 91,1%.	Have a year-end corrective action resolution in internal audits at 90%.
	To ensure the continuity of the 27001:2013 Information Security Management System Document for Uluabat HEPP and Erzin NGCCPP which have more than 100 MW installed capacity	Δ	The continuity of the 27001:2013 Information Security Management System Document for Uluabat HEPP and Erzin NGCCPP was guaranteed.	
	To have monitoring, reporting and verification processes of greenhouse gas emissions in Erzin NGCCPP for both 2015 and 2016 done by a verification institution authorized by the Ministry of Environment and Urbanization.	A	The process with the verification institution is finished by April 2017 and approved by the Ministry.	2% decrease in the amount of emissions per unit electricity generation in Erzin NGCCPP
	To verify greenhouse gas emissions of the year 2016 under ISO 14064.	Δ	Finished as of April 2017.	To verify greenhouse gas emissions of the year 2017 under ISO 14064.

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Partially achieved

■ Not achieved

Ongoing

Goal Subject	2017 Goals	2017 Realization Status	2017 Status Evaluation	2018 Goals	
Quality, Environ- ment, OHS trainings	Targeted implementation training times is stated below  Quality (person hour) Head office: 20  Per Power Plant Ayyıldız WPP: 4 Uluabat HEPP: 8 Bulam HEPP: 4 Burç HEPP: 4 Feke I HEPP: 4 Feke II HEPP: 4 Himmetli HEPP: 8 Gökkaya HEPP: 4 Erzin PP: 10	Δ	Head office: 20 person hour/year - 43 person hour/year. ARES: 4 person hour/year - 14 person hour/year training in 22.12.2017 Uluabat HEPP: 8 person hour/year - 28 person hour/year training in 28.09.2017. Bulam HEPP: 4 person hour/year -12 person hour/year training in 11-12.10.2017. Burç HEPP: 4 person hour/year -16 person hour/year training in 11-12.10.2017. Feke I HEPP: 4 person hour/year -12 person hour/year training in 20.12.2017. Feke II HEPP: 4 person hour/year -14 person hour/year training in 20.12.2017. Himmetti HEPP: 4 person hour/year - 12 person hour/year training in 20.12.2017. Gökkaya HEPP: 4 person hour/year -12 person hour/year training in 20.12.2017. Erzin Power Plant: 10 person hour/year - 15 person hour/year training in 06.12.2017.	Kalite ( kişi.saat/yıl) Merkez Ayyıldız RES Uluabat HES Bulam HES Burç HES Feke I HES Feke II HES Gökkaya HES Erzin DGKÇS Ankara Ofis	20 10 20 10 10 10 10 10 10 -
	Environment (person hour) Head office: 9  Per Power Plant Ayyıldız WPP: 10 Bulam HEPP: 12 Burç HEPP: 12 Feke I HEPP: 6 Feke II HEPP: 6 Himmetli HEPP: 12  OHS (person hour) Head office and Ankara office: 2  Power plants: 16	A	Environment: Head office: 9 person hour/year Completed: 17 person hour/year Ares: Target: 10person hour/year Completed: 15 person hour / year Feke I: 6 person hour/year Completed: 24 person hour/year Feke II: 6 person hour/year Completed: 27,5 person hour/year Himmetli:6 person hour/year Completed: 24 person hour/year Gökkaya: 6 person hour/year Completed: 27,5 person hour/year Ulb: 12 person hour/year Ulb: 12 person hour/year Completed: 28 person hour/year Burg: 12 person hour/year Completed: 20 person hour/year Bulam: 12person hour/year Completed: 15 person hour/year Erzin: 8 person hour/year Completed: 12 person hour/year	Environment (person hour/year) Head Office Ayyıldız WPP Uluabat HEPP Bulam HEPP Burç HEPP Feke I HEPP Himmetli HEPP Gökkaya HEPP Erzin NGCCPP Ankara Office	13 12 13 13 10 10 10 10 13
			OHS Head office: 2,1 hour/person-year Ankara office: 2 hour/person-year training done.  Bulam HEPP 6 personnel: 14,33 hours Burç HEPP 9 personnel: 18,78 hours Ayyıldız WPP 6 personnel: 18 hours Uluabat HEPP 16 personnel: 16,63 hours Feke I personnel: 18,92 hours Feke II 7 personnel: 16,50 hours Himmetli 8 personnel: 17 hours Gökkaya 8 personnel: 16,57 hours	OHS (hour/person) Head and Ankara Office : Power plants:	2 15

