

# **SUSTAINABILITY REPORT 2016**





Nature is the source of life and energy...

To supply the energy that mankind requires to sustain its existence, Akenerji uses nature as the main source. In the meantime, we are conscious of the significance that nature is not harmed.

As a company taking the responsibility for our share to sustain energy of life, acting cautiously to reach the better, energizing our environment, keeping conscious to look out for our World; this year, we prepared our Report inspired by nature - the main source of life and energy. We wanted to reflect nature's magnificent but simple, colorful yet serene character and harmonious diversity to our Report.



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# ABOUT THE REPORT

As one of Turkey's well-established energy companies, in all of our production oriented activities, we prioritize the solutions that minimize environmental and social risks. As Akenerji, in order to meet the demands in the light of the market and the global trends, we invest in the future of a brighter Turkey by continuously improving ourselves. We take contemporary steps in the field of sustainable energy thanks to our future-oriented practices, proactive approaches, and decision mechanisms based upon international standards.

## Scope of the Report

This is our fifth sustainability report developed and issued in line with the expectations of, primarily, our employees, customers, creditors, shareholders, investors as well as the local communities of the regions we operate in. Reflecting our environmental, social, ethical and economic practices and performance in the period between January 1<sup>st</sup>, 2015 and December 31<sup>st</sup>, 2016, this Report presents the performance figures of the last two or in some cases three years in order to demonstrate the trend. Data on environmental performance and occupational health and safety (OHS) have been obtained from the systems of quality, environment and OHS management that combine to form **Akenerji Integrated Management System** that is regularly audited and verified by independent, accredited institutions.

## Boundaries of the Report

The expressions such as "Akenerji", "we", "us", and "our Company" in the remainder of this report all mean Akenerji Group companies listed in the table below. Unless otherwise stated, the financial, environmental and OHS performance data presented in this Report cover all Akenerji Group companies, as well as 9 power plants operational in Turkey as of 2016 as well as the Head Office in İstanbul. Sustainability practices in 2 power plants that are still in investment phase are disclosed in the "Responsibility in Our Value Chain" section of this Report.

## Major Changes That Affect Trends

Erzin Natural Gas Combined Cycle Power Plant (NGCCPP) that is included in this Report was started-up by mid-2014. In addition, in 2014 two natural gas power plants (Kemalpaşa and Bozüyük) and in the beginning of 2016 Akocak Hydroelectric Power Plant (HEPP) were shut down. On account of these major changes in our operations, obtaining meaningful results from the comparison of performance data for the last three years is hardly possible. Detailed explanations for the decrease or increase in figures are given below in each of the corresponding tables and graphs.

## Compliance with GRI G4 Guidelines

All processes regarding the collection of data and information as well as the development of the content of the Report have been carried out by the Sustainability Committee within Akenerji, with the support of an independent consultant from outside the company. Scope and depth of the topics presented in the Report reflect the results of the materiality analysis we performed during the reporting period. The content of the Report is compiled to cover all significant and material sustainability issues identified by Akenerji and our stakeholders, and is in conformity with the G4 "core" application level of the Sustainability Reporting Principles of the Global Reporting Initiative (GRI). The conformity of our Report with GRI's G4 "core" level is disclosed in detail in the GRI Index section of the Report.

## Feedback

With the expectation that it will be an active communication platform with our stakeholders, we herewith present our Sustainability Report that we issue regularly each year. You are welcome to contact us for all suggestions, comments and questions regarding our sustainability performance and practices.  
E-mail: [info@akenerji.com.tr](mailto:info@akenerji.com.tr)

## Akenerji Group Companies Included in the 2016 Sustainability Report: (G4-17)

### Companies in Operation:

Akenerji Elektrik Üretim A.Ş.  
[Power plants: Ayyıldız WPP, Uluabat HEPP, Burç Bendi HEPP, Bulam HEPP, Himmetli HEPP, Gökkaya HEPP, Feke II HEPP, Feke I HEPP]  
Egemen Elektrik Üretim A.Ş.  
[Power plants: Erzin NGCCPP]

### Investments in Project Phase:

Ak-EI Kemah Elektrik Üretim A.Ş.  
(Kemah HEPP)  
Akenerji Elektrik Üretim A.Ş.  
(Ayyıldız WPP Capacity Increase)

### Other:

Akenerji Elektrik Enerjisi İthalat İhracat ve Toptan Tic. A.Ş.

**Note 1:** Ak-EI Yalova Elektrik Üretim A.Ş. and Akenerji Doğalgaz İthalat İhracat ve Toptan Tic. A.Ş., which are both subsidiaries of Akenerji, have not been included in the Report as they were not active in 2016.

**Note 2:** The sale of Akocak HEPP and related equipment were finalized as of 04.02.2017





## MESSAGE FROM CEO



"2016 has become a year of success as we were rewarded for our 2015 Sustainability Report, we realized our innovative services and improved our sustainability performance."



## Dear Stakeholders,

As Akenerji, we hereby share our fifth Sustainability Report with you, which became the foundation of our Sustainability Management System. It assists us in evaluating our stakeholders' expectations and integrating them into our strategy. The content of our Report that we strive to improve each year, complies with the requirements of G4 version, which is the latest edition of Global Reporting Initiative (GRI) Sustainability Reporting Guide.

If I evaluate the developments of this reporting period and our milestones in terms of sustainability; the decline in our country's economic growth, the demand surplus in the electricity market, devaluation of Turkish Lira besides the low prices and the negative developments in the global economy, the year of 2016 could be considered as a difficult year. We foresee that the effects of these developments will continue in 2017.

With more than 27 years of experience in the energy sector, our Company took precautions such as the correct trade strategy, product diversification and risk management hence we could close the year in line with our expectations in terms of operational profitability.

As Akenerji, our fundamental strategy in 2016 was to operate our existing power plants in the optimum capacity according to the market prices and to develop new projects that will add value to our company.

As of the end of 2016 earnings before tax, interest and amortization was realized as 234 million TL. Erzin Natural Gas Combined Cycle Power Plant was operated with a low-cost advantage thanks to its high efficiency, thus the outcomes were positive even though the low prices. Nevertheless, at our hydroelectric power plants, satisfactory results were obtained in terms of energy generation and hydrology.

Thanks to our renewable energy portfolio formed in line with our sustainability vision; Renewable Energy Support Mechanism (RESM) sales that we obtained and, on the other hand, the fact that a part of the cash and refinance credit was used as Turkish Liras decreased the loss of Akenerji resulting from exchange rates.

Thanks to "energy trade" that is one of the significant activities that add value to Akenerji, our service makes the electricity trade possible in the energy market without making asset based capital spending. Within the scope of this activity, the total trade volume of Akenerji increased by 56% with respect to last year and reached 16.5 TWh. As Akenerji, besides our own, we increased our portfolio significantly by including an additional source of 4.0 TWh from other market participants into our portfolio and created value. In 2016, 3.7 TWh generation, 24% of which was from renewable resources, was realized at Akenerji power plants. In 2016, we contributed with all our renewable electricity generation resources to RESM mechanism, which we had partially

contributed in the previous years, and achieved 74% additional revenue compared to spot income.

In this operating year, we had the opportunity to invest in energy generation from wind and increase the capacity of our Ayyıldız WPP. This way, in the last days of 2016, the investment to increase the installed capacity of Ayyıldız WPP by 88% to reach 28.2 MW was finally completed. This capacity increase of 13.2 MW corresponds to the electricity requirement of 15,000 households and our Ayyıldız WPP has "**Gold Standard**" certificate within the scope of Greenhouse Emission Reduction.

With its innovative identity that pays attention to market and stakeholder needs to develop services, Akenerji has again pioneered the sector with the "**Virtual Power Plant**" in 2016. We intend to continue with these tenders in 2017.

Within the scope of "Akenerji Energy Services", with our 27 years of experience, we support our customers by evaluating the fields where they can create energy efficiency.

As an indicator of the value we give to product diversity, another service we started to implement in 2016 is "**dispatch services**" and we provided 1.8 TWh of energy procurement for our customers.

Our last Sustainability Report of 2015 operating year was given the **Bronze Award** in the internationally renowned **League American Communication Professionals (LACP)**.

Nevertheless, we increased our score to "B" in the **CDP Turkey Water Program** in which we are still the first energy firm to participate. In a similar vein, we increased our score to level "B" in the **CDP Turkey Climate Change Program**. We are glad that our vision, our management system, transparency and performance in these fields have been visible within the scope of the internationally prestigious **CDP Program** evaluation.

We carry on a significant part of the activities within the scope of Sustainability, in the framework of Integrated Management Systems. To this end, we have quality, environment, occupational health and safety as well as information security ISO Standards. This year, Akenerji has been among the pioneer companies by upgrading to ISO 9001 Quality and ISO 14001 Environment Management Systems 2015 versions. Nonetheless, as another indicator that we care about these issues, I can state that 55% of the total training hours we provide our employees, 4,191 man.hours, is focused on environment, quality and OHS.

With "HEPP Informative Meetings", which is one of the best examples of Akenerji's activities hand in hand with the society, we conveyed to the regional community living in the sphere of influence of our power plants, how HEPPs operate and the personal safety

measures to be taken. Together with the trainings we realized this year, we reached a total of 3,914 students and 229 teachers in the last four years.

One of the significant steps that we have taken for **Sustainability has been "Sustainability of Our Supply Chain"**. With the revisions that we made in our **general procurement terms of reference**, we took control of the goods and services that we procure in terms of quality, environment and OHS. At the same time, we extended the supplier audits, which we had started last year, and audited six suppliers in this respect.

### Honorable stakeholders,

This is my last message that I share with you as the "CEO of Akenerji". My journey in Akenerji, which started in 2008, has ended as of January 2017. In this time frame, we achieved great success altogether. Our first term contained intensive investments, and we managed to realize big projects one after the other. We started the operations of Ayyıldız WPP with 15 MW capacity in 2009; Uluabat HEPP with 100 MW, Akocak HEPP with 81 MW, Burç Bendi HEPP with 28 MW, Bulam HEPP with 7 MW, Feke II HEPP with 70 MW in 2010; Himmetli HEPP with 27 MW, Feke I HEPP with 30 MW, Gökkaya HEPP with 30 MW in 2012 and finally Erzin NGCCPP with 904 MW in 2014. Afterwards, we continued with our developments in operational excellence and energy trade, thus becoming one of the corporations that guide Turkish energy sector.

I wish success to my colleague to whom I hand over my duty, the new CEO Mr. Serhan Gençer. I wholeheartedly believe that with the leadership of Mr. Serhan Gençer, and with your keen efforts, Akenerji will succeed in new ventures.

I extend my gratitude first to the members of Akenerji Board of Directors and CEZ a.s. and Akkök Group representatives and to all our valuable stakeholders, who always supported me during the time that I was on duty.

I thank you all for your company throughout these nine years and for what you contributed to Akenerji.



Sincerely,

**Ahmet Ümit Danişman**  
Chief Executive Officer



# COMPANY PROFILE



- About Akenerji
- Akenerji in Figures
- Operations Map
- Breakdown of Installed Capacity by Source
- Shareholder Structure of Akenerji





INVESTMENTS  
IN PROJECT  
PHASE

**211.2  
MW**



**1,211 MW**

INSTALLED CAPACITY

// natural gas

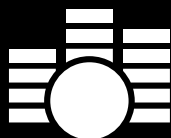
// hydroelectric

// wind



**16.5 TWh**

TOTAL  
SALES VOLUME



TOTAL REVENUE

**1,421  
MILLION TL**

## About Akenerji

Besides electricity generation, with the innovative steps that it takes, Akenerji continues to be the powerful and visionary company of the sector both in energy services and energy.

### A leading company, setting the standards of the sector

With more than 27 years of experience in the energy sector, Akenerji is listed among Turkey's long-established companies. In 2016, the Company focused on operating its existing power plants in an optimum manner relative to the market prices, and on developing new projects that will create added value.

In addition to the electricity energy generated at its existing power plants in the previous year, the Company also continued to trade the energy procured from other market participants. In 2016, Akenerji achieved a total sales volume of 16.5 TWh with a 56% increase compared to the previous year.

Renewable energy is one of the hot topics in recent years, not only in our country but also across the world. Following the initiatives in this area, Akenerji has become the representative of vision and stability in the sector. The Company has continued to reshape its generation strategies to get the maximum benefit from renewable energy sources, and has continued operations towards necessary measures. With 7 hydroelectric plants and 1 wind power plant that are taken into operation, 24% of Akenerji's installed capacity, is supplied from renewable sources.

In 2016, Akenerji focused especially on utilizing capacity expansion opportunities for the renewable source power plants, consequently it finalized all the construction works and turbine assembly to enhance Ayyıldız Wind Power's installed capacity from 15 MW to 28.2 MW. Market research is being carried out for other types of energy production projects that are highly profitable with high capacity utilization rates in order to augment the Company portfolio.

Besides renewable energy, efficiency in energy generation is among the primary issues for Akenerji. Related activities are maintained under a wide

umbrella, ranging from integrating new and efficient technologies into existing power plants, to employees' occupational training processes. With energy systems optimization and management services, the Company focuses on producing new ideas and projects that will enhance energy efficiency for industrial and commercial customers. Akenerji Energy Services aims to reduce energy costs and enhance the competitive edge with a wide variety of services on offer, from consultancy to asset management. The breakthroughs achieved by Akenerji, by effectively following the market conditions, will continue to serve as an example in the electricity generation sector.

### Success story for a quarter of a century

Having commenced its operations in 1989 as an auto-producer group under the umbrella of the Akkök Group of Companies, Akenerji has been operating as an independent electricity generation company since 2005. As the 50/50, strategic joint venture between Akkök Holding & Akarsu Enerji Yatırımları San. ve Tic. A.Ş., and Europe's leading power company, the ČEZ Group, Akenerji has a production capacity to meet 3.2% of Turkey's power need all by itself, with its total installed capacity of 1,211 MW as of 2016 year-end.

The Company sets an example in the sector with more than 27 years of know-how and prominence. Accordingly, the Company aims to sustain its balanced portfolio structure to protect its robust position in the sector, and to make electricity supply more secure. Akenerji completed the 904 MW Erzin NGCCPP in Hatay, and put it into operation during Q3 in 2014. With an annual generation capacity of 7.4 TWh, the power plant is one of Akkök Group - ČEZ a.s. joint venture's key projects. Kemah Hydroelectric Power Plant Project, which is planned to provide 198 MW and will be established in Erzincan, is continuing.

### We work for environmental consciousness

In recognition of the responsibility that falls on energy companies in the creation of a secure future, Akenerji has taken each and every step throughout more than 27 years of experience with due consideration of its environmental and social responsibilities. The Company that exemplifies in the sector, with its sensitivity for modern manufacturing solutions continues its activities to raise environmental consciousness in the regions where it operates.

Akenerji again received an award in the 7th Turkey Energy Summit that had been organized for the first time in Ankara. In "Electricity, Oil and Gas Sector Awards" given within the scope of the summit, Akenerji was awarded with "Golden Voltage" for its "Virtual Power Plant" project that it had initiated in April and then again in November for opening the capacity of Erzin NGCCPP to its stakeholders.

While improving our brand image, in another vein, we continued the hydroelectric power plant introduction and informative presentations that are developed with the "consciousness of living with the local community". These activities remain to be among the finest samples of what Akenerji conducts for and with the society. With the help of the printed materials and educational works focusing on prospective hazards and protection methods in the regions around the hydroelectric power plants, both locals as well as the students and teachers were informed in detail.

**In the last year,  
Akenerji total trade  
volume increased  
by 56% to reach  
16.5 TWh.**



## > Vision

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

## > Mission

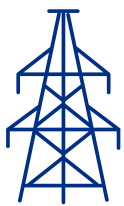
To make reliable and long-term contributions to Turkey's energy needs by operating with a quality-focused approach at every stage of the energy sector value chain.

## > Corporate Values

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

## AKENERJİ IN FIGURES

### Current Installed Capacity



**1,211MW** (2016 year-end)  
INSTALLED CAPACITY  
// natural gas  
// hydroelectric  
// wind

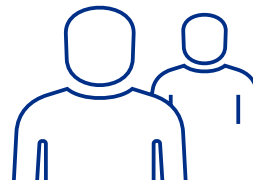
### Services

- Electricity Generation and Sale
- Electricity Import-Export and Wholesale
- Electricity Retail Sale
- Natural Gas Import-Export and Wholesale
- Energy Services

### Power Plants Active as of 2016



### Average Number of Employees



**232\***

\*Average number of employees excluding the Board Members.

### Investments in Project Phase



**198 MW**  
(Kemah HEPP)  
**13,2 MW**  
(Ayyıldız WPP Capacity Increase)\*  
\*In addition to 15 MW that is in operation

### Turnover



**1,421  
MILLION TL**

## Operations Map

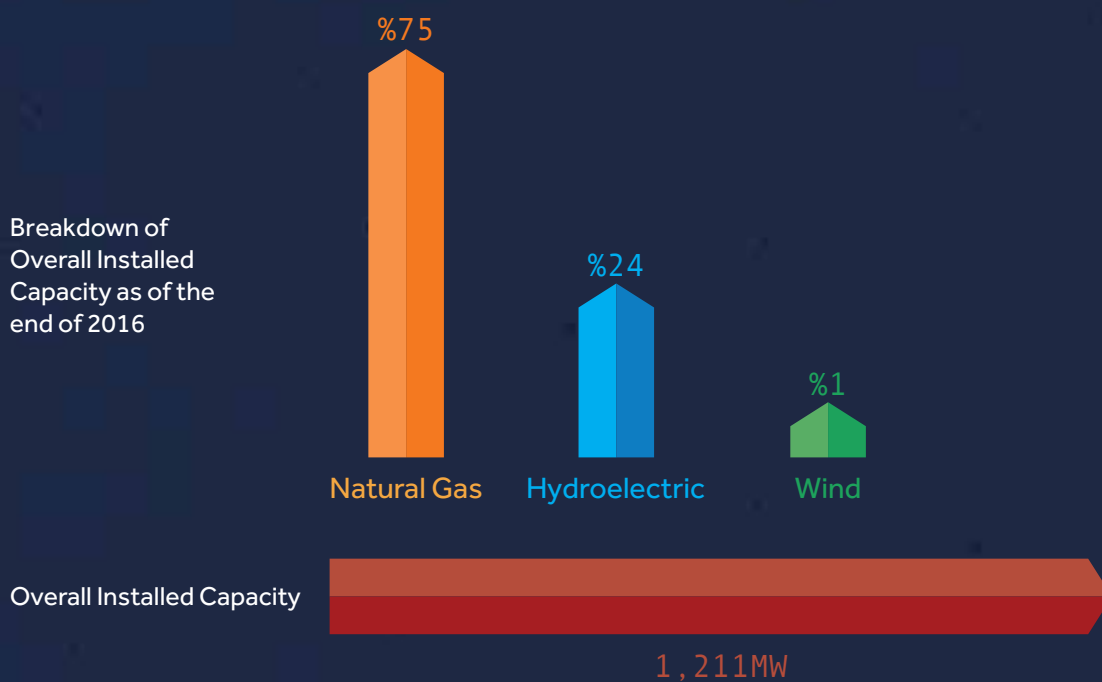
Steady investments of Akenerji in renewable energy sources are reflections of the Company's approach to sustainability.



Wind Hydroelectric Natural Gas

\* Kemah is in the project phase.

## Breakdown of Installed Capacity by Source

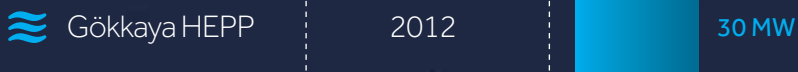
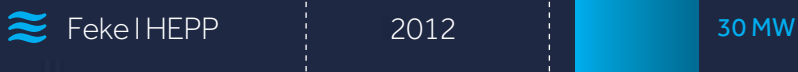
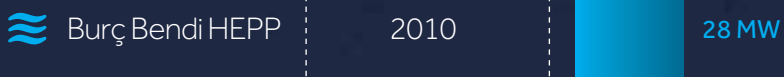




## Installed Capacity

### Active Power Plants

### Start of Activity



TOTAL HEPP  
292 MW

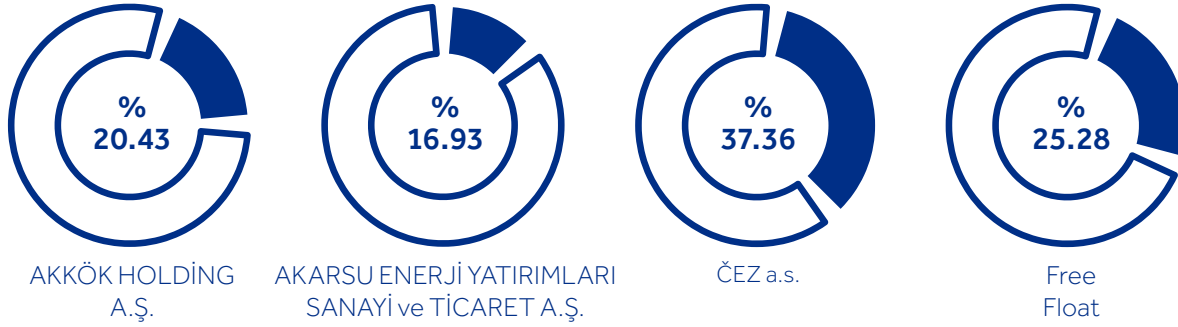
### Investments in Project Phase



\*In addition to 15 MW in operation

## Shareholder Structure of Akenerji

Akenerji has a paid capital of 729,164,000 TL and the main investors are Akkök Holding and ČEZ a.s. The shareholder structure is depicted in the figure below.



### Akkök Holding

Founded in 1952 by the late Raif Dinçkök, and with deep know-how spanning over 65 years, Akkök Holding ranks among the long established industrial groups in Turkey. The Group conducts operations in the fields of chemicals, energy and real estate, with 18 commercial and industrial enterprises, one of which is overseas, and with 18 production plants. By closely following the trends in the World Markets and in its operating industries, Akkök Holding aims to catch up with global competition, and achieve world-class standards together with all the companies under its roof.

