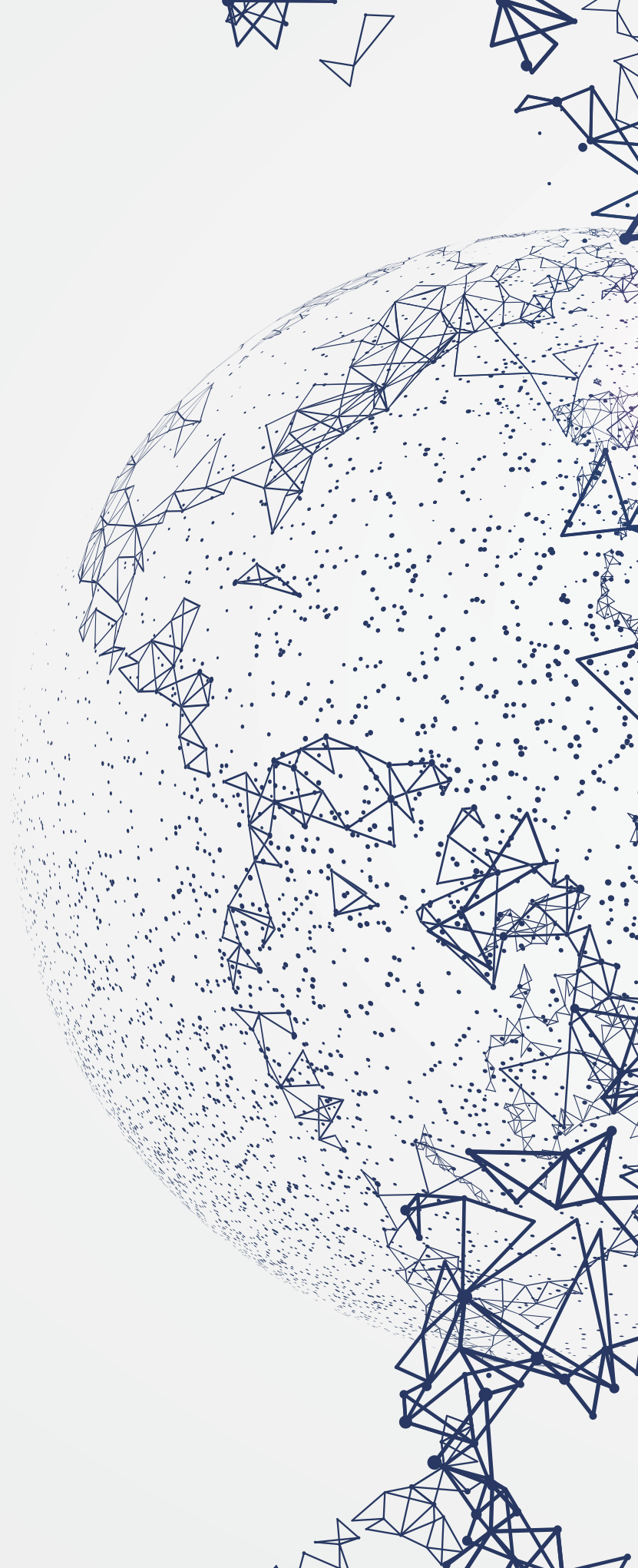




**Power beyond borders  
for sustainable success**

## Contents

01	<b>About This Report</b>
08	<b>Aksa Energy at a Glance</b>
08	About Aksa Energy
12	Vision and Mission of Aksa Energy
14	Chairman's Message
16	CEO's Message
18	Developments in 2016
22	Investment Strategy
23	Sales Strategy
24	<b>Our Sustainability Approach</b>
26	Stakeholder Communication
28	<b>Management Approach</b>
28	Corporate Governance
30	Risk Management
32	<b>Our Sustainability Performance</b>
32	Environmental Sustainability
33	Climate Change and Energy
34	Waste Management
35	Water and Waste Water Management
37	Air Emissions
38	Biodiversity
39	<b>Employees</b>
42	<b>Innovation</b>
43	<b>Community Relations</b>
46	<b>Reporting Principles and Tables</b>
48	<b>GRI Content Index</b>





## ABOUT THIS REPORT

The second sustainability report of Aksa Enerji Üretim A.Ş. (Aksa Energy) has been prepared to present the Company's environmental, social and corporate governance performance to its stakeholders in a transparent manner. The information in the report includes data for the financial year ending December 31, 2016. We have also included comparisons with Aksa Energy's previous year's goals, where necessary.