Goal Subject	2017 Goals	Realization Status	2017 Status Evaluation	2018 Goals	
Quality, Environ- ment, OHS trainings	Targeted implementation training times is stated below  Quality (person hour) Head office: 20  Per Power Plant Ayyıldız WPP: 4 Uluabat HEPP: 8 Bulam HEPP: 4 Feke I HEPP: 4 Feke II HEPP: 4 Himmetli HEPP: 8 Gökkaya HEPP: 4 Erzin PP: 10	Α	Head office: 20 person hour/year - 43 person hour/year. ARES: 4 person hour/year - 14 person hour/year training in 22.12.2017 Uluabat HEPP: 8 person hour/year - 28 person hour/year training in 28.09.2017. Bulam HEPP: 4 person hour/year -12 person hour/year training in 11-12.10.2017. Burç HEPP: 4 person hour/year -16 person hour/year training in 11-12.10.2017. Feke I HEPP: 4 person hour/year -12 person hour/year training in 20.12.2017. Feke II HEPP: 4 person hour/year -14 person hour/year training in 20.12.2017. Himmetli HEPP: 4 person hour/year - 12 person hour/year training in 20.12.2017. Gökkaya HEPP: 4 person hour/year - 12 person hour/year training in 20.12.2017. Erzin Power Plant: 10 person hour/year - 15 person hour/year training in 06.12.2017.	Kalite (kişi.saat/yıl) Merkez Ayyıldız RES Uluabat HES Bulam HES Burç HES Feke I HES Feke II HES Himmetli HES Gökkaya HES Erzin DGKÇS Ankara Ofis	20 10 20 10 10 10 10 10 10 10
	Environment (person hour) Head office: 9  Per Power Plant Ayyıldız WPP: 10 Bulam HEPP: 12 Burç HEPP: 12 Feke I HEPP: 6 Feke II HEPP: 6 Himmetti HEPP: 6 Uluabat HEPP: 12  OHS (person hour) Head office and Ankara office: 2	A	Environment: Head office: 9 person hour/year Completed: 17 person hour/year Completed: 15 person hour/year Completed: 15 person hour/year Completed: 24 person hour/year Completed: 24 person hour/year Feke II: 6 person hour/year Completed: 27,5 person hour/year Himmetlii:6 person hour/year Completed: 24 person hour/year Completed: 27,5 person hour/year Gökkaya: 6 person hour/year Completed: 27,5 person hour/year Ulb: 12 person hour/year Ulb: 12 person hour/year Completed: 28 person hour/year Burç: 12 person hour/year Completed: 20 person hour/year Bulam: 12person hour/year Completed: 15 person hour/year Erzin: 8 person hour/year Completed: 12 person hour/year	Environment (person hour/year) Head Office Ayyıldız WPP Uluabat HEPP Bulam HEPP Burç HEPP Feke I HEPP Feke II HEPP Himmetli HEPP Gökkaya HEPP Erzin NGCCPP Ankara Office	13 12 13 13 10 10 10 10 13 -
			OHS Head office: 2,1 hour/person-year Ankara office: 2 hour/person-year training done.  Bulam HEPP 6 personnel: 14,33 hours Burç HEPP 9 personnel: 18,78 hours Ayyıldız WPP 6 personnel: 18 hours Uluabat HEPP 16 personnel: 16,63 hours Feke I personnel: 18,92 hours Feke II 7 personnel: 16,50 hours Himmetli 8 personnel: 17 hours Gökkaya 8 personnel: 16,57 hours	OHS (hour/person) Head and Ankara Office : Power plants:	2