Akkök Holding creates employment in industry, generates value and makes investments for today and future. Sustainable growth and social responsibility have been the determining factors in setting a roadmap for the Holding. On the other hand, the concept of corporate governance, which is defined by fairness, transparency and accountability gradually gained vital significance and is an indispensable value in all operations of the Holding companies.

By signing the United Nations Global Compact in 2007, Akkök Holding further strengthened the principles of openness and accountability that are adopted by all subsidiaries. The Holding establishes all relationships with social stakeholders (mainly employees, customers, suppliers, and shareholders) based upon these two fundamental principles. In addition to fulfilling their financial obligations, all Group companies act as good corporate citizens, and strive to add value to the society, the natural environment, and the economy as a whole, in all their operations.

### ČEZ a.s.

Headquartered in the Czech Republic, ČEZ a.s. operates mainly in electricity and heat generation, distribution and sale; and also has operations in sale of natural gas and coal extraction. The largest shareholder of ČEZ is the Czech Republic with 70% stake in the Company's shares.

In addition to its operations in Turkey and the Czech Republic, ČEZ also has a number of subsidiaries in Poland, Bulgaria, Romania, Hungary, and Slovakia that generate, distribute and sell electricity.

Strong ethical standards that identify the operations of ČEZ include responsibility towards its employees, society and environment. Operating in line with sustainable development principles, ČEZ not only supports energy efficiency and new technologies, but also creates a suitable environment for professional development of its employees.

**Akenerji has a paid capital of  
729,164,000 TL  
and the main investors are  
Akkök Holding and ČEZ a.s.**





# OUR APPROACH TO SUSTAINABILITY

- ◉ Our Approach
- ◉ Sustainability Management
- ◉ Our Policies
- ◉ Awards and Achievements
- ◉ Our Recent Sustainability Steps
- ◉ Dialogue with Stakeholders
- ◉ Material Sustainability Issues
- ◉ Corporate Memberships





CDP Turkey 2016  
Climate Change  
Program Score

**B**

CDP Turkey 2016  
Water Program  
Score

**B**

In addition to our financial liabilities, we operate in line with environmental, social and ethical responsibilities that conform to our corporate values.

## Our Approach

The foundation of our sustainability approach lies in minimizing our environmental and social impacts whilst operating to create value for our stakeholders. In maintaining this, we act without compromising our standards of quality, corporate governance, customer satisfaction and our ethical principles. We support clean and sustainable energy sources to create a safer future for Turkey and the World. By investing in renewable energy sources and highly efficient technologies, we provide safe, economic and environment-friendly energy to our customers. Our corporate policies and principles that have been developed on the basis of international standards and approaches include quality, environment and OHS and human resources policies and ethical principles.

## Sustainability Management

The knowledge, awareness and leadership of the Company's senior management is vital for the integration of our environmental, social and ethical responsibilities into the corporate culture. The Board of Directors has the ultimate responsibility for the management of these non-financial issues, which are of great influence on our Company's reputation and profitability.

In our active power plants, the Directorate of Environment, Quality, Occupational Health and Safety that operates under the Deputy General Manager for Generation is responsible for the management of environmental and social issues. Project teams assume the responsibility for the management of OHS and environmental performance during the period between project design and operational phase of power plants. Key environmental and social performance data of our power plants and project areas are reported to the Board of Directors. In addition, annual or periodical environmental and social performance monitoring reports that are

prepared for the institutions that we are signatories to and for financial institutions that we are bound by agreements, as well as the annual sustainability reports are reported to the Board of Directors via the Executive Board.

All processes regarding our employees, such as recruitment, training, performance management are administered by the Directorate of Human Resources. Nonetheless, corporate management and business ethics issues are mainly the responsibility of the Directorate of Corporate Management.

In order to manage and report sustainability issues in a more holistic manner, a Sustainability Committee was set up within Akenerji in 2013. The units represented in the Sustainability Committee are listed below. These units play a key role in the management of material sustainability issues. While evaluating risks and opportunities of material sustainability issues, related units consider potential environmental, social and economic impacts of actions in an integrated way.

### Units represented in Akenerji Sustainability Committee:

- Environment, Quality and OHS
- Accounting and Tax Management
- Corporate Communications
- Energy Services
- Energy Trade
- Fuel Supply and Performance
- Human Resources
- Legal Affairs
- Procurement
- Projects
- Strategic Planning and Risk Management



# Our Policies

## Quality Policy

While efficiently meeting the increasing demand with our quality-oriented approach, we work to provide our customers with reliable, economical and environmentally friendly energy. In line with our quality policy, as Akenerji, we commit to:

- Becoming the leading company in the competitive market by diversifying fuel sources in line with changing global and domestic conditions,
- Improving our efficiency by integrating state of the art technologies into our processes which are dependent sectoral developments,
- Producing and supplying energy in accordance with applicable laws by closely monitoring the changing conditions in the energy sector and our country,
- Considering each employee as the greatest "source of energy", we are committed to encourage employees to become team members who are able to develop and refresh themselves in multiple aspects,
- Believing that this team approach will allow Akenerji to create a quality workforce that will attract top talent and set an example for the sector,
- Operating and continuously improving our business processes in line with company objectives,
- Offering each of our stakeholders the privilege to work for a transparent and reliable company.

## Human Resources Policy

Fundamentals of our Human Resources Policy are as follows:

- We provide equal opportunity to everyone.
- We match the right person with the right job.
- We pay fair wages for work as a result of work assessment.
- We evaluate success with measured performance and proven abilities.
- We enhance efficiency by generating motivation and loyalty.
- We recognize and reward each other's accomplishments promptly.
- We work in collaboration, ensuring the continuity of work harmony.
- We inform promptly, accurately, openly and multi-dimensionally.

## Environmental Policy

To create a future as bright as today, we always aim to operate with an environmentally responsive approach. In line with our environmental policy, we commit to:

- Using energy sources and natural resources in the most efficient manner,
- Minimizing our emissions by choosing the best available and environmentally friendly technologies,
- Following greenhouse gas emissions by implementing effectively Carbon Management,
- Minimizing our waste through efficient use of resources and by complying with the applicable regulations in the systematic collection and disposal of waste,
- Discharging our wastewater in the most environmentally friendly manner possible,
- Continuously improving our processes which has environmental impact through pollution prevention within sustainability approach,
- Fulfilling our legal obligations and responsibilities involving environmental aspects as well as other conditions and also becoming involved in activities that allow us to set new standards which are appropriate for the requirements of our era,
- Ensuring that our stakeholders, especially our employees, are trained to become environmentally conscious individuals.

## Information Security Policy

As Akenerji, to manage any risk for our business continuity and information assets, we commit;

- To establish and implement an Information Security Management System according to ISO/IEC 27001 standard;
- To comply with all legislation related to information security and contractual obligations;
- To manage risks of information assets by assessing according to confidentiality, integrity, availability;
- In order to raise the awareness of information security, performing trainings and activities to develop the technical and social skills and being an exemplary organization in the Akkøk Group in terms of information security;

## OHS Policy

Our occupational health and safety policy is based upon the value we attach to people. In line with our OHS policy, we commit to:

- Preventing occupational accidents and health risks by creating a healthy and safe workplace in accordance with all legal obligations and other relevant conditions and technical developments,
- Providing all of our stakeholders with an awareness of possible risks in order to take the necessary measures required to protect themselves against these risks,
- Conducting trainings to ensure that we have the necessary knowledge, attitude, and experience to undertake our roles in a safely manner,
- Reviewing possible emergency procedures and preparing necessary action plans to ensure the safety of our stakeholders,
- With commitment and leadership of our managers and effective participation of our employees;
- Promoting physical and mental wellbeing of our employees and working conditions,
- Conducting regular risk assessments to continuously improve our performance on occupational health and safety.

- To creating a continuously improving and developing structure that does not allow the emergence of new risks and managing information security in an integrated way with other management systems in accordance with company targets.



## Our Current Sustainability Steps

Since the day of its establishment, Akenerji has been paying great attention to sustainability hence implementing many policies and practices. Some of our sustainability milestones in recent years are summarized below.

### 2016

- Our 2015 **Sustainability Report** was awarded with **Bronze Award** in the **League of American Communication Professionals** – LACP that is prestigious in the international arena.
- Akenerji increased its 2015 operating year score to **"B"** in **CDP** (Carbon Disclosure Project) **Turkey Climate Change Program**.
- Akenerji continued to pioneer being the **only energy company** to report to **CDP Turkey Water Program** for 2015 operating year; and increased its score from **"C" to "B"**.
- Within the scope of **Greenhouse Gas Emissions Regulations (MRV)**, greenhouse gas emissions of Erzin NGCCPP for 2015 were calculated, reported and submitted online to Republic of Turkey Ministry of Environment and Urbanization.
- With the revision of the standards, **2015 versions of ISO 9001:2015 Quality, ISO 14001:2015 Environment Management Systems** certifications for Akenerji and Egemer General Management, Ayyıldız WPP, Uluabat HEPP, Burç HEPP, Bulam HEPP, Fekeli HEPP, Fekeli II HEPP, Himmetli HEPP, Gökkaya HEPP and Erzin NGCCPP were received. In addition to this, OHSAS 18001:2007 Occupational Health and Safety as well as ISO 27001 Information Security Management Systems' certifications were maintained.
- Our works for the **audio-visual warning system** to protect the safety of the local community located **around the HEPPs** were approved by State Hydraulic Works (DSİ) and project approvals were received.

### 2015

- Akenerji pioneered as the only energy company to report to CDP Turkey Water Program in its initial year.
- In 2015, the disclosure score of our CDP report consisting of greenhouse gas emissions and our climate change strategy was 88 out of 100, with a performance score of C.
- Akenerji was the first energy company of Turkey to prepare its 2014 Sustainability Report covering sustainability practices and performance, in line with the GRI G4 standard.
- Our Information Security Management was revised to conform to TS ISO/IEC 27001 Information Security Management System standard, and our Head Office, Uluabat HEPP and Erzin NGCCPP were certified accordingly.
- ISO 9001 Quality, ISO 14001 Environment and OHSAS 18001 Occupational Health and Safety Integrated Management Systems certification processes of all active power plants, including for the first time our Erzin NGCCPP were completed with zero nonconformities
- HEPP Informative Meetings about the operation of hydroelectric power plants and the individual security measures to be taken in the daily lives of the local society were realized 4 times in Adana and 2 times in Bursa.

### 2014

- In 2014, the disclosure score of our CDP report that covers greenhouse gas emissions and our climate change strategy scored 85 out of 100.
- The second Sustainability Report of Akenerji, covering our sustainability practices and performance in 2013, was prepared within the scope of GRI G3 Guidelines and received B-application level approval from GRI.
- ISO 9001, ISO 14001 and TS 18001 Management System certification processes of all active power plants were completed with zero nonconformities.
- Two seminars were given to students and teachers in the cities of Adıyaman and Trabzon to inform the public on potential dangers of HEPPs and ways of protection.

**Bronze Award in the League of American Professionals**

**CDP Turkey 2016 Climate Change Program disclosure score to "B"**

**Akenerji continued to pioneer being the only energy company to report to CDP Turkey Water Program in 2015; and increased its performance score from "C" to "B".**

## Awards



### 2015 Sustainability Report was awarded with international LACP Bronze Award.

Akenerji, that leads the energy sector with more than 25 years of experience, received the bronze award in the "Vision Awards", the international communication awards, which is annually organized by the League of American Communications Professionals (LACP) – the most prestigious public relations platforms of the world, and that receives more than thousands of applications from over 20 countries. Our 2015 Sustainability Report that was prepared in accord with Global Reporting Initiative (GRI) Sustainability Reporting Guide G4 "basic" level was evaluated in terms of first impression, report cover, creative design, senior management messages, financial data presentation, reporting language, clarity of the message, access to information and it received 96 points out of 100 and was deemed worthy for the LACP Bronze Award.



### Innovative Akenerji receives "Golden Voltage" Award

Akenerji received another award in the annual Turkey Energy Summit that has been held the seventh time in Ankara since 2010. **Akenerji realized the first "Virtual Power Plant" in Turkey and won the "Golden Voltage" award in "Electricity, Oil and Gas Sector Award" category during the Summit.** With the "Virtual Power Plant", Akenerji is supplying its stakeholders with the right to use a production capacity that will not be affected by facility costs and energy crisis. Akenerji opened Erzin NGCCPP's capacity to its stakeholders with two tenders, first in April 2016 and second in November 2016. In the second tender, our company carried out the bidding process online.



# Dialogue with Stakeholders

## Our Stakeholders (G4-18, G4-19, G4-25)

Our stakeholders are companies and institutions as well as people and communities that affect or are affected by the operations of our company. In order to identify material sustainability issues, we held a "Stakeholder Analysis and Materiality" workshop in 2016 with the participation of Sustainability Committee members in December 2015. Following on this workshop, we updated our changing priorities and reporting standards in line with GRI G4 reporting standards. We reconsidered stakeholders that influence the success of Akenerji and are influenced by the operations of Akenerji in terms of sustainability. As a result of this evaluation, employees, customers, shareholders / investors, creditors, regulatory bodies, competitors and local communities were identified

as stakeholders that we affect and that affect our corporate success the most. On the other hand, among the stakeholders with secondary materiality in terms of sustainability are the local authorities, society, suppliers, sectoral associations and the media.

### To summarize the differences with respect to the previous year;

- Due to the developments in the energy market in Turkey, especially owing to their effects on the energy supply and prices, our competitors or other energy companies were included among "our Stakeholders that we affect and that affect our corporate success the most".
- Because of our more integrated and active work with the sectoral

associations, they were included in "our stakeholders that we affect and that affect our corporate success".

- Since both Akenerji and Akkök Holding has internship programs, career days and price reduction contracts for the trainings with the universities, they were included among "our Stakeholders that we affect and that affect our corporate success the least".

The sketch below indicates the level of interaction with stakeholders decreasing from inside out.



## Dialogue Platforms with Stakeholders (G4-24, G4-25, G4-26, G4-27)

We benefit from a variety of dialogue platforms to learn about the sustainability expectations of our Company's stakeholders including the employees, customers, creditors, investors, regulatory bodies, suppliers, local communities, local authorities,

society, and media as well as to give them information on these issues.

Our actively used dialogue platforms and related contents and practices are summarized in the table below. In addition to them, we also inform our

stakeholders regularly through our corporate website, annual reports, sustainability reports, and CDP Climate Change Program reports.



(G4-18, G4-24, G4-25, G4-26, G4-27)

Stakeholders	Stakeholder Engagement Platform	Content / Practice	Period of Dialogue
<b>Employees</b>	Quality, Environment, and OHS suggestion 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.
	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.
<b>Customers</b>	Customer visits and introductory brochures	During customer visits, we introduce Akenerji Energy Services and we deliver related brochures.	During customer visits.
<b>Creditors</b>	Annual monitoring reports	We regularly present environmental and social performance monitoring reports to creditors.	Information is shared and site visits are made continuously.
<b>Local communities and Local Authorities</b>	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.
	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.
<b>Investors</b>	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.
<b>Regulatory Institutions and Sectoral Associations</b>	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.
<b>Suppliers</b>	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.
<b>Society and the Media</b>	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.

(G4-27)



## Material Sustainability Issues

(G4-18, G4-19, G4-20, G4-21, G4-25)

During the "Stakeholder Analysis and Materiality" workshop that we held with the participation of the representatives of the Sustainability Committee in preparation for our 2016 Sustainability Report, we evaluated the material sustainability issues. During this workshop, we assessed not only the sustainability issues with the greatest influence on our corporate success and stakeholders, but also the issues which our stakeholders - that we affect and that affect our corporate success the most - care about the most and would like to have information about. We based the content of our 2016 Sustainability Report on G4 version of GRI Reporting Principles.

In this Report, we focused especially on policies, practices and the

performance we achieved related with the issues that are material for both Akenerji and our stakeholders. These issues are given in the upper right corner of the matrix that follows.

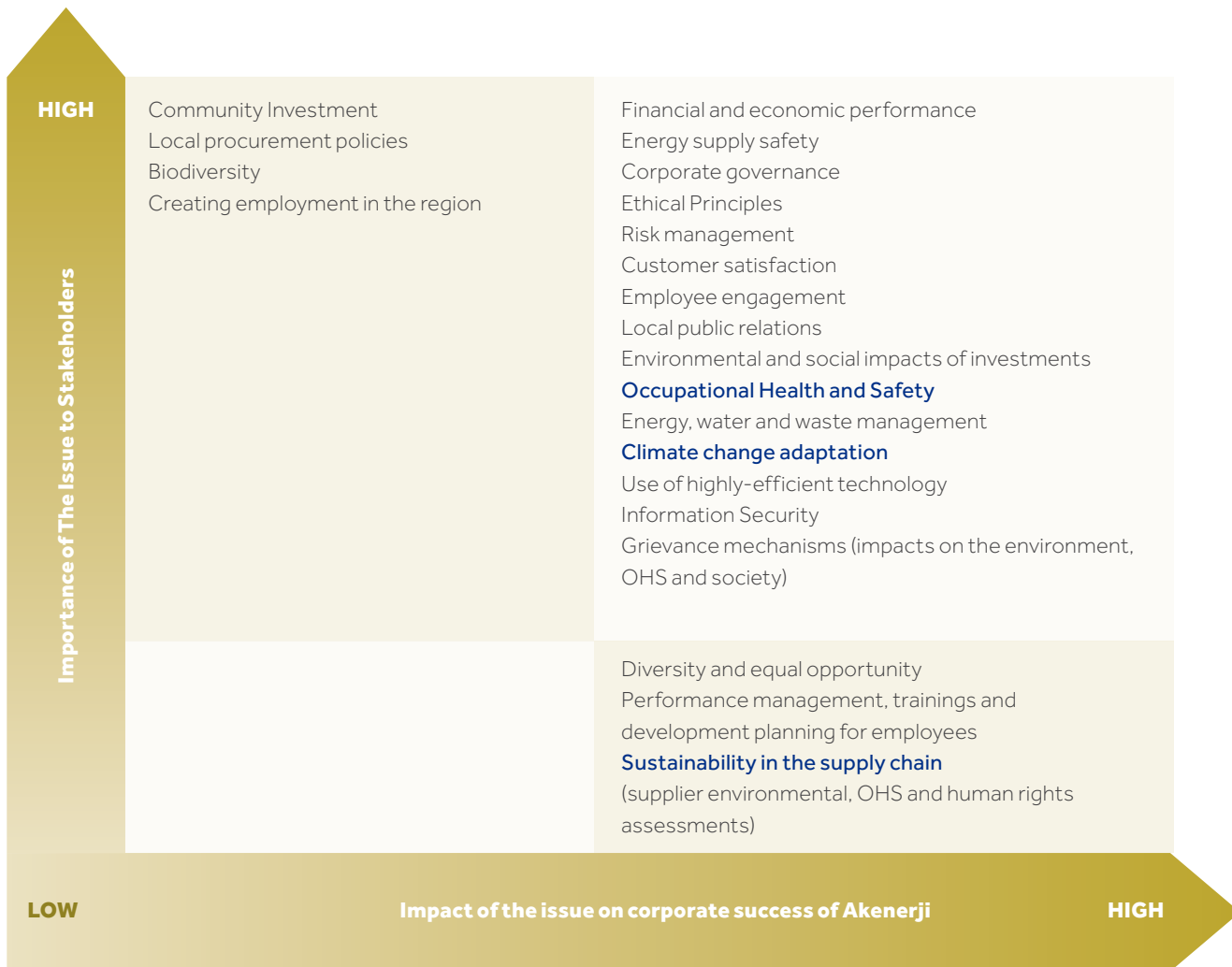
In addition, we presented issues that are more important to stakeholders (issues given in the upper left corner of the matrix) and those that have strong influence on the corporate success of Akenerji (issues given in the lower right corner of the matrix) within the framework of our management approach and practices.

The issues that are, as well, important out of the corporate boundaries of Akenerji are highlighted with green and they are elaborated under related sections of the report.

The issues listed in the upper right corner of the graph are identified as "Primary Material Issues" in GRI G4 index at the end of the Report, whereas those in other quadrants are "Secondary Material Issues".

Since "Information Security" has growing significance, as well for the security of energy supply, and to be able to effectively manage the feedback from our stakeholders related with environment and OHS, "Grievance Mechanisms" issues are included in the factors that are both important for the stakeholders and have impact on corporate success of Akenerji.

(G4-18, G4-19, G4-20, G4-21, G4-27)



**Note 1:** The issues within the quadrants are listed regardless of an order of importance.

**Note 2:** The issues typed in blue are those that are also important for our supply chain management.

## Corporate Memberships

(G4-15)

By integrating sustainability into our corporate strategy, we reinforce our efforts to become a part of the solution by undersigning national and international initiatives and platforms and we take part in a variety of initiatives.

### Initiatives We Take Active Part In

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

We have been the first company to register to the **National Carbon Registry** (2011) that was launched by the Republic of Turkey Ministry of Environment and Urbanization to establish voluntary carbon markets and register ongoing projects.

We play active role in environment and energy working groups of the **Turkish Industry and Business Association**

(**TÜSİAD**) and we support sectoral growth by combating climate change.

We closely followed and participated in the preparatory phase of **Borsa İstanbul Stock Exchange (BIST) Sustainability Index Project** aimed to ensure that major Turkish companies compete successfully in global markets. The Index was put into practice in November 2014 for BIST-30 companies. As the index will cover the BIST-100 companies in the following years, we will continue to improve our sustainability communication in consideration of the requirement for disclosure.



(G4-15, G4-16)

## Memberships to Associations and Committees

Our company works in cooperation with non-governmental organizations and related public institutions to devise policies and strategies for public policies. We also work to reinforce relations with the public authorities and attend meetings.