Aksa Energy Sustainability Report is prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core option, with reference to the Electric Utilities Sector Disclosure.

Please send your questions, feedback, and recommendations regarding this report to [surdurulebilirlik@aksa.com.tr](mailto:surdurulebilirlik@aksa.com.tr).







# Sustainable power

Powered by Kazancı Holding, which specializes in the energy sector, Aksa Energy is Turkey's leading independent power producer with a total installed capacity of 2,198 MW. Continuing to add to its power through diverse investments, Aksa Energy creates a difference in every business area, such as production, sales and distribution.





# Sustainable progress

As one of Turkey's largest independent power producers, Aksa Energy continues to make relentless progress by managing market risks in an effective manner. Aksa Energy focuses on the right areas with the right strategies, and continues to enhance its production power, sales volume and the number of people it serves.



An abstract graphic on the left side of the page, featuring a curved, wireframe-like structure that resembles a globe or a network. It consists of numerous thin, dark lines that intersect and curve, creating a sense of depth and connectivity. The lines are more densely packed in some areas, forming a mesh-like pattern, while in others, they are more sparse and follow a curved path.

# Sustainable growth

Owing to the excess supply in the Turkish energy sector, Aksa Energy expanded overseas and turned towards African nations, where millions of people have no access to energy. Aksa Energy continues its consistent growth through contracts reached with the Ghana, Mali and Madagascar governments, which will be followed by other agreements.



## ABOUT AKSA ENERGY

**Aksa Energy accounts for 5% of the total installed capacity of independent producers in Turkey, as well as 11% of their total sales.**

### OPERATIONAL POWER PLANTS

**16**

### TOTAL INSTALLED CAPACITY

**2,198 MW**

### NEW CAPACITY IN 2016

**216 MW**

### CAPACITY PLANNED TO BE OPERATIONAL

**470 MW**

Aksa Energy was established in 1997 as a subsidiary of Kazancı Holding, one of the leading groups in the Turkish energy sector. As of end-2016, Aksa Energy, which ranks among Turkey's leading independent electricity producers with a total installed capacity of 2,198 MW, has a power plant portfolio comprising 16 plants that generate energy using natural gas, fuel oil, lignite, wind and hydroelectric sources across a vast geographic area.

Kazancı Holding companies carry out their operations in synergy with each and every link of the energy value chain, from production and sales to distribution. Kazancı Holding has four subsidiaries operating in the energy industry: Aksa Energy, Aksa Power Generation, Aksa Natural Gas, and Aksa Electricity.