Goal Subject	2017 Goals	2017 Realization Status	2017 Status Evaluation	2018 Goals
	Having on-the-job security discussions (safety tool box meeting) amounting to 50% of number of annual maintenance days planned by the team managers in our plant staffs within annual planned maintenance.		The maintenance times and the number of interviews are as follows.  Uluabat: 19 days 19 interviews Ayyıldız: 50 days 39 interviews Burç: 11 days 6 interviews Bulam: 11 days 6 interviews Feke 1: 12 days 12 interviews Feke 2: 15 days 12 interviews Himmetli: 12 days 12 interviews Gökkaya: 12 days 12 interviews Erzin: 20 days 20 interviews	On-the-job security discussions (safety tool box meeting) amounted to 60% of number of annual maintenance days planned by the team managers in our plant staffs within annual planned maintenance.
	Having 80% efficiency in trainings in Head office, Ankara office and power plants on management systems.	Α	Training efficiency has been 95,5% as per quiz results.	80% efficiency is reached in trainings in Head office, Ankara office and power plants on management systems.
Occupational Accidents	Have zero occupational accident frequency rate and weight velocity at each operating power plant.  Have zero occupational accident frequency rate and weight velocity for our contractors and subcontractors at each operating power plant.	N	Occupational accident frequency rate and weight velocity in our power plants were realized as 2,29 and 38,87, respectively.  Occupational accident frequency rate and weight velocity for our contractors and subcontractors in our power plants were realized as 2,31 and zero, respectively.	
Awareness Training	To organize 7 seminars in each HEPP in total to raise awareness of students and teachers about possible hazards and warnings about HEPPs.	Α	In the year of 2017, 15 HEPP Information Trainings were carried out.	To organize 7 seminars in each HEPP in total to raise awareness of students and teachers about possible hazards and warnings about HEPPs.
	To organize Local Public Awareness Seminar in Adana Himmetli Village within the scope of State Hydraulic Works Environmental Protection and Security Measures.	Α	Local Public Awareness Seminars were done in Adana Himmetli, Adıyaman Sayören and Bursa Eski Kızılelma villages (3 trainings in total) within the scope of State Hydraulic Works Environmental Protection and Security Measures and they were recorded with the minutes and added in the common folder.	To organize Local Public Awareness Seminar in Adana, Adiyaman and Bursa within the scope of State Hydraulic Works Environmental Protection and Security Measures.

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SUSTAINABIL-ITY PERFOR-

MANCE AND GOALS

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2017

Achieved Partially achieved ■ Not achieved

Ongoing

Achieved

Partially achieved

Not achieved

Ongoing

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OUR EMPLOYEES					
Goal Subject	2017 Goals	Realization Status	2017 Evaluation	2018 Goals	
Talent Management	Keeping the succession system up to date, completing and implementing the approval phase of career planning and promotion process improvements.	Α	All the mentioned processes are carried out within the Talent Management process. The redundancy plans are reviewed once in a while, the approvals of the Career Planning and Promotion process developments are taken, and they are shared at the informing meetings with employees.	Review of Succession Planning.	
Development Planning	Implement the 360 Degrees Evaluation process in 2017.	N	Since the development of the online system used has not been completed, it has been decided that the assessments will be done by all the Akkök Group companies in 2018.	To implement the 360-degree evaluation Process and arrangement of meeting with one to one for making their Development Plans	
Performance Management System	Complete approval phase and start Perfor- mance Management System improvements	Α	Process development studies and approvals have been completed and have been activated on the new online system. Targets and competencies are evaluated through the system.		
	Start the developed Performance Manage- ment System with the new software.	A	Online system was intro- duced and trainings were given and shared with all employees. Targets and eval- uations are realized through the new system		
Variable Wage System	Start the Variable Wage System with the completion of perfor- mance based premium system studies in 2017.	A	Variable Wage System works and approvals have been completed and started.		
Training	Incorporating our expert and first level managers into the First Stage Development program.	A	In 2017, we focused on the development of first-tier managers and 7 managers attended the multidimensional leadership training program, which is the tier-one manager development program. In the framework of the Manager Development Program for mid-level managers, one of our managers participated the development program organized in cooperation with Sabancı University.	Realization of trainingsl plannings and organiza- tions via Human Resourc- es Management System Software	
Employee Engagement Project	Continue to implement the action steps set in the framework of the Employee Engagement Project Plan in the coming years.	Α	Our Social Commitment Akenerjik has continued its social and cultural activities and thus strengthened our internal communication.	Taking determined actions about employee engagement	





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Akenerji Elektrik Üretim A.S. Miralay Şefik Bey Sokak Akhan No: 15, Gümüşsuyu 34437 İstanbul/Türkiye T +90(212) 249 82 82 F +90(212) 249 73 55 www.akenerji.com.tr info@akenerji.com.tr

For information on Akenerji Sustainability Report;

Sevgi ULUGÖL Manager

Environment, Quality, OHS Directorate sulugol@akenerji.com.tr

Hanife Hülya OLĞUN Senior Specialist Environment, Quality, OHS Directorate hanife.olgun@akenerji.com.tr

# **Reporting Consultant**

SU Sustainability and Corporate Social Responsibility Consulting



www.sucsr.com info@sucsr.com

Design

0216 680 02 96 0555 965 28 35 www.tayailetisim.com



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