**Akenerji is a member of associations and institutions focusing on a variety of areas:**

- World Energy Council Turkish National Committee (DEK-TMK)
- Association of Electricity Distribution Services (ELDER)
- Electricity Producers Association (EÜD)
- Energy Traders Association (ETD)
- Hydroelectric Power Plants Industry and Business Association (HESİAD)
- Petroleum Platform Association (PETFORM)
- Wind Power and Hydropower Plants Businessmen's Association (RESSİAD)
- Sabancı University İstanbul International Center for Energy and Climate (IICEC)
- Hydro Energy Association (HESİAD)
- Association of Turkish Electricity Industry (TESAB)
- Turkish Association of Human Resources Management (PERYÖN)
- Turkish Wind Energy Association (TÜREB)
- Turkish Industry and Business Association (TÜSİAD)
- International Investors Association (YASED)







# CORPORATE GOVERNANCE AND RISK MANAGEMENT

- Corporate Governance
- Ethical Practices
- Risk Management







Our corporate governance approach is shaped by our objective for continuous generation of value for our shareholders, customers and employees.

## Corporate Governance

Akenerji is fully aware that at a time when competition and change is accelerated, the quality of corporate governance practices and financial performance are of equal importance. Forasmuch as, high-quality corporate governance improves the competitive capacity of corporations by enabling low cost of capital, additional funding opportunities and increasing liquidity. In agreement with our approach to corporate governance, we pay utmost attention to implement the principles stipulated by the Capital Markets Board (CMB) in its Corporate Governance Principles.

### Shareholder and Investor Relations

Our 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 our stakeholders, we organize periodical informative sessions, hold on-demand focus meetings, and respond to questions posed over email with an accessible and transparent communication platform that we establish. 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 our 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:

[www.kap.gov.tr/en/home.aspx](http://www.kap.gov.tr/en/home.aspx)

Corporate Website:

[www.akenerji.com.tr/Eng](http://www.akenerji.com.tr/Eng)

e-GOVERNANCE - Corporate Governance and Investor Relations Portal of the Central Securities Depository Institution: [www.mkk.com.tr/wps/portal/MKKEN](http://www.mkk.com.tr/wps/portal/MKKEN)

### Akenerji Board of Directors

At Akenerji, 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 is the Board of Directors.

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. As of December 31<sup>st</sup>, 2016, Akenerji Board of Directors is composed of the following members:

#### AHMET CEMAL DÖRDÜNCÜ

Chairman of the Board of Directors

#### TOMÁŠ PLESKAČ

Vice Chairman of the Board of Directors

#### RAİF ALİ DİNÇKÖK

Member of the Board of Directors

#### PETR DOKLÁDAL\*

Member of the Board of Directors /Deputy General Manager

#### AHMET ÜMİT DANIŞMAN\*

Member of the Board of Directors / CEO

#### VRATISLAV DOMALÍP

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.

Our Board of Directors is composed of members with and without executive duties. The members without executive duties are elected among individuals who have no administrative duty in our Company 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. Term of

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

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

2016		2015		2014	
Male	Female	Male	Female	Male	Female
8	0	12	0	12	0

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

2016			2015			2014		
Under 30	30-50	50 and over	Under 30	30-50	50 and over	Under 30	30-50	50 and over
0	1	7	0	5	7	0	5	7

office for independent members of the Board of Directors is up to three years and then they can be nominated and reelected. 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 2016. In the General Assembly of the Company, no female member was nominated to the Board of Directors by the Company shareholders.

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. None of the members of the Board of Directors casted a vote against any decision in the meetings in 2016.

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 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 CEO and Deputy General Manager are also members of the Board of Directors.

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 our Company 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 our Company, 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

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. Early Detection of Risk Committee was established on September 24th, 2013. Prior to that date, this function used to be performed by the Corporate Governance Committee. Nomination Committee and Remuneration Committee are formed within the Corporate Governance Committee. These committees reporting to the Board have the authority and responsibility of making decisions on economic, environmental and social issues on behalf of the Company.

Committee Members reporting directly to Akenerji Board of Directors as of December 31<sup>st</sup>, 2016 are as follows:

#### Corporate Governance Committee

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

#### Audit Committee

Name	Title
Yahya Mehmet İzzet ÖZBERKİ	Chairman
Jiri SCHWARZ	Member

#### Early Detection of Risk Committee

Name	Title
Yahya Mehmet İzzet ÖZBERKİ	Chairman
Jiri SCHWARZ	Member



## Corporate Governance Committee

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. In addition to its duties stated in the regulations, Akenerji Corporate Governance Committee performs tasks and responsibilities of the Nomination Committee and Remuneration Committee.

Akenerji 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 our 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.Ş. 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.

## Shareholder Involvement in Company Management

Akenerji shareholders benefit from the opportunity to make suggestions and give instructions to the highest governance body of Akenerji in the most extensive way at the General Assemblies. In order to ensure that this opportunity is provided 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.

Our 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, our website is designed and updated in compliance with the Communiqué of Corporate Governance by CMB. Stakeholders can contact related officials through the Company email address: [info@akenerji.com.tr](mailto:info@akenerji.com.tr) or via the Communication Form available at <http://akenerji.com.tr/en/iletisim-formu>. All basic information in our Turkish website is also presented in English for foreign investors.

## Ethical Practices

The fact that Akenerji employees work by adhering to high ethical values is a prerequisite in all operations and a cornerstone in the corporate culture. All employees, including the Board, are expected to abide by Akenerji Ethical Principles while working.

Our 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. Our Ethical Principles Procedure covers anti-corruption measures and is shared with all employees through our Document Management System. Compliance with all Company procedures and regulations including the Ethical Principles is an integral rule of our Personnel Regulations. In addition, the Personnel Regulations that are distributed to all employees by signing for, give information on the rules to abide by in the workplace and the sanctions applied in non-conformity.

Employees who believe to have witnessed acts non-conforming to our Ethical Principles can e-mail their complaints to [etik@akenerji.com.tr](mailto:etik@akenerji.com.tr) and request further investigation of the issue.

# Ethical Principles

## > Integrity, reliability and fairness:

- It is a fundamental principle to build trust-based, 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, confidential information, information subject to intellectual property rights or related 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.
- Our Employees do not offer or take bribes while working with third parties. Exorbitant hospitality services, presents, etc. are neither offered nor accepted.

## > Adherence to laws and regulations

- 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.

# Risk Management

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 that is 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, we strive 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 our 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 24th, 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, and 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







# RESPONSIBILITY IN OUR VALUE CHAIN

- Our Approach
- Value Added to Our Customers
- Sustainability on Our Supply Chain
- Investments in Project Phase





TOTAL  
NUMBER OF  
SUPPLIERS  
AUDITED

**10**



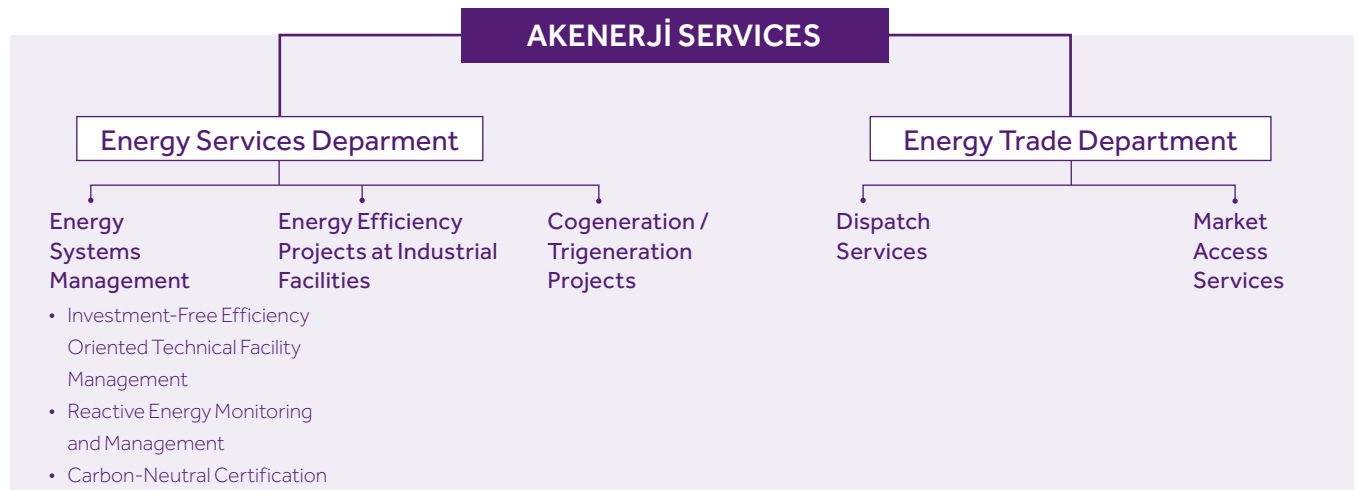
We operate responsibly fully aware of the fact that our environmental, social and economic responsibility reaches far beyond our own plants and employees and also cover our suppliers and customers.

## Our Approach

Our sustainability practices and expectation of high-performance have direct influence on our customers and suppliers, who are

significant stakeholders within our value chain. With the smart electricity solutions that we offer our customers, we support them in improving their own sustainability performance. We encourage contractors and other suppliers who are carrying

out investments in project and construction phase to operate with high-sustainability standards.



## Value Added to Our Customers

### Akenerji Continues with Innovative Projects in the Energy Sector

Akenerji has been increasing and diversifying the value added to its customers through the products and solutions that it creates with its innovative vision and the sector experience. To this end, besides electricity generation, we can classify the services that we offer our customers into two. The first of these is "Energy Services Department" that focuses on maintenance and technical management for energy efficiency without any investment and the second is "Energy Trade Department's services.

### Energy Services Department

As a result of the positive feedback received from the customers regarding "Reactive Energy Monitoring and Management", "Energy Efficiency Consultancy", "Carbon Neutral Electricity" services that make up the "Smart Electricity" notion initiated in

2015, Akenerji broadened the service spectrum by the end of 2015 and created the foundations of "Akenerji Energy Services". Having evaluated the experience of Akkök and CEZ groups together with the results of the market research that showed the feedback of customers in 2015, Akenerji determined the opportunities and difficulties in the field of "Energy Efficiency" and included "Energy Services" in its strategic focus.

In 2016, our Akenerji Energy Services Department realized a series of work both for the sake of creating awareness of the private sector users and for evaluating the potential in the field of "Energy Efficiency" that plays a significant role in our country's energy politics. Within the same timeframe, in consistency with its sustainable profitability goal, Akenerji focused on energy systems optimization and management services as well as on projects that will improve the energy efficiency of its customers.

Considering the hardships to reach targeted efficiency levels owing to the fact that current energy efficiency

works are not centrally managed, Akenerji Energy Services provides the sector with a different viewpoint through its extensive service package. Akenerji that carries on its operations in many different areas of the energy sector, provides its customers with "Survey and Reporting, Analysis and Consultancy, Project Development, Financing, Maintenance, Management and Verification" services under one umbrella with integrated performance. To this end, it collaborates with business partners who have the technical sufficiency to provide these services. In 2016, Akenerji operated with 4 business partners, native and foreign, in industrial and commercial sectors.

While reducing the energy costs and related risks of the enterprises, aiming to increase the efficiency and maximize the value of investments, Akenerji Energy Services operates within two branches that include industrial and commercial facilities.

Studies are conducted for development of potential energy improving projects, re-evaluating existing projects and finding incentives for related projects

in four different sectors of industry (automotive, cement, ceramics and food). As a result of the network created with native and foreign engineering companies during these studies, the most appropriate projects tailored to the needs of the customers are provided as well as the synergy created among the sector stakeholders.

By working on the air conditioning systems of commercial buildings, Akenerji aims to raise awareness of its customers and to save energy through optimum maintenance and management of the existing systems, without making any investments. In this framework, in an energy efficiency project that was realized in a shopping mall in 2016, approximately 40% electricity saving was made possible without any investment.

As Akenerji, we also continue with our "Smart Electricity Solutions" that we started last year with a focus on energy efficiency. It is possible to describe these under three headlines:

With **Energy Efficiency Consultancy Services**, we aim to decrease unit energy consumption thus lowering the energy consumption cost, which is a significant expense item for many companies. Enterprises that demand can receive energy screening services from our authorized energy consultancy firms in exchange for a certain fee. The screening process reveals areas to be improved in terms of energy efficiency and alternative solutions are then offered to companies.

Another solution that we offer our customers is the installation of remote monitoring systems that allow them to monitor and **manage their reactive energy consumption**. Customers using this system avoid reactive energy consumption hence related monetary penalties. Our objective is to add value to our customers by controlling this cost, which significantly increases electricity expenses when managed improperly.

Finally, we offer internationally-approved emission reduction certifications to customers through our renewable energy investments. These certifications enable companies to become **carbon-neutral** in terms of the electricity they consume. This solution helps environmentally responsive companies that would like to mitigate or diminish to "zero" carbon

footprints resulting from electricity consumption and other processes.

## Energy Trade Department

Within the scope of Energy Trade Department, we work to supply the needs of our country and our stakeholders through effective methods hence develop new products. For this purpose, in 2016, we initiated the following three activities:

- » Virtual Power Plant
- » Dispatch Services
- » Market Access Services

### Virtual Power Plant

Akenerji commits and aims to supply the demands of other market players either via liquid or derivative products. Following on this vein, in 2016, realizing the first Virtual Power Plant in Turkey, some of the production capacity rights of Erzin NGCCPP, having an installed capacity of 904 MW, is tendered for the use of consumers during certain periods.

With Virtual Power Plant, consumers are provided with the right to use the production capacity during certain periods, without being affected by the plant construction costs, breakdowns, maintenance and the crisis. Our customers that receive the right of use as a result of the tender, in a way, lease the efficiency of up-to-date technology and elasticity of the plant. It is adequate for the company to state the hours when it needs production, just the day before. Besides, this model overcomes the risk of "take or pay" that is compulsory in the gas market.

Another advantage of the companies that use this product is that the capacity that is allocated can be used every hour during the supply period. In the face of the gas crisis that are imminent every year, owing to the current energy production portfolio of the country, even though the plants that produce with natural gas face outage, Virtual Power Plant users are serviced every hour, during the supply period.

Besides, the Virtual Power Plant users may choose not to use the allocated capacity during times of lower prices and make use of the low "Day Ahead Prices" and create an advantage of the high day-ahead prices.

Virtual Power Plant aimed to increase the market volume by supplying the contributors with an options product in a period when the over the counter market volume is decreasing and foresight is hard. Owing to the product's nature, it established reference prices of the peak/off-peak products that have low trade volume. In 2016, Akenerji realized two separate tenders with the contribution of other market participants, in April and in November. The second tender bids were received through an online system.

### Dispatch Services

Akenerji is the first electricity production company that was established with an auto producer status. As Akenerji, we supply the needs and requirements of the dynamic energy sector and operate with the notion of providing sustainable and high value added services to our partners and stakeholders.

Although it provides big opportunities owing to its changing dynamic structure, energy sector hosts big risks (collateral inadequacy, wrong data entry, legislation changes, imbalance management, reporting, settlement, invoice mistakes). With the know-how and expertise accumulated through the management of the power plants, Akenerji follows all the dynamics of the energy sector and with an expert team for Dispatch Services, fulfills the commercial management of the plants of the sector investors, on the principles of maximum profitability, zero data entry risk, minimum imbalance cost and transparency.

**Akenerji realized the first "Virtual Power Plant" in Turkey and received the "Golden Voltage" award in "Electricity, Oil and Gas Sector Awards" category during Turkey's 7<sup>th</sup> Energy Summit.**

Within the scope of the Dispatch Services, the investors are provided with a broad spectrum of services that range from sectoral consultancy to legislation tracking, from daily and monthly electricity market operations (Day-ahead Market, Balancing Power Market, Day Market, reconciliation and invoice consultancy, instruction management etc.) to collateral management and reporting.

In the plants that are managed within the framework of this service, the energy produced is enabled to meet the market in the most efficient means.

### Market Access Services

The companies operating in the energy sector, especially the foreign companies, spend long times for undersigning contracts with other sector players and for getting credit approvals owing to intensive internal processes. Akenerji provides market access services to stakeholders that demand and enables them to reach the market and do more active trade. With the facilitation of Akenerji, the customers that receive market access services can reduce the counter party risk to one company. At the same time, they have the opportunity to decrease their operational load and access over the counter market prices easily.

With this service, the financial risks of the companies are reduced, credit risks are eliminated and they can easily and securely access electricity markets. This way, the enterprises that undersign the "Market Access Service" contract with our company increase the number of firms they operate with and are able to easily find demand for their products that they offer to the market. Consequently, it increases the market liquidity.

## Sustainability on Our Supply Chain

It is our priority to establish and maintain legal and contract-based relationships with our suppliers. While procuring products and services from our suppliers, we take into consideration international and sectoral standards. We also consider supplier information as trade secrets and therefore protect their confidentiality.

Within the framework of our Supplier Selection and Evaluation Procedure, before starting to work with a supplier, we perform a pre-selection phase to decide on the most appropriate candidate. We evaluate suppliers' practices regarding Quality, Environmental and OHS Management Systems as well as criteria such as compliance with Akenerji specifications and delivery deadlines, prices, and methods of payment. We expect all of our suppliers to share our vision of responsibility for sustainability and environmental issues. We prefer ISO 9001, ISO 14001, OHSAS 18001 certified suppliers if they meet all of our selection criteria.

We select and start to work with suppliers based on our Supplier Selection and Evaluation Procedure, and then once the product and service procurement is completed we evaluate their performance. We use evaluation criteria such as conformity of raw materials, products or services with our specs, delivery time, complaint management, and harmonization with Akenerji. As a result of this evaluation, we continue to work with the suppliers who meet the required criteria and maintain good performance.

In 2014, with the aim of documenting the fact that our suppliers operate in conformity with the laws, we reviewed and re-evaluated the lists of documents required for each service procurement. For instance, before starting to work regularly with a supplier in areas such as planned maintenance, waste disposal, disinfection, health screening, etc., we request the required documents in advance. These documents may include certifications of equipment subject to periodical control and tests, certifications and / or competency documents, employment and periodical health report of employees to work on site, OHS trainings, occupational trainings, Social Security Institution (SSI) service scheme, risk management documents, MSDS of chemicals to be used on site, etc. Thanks to this practice, we ensure that our suppliers operate in conformity with the laws.

As of mid-2015, written declarations of our suppliers regarding the legitimacy of their operations were attached to their contracts and with the same caution, in 2016 we continued to attach their declarations to our service agreements. At the same time, this

year, we reformulated our general procurement terms of reference to keep under control the service and products that we procure, in terms of quality, environment and OHS.

In 2016, we continued to employ our supplier evaluation process that we initiated in 2015, with the goal of evaluating at least 1 supplier at the plants and 2 at the headquarters, in terms of integrated management systems. The responsible personnel at the Head Office conducted evaluations within the framework of Information Security Management System at 1 supplier, and Quality, Environment and OHS Management Systems at 3 suppliers. Besides, our teams at the power plants performed 6 supplier evaluations extending beyond our targets for supplier evaluations. Consequently, through exchange of opinions on problems and successful implementations, opportunities for continuous improvement could be achieved. Outcomes of these evaluations helped us identify the areas to be improved and encouraged our suppliers to work on these areas.

**With the revisions on our procurement terms of conditions, we assured control over our supply chain in terms of quality, environment and OHS.**

**We quickly extended our supplier evaluations that we initiated last year.**



## 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 we attach to renewable energy generation.

We are expecting the approval of final projects regarding Kemah HEPP from State Hydraulic Works (SHW) to be complete in 2017.

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. With a capacity to generate 560 GWh of electricity per year, the project is expected to be operational by 2021.



### Ayyıldız Wind Power Plant

Regarding the upgrade 15 MWm installed capacity of Ayyıldız WPP to 28.2 MWm in 2016, which is an indicator that Akenerji maintains a diverse portfolio and continues to invest in renewable energy resources, all the approvals, construction and electromechanical assembly works were completed and start-up was initiated in December 2016.

**Ayyıldız WPP start up works were initiated in December 2016 within the framework of installed capacity increase project.**





# Our Integrated Management Systems

## Environment, Quality and OHS Management Systems

A major part of our sustainability efforts is implemented within the framework of our Integrated Management System. Since 2008, our power plants and the Head Office are subject to integrated management systems, including ISO 9001 Quality Management, ISO 14001 Environmental Management and OHSAS 18001 Occupational Health and Safety Management Systems. With the revision of ISO 9001 Quality Management, ISO 14001 Environmental Management systems in 2015, Akenerji-Egemer Head Offices, Ayyıldız RES, Uluabat HEPP, Burç HEPP, Bulam HEPP, Feke I HEPP, Feke II HEPP, Himmetli HEPP, Gökkaya HEPP and Erzin NGCCPP received the updated certificates of these management systems. On the other hand, OHSAS 18001 Occupational Health and Safety certificate is sustained.

Quality, Environment and OHS performance of Akenerji is managed by the Directorate of Quality, Environment and OHS within the Office of the Production Deputy General Manager. Integrated Management System is also the responsibility of the Quality Project Team led by the Directorate of Environment, Quality and OHS. The Quality Project Team consists of Head Office and power plant employees bearing internal audit certificates.

Integrated Management System is executed through an annual review of all processes. In accordance with the internal audit plan issued, employees bearing internal audit certificates perform this review. Outcomes of these audits are shared with all of our employees and evaluated by senior management during review meetings.

In our power plants, a Quality, Environment and OHS Suggestion System that encourages employees to share their opinions is implemented. In 2016, power plant employees made 52 suggestions through this platform, which is a part of the Integrated Management System. Each suggestion was carefully reviewed and executed depending on its feasibility.