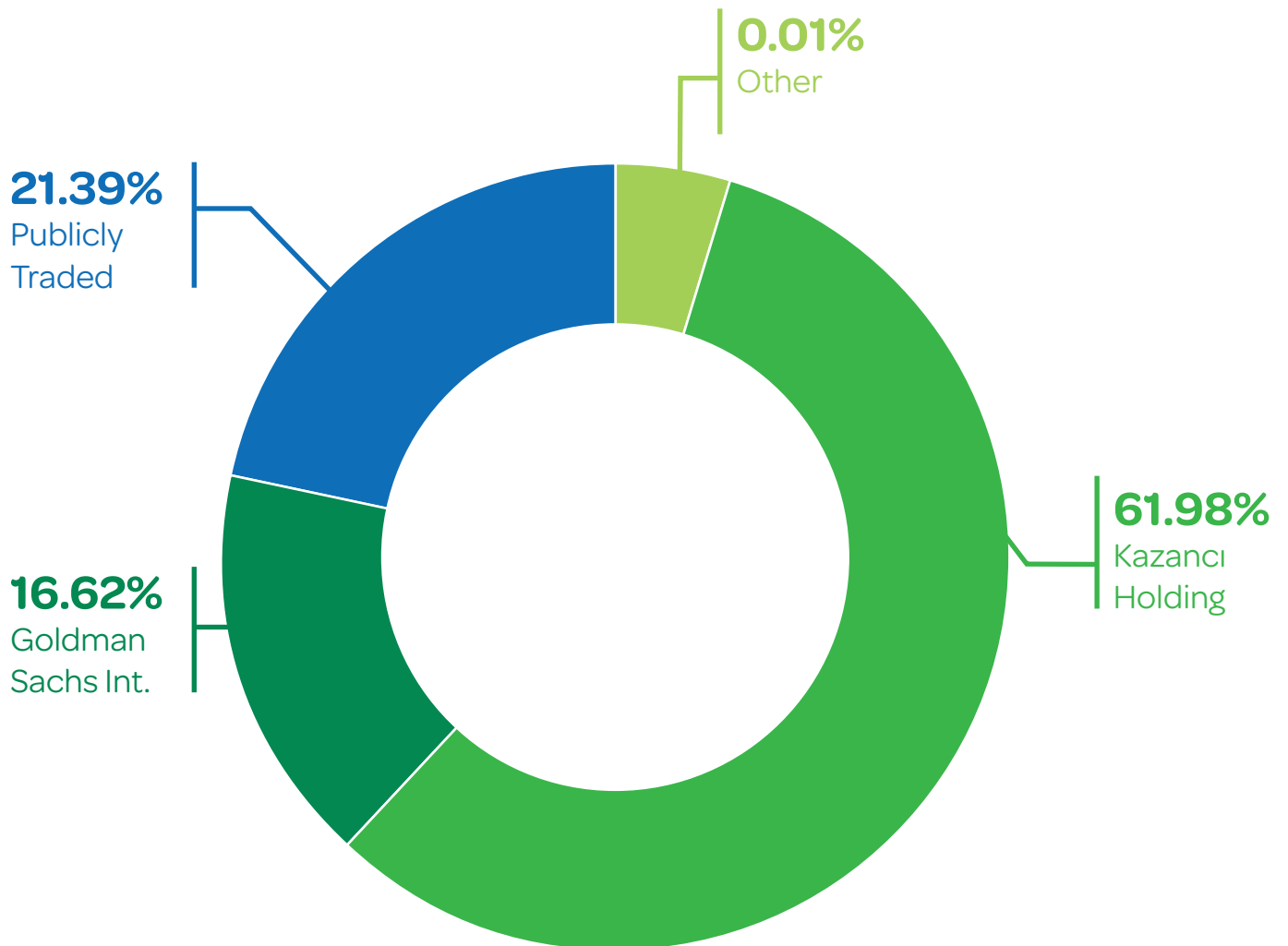
The Company founded a subsidy in Madagascar named Aksa Power Ltd., in which it holds a 58.35% stake, to establish a fuel oil power plant with an installed capacity of 120 MW and to sell the power thus generated at guaranteed prices for a duration of 20 years. Similarly, it has reached an agreement to found a 40 MW fuel oil power plant in Bamako, the capital of Mali, and to sell the electricity at guaranteed prices for three years. The commissioning of these three power plants in addition to the active power plant in TRNC will bring Aksa Energy's total overseas installed capacity up to 683 MW.

**Aksa Energy's total assets climbed to TL 4.15 billion and its turnover totaled TL 3.2 billion in 2016.**

### Set to Become a Global Power

Acting with the goal of establishing itself as a global player, Aksa Energy has added investments in Africa on top of its production capacity in Turkey and the TRNC. **The Company's global expansion, which started in 2015 with an agreement with the Ghana government to establish a 370 MW fuel oil-powered plant, generate electricity, and ensure the guaranteed sale of this electricity, continued with contracts signed with Madagascar and Mali in 2016.**