**Akenerji has been one of the pioneer companies that upgraded to 2015 versions of ISO 9001 Quality Management System and ISO 14001 Environment Management System.**

## ISO 27001 Information Security Management System

Under the responsibility of the Information Security Project Team, the efforts towards pursuing TS/ISO IEC 27001 Information Security Management System (ISMS) standard at Uluabat and Erzin plants, as well as the Head Office were initiated in 2015 and the certifications were received as of January 2016.

Within the scope of Information Security Management System, all the processes go through an annual review similar to integrated management systems. In line with our internal audit plan, the review is done by our employees who possess internal auditor certificates. The results of these audits are shared with all the employees and reviewed by senior management.

In December 2016, our Head Office and Uluabat power plant were audited by an external audit firm and sustained their certificates with zero "non-conformities".

**We maintained our ISO 27001 Information Security Management System with zero non-conformities.**


In order to create awareness, throughout the year, our employees as well as the subcontractors received 234, 80 and 78 man-hours of Information Security trainings were realized respectively at our Head Office, Erzin NGCCPP, and Uluabat HEPP. In addition to internal trainings, to increase the number of our internal auditors and enlarge the internal audit team, 135 man-hours of ISMS Internal Auditor training was provided to 9 more employees.

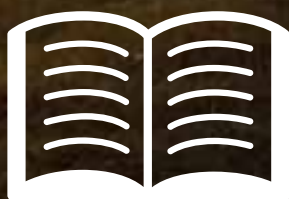






# ENVIRONMENTAL RESPONSIVENESS

- 
- A photograph of a wind turbine standing on a grassy hill. The sun is setting on the right side of the image, creating a warm, golden glow that fills the sky and the foreground. The wind turbine is silhouetted against the bright sky. The overall mood is peaceful and sustainable.
- Our Approach
  - Environmental Management
  - Energy Management
  - Water Management
  - Climate Change Management
  - Waste Management
  - Biodiversity
  - Environmental and Quality Trainings



ENVIRONMENT & QUALITY  
TRAININGS

**930**  
**MAN-HOUR**

Our 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.

## Our Approach Environmental Management

As Akenerji, our approach to environment is shaped by the concept of "always aiming to operate with an approach that is sensitive towards environmental issues for creating a future as bright as today".

Our environmental performance data and practices cover seven hydroelectric, one wind and one natural gas power plant that were active as of 2016 as well as our Head Office in Akhan, İstanbul. Kemah HEPP and Ayyıldız WPP installed capacity increase projects that were still in investment phase as of the end of 2016 are covered in the "Responsibility in Value Chain" section of the Report.

We manage responsibly the impacts of our operations on the environment. In order to measure and mitigate the environmental impacts of our operations, we implement ISO 14001:2015 Environmental Management System that is certified by independent audits.

Our Directorate of Environment, Quality and OHS monitors our compliance with the environmental regulations and legislations. The Directorate is responsible for the operations of our Head Office in İstanbul and electricity generation plants in various cities in compliance with environmental legislations. Besides, in addition to our Environmental Representatives at each plant, who have Quality, Environment and OHS Management Systems internal auditor certifications, in Adana power plant an Integrated Management systems specialist and in Erzin NGCCP Plant Environmental, Quality and OHS specialist are employed. All departments are responsible in identifying and mitigating environmental impacts caused by our operations.

Compliance level of our operations with legal liabilities and creditor provisions is evaluated periodically. These evaluations include:

- External audits by an independent company and internal audits performed once a year within the scope of Integrated Management System,
- Internal Environmental Inspections performed in all sites by the Environmental Management Unit at least once a year within the scope of the Environmental Audit Regulations.

Nonconformities are monitored by corrective actions in the scope of Integrated Management Systems through legislations and standards and recorded by Environmental Internal Audit reports and monthly evaluation reports prepared in the format used by the Republic of Turkey Ministry of Environment and Urbanization. Thus, compliance with the Environmental Regulations and actions taken against deficiencies are closely followed.





# Erzin Natural Gas Combined Cycle Power Plant

Established in the town of Erzin in Hatay, Erzin NGCCPP is among Turkey's largest natural gas power plants, with an average electricity generation capacity of 7 billion kWh. The plant has the electricity generation capacity to meet the need of approximately 2.25 million houses. The first unit of Erzin NGCCPP was started-up as of April 2014 and it became fully operational in the last quarter of 2014.

In the combined cycle power plant, electricity is generated not only by using natural gas as fuel, but also by using steam generated from the waste exhaust gases. In other words, the plant performs high-efficiency production by utilizing waste energy.

The plant's liabilities in terms of the Environmental Regulations are monitored by our Directorate of Environment, Quality and OHS as well as an expert consultancy firm with legal competence. Field practices are performed together with the Environment, Quality and OHS Expert on site.

Environmental monitoring, analysis and evaluation of Erzin NGCCPP as stated in the "Environmental Impact Assessment Report" and "International and Social Environmental Impact Assessment Report" were launched in March 2011, covering pre-construction phase. In addition to the studies conducted to identify environmental and biological factors, we also measured noise, air and water quality to observe impacts of construction activities on the environment. As an extension of these, evaluation reports, operating and monitoring plans were prepared to guide us throughout the construction and operation period.

Monitoring of construction phase was completed by September 2014 and "Business Items in Operational Period" were initiated and continued until the end of August 2015. The works carried out during this period are explained in the biodiversity section of the Report. Within this scope in 2016, only Sea Water Quality – Sea Water Quality Parameters measurement, and Swimming Water Quality Parameters measurements are made.

In 2015, the Plant obtained its Environmental Permit in the scope of Air Emission and Deep Sea Discharge

according to Environmental Permit and License Regulation. Also in 2016 we continued monitoring both air emission and waste water discharge in terms of Environmental Legislations.

Our practices to monitor and mitigate environmental impacts of the Plant are as follows:

## Greenhouse Gas Monitoring

At our power plant, energy is generated by burning natural gas via the use of dry low NOx technology that has low emission values. Flue gas emissions are continuously monitored by the emission measurement system. In 2015, Republic of Turkey Ministry of Environment and Urbanization started to remotely monitor the Continuous Emission Measurement System. Besides, by the air quality measurement and monitoring system established under the coordination of Environment and Urbanization Directorate of the city, Hatay, air quality parameters can be monitored. This way, it has become possible to continuously monitor air quality and take necessary precautions on time.

The "Greenhouse Gas Monitoring Plan" for the Erzin NGCCPP that was prepared within the scope of the Regulations (The Regulation on Monitoring of Greenhouse Gas Emissions, Notification Regarding Greenhouse Gas Emissions Monitoring and Reporting) was submitted to and approved by the Ministry of Environment and Urbanization. With the approval given in 2015, greenhouse gas emission monitoring and monthly reporting were initiated in conformity with the Greenhouse Gas Monitoring Plan. It was foreseen that until the end of April 2016, the authorized accreditor institution verifies the report. However, as there was no accredited institution until then, there has been an update for deadline delay in the Legislation. Both 2015 and 2016 Greenhouse Gas Reports will be verified and submitted to the Republic of Turkey Ministry of Environment and Urbanization by the end of April 2017. In December 2016, the employees of Erzin NGCCPP trained on ISO 14064 Standard Implementation from an external certification firm. In this scope, the greenhouse gas emissions monitored by Erzin NGCCPP in 2016 will be reported and verified according to ISO

14064 Greenhouse Gas Emissions Monitoring and Reporting Standards.

The responsibilities regarding the regulations for monitoring and verification of greenhouse gas emissions that Akenerji completed up until now and will be realizing in the upcoming periods are summarized below:

For January 1 - December 31, 2015 and January 1 - December 31, 2016 periods, annual emissions were monitored, and as of January 1<sup>st</sup>, 2017 annual emissions for 2015 and 2016 will be reported, and then until April 30<sup>th</sup>, 2017 first verified emission amounts (for January 1 - December 31, 2015 and January 1 - December 31, 2016) will be submitted to Republic of Turkey Ministry of Environment and Urbanization.

## Waste Water Discharge

Domestic waste water treatment plants, cooling water blow-off, industrial waste water treatment plants, and reverse osmosis systems using sea water are combined in a discharge pit and then discharged within the boundaries of the deep-sea discharge parameters. In addition, the Plant has a remote waste water continuous monitoring station and various parameters of discharged water can simultaneously be monitored online by the Ministry. Within 2016, waste water continuous monitoring station was approved by Republic of Turkey Ministry of Environment and Urbanization and monitoring frequency of cooling bluff water that was weekly internally analyzed was elongated to once every three months.

## Deep Sea Discharge

In May 2016, in according to the Environment Legislation, Deep Sea Discharge Line was inspected and recorded by the divers and then was reported. Thus, existence of problems like leakage and obstruction of the line were controlled.

## Energy Management

Majority of Akenerji's energy consumption is the electricity generated from natural gas in the day-ahead, balancing and day markets and the amount sold to customers. In addition, we need to consume fuel for our internal operations. These include natural gas and fuel oil used at the power plants and the Head Office; the diesel fuel used in generators, and diesel and gasoline used in vehicles. On the other hand, when necessary, we purchase electricity from the network to be used in buildings and power

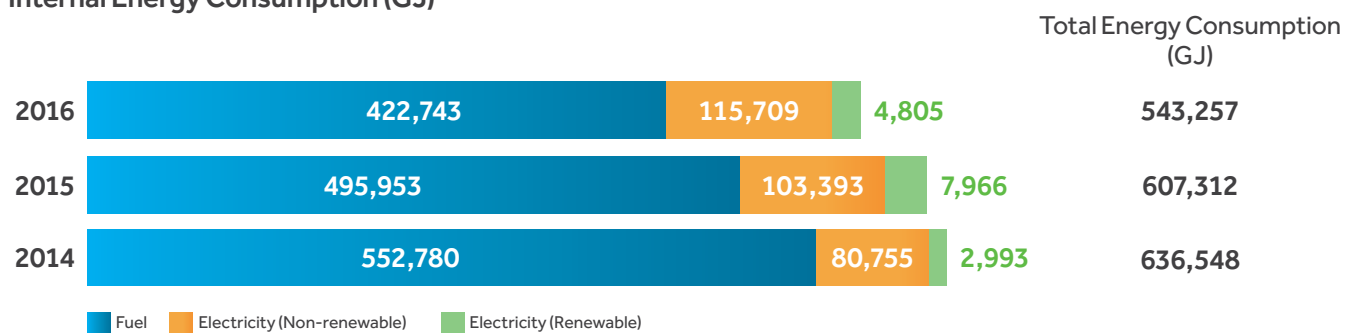
plants. In our hydroelectric and wind power plants, though partially, we use electricity generated from renewable resources. We closely monitor the amount of energy we consume and take measures for energy saving.

### Energy Consumption

The graph below shows our fuel and electric energy consumption data by source. Natural gas is the major fuel we consume. "Non-renewable source-based electricity" means the electricity

purchased from suppliers and internally consumed at our premises. Electricity generated and internally used at HEPPs and WPPs is stated as "renewable-based electricity" in the chart. The table indicating detailed energy consumption data is given in "Performance" section of this Report.

### Internal Energy Consumption (GJ)



Natural gas consumption is the amount that corresponds to our internal consumption. As Erzin NGCCPP became operational in 2014, natural gas consumption increased. Moreover, with the close down of Kemalpaşa and Bozüyük NGPPs, there was a decline in 2015. In 2016, our electricity consumption increased, while our fuel consumption decreased; however, the total energy consumption was observed to decrease by 10%.

## Energy Efficiency and Saving

While generating energy at our NGPPs, our priority is to ensure that the natural gas we consume is used in the most efficient way. We monitor energy efficiency in the micro and macro scale. In the macro scale, our natural gas power plants that operate as balancing units within the scope of the Balancing and Reconciliation Regulations work on the basis of cost-based "Day Ahead Price". As bidding method for especially natural gas power plants is cost-based, bids are

made depending on the capacity we generate at high efficiency level to keep the plant running. Therefore, we try to minimize the amount of natural gas consumed per kWh electricity generated.

On the micro scale, at the power plant level, efficient consumption of natural gas is a material issue as it has direct effect on costs. Fuel efficiency performance data are monitored continuously by our Directorate of

Fuel Supply and Plant Coordination. In case an abnormal value is identified in the real-time efficiency calculations in natural gas power plant, we intervene immediately, find and solve the root cause of the problem. In order to ensure that our hydroelectric power plants operate with maximum efficiency, we review daily production programs and make sure that the plants operate with optimum capacity. Operators working at power plants are responsible for energy management.

## Water Management

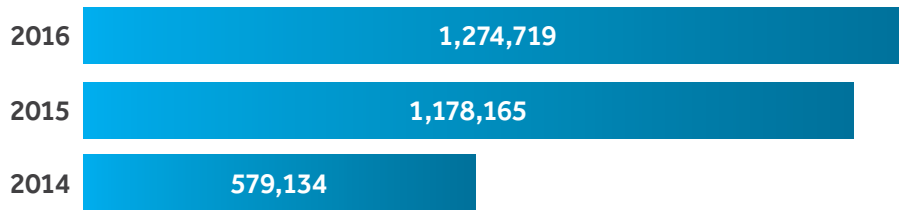
Erzin NGCCPP supplies the cooling water required for its operations from the sea. High pressure steam and the water that is used in the turbines are drawn from the sea via reverse osmosis and used by means of high technology water treatment facility. In our hydroelectric power plants, the water to be used for cooling is drawn from surficial sources and then

discharged to a river or stream without any loss in principle. For this reason, Erzin NGCCPP consumes most of the water among all our operations.

At our Head Office, HEPPs and WPPs we use water for domestic uses such as hygiene and cleaning. As in the table below, water consumption trend is increasing in the last three years. The

main reason is water consumption at Erzin NGCCPP in 2014 was only for 3 months owing to becoming operational as of September 2014. Nevertheless, it was operational in 2015 and 2016 and water consumption for these years is close to one another.

## Total Water Consumption (m³)



Depending on the geographical location of the power plants, the source of the water we consume varies from rivers, springs, seas, wells to waterworks. In order to save water, we implement saving projects within the framework of efficiency goals set for raw water consumption.

## Water Management at HEPPs

HEPPs use dam or river water to generate electricity. The water accumulated behind the dam passes through the generators that are propelled by water turbines and then discharged into the river or stream without any loss, in principle. In some of our HEPPs, dams are built for energy generation and thus dam reservoirs are created. In other HEPPs, energy is generated with the advantage of the natural slope and therefore there aren't any reservoirs. In our water management practices in areas with dam reservoirs, we consider the needs of local communities and the wildlife in order to ensure continuity of wildlife. On the other hand, in water resources without dam reservoirs, we implement water management according to the amount of lifeline water identified in the first phase of the project in line with the opinions of related public institutions.

Within the scope of the Cumulative Impact Assessment made during the project design of the HEPPs in Adana region, beyond legal requirements, we performed surface water quality measurement, flow rate measurement considering locations with high risk of change in hydrological characteristics (low flow rate) and identification of the ecological qualifications of the water.

In 2013, within the framework of the "Regulations on Procedures and Principles Regarding Signing Water Usage Rights Contracts to Perform Generation Operations in the Electricity Market", we had independent expert companies prepare Downstream Water Rights Reports for our operating hydroelectric power plants. As of the end of 2013, we had presented the reports of Burç, Bulam, Feke I, Feke II, Himmetli, and Gökkaya power plants to the approval

of related Regional Directorates of State Hydraulic Works and these reports were approved in 2014. In addition to determining the amount of water required for the continuation of wildlife around our hydroelectric power plants, the main reason for having these reports prepared was to determine and calculate the amount of water use in operations such as fish farms, watermills and farmlands. While preparing the reports, site visits were made and opinions of public institutions including Special Provincial Administrations, Provincial Directorates of Food and Agriculture, Municipalities and Provincial Bank were sought. In 2016, all the Downstream Water Rights Reports were revised with the merger of Akenerji Elektrik Üretim A.Ş., Akkur Enerji Üretim Ticaret ve Sanayi A.Ş. and Mem Enerji Elektrik Üretim San. Ve Tic. A.Ş.

## Climate Change Management

We are aware of the role that energy companies assume in combating climate change. Developed on the basis of this awareness, our environment and climate strategy focuses on:

- Using modern and environmentally friendly technologies in electricity generation
- Investing in renewable energy sources
- Supplying carbon-neutral electricity to customers aiming to reduce or neutralize their emissions

While our value added practices are summarized below, the steps within the scope of CDP Programs, that are globally reputable and effective in the context of Climate Change, are also conveyed.

### Modern and Environmentally Friendly Technologies

By employing modern and environmentally friendly technologies yielding high efficiency and low emission rates, we aim at maximum operational efficiency. For instance, at the Erzin NGCCPP that has a high capacity to generate electricity, we use an advanced ignition system technology to achieve a high efficiency target of 58%. By this means, relatively low greenhouse gas emissions are achieved and natural gas consumption is reduced.

As another step closer to our efficiency goal, we activated the "Close Monitoring System" during late 2013 in order to effectively manage

imbalances resulting from energy generation at our power plants. With this system, energy imbalances are monitored real-time and can be minimized by taking immediate actions.



## Renewable Energy Generation

We had started investing in renewable energy sources such as wind and hydroelectric by participating at the first hydroelectric power plant tenders held by the Energy Market Regulatory Authority (EMRA) in 2005. With this initiative, our Company became one of the first private electricity companies to invest in renewable energy. Currently our total renewable installed capacity at our WPPs and HEPPs increased to 307 MW. Thus, the share of the renewables in the total installed capacity of Akenerji increased to 25% as of the end of 2016.

## Energy Efficiency Consultancy

With this service, we aim to decrease unit energy consumption thus lowering the energy consumption cost, which is a significant expense item for many companies. Enterprises that demand can receive energy screening services from our authorized energy consultancy firms in exchange for a certain fee. The screening process reveals areas to be improved in terms

of energy efficiency and alternative solutions are then offered to companies.

## Carbon Certification and Emission Trade

Another subject that we pioneer the sector is the emission trade. We continue carbon certification processes in all of our renewable energy power plants. Ayyıldız WPP and Bulam HEPP were registered with the Gold Standard, whereas Uluabat, Burç, Akocak, Feke I, and Feke II power plants were registered with Voluntary Carbon Standard (VCS). Among these plants, according to the registration date in Turkey, Uluabat HEPP is the largest hydroelectric power plant with a dam that was registered with VCS. We actively sell registered emission reduction certificates of Ayyıldız, Akocak, Uluabat, and Feke II Power Plants. Certification processes for Gökkaya and Himmethi HEPPs that were operational in 2012, were concluded in 2013 and these plants are now registered at VCS and Social Carbon Standard.

Considering the total generation capacity of our renewable energy plants, we aim to prevent up to 1 million tons of greenhouse gas emissions. In other words, we target to make a contribution equivalent to the amount of fresh air that approximately 42.2 million trees provide.

**"At the time of registry, Uluabat HEPP has been the largest hydroelectric power plant with a dam in Turkey that was registered with Voluntary Carbon Standard (VCS)."**

Power Plant	Certification Sold 2016 (tCO <sub>2</sub> -e)	Approximate Corresponding Electricity Consumption (kWh)	Type of Certification
Ayyıldız	10,200	18,158,817	GS
Akocak	16,194	28,829,792	VCS
Bulam	40,000	26,946,910	GS

## Carbon-Neutral Electricity

Another initiative that we realized to combat climate change is supplying carbon-neutral electricity to customers who aim to reduce or neutralize their emissions.

By considering the customers that are sensitive about their carbon footprints, we supply carbon-neutral electricity

by offering our emission reduction certificates of our renewable energy power plants as a package besides electricity. Certification of carbon-neutral electricity that we supply is provided by an independent verifying institution. Customers benefiting from this service could set their carbon footprints resulting from electricity consumption, to zero.

**Carbon neutralization**, means the process in which companies or consumers neutralize the effect of unpreventable carbon (greenhouse gas) emissions resulting from their operations through certified third-party projects that reduce carbon emissions.



## Greenhouse Gas Management

In addition to internal practices to combat climate change, Akenerji also plays an active role in projects implemented by governmental bodies and the business world. Fossil fuels such as natural gas, fuel oil, diesel fuel, and gasoline cause greenhouse gas emissions. The world of science recognizes the fact that greenhouse gas emissions cause climate change, which is a global problem. Therefore, this issue is included in the environmental legislation in Turkey. We, as Akenerji, try to fulfill our responsibility in combating the global

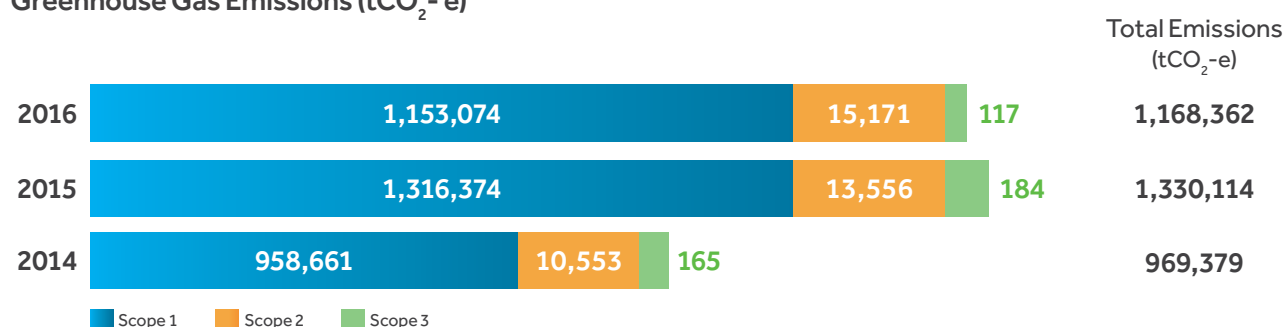
problem of climate change in the best way possible. For this purpose, we do not only continue with our renewable energy investments, but also monitor, control and mitigate the greenhouse gas emissions resulting from our operations.

The chart below depicts the ton CO<sub>2</sub>-equivalent of greenhouse gas emissions resulting from our operations. Almost all of the Scope 1 greenhouse gas emissions result from the burning of natural gas in our natural gas power plant. In addition, diesel fuel and gasoline consumed by our leased vehicles as well as natural gas and fuel

oil used for heating in the buildings cause Scope 1 emissions, though in minor amounts relatively.

Scope 2 emissions result from the electricity consumed at the Head Office in Istanbul and the electricity procured to consume at the power plants. Emissions resulting from the travels by plane are reported under Scope 3.

### Greenhouse Gas Emissions (tCO<sub>2</sub>-e)



\* The efforts of GHG inventory calculation and verification for Erzin NGCCPP within the scope of both "ISO 14064 International Standard for GHG Emissions Inventories and Verification" and "Republic of Turkey Ministry of Environment and Urbanization GHG Emissions Monitoring, Reporting and Verification".

By September 2014, as Erzin NGCCPP became operational, non-renewable energy (natural gas) consumption increased, and this was reflected on Scope 1 values. When Erzin NGCCPP became operational, electricity procured from external suppliers almost tripled compared to the previous year. This resulted in the same level of increase in Scope 2 greenhouse gas emissions. While Erzin NGCCPP was operational only some time during 2014, it was operational throughout 2015 and 2016. Consequently, Scope 1 emissions decreased owing to the

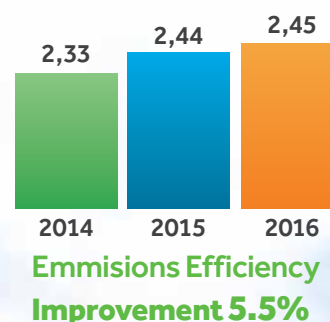
natural gas consumed for generation leading to a significant level of decrease in total emissions. On the other hand, resulting from the electricity consumed at the power plant, Scope 2 emissions increased.

Our emission performance at Erzin NGCCPP, which was active in 2016 and constituted almost all of our Scope 1 emission, is satisfactory. When unit gross electricity generated per unit emission is considered, it can be concluded that our efficiency has improved.

While in 2014, gross 2,325 kWh electricity was generated for 1 kg of CO<sub>2</sub>e emission, in 2016 this became 2,451 kWh. This concludes that we managed to have 5.46% improvement of Scope 1 emissions efficiency at Erzin NGCCPP.

**We increased our Scope 1 emission efficiency by 5.5% at Erzin Power Plant.**

	2016	2015	2014
Gross Electricity Generation (kWh)	2.825.852.966	3.213.921.760	1.649.295.538
Scope 1 Natural Gas Consumption (kgCO <sub>2</sub> -e)	1.152.796.237	1.316.041.044	709.540.398
Electricity Generated Per Unit Emission (kWh / kgCO <sub>2</sub> -e)	2,451	2,442	2,325



**Emissions Efficiency Improvement 5.5%**

## CDP Program

### CDP Climate Change Program

In order to publicly disclose our climate change strategy and calculated carbon performance data, we started CDP reporting in 2011. As a global voluntary initiative with 4,000 reporters annually, CDP is introduced to ensure that information required to help corporations, investors and governments to take measures against the threat of climate change is gathered and shared. Companies voluntarily participating in the Project in Turkey disclose their carbon emission strategies and figures to create the basis of a country report. Data gathered from annual country reports are then used to devise strategies to combat climate change globally.

As Akenerji, we have been voluntarily participating in CDP Climate Change Program since 2011. In our publicly disclosed CDP report in 2016, we increased our score from "C" level to "B" level.

### CDP Water Program

The companies listed in Global 500, S&P 500 and FTSE 100 as well as those that are the giants in Australia, Japan and South Africa participate in the CDP Water Program that aims at motivating the private sector about water resources.

Water is vital for global economy. Depletion of water resources is a great risk for the companies around the globe and national economies, and causes detrimental effects for humans and nature. In line with our Sustainability Vision, we participate in the CDP Water Program since 2015 when it was first implemented in Turkey.

Akenerji increased its score from "C" to "B" and still remained as the one & only electricity generation company participated in CDP Turkey Water Program.

## Waste Management

In order to prevent environmental pollution and preserve natural resources, we take necessary measures in waste management and pay attention to raise awareness on the issue. Disposal of solid wastes and discharge of waste water generated during our operations are implemented in full abidance by the provisions in related laws. By supporting waste management with effective projects, we aim to continuously improve the knowledge and awareness of our employees. To this end, we provide environmental regulations and waste management trainings on site and at the Head Office.

Waste management is performed in line with our waste management plan at the power plants and the Head Office, according to our Waste Management Procedure. Within the context of this procedure, our environmental representatives on site fill in waste records each month and with the consent of the Plant Manager these records are sent to the Directorate of Environment, Quality and OHS at the Head Office for monitoring. In landfills built in concert with the Environmental Legislation, these wastes are stored temporarily; and when they reach a certain amount, they are delivered to companies licensed by the Republic of Turkey Ministry of Environment and Urbanization by their licensed vehicles.

In 2014, with the aim of reducing environmental impact of our wastes, we improved the landfills in the town of Akocak in Trabzon, and Feke II, Gökkaya, and Himmetli HEPPs in Adana. As a result, landfills within power plants were equipped with the following qualifications as of 2014:

- There are separate sections for each type of waste and name of the waste to be stored is written on each section.
- Our wastes are stored on a leak-proof concrete floor.
- Landfills are closed areas with no contact with the outside.
- To avoid leakages, spills and splashes of liquid wastes, related sections are equipped with pool-shaped grids. Absorbent materials are always ready for use in case of leakage, spill or splash.
- Emergency fire extinguishers and warning signs are in place.

In 2016, the landfills of all our plants were internally inspected to preserve the aforementioned qualifications in accord with Environmental Legislation, and based on the results complementary works were realized. Waste Management Plans of Feke I, Himmetli and Gökkaya HEPPs in Adana were submitted to Provincial Directorate of Environment and Urbanization, consequently the landfills were visited by the Directorate and were approved without nonconformities.

### Solid Wastes

We dispose of solid wastes by a variety of methods including recycling, recovery, reuse, incineration and landfills, depending on the nature of wastes. Amount of waste is regularly measured and the delivery of these wastes to the companies licensed by the Republic of Turkey Ministry of Environment and Urbanization is reported to the related Republic of Turkey Provincial Directorate of Environment and Urbanization.

According to the waste categories identified in law, we sort wastes as hazardous and non-hazardous wastes. We deliver non-hazardous wastes generated at our power plants and the Head Office to municipalities and send all other wastes to disposal companies licensed by the Republic of Turkey Ministry of Environment and Urbanization for recovery or disposal, under the supervision of our Environmental Management Unit.

Recovery and disposal distribution of the hazardous and domestic wastes generated at our active power plants and at the Head Office within the last 3 years are depicted in the following graph.

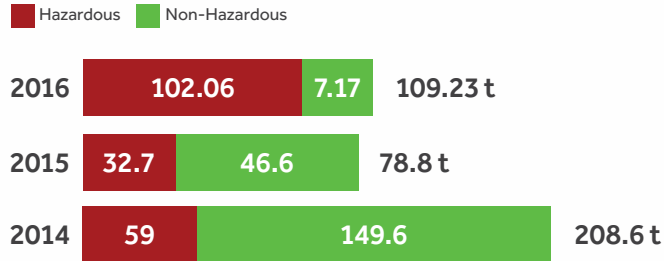
**Akenerji increased its score from "C" to "B" and is still the only electricity generation company to participate in CDP Turkey Water Program.**



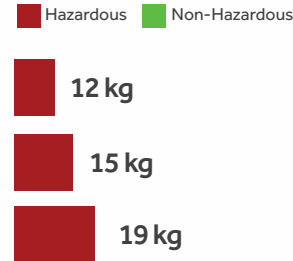
## Recovered Waste

Our figures regarding waste for 2016 are depicted at the following graph. The amount of waste generated at Erzin NGCCPP is more than that in 2015. As 2016 was the second year of operation at the plant, filter change and similar processes were realized and that led the increase in the amount of waste.

### Recovered Waste (t)



### Disposed Waste (kg)



#### Note:

1. In the framework of Waste Disposal Regulations", among the "disposal" methods are warehousing, waste incineration, and among "recovery" methods are recycling and re-use.

2. The data are calculated taking into account the amount of waste generated at the active power plants and the Head Office at year end. The data in 2016 include all the waste generated at Akhan Building which is Head Office.

There is an increase in the amount of waste recovered and disposed in 2016 compared to the last two years. The reason for the increase in disposed waste is that unlike the previous years we did not only collect waste from the Head Office, but started collecting the hazardous waste (batteries) from all over Akhan Building. The increase in the amount of waste recovered is a result of both this and the change of filters at Erzin NGCCPP.



## Waste Recovery and Disposal

As Akenerji employees, we reflected our environmentally responsive corporate culture upon our practices of collecting recyclable wastes. In 2016, both in Akhan and in all Akenerji power plants, approximately 11 tons of waste paper and packaging material were collected and delivered to recycling company. "Electronic Waste Recycling Project" that was initiated in August 2012 at Akhan and power plants, continued in 2016, thus 173 kg of waste electrical and electronic equipment were recycled all year round.

At Akhan and Akenerji's all power plants, 12 kg of waste battery were collected in 2016 and handed in to "Association of Portable Battery Producers and Exporters". 80 kg of waste battery were collected from Akhan Building hosting Akkök Holding and all its subsidiaries, including Akenerji, and handed to TAP. All together 92 kg of waste battery were provided to TAP.

## Paper Consumption and Recycling

Paper consumption is an issue we focus on and monitor in a location-based manner. Our paper consumption in all operating power plants and the Head Office was 2.8 tons in 2014, 2.3 tons

in 2015, and 3.01 tons in 2016. Paper wastes sorted by our employees are tentatively stored at our premises. Then they are collected by the municipalities and recovered by a contracted licensed institution of the municipality.

## Waste Water

Our power plants generate two types of waste water: process waste water and chemical-loaded waste water. Ante-freeze and chemical-loaded waste water at the HEPPs and turbine wash waters generated during the operation of Erzin NGCCPP and the breakdown of other power plants that ceased to operate, are reported as hazardous wastes according to the regulations and therefore delivered to licensed disposal companies.

We discharge our waste water in line with the criteria and methods defined in the legislations. Except for Erzin NGCCPP, domestic waste water of all other plants is collected in cesspools and then drawn by sewage trucks of municipalities or licensed waste institutions. Waste water of the domestic waste water treatment plant, cooling water blow-down and industrial waste water treatment plant of Erzin NGCCPP is collected at a discharge pit and then discharged within the

boundaries of the deep-sea discharge parameters stated in the related regulation. Besides, there is a station for remote monitoring of waste water, and discharge water can be observed by the Republic of Turkey Ministry of Environment and Urbanization. On top of these, within the context of Environmental permit for Air Emission and Deep Sea Discharge, waste water internal monitoring is done by an accredited laboratory in accord with the related legislation and reported to local authorities. Nonetheless, we have a remote continuous monitoring system for waste water at our plant and the discharge water is concurrently monitored by the Ministry. In 2016, the continuous waste water monitoring station was approved by the Republic of Turkey Ministry of Environment and Urbanization, and the monitoring of cooling bluff water that used to be weekly analyzed internally was elongated to once every three months.

The amount of hazardous waste water discharged and the places of discharge in the last three years are presented in the table below. In addition, in 2016 Erzin NGCCPP used 8,555,526 m<sup>3</sup> of sea water as cooling water in closed system and then discharged it back to the sea without processing.

Water Discharge (m <sup>3</sup> )	Place of Discharge	2016	2015	2014
Process Waste Water				
Bozüyük	Kocadere River via Bozüyük Municipality waste water line	-	-	43,200
Erzin	Mediterranean Sea	972,893	721,956	273,960
Kemalpaşa	Kemalpaşa Organized Industrial Zone waste water infrastructure	-	-	11,062
<b>Toplam</b>		<b>972,893</b>	<b>721,956</b>	<b>328,222</b>

**Note 1:** Domestic waste water delivered to the sewage system is not included in waste water figures.

**Note 2:** Erzin NGCCPP became operational as of 2014

## Biodiversity

In our country, new plants or capacity increases in existing plants may be subject to Environmental Impact Assessment (EIA) within the scope of their impacts on conservation areas and biodiversity, as required by the Environmental Law. In such projects that are subject to EIA, all aspects of biodiversity are taken into consideration, measures to mitigate

potential negative effects are identified and activities are planned by setting goals.

In line with the EIA Regulations, we follow the legal processes by taking necessary precautions in both investment and operation phases so as to minimize the impact of power plants on the natural ecosystem.

In order to perform environmental monitoring, analysis and evaluation of our Erzin NGCCPP as stated in the "Environmental Impact Assessment Report" and "International Environmental and Social Impact Assessment Report", we started to cooperate with an expert service provider as of March 2011, before the construction had started. While



studying underground and surface water, soil quality, flora and fauna, we also monitored the population of sea turtles and other species that are of importance for the region. Besides, sea water quality parameters were checked and land fauna works were completed in September 2014. In addition to these processes that will continue during the operation of the power plant; soil quality, planktons, benthic invertebrates and fish were continuously monitored and reported by a laboratory until the end of August 2015. As of the end of August 2015, all monitoring studies that needed to be done were completed. In 2016, only, the swimming water quality will be monitored for the first two years of operation. In addition to this, studies within the scope of EIA Commitments will be realized by monitoring the swimming water quality parameters once every year during plant's operation. Consequently, not only the liabilities arising from environmental legislation, but also the environmental impact of the plant will be monitored.

The installed capacity of Ayyıldız WPP will be upgraded to 28.2 MWm from 15 MWm with the addition of 4 more turbines to the existing 5. For this reason, we committed to Nature Preservation and National Parks Directorate of Republic of Turkey Ministry of Forestry and Water Management for the preparation of Ornithological and Mammalian Monitoring Report to determine the bird species that live or migrate in the region and the mammalian species that live nearby. The studies necessary for the report will be conducted in 2 years; in 4 terms around autumn and spring during the birds' migration season. The first term's observations were conducted in October and November in 2016. Based on the data

provided as a result of the 15-day site study, Ornithological and Mammalian Monitoring Report was prepared and presented to authority concerned.

In order to contribute to our afforestation efforts and employee engagement, a new practice was initiated in 2015. Accordingly, sapling donations were made to TEMA Foundation for our employees' birthdays, thus a total of 149 saplings were donated during 2016.

In an attempt to enrich the natural life and afforest the land where our plants exist, since 2010, we planted 20,328 saplings. Additionally, environmental restoration works were also implemented in most of these locations.

**Since 2010, Akenerji has planted a total of 20,328 saplings in various fields.**



## Environmental and Quality Trainings

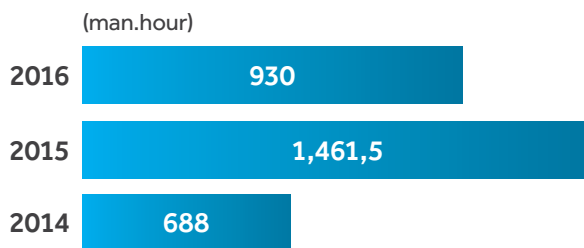
We provide environmental trainings to our employees on issues such as waste, energy and energy efficiency with the aim of improving their level of knowledge and awareness hence improving our Company's performance. In 2016, we provided at least one training that determines the significance of the environmental effects of the plants, environment dimensions, Environmental Accident and Complaint Reporting Procedure. In addition to this, the environment dimensions of all our sites were

revised. Through organizing drills on all sites, we managed our employees to experience how the procedures will flow in case of an emergent environmental accident. On the other hand, the employees of Erzin NGCCPP received environmental legislations and waste management trainings from an external environmental consultancy firm; as well as ISO 14064 Greenhouse Gas Emissions Reporting and Verification training from an external certification firm. In addition to these, our employees

received environmental awareness training and they were briefed about the activities realized in Akhan Building regarding environmental legislation and waste management. Besides, new employees are also informed on our environmental practices during their orientation process.

We provided a total of 930 man.hours of environmental and quality training to employees in 2016.

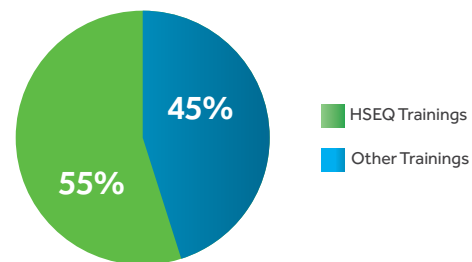
### Total Hour of Environmental and Quality Trainings Given to Employees



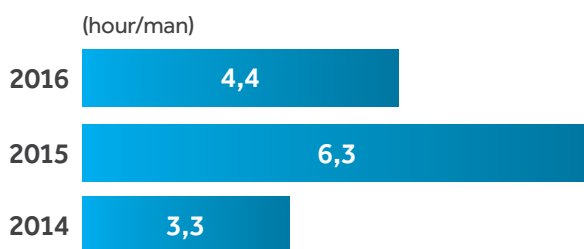
ENVIRONMENT & QUALITY  
TRAININGS

**930  
MAN-HOUR**

### Training Given to Employees



### Average Annual Hour of Environmental and Quality Trainings Given to Employees



**55% of the trainings provided to our employees consist of Environment, Quality and OHS topics.**

### Being Prepared for Environmental Accidents

In order to monitor, control and register all potential environmental accidents (leakage, spill etc. all spills in small amounts are reported in terms of environmental accidents) at Akenerji Head Office and on site, we created an Environmental Accident and Complaint Procedure in 2014. We started to classify environmental accidents and complaints registered in previous years in line with this new procedure. The Directorate of Environment, Quality and OHS is responsible for the control, management and

processing of all actual or potential environmental accidents on site, in conformity with this Procedure. According to the Procedure, our Environmental Management Unit devises accident scenarios and organizes drills to keep employees prepared for potential environmental accidents. With drills held at least once on each site, the competence of employees in responding to an environmental accident and the effectiveness of these methods are evaluated. Following the scenario, the Environmental Management Unit fills in an Emergency Drill Form for Environmental Accidents.

In 2016, environmental accident drills were held in Erzin NGCCPP, Ayyıldız WPP, Burç, Bulam, Feke I and Feke II HEPPs, as well as in Himmetli, Gökkaya and Uluabat HES. In addition, Environmental Accident and Complaint Procedure training was also offered in 2016.



# OCCUPATIONAL HEALTH and SAFETY



- Our Approach
- OHS Management
- OHS Trainings
- OHS Performance





OHS  
TRAININGS

**3,211**  
MAN-HOUR



VEHICLE ACCIDENT  
RATIO

**-0-**



SUBCONTRACTOR  
OHS TRAININGS

**1,456**  
MAN-HOUR

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

## Our Approach

Our priority is to ensure that our employees work in a happy and peaceful environment, that they commute between their homes and workplace safely, and that we reach the highest Occupational Health and Safety (OHS) performance by integrating all practices stipulated by law into our business model.

OHS operations of Akenerji are performed in full integration with the Environment and Quality Management Systems within the scope of “Integrated Management Systems”. Our major practices within this framework are; training and awareness-raising activities, risk assessment, prevention and control of occupational risks, monthly Environment and OHS Committee meetings at power plants, change management, and internal & external audits. The main pillars of the success of our operations are the active participation of employees and leadership of our executives.

## OHS Management

It is the responsibility of all employees under the leadership of the Company's senior executives to pursue and continuously improve occupational health and safety in all operations. Each employee has certain OHS responsibilities that are clearly stated in his/her job definitions. In order to fulfill such responsibilities, we have implemented the OHSAS 18001 Occupational Health and Safety Management System at our Head Office and power plants. Details of OHSAS 18001 and other management system certifications are given in the “Integrated Management Systems” section of this Report. Our future commitments on OHS and the evaluation of 2016 commitments and goals are stated in “Performance” section of the Report.

In our Company, communication and coordination of OHS operations are performed by Health and Safety Representatives and their deputies who were selected by each plant

management and work at the Directorate of Environment, Quality and OHS under the direct report of the Office of Production Deputy General Manager. In addition, there is an OHS committee at each power plant.

### OHS Management in Supply Chain

While selecting suppliers for services, full compliance with the OHS criteria identified within the scope of our procurement procedure is a prerequisite. In line with these criteria, contractor companies are requested to submit documents such as risk analysis, OHS trainings of employees, professional competencies of employees, health reports, personal protective equipment with their debit records, safety data sheets of chemicals used, periodical control documents of machinery. By making it obligatory to submit these documents before service procurement, we aim to improve the OHS requirements and awareness in regions where we receive services.

The Directorate of Environment, Quality and OHS organizes and monitors all Joint Health and Safety Units (JHSU) services and OHS processes of contractor companies serving our power plants. Therefore, organization and monitoring of OHS services, OHS trainings of employees, accident reports, and occupational trainings in contractor companies are performed by Akenerji and the OHS standards of these companies are intended to be at the same level with those in Akenerji.

### OHS Site Visits

In order to fulfill our liability to perform audits, the Directorate of Environment, Quality and OHS at Akenerji pay announced or unannounced visits to the sites. We monitor findings based upon the site visit reports prepared during the visits, identify corrective actions, and ensure that such actions are included in the general work plan. OHS site visits are performed at operating power plants as well as those still in project phase.

**74% of the issues that are raised during OHS site audits were resolved by the year-end.**

As of the end of 2016, 74% of the findings of site visits were resolved and closed.

### Risk Assessments for OHS

In order to assess potential OHS risks and take necessary actions in locations of operation, we established Risk Assessment Teams at the Head Office and at power plants in 2013 and we devised an assessment procedure in line with the related regulations. In this framework, while we realized risk assessment at our Erzin NGCCPP that was commissioned in 2014, we also made revisions at our other operating power plants. In 2016, risk evaluations of the Head Office, Ayyıldız WPP, Uluabat HEPP and Burç and Bulam HEPP were revised. In 2017, Ankara Directorate and Feke I, Feke II, Himmetli and Gökkaya HEPP as well as Erzin NGCCPP risk evaluations will be revised.