## Shareholder Structure



## ABOUT AKSA ENERGY

### NATURAL GAS COMBINED CYCLE POWER PLANTS

# 3

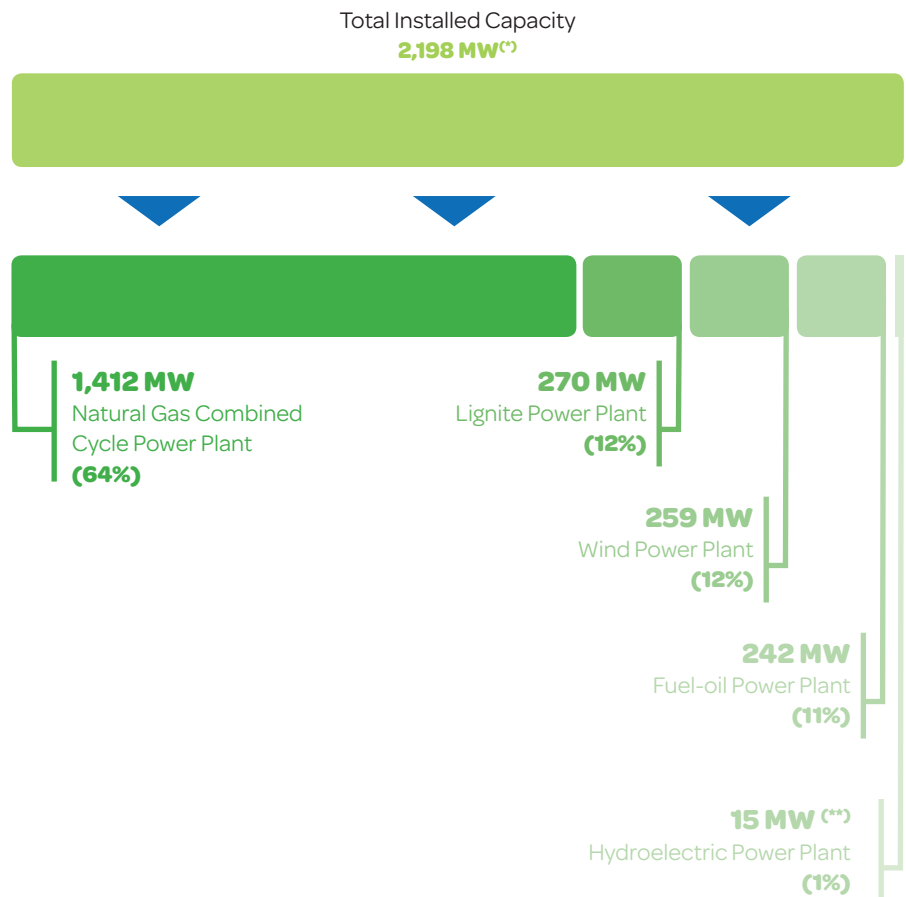
### WIND POWER PLANTS

# 7

## Production Portfolio

**Aksa Energy increased its installed capacity to 2,198 MW in 2016 and contributes to energy supply security of Turkey.**

The installed capacity of Aksa Energy has been 2,198 MW by the end of 2016. The Company's portfolio comprises 16 power plants with 3 natural gas combined cycle power plants, four fuel-oil power plants, seven wind power plants, one hydroelectric power plant and one lignite power plant.



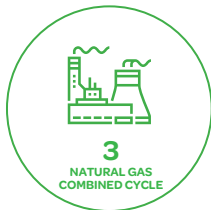
Further information on Aksa Energy's production portfolio and power plant features is available on pages 60-67 of Annual Report 2016.<sup>(\*\*\*)</sup>

<sup>(\*)</sup> The licenses of the three fuel oil power plants were cancelled in 2017 since their equipment will be utilized in African projects.

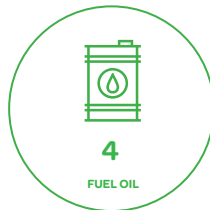
<sup>(\*\*)</sup> Kozbükü HEPP, which has an installed capacity of 81 MW, became operational on November 7, 2016 and was sold to Nas Enerji A.Ş. on December 26, 2016. As such, it is not included in the capacity data.

<sup>(\*\*\*)</sup> <http://www.aksainvestorrelations.com/annual-reports/>

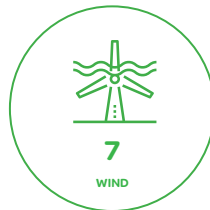
Aksa Energy's portfolio consists of 16 power plants that generate energy using natural gas, fuel-oil, lignite, wind and hydroelectric resources and spread over a wide geographical area.



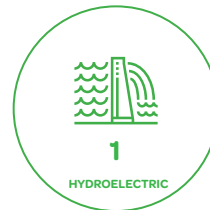
**1.412 MW**



**242 MW**



**259 MW**



**15 MW**



**270 MW**

## VISION AND MISSION OF AKSA ENERGY







## **Our Vision:**

To become the largest and most reliable power in the region.

## **Our Mission:**

To capitalize on our deep experience and know-how in the energy industry to continue implementing high-performance projects, with a focus on cutting-edge technologies and a well-educated, highly skilled workforce.

## CHAIRMAN'S MESSAGE

After analyzing the conditions in Turkey and taking into consideration the Company's sustainability, we took important strategic steps and implemented our decision to expand overseas in 2016.

Cemil KAZANCI  
Chairman



Dear Stakeholders,

In 2016, certain national and global political developments left their mark on the domestic and global economy. The unexpected result of the US elections, Britain's decision to withdraw from the EU, the presidential election in France, and parliamentary elections in countries like the Netherlands and Austria had a negative impact on the economic environment, prompting experts to revise down their growth estimates for 2017.

Turkey recorded a high economic growth rate at the beginning of the year, but could not maintain this momentum owing to the coup attempt of July 15<sup>th</sup>, the crisis with Russia, and global fluctuations, thus closing the year with 2.9% growth.

2016 was a difficult year for the energy industry as well as for our country as a whole. New capacities commissioned and launched led to a decline in electricity prices, while the depreciation of the TL also had a negative impact on the sector. This process has strengthened the trend toward low-cost, domestic and renewable energy sources. As a result, the shares of coal and renewable sources in total electricity generation have risen, while that of natural gas has decreased.

Despite such challenging conditions, 2016 was marked by major developments in sustainability across the world. The Paris Agreement and its objectives were put into practice by 147 of the 197 participating countries as of year-end. Meanwhile, the 2030 Sustainable Development Goals started to shape the agenda of an increasing number of firms, remaining a guiding force in all industries.

After analyzing the conditions in Turkey and taking into consideration the Company's sustainability, we took important strategic steps and implemented our decision to expand overseas in 2016. As a first step, we entered the African market, where two out of three persons have no access to electricity at all. As Turkey's largest independent power producer, we place a huge emphasis on boosting people's access to electricity and energy in line with our sustainability strategy and targets. We began our efforts in this arena in 2015 with the agreement signed with the government of Ghana, followed by contracts reached with the republics of Madagascar and Mali in 2016. In line with these agreements, we increase locals' access to electricity while providing employment opportunities during the installation and operation phases.

At Aksa Energy, we are aware of our responsibilities and will continue our sustainability journey to this end. In striving to reach our future goals, our stakeholders – first and foremost our employees – are the greatest guarantee we have to ensure our success. I would like to thank all our stakeholders on this occasion.



**Cemil KAZANCI**  
Chairman

## CEO'S MESSAGE

In another development related to sustainability in 2016, we have been able to maintain our place in the BIST Sustainability Index with our achievements in environmental, social and governance areas.



Cüneyt UYGUN  
Energy Group Head, CEO and  
Member of the Board

Dear Stakeholders,

Due to fluctuations in the global markets, domestic turmoil, and the beginning of a recession in the Turkish economy, 2016 was a challenging year. Turkey's energy sector was affected by the negative developments in the national economy. The depreciation of the TL and low energy prices had a highly negative impact on the energy industry. We analyzed national and international risks and opportunities correctly by taking into account the slowly increasing energy demand and the effect of rising exchange rates on our financial costs. As a result, we duly undertook prudent investment decisions. By gearing up our investments in Africa, we have taken important steps to become a global player and aimed to better manage our risks. As such, in 2016, we sold 18 TWh of electricity with a total installed capacity of 2,198 MW, and posted turnover of TL 3,178 million.

The Company, which has left an indelible impression first on Cyprus and now on Africa, has made an ambitious step toward becoming an international brand in the framework of agreements reached with Ghana, Madagascar and Mali in 2015 and 2016. Work on our plants in Madagascar and Mali continues at full speed, while our Ghana Power Plant has commenced commercial operation of its first section's engines with an installed capacity of 192.5 MW.

Shaping our investments with new strategies, we believe that sustainability plays a key role in long-term success. Through our expansion into Africa, we not only manage our risks, but also support development of the region. Our main objectives in this sense include meeting the local demand for energy, minimizing environmental impact and ensuring everyone's access to electricity. We help meet the energy demand of the region by transporting some of our power plants to energy-strapped Africa, where 600 million people have only limited access to electricity. We also contribute to the development of the economy and local communities, through increased investment, production and local recruitment.

Taking into account the conditions in this region, the protection of basic human rights becomes a priority issue. To provide a human rights-friendly environment for all our employees and business partners, we released our Human Rights Policy. We will continue our efforts to ensure full compliance with the policy and inform our stakeholders on this important issue.

In another development related to sustainability in 2016, we have been able to maintain our place in the BIST Sustainability Index with our achievements in environmental, social and governance

areas. We will continue to share our performance and developments in these areas in a transparent manner. Against this backdrop, I am proud to share with you our second sustainability report.

In the coming period, meeting the energy needs of energy-deprived regions across the world, supporting sustainable development and contributing to local employment will remain among our priority targets. We will take new steps toward our goal of globalization. We will continue to create value and brighten the future of Turkey. I would like to extend my gratitude to all our stakeholders, especially our employees, for their support throughout this journey.