### Emergency Management

Every power plant has emergency plans that are prepared for emergencies such as fire, natural gas leakage, earthquake, large-scale chemical leakage, bomb warning, leakage in water systems; and periodic drills are made. The Akhan building in İstanbul, where the Head Office is located, is also included in the emergency plan. In line with the distribution of tasks and responsibilities at each floor of Akhan building, we make the necessary implementations in coordination with facility management.

In 2016, we restructured our emergency management system in Akhan building and employees who were selected to take part in the emergency team were given 3-5 days of fire extinguishing, search and rescue, evacuation, and first aid trainings. We also increased the number of first aid team members with the support of our employees in 2016.

In 2015, with the participation of the Head Office employees, we held one emergency drill. Akenerji employees also attended the emergency drill in Akhan. Another emergency drill was organized by the authorized company on the boat that transports the Head Office employees to the Anatolian side of Istanbul.

## OHS Committees at Power Plants

Occupational Health and Safety Act requires workplaces with more than 50 employees to have OHS Committees. As the number of employees at Erzin NGCCPP exceed 50, when contractors are included, the OHS Committee meets monthly. Although the number of employees in other power plants are less than 50, voluntarily "Quality, Environment and OHS Committees" operate in order to achieve functionality and ensure the participation of all parties. All our employees at the power plants are represented in these committees.

Some of the practices that are reviewed by the committees during monthly meetings are presented below:

Plant's Integrated Management Systems Action Plan as well as the related corrective and preventive operations; workplace accidents, near-miss incidents, environmental accidents and environmental complaint reports; legal requirements in terms of environment and OHS, Periodical Control Charts of OHS, OHS site visit reports and actions defined, Monthly Waste Inventory Form.

## OHS Committee at the Head Office

As the number of employees at our Head Office exceeded 50 in 2014, we established the Akenerji Head Office OHS Committee in accordance with the Regulation on Occupational Health and Safety Committees. The Committee is composed of an employer representative, an occupational safety expert, workplace doctor, Director of Administrative Affairs, Staff Manager, two worker representatives and Director of Environment, Quality and OHS. As stated in the related regulations, the Committee works to develop a consistent and general prevention policy that covers the impact of factors

related to technology, organization, working conditions, social relations, and working environment. In addition, the Committee has duties and responsibilities including assessing OHS threats, identifying precautions, informing the employer, and planning trainings. To this end, in 2016 we implemented new practices for improved lighting levels at our Head Office.

In addition, Akenerji employer representative, occupational safety expert and worker representatives attend the monthly OHS Committee meetings at our Head Office in Akhan.

## OHS Trainings

In order to protect the well-being and safety of our employees and local communities living in the impact area of our power plants, we organize trainings and informative activities.

### Employee Trainings

We ensure that our employees possess the required knowledge especially in terms of OHS in power plants and facilities and that they are capable of preventing potential risks by taking precautions at source.

In 2016, in addition to the trainings we are legally required to do, with non-obligatory trainings targeted for performance improvement (advanced driving techniques, orientation trainings, employee representative and first aid trainings), we exceeded our training goal of achieving 4 man/hour/year. In addition to targeted OHS trainings, we also organized hygiene, basic first aid and emergency team trainings. We provided "Advanced Driving Techniques" training to Head Office employees who need to drive frequently for professional purposes.

In addition to general OHS trainings, we offer special trainings for new employees, power plant administrators and senior executives. The orientation training given to all new employees of Akenerji includes a detailed OHS training. We also aim to ensure that site administrators develop competence to reflect our OHS sensitivity to the site in terms of administration. By nature, energy sector is open to crises and therefore crisis management is

an important issue. Senior executives of Akenerji give importance to OHS-oriented crisis management and communication and to continuous improvement of their talents in this regard. Besides, Akenerji senior executives also attend basic OHS trainings.

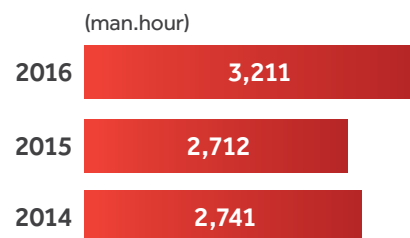
OHS training days per Akenerji employee in the last three years are given in the graph below. The table indicating location-based distribution of OHS training hours is provided in "Performance" section of this Report.

### Total OHS Training Hours Provided to Our Employees

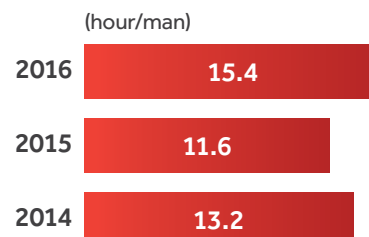
In 2016, we increased the total OHS training hours provided to our employees by 18%, from 2,712 to 3,211 man-hours. Similarly, the annual average hours of training per employee increased by 15.4%.

**In 2016, we provided 3,211 man-hours of Occupational Health and Safety trainings to our employees.**

### Total OHS Training Hours Provided to Our Employees



### Average Annual OHS Training Hours for Employees



**Note:** Monitored figures represent employees on operation sites and at the Head Office (excluding employees on sites of plants in investment-phase).



## OHS Trainings in Supply Chain

We provide a 15-minute video-training about the rules on site, both in Turkish and English, to our contractors and subcontractors who will work on our sites. In addition, we make sure that all subcontractors have attended the required OHS trainings before starting to work for us. In 2016, we provided 1,456 man-hours of training to our subcontractors in our power plants.

## Awareness Raising Activities for Local Communities

In locations where we have hydroelectric plants, we organize trainings to create awareness of local communities on potential hazards of HEPPs and means of protection. We

also publish brochures and posters on our website and distribute the printed versions in the regions where our power plants are located.

Within the scope of our awareness-raising efforts, in 2016 we visited schools in proximity with our power plants in Adana, Adiyaman and Bursa and met with the teachers and the students. During these trainings, we provided information regarding the working principles of Burç and Bulam HEPPs in Adiyaman, Uluabat HEPP in Bursa and Feke I, Feke II, Himmetli and Gökkaya HEPPs in Adana, as well as the personal safety measures to be taken regarding HEPPs. We answered the questions of the teachers and the students and reached a total of 1,813 students and 107 teachers.

The students also received information on renewable energy and electricity generation during these trainings. We plan to continue HEPP awareness-raising meetings in 2017.

**In the last 4 years, we made informative presentations to 3,914 students and 229 teachers.**

## OHS Performance

It is our primary goal to ensure that Akenerji employees adopt an Occupational Health and Safety culture in order to continuously improve our performance in this field. We regularly monitor indicators such as lost days, workplace accidents, road accidents and OHS performance during scheduled maintenance, and we implement necessary precautions within our work plans to improve this performance.

### Vehicle Accidents

The nature of the operations performed especially at hydroelectric plants requires our employees to drive vehicles in rough field conditions and this creates a risk factor that needs to be monitored. In 2016, no vehicle accident was recorded at the Head Office, there were no accidents at the power plants.

Including the data of the Head Office, the total number of vehicle accidents and the total vehicle accident rates of the last three years show a significant decline as illustrated in the charts below.

#### Total Vehicle Accident Rate

2016 -0-

2015 -0-

2014 1,8

#### Number of Vehicle Accidents

2016 -0-

2015 -0-

2014 1

**The number of vehicle accidents in 2016 is**

**-0-**

### Lost Days and Absenteeism

Lost days and absenteeism rates due to health issues in the last three years are given in the charts below. Absenteeism rate is calculated using the formula below and it includes maternity leaves.

#### Absenteeism rate

$$AR = \frac{\text{Number of days of absence due to health issues}}{\text{Total workdays}} \times 200,000$$

#### Number of Lost Days at Power Plants

2016 207

2015 218

2014 282

#### Absenteeism Rates at Power Plants

2016 1.134

2015 1.284

2014 1.664

## Occupational Accidents

Workplace incidents that occur within the criteria identified by regulations and that have negative effects on employees are defined as "occupational accidents". We record

frequency and weighted rates of all occupational accidents.

In 2016, no occupational accidents involving employees of Akenerji and its subsidiaries at the Head Office and Power Plants occurred. After these

accidents, we investigated the cases and identified preventive actions and put them into effect. Frequency and weighted rates of occupational accidents in the last 3 years are given in the table below.

### Frequency and Severity Rates of Occupational Accidents

Employees of Akenerji Subsidiaries	2016	2015	2014
Frequency of Occupational Accidents	2.17	6.04	5.95
Severity Rates of Occupational Accidents	195.74	66.43	73.37

Employees of Akenerji's Contractors and Subcontractors	2016	2015	2014
Frequency of Occupational Accidents	0.0	0.0	0.0
Severity Rates of Occupational Accidents	0.0	0.0	0.0

**Note:** The figures given above cover power plants being actively operated by Akenerji. The data of Bozüyük and Kemalpaşa Power Plants that ceased operations are also included in 2014 data. The following formulae have been used in calculating rates:

$$\text{Frequency of Occupational Accidents} = \frac{\text{Number of accidents with lost time}}{\text{Total working hours}} \times 1,000,000$$

$$\text{Severity rate of occupational accidents} = \frac{\text{Number of days lost due to occupational accidents}}{\text{Total working hours}} \times 1,000,000$$

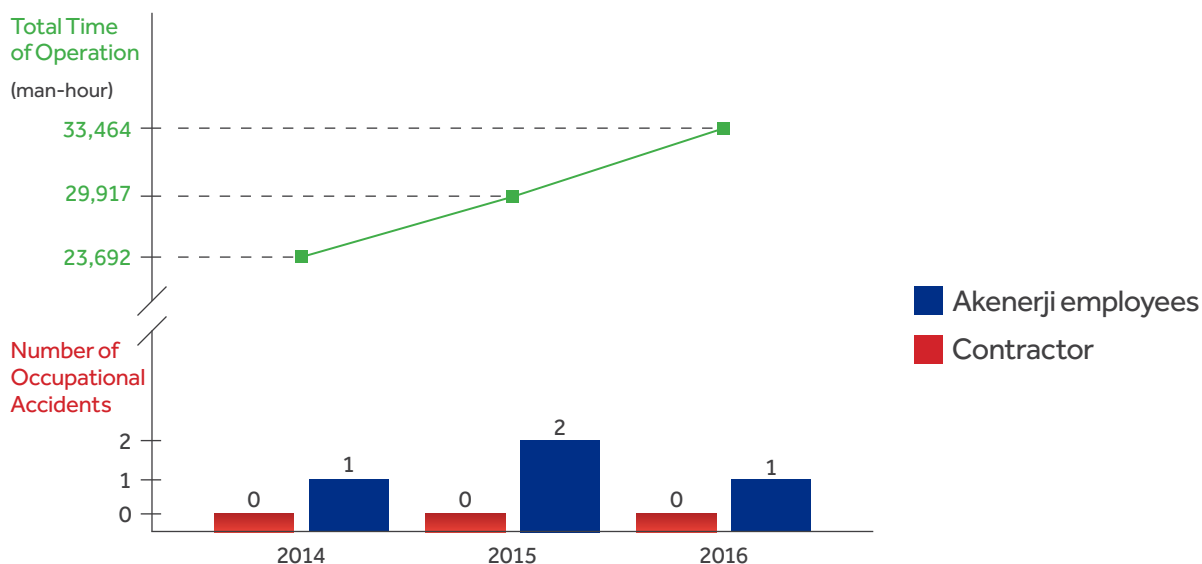
## Performance Data of Scheduled Maintenance

By performing scheduled maintenance in our plants, we aim to prevent damage due to malfunctions and the causes of such malfunctions. We identify causes for potential problems through periodical inspections and maintenance of major and critical equipment and thus prevent equipment and performance loss by taking corrective and preventive

actions. Frequency of scheduled maintenance varies depending on the nature of the plants. 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 2016, similar to former years, mostly Akenerji employees had performed the maintenance works. Including the working hours of the contractor and subcontractor employees, a total of 33,464 man-hours of operations were performed. Akenerji employees completed the maintenance without accident. During the scheduled maintenance works in 2016, one subcontractor occupational accident took place.



**Note:** Total time of operation bears total time of operation Akenerji employees and Contractors.

# WE VALUE PEOPLE

- Our Approach
- Competencies of Akenerji Employees
- Employee Profile
- Recruitment and Placement
- Performance Management
- Development Planning
- Talent Management
- Training
- Employee Benefits
- Employee Involvement in Company Management
- Internal Communication
- Value Added to Community
- Relations with Local Communities





AVERAGE  
TRAINING HOURS  
PER EMPLOYEE

**36**

“We Value People” in all our practices and aim at developing and satisfying our employees, as well as contributing to the local communities and the society in which we operate. These are among the basic components of our approach to sustainability.

## Our Approach

We are fully aware that each employee is our biggest “energy source”. The most important aspect that makes Akenerji the sector leader is its modern human resources practices and the value it gives to employee satisfaction.

With our Human Resources practices, we aim to support our employees in transforming into team members who improve and renew themselves in diverse ways; and to become an exemplary company in the sector with a qualified workforce and a company desired to be employed by.

Our Human Resources Policy that is based upon equal opportunities and that respects human rights prevailed in 2016 as well. Akenerji does not make any religion, language, race, gender discrimination in any process, including selection and recruitment, and does not adopt discrimination based upon any criteria rejected by international principles. All processes are performed in an equal and fair approach to all employees. Not only by laws, but also by our Human Resources Policy we ban drudgery, forced labor and child labor.

We work to provide appropriate and fair support for employees' needs and offer equal opportunities for training and development in order to increase their performance. Our goal is to implement human resources practices that use internationally accepted models with integrated systems; and to utilize systems that allow generation of modern and integrated business outcomes in all processes from recruitment to performance management, from development to remuneration, and resignation.

## Competencies of Akenerji Employees

**Communication:** Attaching importance to sharing information and opinions, Akenerji employee benefit from various written and / or verbal tools. The staff ensure 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 employee carry out projects within the scope of corporate culture, to ensure the acceptance of opinions and plans that they believe. The staff demonstrate 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 employee 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 employee 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 employee 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 determine 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 employee pay attention to efficiency and development of customer relations for this purpose.

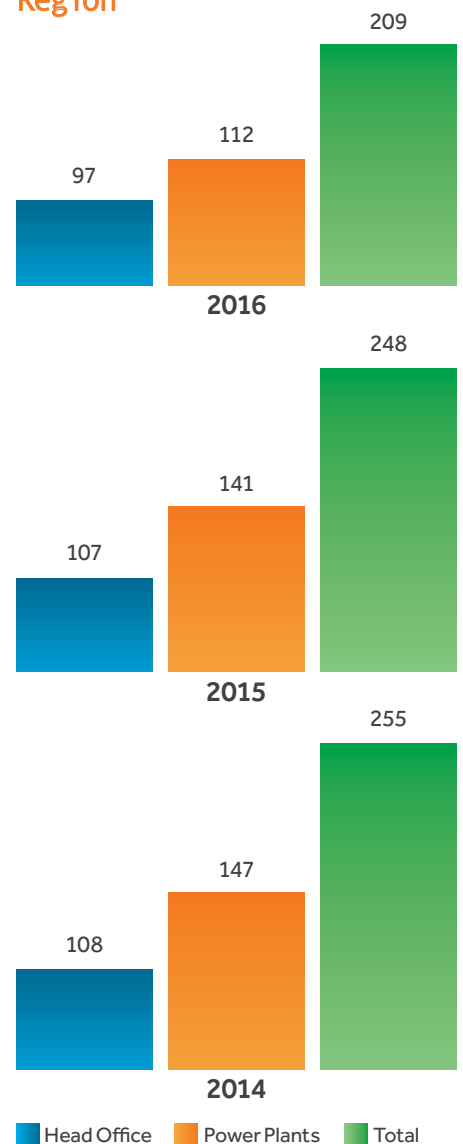
## Employee Profile

Behind the strong and reliable image of Akenerji in the sector, are its

employees that sincerely embrace corporate values. The profile of our employees is shaped by the requirements of the sector. In this and “Performance” section of our Report, demographic structure and positions of our employees at the power plants and the Head Office are presented.

Most of Akenerji employees work on a fixed-contract, full-time basis and we do not have part-time employees. In 2016, only one out of 209 employees was on a definite-term contract. Disabled employees at our Company, constitute 3% of the total number of personnel.

### Number of Employees by Region



**Note:** The data above is as of 31.12.2016 and excludes the Board Members.

Number of Employees by Position	2016	2015	2014
Senior Management*	5	5	5
Mid-level Management **	19	24	28
Non-managing White-collars***	87	101	103
Operational Level ****	98	118	119
<b>TOTAL</b>	<b>209</b>	<b>248</b>	<b>255</b>

**Note:** The data above is as of 31.12.2016 and excludes the Board Members.

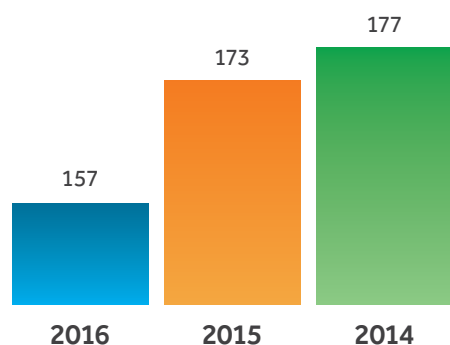
\* Senior Management: General Manager, Deputy General Manager, Director

\*\* Mid-level Management: Manager, Project Manager

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

\*\*\*\* Operational Level: Shift Responsible, Foreman, Warehouse Responsible, Operator, Technician, Mechanist, Employee, Laborarian, Driver

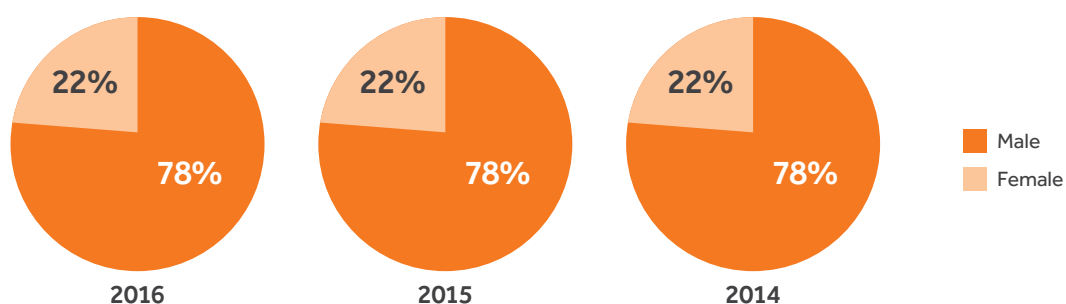
### Number of Outsourced Employees



We outsource some services such as cleaning and security. Number of outsourced employees is given in the table below.

Gender Distribution by Position	2016				2015				2014			
	Male		Female		Male		Female		Male		Female	
Positions	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number
Senior Management	80	4	20	1	100	5	0	0	100	5	0	0
Mid-level Management	68	13	32	6	67	16	33	8	64	18	36	10
Non-managing White-collars	56	49	44	38	55	56	45	45	57	59	43	44
Operational Level	99	97	1	1	99	117	1	1	99	118	1	1
<b>TOTAL</b>	<b>78</b>	<b>163</b>	<b>22</b>	<b>46</b>	<b>78</b>	<b>194</b>	<b>22</b>	<b>54</b>	<b>78</b>	<b>200</b>	<b>22</b>	<b>55</b>

**Note:** The data above is as of 31.12.2016 and excludes the Board Members.





## Distribution of Seniority by Positions

Distribution of seniority among all employees reveals that most of mid-level executives have an in-house seniority of 5-10 years. Approximately half of specialist-level employees have a seniority of 0-3 years, while mid-level managers and operators and technicians at the power plants have a seniority of 5-10 years. While the average seniority of Akenerji employees as of 2015 was 6.1 years, in 2016 it is 6.4.

Distribution of Seniority by Position (%)	2016			
	0 - 3 years (incl. 3)	3 - 5 years (incl. 5)	5 - 10 years (incl. 10)	Over 10 years
Senior Management	0.0	20.0	80.0	0.0
Mid-level Management	10.5	21.1	42.1	26.3
Non-managing White-collars	34.5	24.1	28.7	12.6
Operational Level	26.5	20.4	33.7	19.4
Average	17.9	21.4	46.1	14.6

**Note:** The data above is as of 31.12.2016 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. Turnover rates based on employee seniority are provided in "Performance" section of this Report.

Employee Turnover Rate and Number by Region	2016		2015		2014	
	%	Number	%	Number	%	Number
Head Office	21	21	18,7	20	23,7	26
Power Plants	29	36	21,3	30	23,8	39
TOTAL	25	57	20	50	23,8	65

**Note:** The data above is as of 31.12.2016 and excludes the Board Members.

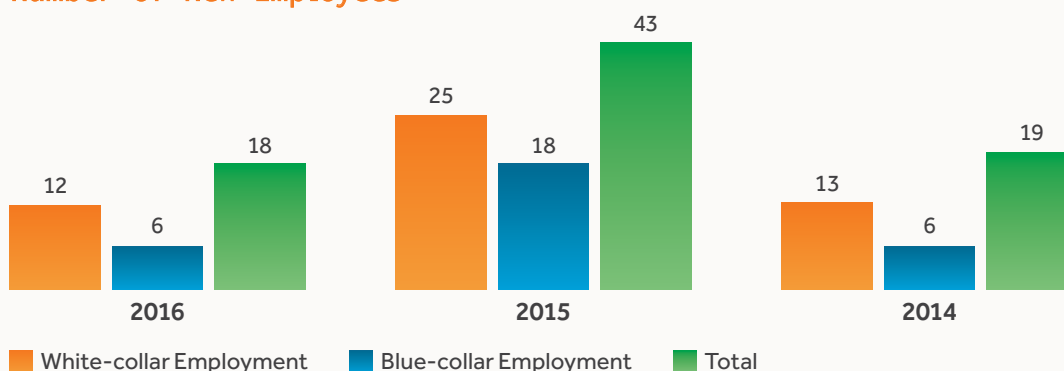
Employee turnover rate in 2016 increased by 5% compared to 2015. The major reason for the increase in the turnover rate is the cease of operations at Mardin and Akocak Power Plants hence the release of 26 power plant employees.