**Cüneyt UYGUN**  
**Energy Group Head, CEO and**  
**Member of the Board**



## DEVELOPMENTS IN 2016

**In 2015 and 2016, Aksa Energy was included in the Sustainability Index, which features companies listed on Borsa Istanbul having a superior environmental, social and managerial performance.**

## Aksa Energy has expanded overseas to manage its risks related to fluctuations in energy prices.

2016 was a challenging period for Turkey, as well as for its energy industry. The new capacities commissioned in the energy sector brought down electricity prices, while the depreciation of the Turkish lira had a negative impact on the industry in terms of financial costs. The share of natural gas in electricity production fell, while those of coal and renewable energy increased. In connection with these developments, and with the added effect of the rising foreign exchange rate, there was a record increase in applications to the Renewable Energy Resources Support Mechanism (YEKDEM) during the year.

Aksa Energy has expanded overseas to manage its risks related to fluctuations in energy prices. Because of the excess supply in the domestic market, the Company shifts some of its idle domestic power plants abroad to respond to the urgent energy needs of African countries. In addition, the Company reduced its foreign currency denominated debt by selling off renewable energy investments with a total installed capacity of 313 MW.

In addition to the Ghana Fuel Oil Power Plant, Aksa Energy has executed agreements to establish power plants in Madagascar and Mali; construction has commenced on these facilities. Since the Ghana, Madagascar and Mali deals are long-term, foreign currency-denominated,

and with purchase guarantee, these plants are expected to swiftly provide foreign currency revenues, create a natural hedge mechanism against potential exchange rate losses in the balance sheet, and boost revenues and profitability. Aksa Energy's power plant in TRNC also makes guaranteed sales in US dollars.

Another important development at the Company in 2016 was the sale agreements related to Kozbükü Hydroelectric Power Plant and some wind power plants. At end-2016, Aksa Energy completed the sale of the Kozbükü Hydroelectric Power Plant, and used the sales proceeds to reduce its short-term liabilities. In addition, agreements were reached for the sale of six wind power plants with a total installed capacity of 232 MW. The transactions will be completed after the necessary permits are received from the Competition Authority, Ministry of Economy and EMRA.<sup>(\*)</sup>

The USD 348 million to be yielded from the sale of these plants will be used to reduce the Company's financial debt.

<sup>(\*)</sup>The sales transactions of the Ayres Ayvacık Wind Power Plant and Belen Atik Wind Power Plant were completed in April.

## MAJOR DEVELOPMENTS



**Aksa Energy completed construction of its power plant in Ghana, which is the Company's first step in going global.**

### **Bolu Göynük Thermal Power Plant**

Bolu Göynük Thermal Power Plant was inaugurated in August 2015 with the participation of the Minister of Energy and Natural Resources Taner Yıldız and the Minister of Environment and Urbanization İdris Güllüce. The facility's second phase of 135 MW became operational in January 2016.

The plant generates 2 billion KWh of energy per year with a total installed capacity of 270 MW, and runs at an efficiency of 89%. It also has a flue gas treatment system – the first of its kind in Turkey.

Bolu Göynük Thermal Power Plant, one of the two privately-owned Turkish power plants running on domestic coal, provides added value to the national economy by reducing the country's dependence on imported energy, since it produces electricity with domestic resources.

### **Ghana Power Plant Starts Production**

Aksa Energy completed construction of its power plant in Ghana, which is the Company's first step in going global.

The Samsun Natural Gas Combined Cycle Power Plant in Aksa Energy's portfolio has been converted into a fuel oil power plant with some of its equipment transferred to Ghana, after the African country's parliament approved the agreement signed with the Ghana government to establish a 370 MW power plant and to effect US dollar-based sales of the electricity produced for five years. As of April 2017, 192.5 MW of the installed capacity of the plant has started commercial operation.

## Aksa Energy at a Glance

### DEVELOPMENTS IN 2016

**In 2016, Aksa Energy's sales volume increased by 29% over the prior year to 18 billion KWh.**

#### **Aksa Powers Madagascar**

The Company established Aksaf Power Ltd., in which it has a 58.35% stake, in Mauritius to establish a fuel oil power plant with an installed capacity of 120 MW in Madagascar, and to sell the power generated at guaranteed prices for 20 years.