As Akenerji, although we also monitor employee turnover by age and gender, this information is not presented in this Report as it is not considered 'material'.

## Recruitment and Placement

With the aim of serving our strategy and goals, during recruitment and placement process, we focus 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 our Company further. Throughout the process, we use contemporary assessment systems to support taking the most objective decisions and thus recruiting the right person for the right job.

### Number of New Employees



**Note:** The data above is as of 31.12.2016 and excludes the Board Members.

In 2016, average age of employees was 38; average age of newly-employed white-collars was 32, whereas that of blue-collars was 31.

Besides, as Akenerji, we also provide internship opportunities to university students. In 2016, a total of 63 students; 49 for obligatory and 14 for voluntary internships from a variety of universities and technical / vocational high schools practiced their internships at Akenerji.

**A total of 63 Students  
had the opportunity to do  
internship at our Company.**

## Performance Management

Our 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 our human resources. Consequently, Human Resources processes are realized within an integrated system.

## Development Planning

By employee development planning, we aim to guide our employees in identifying and developing the competencies they require to improve for their current and potential future roles in their career plans.

In our 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 our Company's goals as well as employees' know-how, talents, experiences and competence.

Starting from 2014, we started to focus more on the development of mid-level executives who, we believe, will play significant roles on the future of our Company. Within the framework of a development program named as "Mid-Level Executive Development Program" that was launched in cooperation with Sabancı University, 5 and 3 executives of our Company were trained in 2015 and 2016 respectively.

On top of these, a total of 11 executives and specialists attended the financial simulation program called "Managing Contemporary Business", "Leading at the Speed of Trust" and "Working at the Speed of Trust" trainings.

In 2016, 4 of our executives attended our "Boomerang Program" that aims to have the executives focus more effectively on their roles and responsibilities in Human Resources processes effective as of 2015.

In 2016, we continued with the "Mentoring Program" that was initiated in 2015 in order to support the development of high performing 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 our Company.

In 2016, 11 employees at executive and specialist levels attended at "Presentation Techniques" training in order to improve their skills in presentation skills.

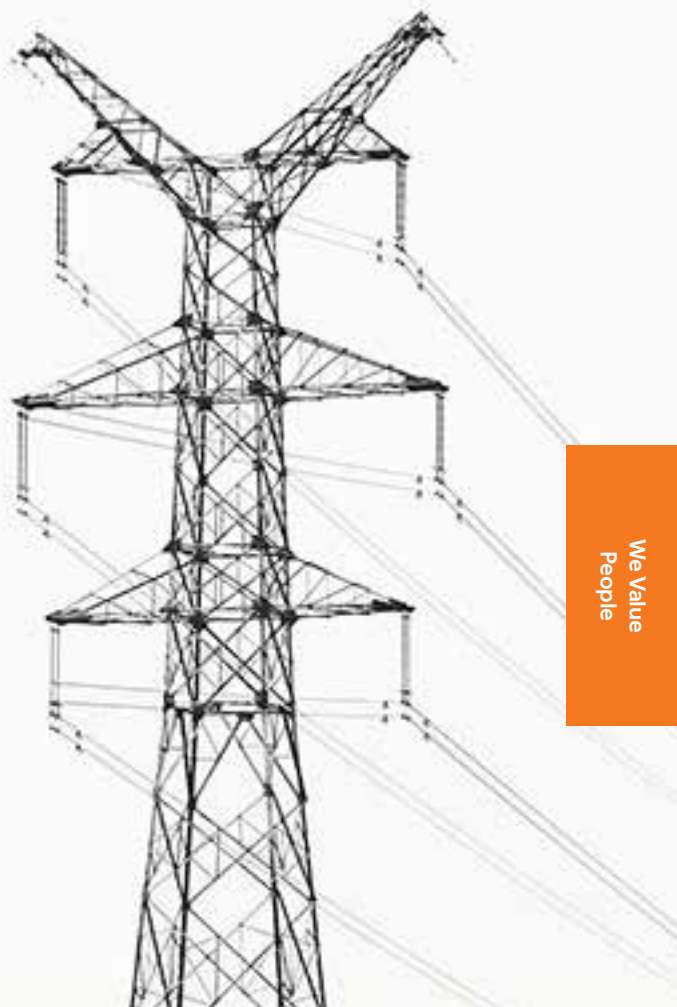
In addition to personal and executive development trainings, in an attempt to help improve our employees' technical knowhow and skills, MS Excel courses are planned and 56 employees participated at these trainings categorized as Beginner, Advanced, Expert and VBA.

## Talent Management

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

We use different tools in order to determine talents at different levels. Every other year, we take the employees whose performance and potential are evaluated by the system, and through assessment center applications we identify talents and move them into talent pools.

With our Talent Management processes, we strive to carry our employees and organizations forward by planning our employees' career paths. To this end, we aim 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.



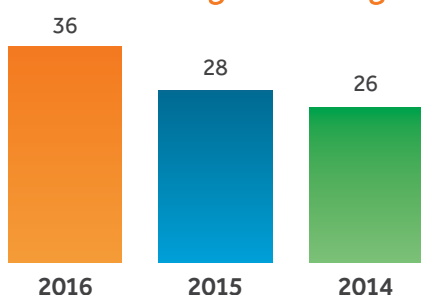
## Training

We take into account our employees' technical and personal development needs in terms of training, as well as the programs within the framework of legal requirements. Consequently, by considering our Company's needs and requirements, we provide the training support they need to achieve their assignments in the best way possible.

Total Trainings by Positions (man-hour)	2016	2015	2014
Senior Management	28.5	115	38
Mid-level Management	466.5	989	1,515
Non-managing White-collars	2,585	3,144	2,303
Operational Level	4,411	2,641	2,865
<b>Total</b>	<b>7,491</b>	<b>6,889</b>	<b>6,720</b>

**Note:** The data above is as of 31.12.2016 and excludes the Board Members.

### Annual Average Training Days per Employee



Although 2016 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 we provided to our employees in 2016 are:

- **Quality, Environment, Occupational Health and Safety Trainings:** General Rules of Occupational Health and Safety and Culture of Safety, Legal Rights and Responsibilities of Employees, Safe Use of Workplace Equipment, Flash, Explosion, Fire and Fire Protection, High-Risk (License-requiring) Positions, Ergonomics, Emergency Management, Basic Healthcare, Safe Driving Techniques, First Aid, Evacuation and Rescue, Health and Security Representative, Employee Representative, Reasons of Occupational Illnesses, Working at High Altitudes, Working with Electricity, Physical Risk Factors, Environmental Legislation and Waste Management, Quality Management Systems, Document Management Systems, ISO 27001 Information Security Management System Awareness Training, ISO 27001 Information Security Management System Awareness Raising and Internal Auditor Training, ISO 9001 and ISO 14001 2015 Revision Awareness Raising and Internal Auditor Training.
- **Technical Trainings:** Substation Operation Technician, Quality Assurance Systems and Data Evaluation, Greenhouse Gas Emission Management, Introduction to Electricity Markets, Electricity Market Simulation Day Market, Business Analyst Certification Program, Project Management Methodology, Renewable Energy Technologies, Neo PIR Training, Payroll Training, MS Excel Training (Beginner/Advanced/Expert/VBA), English
- **Personal Development Trainings:** Akkök Orientation Program, Presentation Techniques, Change Management, Boomerang, Working at the Speed of Trust, Leading at the Speed of Trust, Managing Contemporary Business, Market Orientation, Mid-level Executive Development Program, Executive Coaching.

## Employee Benefits

We use an internationally valid and reliable job evaluation and remuneration model. 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.

Within the scope of benefits to employees, we offer meals and shuttles for commuting. Employees who do not prefer to use the shuttles are paid for their commuting expenses. White-collar employees in

the Head Office and power plants are provided with private health insurance. All employees benefit from personal accident insurance. Some senior and mid-level executives are provided with official cars or get supplementary allowance instead.



## 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.

Within the context of Kahvedeyiz Project, initiated as a result of the Employee Engagement Project in 2014, since 2015 we continue to periodically bring together our employees with our General Manager and senior executives to facilitate their communication.

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 and 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 our employees, we organize a variety of communication activities and events within the Company. Some of these may be listed as follows:

- During development planning, we try to improve internal communication 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, Akenerjik that was formed to reinforce communication and improve loyalty among employees continued to organize a variety of social and cultural activities. Social Club activities, 'Kahvedeyiz' activity, employee dinners, celebration of special days such as Women's Day, Mother's Day, Father's Day as well as social events, messages for birthdays, losses, and newborn babies are examples of such activities.

## Value Added to Community

It is our principle to contribute to the society during our operations and the path we follow for this is particularly to generate energy, which is a fundamental need for development. Our community investment efforts are focused on the social solidarity, educational, environmental, sportive, and cultural needs of the local people in cities and towns that our power plants operate in. We support various institutions and organizations to meet these needs.

Believing that education is the fundamental prerequisite for a better and safer future of our society, we contribute to education. In addition to them, we sponsor Erzinspor football team since 2013.

Within the scope of our Corporate Social Responsibility principles, in 2016, Akenerji allocated TL 1,475,330 to donations and sponsorships, mainly for educational institutions, public institutions and foundations.

## Feedback Mechanisms

Akenerji 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. We provide training to all employees on both procedures. In addition, local communities and all other stakeholders in the areas where we operate can report their feedback on any issue to our Company through diversified channels. Among these channels, we prioritize direct communication with power plant managers. This way, we aim to rapidly process every request, suggestion and complaint. On sites of the investment-phase projects, we proactively manage complaint and feedback processes. During environmental and social impact assessments, we keep in direct contact with local communities, NGOs and local administrations.





# Relations with Local Communities

## Employment of Local Communities

Within the framework of our community investment practices, we attach great importance to regional development and relations with local communities. We believe that our greatest contribution begins with employing local people and we pay attention to recruit local people for construction works of our power plants. We employ around 100 - 150 local people for each power plant construction. We prioritize their employment for different positions such as cleaning and security when the power plant starts operations. We employed a significant number of people in our power plants including those in Feke, Himmetli, and Gökkaya, this way.

Besides, for the procurement needs of our power plants, we pay attention to choose our subcontractors for services and products from within the region.

## Raising Awareness of Local Communities

In locations where Akenerji power plants operate, we aim to raise awareness and provide information to local communities about our operations. Through our video training on electricity generation, environmental and OHS regulations, we inform contractors, visitors, or interns who come to visit our power plants.

With its meticulous, responsive and trustworthy management approach, Akenerji has been implementing various actions in the regions where its HEPPs are located, in order to raise awareness of the local community and to protect them from potential dangers. To this end, brochures and posters about potential dangers regarding

HEPPs and means of protection were prepared. These brochures and posters were distributed to public places such as mukhtar units, schools, municipality, coffeehouses and aviation facilities in vicinity of hydroelectric power plants. In the upcoming years, our Company intends to increase the number of materials to be distributed and the number of cities where we will continue with our awareness raising activities.

We reached 3,914 students and 229 teachers with our HEPP Informative Presentations tailor-made to inform the local communities living where the HEPPs are located, informative presentations regarding HEPP operations and the personal safety precautions that the students need to take in their daily lives.

**Within in the last 4 years  
we reached 3,914 students  
and 229 teachers with  
our HEPP Informative  
Presentations.**







# PERFORMANCE

- ◉ Strategic Sustainability Goals
- ◉ Economic Performance Indicators
- ◉ Social Performance Indicators
- ◉ Environmental Performance Indicators







# Strategic Sustainability Goals

In line with our policies, evaluation of our goals in 2016 within the scope of our "Sustainability Management", "Environment, Quality, OHS", "Integrated Management Systems" and "Employees" and the goals we set for 2017 are presented in the table below.

## SUSTAINABILITY GOALS

Subject	Commitments for 2016	Status	Evaluation of 2016	Commitments for 2017
Sustainability Management	To prepare our 2015 Sustainability Report according to GRI G4 principles.	A	We prepared our 2015 Sustainability Report in March 2016 and received GRI MDS check and issued in April.	To prepare our Sustainability Report for 2016 operating year according to GRI G4 principles.
	To increase our disclosure score and performance score of 2015 CDP Climate Change and CDP Water reporting compared to last year.	A	CDP Climate Change and CDP Water Program reports for 2015 operating year were submitted by June and the scores for both reports increased from "C" to "B".	To prepare our CDP Climate Change and CDP Water Program reports for 2016 operating year and maintain our scores above the country average program scores.
Management Systems	To update according to ISO 9001:2015 and ISO 14001:2015 standards and maintain our certifications for Ayyıldız, Uluabat, Burç, Bulam, and Feke I, Feke II, Himmetli, Gökkaya and Erzin Plants.	A	In June 2016, external audits were completed. 2015 version update and continuation of the certificates were maintained.	For all of our operational plants, to keep the number of corrective action requirement (CAR) at maximum 3 during the external audits of ISO 9001:2015 Quality, ISO 14001:2015 Environment and OHSAS 18001 OHS Management System Standards.  To achieve a year-end CAR closing percentage of 90%.
	To maintain ISO 27001 Information Security Management System certifications for Uluabat HEPP and Erzin NGCCPP that have installed capacities of 100 MW and above.	A	In December 2016, external audits were completed and the certificates were maintained.	To maintain ISO 27001 Information Safety Management System certifications for Uluabat HEPP and Erzin NGCCPP that have installed capacities of 100 MW and over.
	To meet the requirements of ISO 14064 Greenhouse Gas Emission Reduction, Mitigation, Calculation and Verification standards at Erzin NGCCPP; to have 2015 Greenhouse Gas Emission Report verified by an authorized institution in 2016.	A	Infrastructure and documentation procedures were completed.	To complete the monitoring, reporting and verification processes of Erzin NGCCPP's greenhouse gas emissions for both 2015 and 2016, by a verification institution authorized by Republic of Turkey Ministry of Environment and Urbanization.
	To evaluate at least one supplier from the power plants and at least two suppliers from the Head Office, within the scope of Integrated Management Systems.	O	Since the authorization of the verifying institution by the Ministry was not complete within 2016, monitoring, reporting and verification were being run in parallel in line with ISO 14064 and Notification Regarding Greenhouse Gas Emissions Monitoring and Reporting. To this end, verification within the scope of ISO 14064 could not be complete in 2016.	To have greenhouse gas emissions verified within the scope of ISO 14064 in 2016.
		A	Within the scope of Integrated Management System, the Head Office audited 3, the power plants audited 6 suppliers.	-

A Achieved

P Partially achieved

N Not achieved

O Ongoing



## SUSTAINABILITY GOALS

Subject	Commitments for 2016	Status	Evaluation of 2016	Commitments for 2017
Training for Awareness raising	In Adiyaman, at least two trainings will be organized to raise awareness of the local community about dangers and related protective measures.	A	9 trainings in Adana, 1 training in Bursa and 2 trainings in Adiyaman were realized.	To organize a total of 7 trainings at the schools at each HEPP to raise awareness the students and the teachers about dangers and related protective measures.  Within the scope of DSI Environmental Protection and Safety Precautions, to organize 1 Local Community Awareness Training in Himmetli Village of Adana.
Quality, Environmental, OHS Trainings	To deliver trainings on Quality, Environment and OHS:		Trainings delivered are listed below:	Planned time for trainings:
	<b>Quality</b> (man-hour) Head Office : 35  Per Each Power Plant Ayyıldız WPP : 4 Uluabat HEPP : 8 Bulam HEPP : 4 Burç HEPP : 4 Fekeli HEPP : 4 Fekeli II HEPP : 4 Himmetli HEPP : 8 Gökkaya HEPP : 4 Erzin NGCCPP : 10	P	<b>Quality</b> (man-hour) Head Office : 10  Per Each Power Plant Ayyıldız WPP : 5 Uluabat HEPP : 9 Bulam HEPP : 6 Burç HEPP : 8 Fekeli HEPP : 4 Fekeli II HEPP : 5 Himmetli HEPP : 10 Gökkaya HEPP : 4 Erzin NGCCPP : 10	<b>Quality</b> (man-hour) Head Office : 20  Per Each Power Plant Ayyıldız WPP : 4 Uluabat HEPP : 8 Bulam HEPP : 4 Burç HEPP : 4 Fekeli HEPP : 4 Fekeli II HEPP : 4 Himmetli HEPP : 8 Gökkaya HEPP : 4 Erzin NGCCPP : 10
	<b>Environment</b> (man-hour) Head Office : 7  Per Each Power Plant Ayyıldız WPP : 6 Uluabat HEPP : 9 Bulam HEPP : 10 Burç HEPP : 10 Fekeli HEPP : 8 Fekeli II HEPP : 8 Himmetli HEPP : 8 Gökkaya HEPP : 8 Erzin NGCCPP : 6	A	<b>Environment</b> (man-hour) Head Office : 13  Per Each Power Plant Ayyıldız WPP : 10 Uluabat HEPP : 28 Bulam HEPP : 14 Burç HEPP : 23 Fekeli HEPP : 9 Fekeli II HEPP : 12 Himmetli HEPP : 21 Gökkaya HEPP : 12 Erzin NGCCPP : 17	<b>Environment</b> (man-hour) Head Office : 9  Per Each Power Plant Ayyıldız WPP : 10 Bulam HEPP : 12 Burç HEPP : 12 Fekeli HEPP : 6 Fekeli II HEPP : 6 Himmetli HEPP : 6 Gökkaya HEPP : 6 Uluabat HEPP : 12
	<b>OHS</b> (hours/man) Head Office and Ankara : 2  Power Plants : 19	A	<b>OHS</b> (hours/man) Head Office : 3,7 Ankara Office : 2,8  Power Plants (average) : 27,4	<b>OHS</b> (hours/man) Head Office and Ankara Office : 2  Power Plants : 19
	To organize safety tool box meetings by team leaders for power plant employees, for 50% of the days planned for maintenance during a year.	A	Meetings during maintenance days are as follows:  Uluabat : 12 meetings in 14 days Ayyıldız : 10 meetings in 14 days Burç : 11 meetings in 18 days Bulam : 5 meetings in 10 days Fekeli : 12 meetings in 14 days Fekeli II : 12 meetings in 15 days Himmetli : 9 meetings in 10 days Gökkaya : 9 meetings in 9 days Erzin : 76 meetings in 38 days	To realize safety tool box meetings by the team leaders of our power plant employees for at least 50% of the days necessary for planned annual maintenance.
Quality, Environmental, OHS Trainings				To achieve 80% effectiveness of the management systems trainings at the Head Office, Ankara office and the power plants

## SUSTAINABILITY GOALS

Subject	Commitments for 2016	Status	Evaluation of 2016	Commitments for 2017
Workplace Accidents	To ensure that frequency and weighted rate of workplace accidents in each of our operating power plants are zero.	P	At our power plants the frequency of workplace accidents was 2.17 and the weighted rate was 195.74	To ensure that frequency and weighted rate of workplace accidents in each of our operating power plants are zero.
	To achieve zero frequency and weighted rate of workplace accidents by contractors and subcontractors at operating power plants.	A	Both the frequency of workplace accidents by contractors and subcontractors at our power plants and the weighted rate were zero.	To achieve zero frequency and weighted rate of workplace accidents by contractors and subcontractors of operating power plants.
Vehicle Accident Rate	To maintain Total Vehicle Accident Rate (TVAR) at each operating power plant below 3.80.	A	Total Vehicle Accident Rate (TVAR) was zero (0.0) at each location.	-
Renewable Energy	To generate electricity with PV Solar Panel projects within Adiyaman Burç HEPP, with an installed capacity less than 1 MW.	N	The project could not be realized since capacity was not allocated to our company for solar panel investment.	-
Planting Trees	To plant one sapling for the birthday of each employee.	A	A total of 149 saplings were planted; 60 for the Head Office and 89 for power plants. Later on, donations to TEV (Turkish Education Foundation) were made on behalf of our employees.	-

## OUR EMPLOYEES

Subject	Commitments for 2016	Status	Evaluation of 2016	Commitments for 2017
Talent Management	To complete Succession Planning, Career Planning and Promotion Process development works in 2016.	O	Succession Planning was completed and presented to senior management. Career Planning and Promotion processes development was completed, but was not implemented as was not yet approved.	To maintain Succession Planning system up-to-date, to finalize the approval and implementation of Career Planning and Promotion processes development.
Development Planning	To implement the 360-degree evaluation process in 2016.	N	360-degree evaluation process could not be implemented in 2016.	To implement the 360-degree evaluation process within 2017.
Performance Management System	To finalize the development of performance management process in 2016.	O	Process development was complete however it could not be implemented since the approval phase is not yet complete.	To complete the approval phase of the development of performance management process and implement it.
	To finalize the works for the implementation of the new software, which will also include Performance Management.	O	Implementation of the software was initiated, but implementation date was revised as 2017 with the decision by Akkök Holding.	To implement the improved Performance Management System together with the new software.
Flexible Payment System	To implement Flexible Payment System in 2016 with the completion of the efforts for a performance based bonus system.	O	Flexible Payment System efforts were completed together with the Performance Management System, but it was not implemented as the approval phase was not yet finalized.	To implement Flexible Payment System in 2017 with the completion of the efforts for a performance based bonus system.
Trainings	To continue with the Mid-Level Executive Development Program in 2016.	A	3 executives attended the "Mid-level Executive Development Program"	To engage our specialists and first-level executives into first-level development program.

A Achieved
 P Partially achieved
 N Not achieved
 O Ongoing

## OUR EMPLOYEES

Subject	Commitments for 2016	Status	Evaluation of 2016	Commitments for 2017
Employee Engagement Project	The action items determined within the scope of Employee Engagement Project plan will be carried on in the following years.	A	Our Social Committee "Akenerjik" continued with its social and cultural activities hence improved internal communication of our company. Within the scope of Individual Suggestion System, suggestions were implemented and rewarded.	To carry on implementing the action items determined within the scope of Employee Engagement Project Plan, in the following years.