In line with the agreement reached between Aksaf Power Ltd. and Madagascar's state-owned power and water utility company Jiro Sy Rano Malagasy (Jirama), construction of the power plant began in fourth quarter 2016. The 60 MW first phase is planned to be completed and start power production in July 2017. After completion of the transmission lines, the second phase will become operational in 2018.

#### **Plant Investment in Mali**

Aksa Energy signed an agreement to establish a 40 MW fuel oil power plant in Bamako, the capital of Mali, and the guaranteed sale of the produced electricity for three years over a euro-denominated tariff.

Construction of the Mali power plant, which is the third project initiated by the Company in Africa after the Ghana and Madagascar projects, is planned to be completed in as little as five months. The plant is scheduled to begin production in June.

#### **Credit Rating**

The Company's high loan quality and strong debt repayment capacity were once again confirmed by the ratings from TURKrating, the nation's foremost credit rating agency, in 2016.

TURKrating assigned Aksa Energy an investment grade in terms of domestic currency in the national market, while affirming its Long Term National Credit Rating as TR A+, Short Term National Credit Rating as TR A2, and outlook as 'Stable,' owing to the uncertainties and risks arising from the frequent elections in Turkey during the year.

TURKrating's highest loan quality rating, TR A+, shows that the Company has low loan risk and a strong capability in terms of fulfilling its financial obligations over the long term. The Short Term National Credit Rating of TR A2, meanwhile, is just one notch below TR A1, the highest rating in terms of debt repayment capacity.

#### **Aksa Energy in the Sustainability Index**

In 2015 and then once again in 2016, Aksa Energy was included in the Sustainability Index, which comprises companies with a high corporate sustainability performance listed on Borsa Istanbul. Aksa Energy was one of the 14 companies that made the list in 2015, and will remain in the Sustainability Index for the November 2016-October 2017 period as well.

Aksa Energy, which established the Sustainability Committee to formulate the strategies, policies and targets required to manage its environmental, social and managerial risks – including climate change – in line with the Corporate Governance Principles, will continue to take steps to render its sustainability efforts traceable and improvable.

#### **Kozbükü Hydroelectric Power Plant Is Sold**

The 81 MW Kozbükü Hydroelectric Power Plant, which is run by İdil İki Energy Industry and Trade – a subsidiary of Aksa Energy – was sold to Nas Energy for USD 89.4 million. The sales agreement was approved by EMRA, Ministry of Economy, and the Competition Authority.

The cash proceeds from the sale were used to reduce Aksa Energy's short term liabilities.

#### **Agreement Reached for the Sale of Six WPPs**

An agreement was reached for the sale of six wind power plants with a total installed capacity of 232 MW to the Gürış Group of Companies for USD 259 million. The sales transactions of Hatay Sebenoba Wind Power Plant, Manisa Karakurt Wind Power Plant, Balıkesir Şamlı Wind Power Plant, Ayvacık Wind Power Plant, Kapıdağ Wind Power Plant and Belen / Atik Wind Power Plant will be completed after the approvals of EMRA, Ministry of Economy, and the Competition Authority.



The cash collected after the sales transaction will be used to reduce the short term liabilities of the Company.

### **Biodiversity Projects**

In 2015, the Company joined forces with the Association for the Protection of Turkey's Nature (TTKD) to execute the Hatay Mountain Gazelle (*Gazella gazella*) Protection Project. Thanks to this highly effective project by TTKD, the population of mountain gazelles, which are on the IUCN Red List, rose 2.3-fold.

The Company continued to cooperate with TTKD in 2016, and supported its project to determine the current situation of striped hyenas. Photo traps were placed in the animals' habitats. As a result of this effort, scientists also confirmed that the rock gerbil (*Gerbillus dasyurus*), which had not been observed for 22 years and was thought to be extinct, still lived in Turkey. The Company plans to support TTKD in 2017 to ensure the continuity of the project.

### **Human Rights Policy**

On the basis of international agreements, the Company drafted and issued its Human Rights Policy.

### **Sales Volume**

In 2016, Aksa Energy's sales volume increased by 29% over the prior year to 18 billion KWh.

### **Sustainability Index**

In 2015 and 2016, Aksa Energy was included in the Sustainability Index, which features companies listed on Borsa Istanbul having a superior environmental, social and managerial performance.