A Achieved P Partially achieved N Not achieved O Ongoing

## 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.

### Economic Value Generated and Distributed

The distribution of the economic value we generated as a result of our operations in 2016 is summarized in the table below. Our operating costs amount to 97% of the total economic value distributed.

The net sales, total debt and total equity capital of the companies included in the consolidated balance sheet of Akenerji, were 1,420,842,034 TL; 3,944,372,868 TL and 1,100,178,674 TL in 2016, respectively.

Economic Value Generated (TL million)	2016	2015	2014
<b>Direct Economic Value Generated</b>			
a) Revenues	1,421	1,803	1,125
<b>Economic Value Distributed</b>			
b) Operating costs	1,634	1,636	1,126
c) Employee wages and other benefits	9.6	7.6	9.1
d) Payments to providers of capital	0.0	0.0	0.0
e) Payments to the government	5.6	38.9	53.2
f) Community investment	1.1	0.4	1.0

**Note:** The figures are as of the end of the financial year, i.e. December 31<sup>st</sup>

## Social Performance Indicators

Number of Employees by Region	2016	2015	2014
Akocak HEPP	-	12	13
Ayyıldız WPP	5	5	5
Bozüyük NGPP	-	1	9
Bulam HEPP	6	7	7
Burç HEPP	9	9	9
Erzin NGCCPP	46	46	47
Fekeli HEPP	6	6	7
Fekeli II HEPP	7	5	7
Gökkaya HEPP	6	5	6
Himmetli HEPP	8	13	13
Kemalpaşa NGPP	2	2	8
Uluabat HEPP	17	17	16
Mardin NGPP	-	13	-
Head Office (İstanbul)	92	102	102
Ankara Office	5	5	6
<b>Total</b>	<b>209</b>	<b>248</b>	<b>255</b>

**Note:** The data above is as of 31.12.2016 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 (%)				
2016				
Locations	0 - 3 years (3 incl.)	3 - 5 years (5 incl.)	5 - 10 years (10 incl.)	Over 10 years
Head Office	16.13	37.84	25.71	0.00
Power Plants	30.77	4.44	27.85	48.98
<b>Total</b>	<b>23.45</b>	<b>21.14</b>	<b>26.78</b>	<b>24.49</b>

**Note:** The data above is as of 31.12.2016 and excludes the Board Members.

Average Annual Hours of Training per Employee (hour/man)	2016	2015	2014
Senior Management	6	23	11
Mid-level Management	25	47	47
Non-managing White-collars	30	28	21
Operational Level	45	21	24
<b>Total Average</b>	<b>36</b>	<b>28</b>	<b>26</b>

**Note:** The data above is as of 31.12.2016 and excludes the Board Members.

## Occupational Health and Safety

### OHS Training Hours

Locations	Total Hours of Training (man.hour)	Hours of Training per Employee (hour/man)	
	2016	2016	2015
Akocak HEPP	-	-	17.6
Ayyıldız WPP	105	21.0	21.0
Bulam HEPP	138	19.7	23.0
Burç HEPP	147	21	16.1
Erzin NGCCPP	930	21.3	15.5
Feke I HEPP	162	32.4	19.2
Feke II HEPP	230	38.3	21.4
Gökkaya HEPP	222	37	17.4
Himmetli HEPP	337	33.7	22.2
Uluabat HEPP	324	23.1	17.9
Ankara Office	14	2.8	0
Head Office	342	3.7	2.1
External Institution	260	-	-
<b>Overall Average Hours of Training</b>		<b>15.4</b>	<b>11.6</b>
<b>Overall Total Hours of Training</b>	<b>3,211</b>		

**Note:** In 2015, Bozüyük and Kemalpaşa plants were not operational, Erzin Plant started its operations in 2014. On-site trainings for employees at Erzin NGCCPP include OHS trainings, but these are not included in the table above as OHS training hours are not recorded separately. In 2015, OHS trainings in Erzin were recorded and reported separately.

Total Vehicle Accident Number and Rate	2016		2015		2014	
	Number of vehicle accidents	Total vehicle accident rate	Number of vehicle accidents	Total vehicle accident rate	Number of vehicle accidents	Total vehicle accident rate
Ayyıldız	0	0	0	0.0	0	0.0
Erzin	0	0	0	0.0	0	0.0
Akocak	-	-	0	0.0	0	0.0
Burç	0	0	0	0.0	0	0.0
Bulam	0	0	0	0.0	0	0.0
Feke II	0	0	0	0.0	0	0.0
Uluabat	0	0	0	0.0	0	0.0
Feke I	0	0	0	0.0	0	0.0
Himmetli	0	0	0	0.0	0	0.0
Gökkaya	0	0	0	0.0	0	0.0
Head Office	0	0	0	0.0	1	2.8
<b>Total</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>1</b>	<b>1.8</b>

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

$$\text{Total vehicle accident rate} = \frac{\text{Number of vehicle accidents}}{\text{Total driving distance (km)}} \times 1,000,000$$

# Environmental Performance Indicators

## Environment & Quality Training Hours

Locations	2016	
	Quality (man-hour)	Environment (man-hour)
Ayyıldız WPP	5	10
Bulam HEPP	6	14
Burç HEPP	8	23
Feko 1 HEPP	4	9
Feko 2 HEPP	5	12
Gökkaya HEPP	4	12
Himmetli HEPP	10	21
Erzin NGCCPP	10	17
Uluabat HEPP	9	28
Ankara Office	-	-
Head Office	10	17
External Institution	135	169
HO ISMS Awareness	234	-
Erzin ISMS Awareness	80	-
Uluabat ISMS Awareness	78	-
<b>GRAND TOTAL</b>	<b>598</b>	<b>332</b>

Energy Consumption within the Organization (GJ)	2016	2015	2014
<b>Non-renewable based</b>			
<b>Fuel</b>	422,743	495,953	552,780
Natural gas*	418,998	488,162	546,147
Diesel (generators)	379	561	1,745
Fuel oil (heating)	54	40	50
Diesel (vehicles)	2,850	3,197	3,561
Gasoline (vehicles)	461	624	1,277
<b>Electricity</b>	115,709	103,393	80,775
<b>Renewable based</b>			
<b>Electricity</b>	4,805	7,966	2,993
<b>Total Energy Consumption</b>	<b>543,257</b>	<b>607,312</b>	<b>636,548</b>

\* Natural gas consumption is the amount that corresponds to our internal consumption. As Erzin NGCCPP became operational as of 2014, natural gas consumption increased. On the other hand, as Kemalpaşa and Bozüyük Plants ceased operation in 2014, there has been a decrease in the consumption in 2015. In 2016, there has been significant decrease in our internal energy consumption. The main cause is the decrease in natural gas consumption. Vehicle fuel consumption also significantly decreased. While there is decrease in generator fuel consumption, there was increased fuel oil and electricity consumption.

Greenhouse Gas Emissions (tCO <sub>2</sub> -e)	2016	2015	2014
Scope 1	1,153.074	1,316,374	958,661
Scope 2	15,171	13,556	10,553
Scope 3	117	184	165
<b>Total</b>	<b>1,168,362</b>	<b>1,330,114</b>	<b>969,379</b>

**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.

**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.

Water Consumption (m³)	Source	2016	2015	2014
Bozüyük	Waterworks	-	-	325,497
Kemalpaşa	Well	-	-	30,389
Erzin *	Sea Water	1,266,691	1,169,002	217,728
<b>NGPP Total</b>		<b>1,266,691</b>	<b>1,169,002</b>	<b>573,614</b>
Uluabat	Well	2,619	2,694	1,953
Akocak	Well	-	141	150
Feke I	Göksu River	560	461	350
Feke II	Spring water	680	765	280
Himmetli	Göksu River	1,444	1,599	362
Gökkaya	Göksu River	616	768	265
Burç	Well	216	240	242
Bulam	Spring water	92	144	132
<b>HEPP Total</b>		<b>6,227</b>	<b>6,812</b>	<b>3,734</b>
Ayyıldız	Well	120	120	120
<b>WPP Total</b>		<b>120</b>	<b>120</b>	<b>120</b>
<b>Head Office</b>	Waterworks	<b>1,681</b>	<b>2,231</b>	<b>1,666</b>
<b>Total</b>		<b>1,274,719</b>	<b>1,178,165</b>	<b>579,134</b>

**Note:** Bozüyük and Çerkezköy Power Plants have open circuit cooling water cycle. Amount of water used includes cooling water data. Kemalpaşa and Erzin NGCCPPs have closed circuit cooling water cycle, therefore amount of water used excludes cooling water data.

\* Erzin NGCCPP became operational in September 2014.





# GRI G4 "CORE" CONTENT INDEX

This Report includes information on the sustainability performance and practices of Akenerji between January 1<sup>st</sup> and December 31<sup>st</sup> of 2016.

The contents of the Report are developed in accordance with GRI (Global Reporting Initiative G4 Guidelines "Core". The indicators between G4-17 and G4-27 in this Report are checked by the GRI within the scope of its "Materiality Disclosure Service".

## STANDARD DISCLOSURES

### STRATEGY AND ANALYSIS

Profile Disclosure	Description	Reported in	Scope of Reporting	Reference Pages / Explanations	External Assurance
G4-1	Sustainability declaration from the highest-level decision maker of the Company	Message from CEO	Full	4-5	-

### ORGANIZATIONAL PROFILE

G4-3	Name of the organization		Full	Akenerji Elektrik Üretim A.Ş.	-
G4-4	Primary brands, products, and services	Company Profile	Full	8, 11, 12	-
G4-5	Location of the organization's headquarters		Full	Miralay Şefik Bey Sok. Akhan No: 15 Gümüşsuyu Mah. Beyoğlu-İstanbul, Türkiye	-
G4-6	Countries where the organization operates		Full	Turkey	-
G4-7	Nature of ownership and legal form	Company Profile	Full	3, 12	-
G4-8	Markets served	Company Profile	Full	Turkey	-
G4-9	Scale of the organization	Company Profile Performance	Full	9-11, 77	-
G4-10	Total workforce in terms of employment type, employment contract, gender and region, people	We Value People Performance	Full	64-66, 77	-
G4-11	Percentage of total employees covered by collective bargaining agreements		Full	Our employees are not members to trade unions.	-
G4-12	Description the organization's supply chain	Responsibility in Our Value Chain	Full	38	-
G4-13	Report any significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain	About the Report Company Profile	Full	3, 8	-
G4-14	Addressing the precautionary approach or principle	Our Integrated Management Systems	Full	40, 41	-
G4-15	External charters, principles or initiatives endorsed	Message from CEO Our Approach to Sustainability	Full	5, 23, 24	-
G4-16	Membership of associations, national or international advocacy organizations	Our Approach to Sustainability	Full	24	-

## IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES

Profile Disclosure	Description	Reported in	Scope of Reporting	Reference Pages / Explanations	External Assurance
G4-17	Report coverage of entities included in the consolidated financial statements	About the Report	Full	3	Not Assured
G4-18	Process for defining the report content and the aspect boundaries	Our Approach to Sustainability	Full	20-23	Not Assured
G4-19	All the material Aspects identified in the process for defining report content	Our Approach to Sustainability	Full	20, 22, 23. (Most important and material issues, regardless of importance among them, are listed in the upper right section of the graph on page 23.)	Not Assured
G4-20	For each material Aspect, report the Aspect Boundary within the organization	Our Approach to Sustainability	Full	22, 23. All material issues are material for all operations of Akenerji.	Not Assured
G4-21	For each material Aspect, report the Aspect Boundary outside the organization	Our Approach to Sustainability	Full	22, 23. (Material issues outside the Company are explained in the footnote under the graph on page 23.)	Not Assured
G4-22	The effect of any restatements of information provided in previous reports, and the reasons for such restatements		Full	There is no re-stated important information.	Not Assured
G4-23	Significant changes from previous reporting periods in the Scope and Aspect Boundaries		Full	There is no significant change in Issues and Frameworks identified in the previous reporting period.	Not Assured

## STAKEHOLDER ENGAGEMENT

Profile Disclosure	Description	Reported in	Scope of Reporting	Reference Pages / Explanations	External Assurance
G4-24	List of stakeholder groups engaged by the organization	Our Approach to Sustainability	Full	20, 21	Not Assured
G4-25	Basis for identification and selection of stakeholders	Our Approach to Sustainability	Full	20-22	Not Assured
G4-26	Organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically, as part of the report preparation process	Our Approach to Sustainability	Full	20, 21	Not Assured
G4-27	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting	Our Approach to Sustainability	Full	20-22	Not Assured

## REPORT PROFILE

Profile Disclosure	Description	Reported in	Scope of Reporting	Reference Pages / Explanations	External Assurance
G4-28	Reporting period		Full	January 1 - December 31 2016	-
G4-29	Date of most recent previous report		Full	Our fourth Sustainability Report was issued in April 2016.	-
G4-30	Reporting cycle		Full	Sustainability Report is issued annually.	-
G4-31	Contact point for questions regarding the report or its contents		Full	info@akenerji.com.tr	-

## REPORT PROFILE: GRI CONTENT INDEX

Profile Disclosure	Description	Reported in	Scope of Reporting	Reference Pages / Explanations	External Assurance
G4-32	'In accordance' option, the GRI content index and external assurance	GRI Index	Full	The Report is prepared in line with the GRI G4 "Core" application level. External assurance has not been used for the Report..	-

## ABOUT THE REPORT: ASSURANCE

Profile Disclosure	Description	Reported in	Scope of Reporting	Reference Pages / Explanations	External Assurance
G4-33	Policy and current practice regarding external assurance		Full	Although external assurance has not been applied for the Report, Integrated Management Systems data and financial indicators in the Report are assured data.	-

## GOVERNANCE

Profile Disclosure	Description	Reported in	Scope of Reporting	Reference Pages / Explanations	External Assurance
G4-34	Governance structure of the organization and decision-making committees	Corporate Governance	Full	28-30	-

## ETHICS AND INTEGRITY

Profile Disclosure	Description	Reported in	Scope of Reporting	Reference Pages / Explanations	External Assurance
G4-56	Values, principles, standards and norms of behavior such as codes of conduct and codes of ethics	Corporate Governance	Full	30, 31	-

## SPECIFIC STANDARD DISCLOSURES

Profile Disclosure	Description	Reported in	Scope of Reporting	Reference Pages / Explanations	External Assurance
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## ECONOMIC

<b>DMA Aspect: Economic Performance</b>		Performance		Primary Material Issue	
G4-EC1	Direct economic value generated and distributed	Performance	Full	72	-
G4-EC2	Risks and opportunities posed by climate change that have the potential to generate substantive changes in operations, revenue or expenditure	Environmental Responsiveness	Full	47-50	-
<b>DMA Aspect: Indirect Economic Impact</b>		Responsibility in Our Value Chain		Secondary Material Issue	
		We Value People			
G4-EC7	Development and impact of infrastructure investments and services supported.	We Value People	Partial	69, 70	-
G4-EC8	Significant indirect economic impacts, including the extent of impacts	Responsibility in Our Value Chain	Partial	39, 70	-
		We Value People			
<b>DMA Aspect: Procurement Practices</b>		Responsibility in Our Value Chain		Secondary Material Issue	
G4-EC9	Proportion of spending on local suppliers at significant locations of operation	Responsibility in Our Value Chain	Partial	38	-



Profile Disclosure	Description	Reported in	Scope of Reporting	Reference Pages / Explanations	External Assurance
<b>ENVIROMENTAL</b>					
<b>DMA Unsur: Energy</b>		Environmental Responsiveness		Primary Material Issue	
<b>G4-EN3</b>	Energy consumption within the organization	Environmental Responsiveness Performance	Full	46, 79	-
<b>DMA Aspect: Water</b>		Environmental Responsiveness		Primary Material Issue	
<b>G4-EN8</b>	Total water withdrawal by source	Performance	Full	80	-
<b>G4-EN9</b>	Water sources significantly affected by withdrawal of water	Performance	Full	80	-
<b>DMA Aspect: Biodiversity</b>		Environmental Responsiveness		Secondary Material Issue	
<b>G4-EN11</b>	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas		Full	No such areas exist.	-
<b>DMA Aspect: Emissions</b>		Environmental Responsiveness		Primary Material Issue	
<b>G4-EN15</b>	Direct greenhouse gas (GHG) emissions (Scope 1)	Environmental Responsiveness Performance	Full	49, 79	-
<b>G4-EN16</b>	Energy indirect greenhouse gas (GHG) emissions (Scope 2)	Environmental Responsiveness Performance	Full	49, 79	-
<b>G4-EN17</b>	Other indirect greenhouse gas (GHG) emissions (Scope 3)	Environmental Responsiveness Performance	Full	49, 79	-
<b>G4-EN19</b>	Reduction of greenhouse gas (GHG) emissions	Environmental Responsiveness	Full	47-50	-
<b>DMA Aspect: Effluents and Waste</b>		Environmental Responsiveness		Primary Material Issue	
<b>G4-EN22</b>	Total water discharge by quality and destination	Environmental Responsiveness	Full	52	-
<b>G4-EN23</b>	Total weight of waste by type and disposal method	Environmental Responsiveness	Full	51	-
<b>DMA Aspect: Product and Services</b>		Environmental Responsiveness		Primary Material Issue	
<b>G4-EN27</b>	Extent of impact mitigation of environmental impacts of products and services	Environmental Responsiveness	Full	47, 48	-
<b>DMA Aspect: Supplier Environmental Assessment</b>		Environmental Responsiveness		Secondary Material Issue	
<b>G4-EN32</b>	Percentage of new suppliers that were screened using environmental criteria	Responsibility in Our Value Chain Performance	Full	38, 74 All our new suppliers.	-
<b>DMA Aspect: Environmental Grievance Mechanisms</b>		Environmental Responsiveness		Secondary Material Issue	

Profile Disclosure	Description	Reported in	Scope of Reporting	Reference Pages / Explanations	External Assurance
SOCIAL: LABOR PRACTICES AND DECENT WORK					
DMA Aspect: Employment		We Value People		Secondary Material Issue	
G4-LA1	New employee hires and employee turnover by age group, gender and region	We Value People	Full	64-67	-
G4-LA2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	We Value People	Full	68-69	-
DMA Aspect: Occupational Health and Safety		OHS		Primary Material Issue	
G4-LA5	Percentage of total workforce represented in formal joint management-worker health and safety committees	OHS	Full	58, 59	-
G4-LA6	Injuries, lost days, absenteeism and fatalities	OHS	Full	60, 61	-
DMA Aspect: Training and Education		We Value People		Secondary Material Issue	
G4-LA9	Average hours of training per year per employee by gender, and by employee category	We Value People Performance	Full	68, 78-79	-
G4-LA10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	We Value People	Full	67	-
G4-LA11	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	We Value People	Full	66, 67	-
DMA Aspect: Diversity and Equal Opportunity		We Value People		Secondary Material Issue	
G4-LA12	Composition of governance bodies and breakdown of employees	Corporate Governance We Value People	Full	29-30, 65-66	-
DMA Aspect: Supplier Assessment for Labor Practices		Responsibility in Our Value Chain		Secondary Material Issue	
G4-LA14	Percentage of new suppliers that were screened using labor practices criteria	Responsibility in Our Value Chain OHS Performance	Full	38, 58, 74 All our new suppliers.	-
DMA Aspect: Labor Practices Grievance Mechanisms		We Value People		Secondary Material Issue	
SOCIAL: HUMAN RIGHTS					
DMA Aspect: Supplier Human Rights Assessment		Responsibility in Our Value Chain		Secondary Material Issue	
G4-HR10	Percentage of new suppliers that were screened using human rights criteria	Responsibility in Our Value Chain	Full	38, 74 All our new suppliers	-
DMA Aspect: Human Rights Grievance Mechanisms				Secondary Material Issue	

Profile Disclosure	Description	Reported in	Scope of Reporting	Reference Pages / Explanations	External Assurance
SOCIAL: SOCIETY					
DMA Aspect: Local Communities				Primary Material Issue	
G4-SO1	Local community engagement, impact assessments, and development programs	Responsibility in Our Value Chain  OHS  We Value People	Full	39, 58, 60, 70	-
DMA Aspect: Anti-Corruption		Corporate Governance		Primary Material Issue	
G4-SO4	Communication and training on anti-corruption policies and procedures	Corporate Governance	Full	31, 32	-
DMA Aspect: Grievance Mechanisms for Impacts on Society		We Value People		Secondary Material Issue	
SOCIAL: PRODUCT RESPONSIBILITY					
DMA Aspect: Product and Service Labeling		Responsibility in Our Value Chain		Primary Material Issue	
G4-PR5	Results of surveys measuring customer satisfaction	Responsibility in Our Value Chain Performance	Full	38	-



# Abbreviations

<b>CDP</b>	Carbon Disclosure Project	
<b>FTSE 100</b>	Financial Times Stock Exchange 100 Endeksi	
<b>GHG</b>	Greenhouse Gases	
<b>GBF</b>	Safety Data Sheet	
<b>GRI</b>	Global Reporting Initiative	
<b>GS</b>	Gold Standard	
<b>ISO</b>	International Organization for Standardization	
<b>LACP</b>	League of American Communication Professionals	
<b>LPG</b>	Liquified Petroleum Gas	
<b>MRV</b>	Monitoring Reporting Verification	
<b>PV</b>	Photovoltaic	
<b>SP 500</b>	Standard & Poor's 500 Endeksi	
<b>VBA</b>	Visual Basic for Applications	
<b>VCS</b>	Volunteer Carbon Standard	
<b>DSİ</b>	Devlet Su İşleri	State Hydraulic Works
<b>TÜSİAD</b>	Türk Sanayicileri ve İşadamları Derneği	Charter of Turkish Industry and Businessmen Association



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