## INVESTMENT STRATEGY

**With the ongoing Ghana, Madagascar and Mali projects that will be commissioned in 2017 as well as new overseas projects, foreign currency-denominated sales will be the focus of Aksa Energy's sales strategy in the coming years.**

**Aksa Energy now supports the Turkish economy with its foreign currency revenues and plans to continue increasing its installed capacity overseas as a global energy concern.**

Aksa Energy has realized a radical change in its strategic investment plan and expanded overseas after its investment in Turkish Republic of Northern Cyprus (TRNC), with the goal of becoming a global power.

With this perspective, the Company has turned toward Africa to become one of the major energy players on the continent with its investments in Ghana, Madagascar and Mali. At the same time, Aksa Energy aims to reduce the exchange rate impact on its financials by boosting its profitability and foreign currency-denominated sales via these investments in African countries, which greatly need energy and infrastructure investment.

Aksa Energy uses the equipment from its existing plants in the construction of the African plants, thereby minimizing the investment requirement as well as the duration of construction by a significant margin.

The Company also monitors and evaluates new investment opportunities abroad. To this end, it is in talks with other energy-deficit countries which prefer swift solutions through the transport of existing equipment.

In its journey from a local energy company to a regional powerhouse, and ultimately to a global energy company, Aksa Energy now supports the Turkish economy with its foreign currency revenues and plans to continue increasing its installed capacity overseas as a global energy concern.



## SALES STRATEGY

Aksa Energy intends to increase the share of foreign currency-denominated sales in total turnover to avoid potential exchange rate losses.

In line with this strategy, the entire renewable energy production of the Company was sold to the Renewable Energy Resources Support Mechanism (YEKDEM) in 2016.

Sales realized at USD 73/MWh provide a natural hedge mechanism against potential exchange rate losses on the Company's balance sheet. In 2017, the Company will continue to sell its renewable energy portfolio production to YEKDEM.

In addition to the sales to YEKDEM, the sales from the Kalecik Fuel Oil Power Plant in the Turkish Republic of Northern Cyprus boost the Company's US dollar-based turnover. Foreign currency sales from the Ghana, Madagascar and Mali power plants, which will become operational in 2017, and from other potential overseas projects will be the focus of Aksa Energy's sales strategy. At end-2017, the Company projects 82% of its earnings before tax, depreciation and amortization (EBITDA) will be in foreign currency.

Pursuant to the resolution of the Council of Ministers published in the Official Gazette in August 2016, Turkish Electricity Trade and Contracting Inc. (TETAŞ) has set the total amount of energy to be provided from companies generating electricity from domestic coal at 6 billion KWh and the price as TL 185 /MWh for 2016. Aksa Energy's Bolu Göynük Thermal Power Plant, which started to operate at full capacity at the beginning of 2016, began selling to TETAŞ the amount of energy specified by the relevant tender.

TETAŞ announced that it will buy 18 billion kWh of energy from independent power producers burning domestic coal in 2017. Bolu Göynük Thermal Power Plant will continue to sell the amount of electricity specified by the relevant tender to TETAŞ at the price of TL 185 /MWh set for 2017.

**In its journey from a local energy company to a regional powerhouse, and ultimately to a global energy company, Aksa Energy now supports the Turkish economy with its foreign currency revenues and plans to continue increasing its installed capacity overseas as a global energy concern.**



# OUR SUSTAINABILITY APPROACH

**Aksa Energy has also updated its sustainability approach in line with its new strategy, with a view toward managing the effects and risks of the excess supply in the domestic market.**

In 2016, Aksa Energy targeted becoming a global powerhouse, in line with the shift in its investment strategy. After entering the Turkish Republic of Northern Cyprus (TRNC), it expanded overseas with investments in Ghana, Mali and Madagascar. Aksa Energy has also updated its sustainability approach in line with its new strategy, with a view toward managing the effects and risks of the excess supply in the domestic market.

The basis of this approach is providing sustainable and value-added electricity service to all. The Company has embraced the principle of creating long-lasting value by reducing environmental impact as well as enhancing economic sustainability, by prioritizing the people that its activities affect. Sustainability efforts focus on five areas: Our Management Approach, Environmental Sustainability, Our Employees, R&D and Innovation, and Social Responsibility. Corporate governance, occupational health and safety, employee

satisfaction, R&D and innovation are the priorities designated in this scope with the contributions of stakeholders.

The Sustainability Committee, established to manage sustainability efforts, monitors the performance of environmental, social and managerial areas. The Committee is charged with integrating the Corporate Governance Principles and sustainability into the Company's decision-making, management and business processes. The Committee also oversees the materiality matrix, which is one of the major components of the Company's sustainability approach.

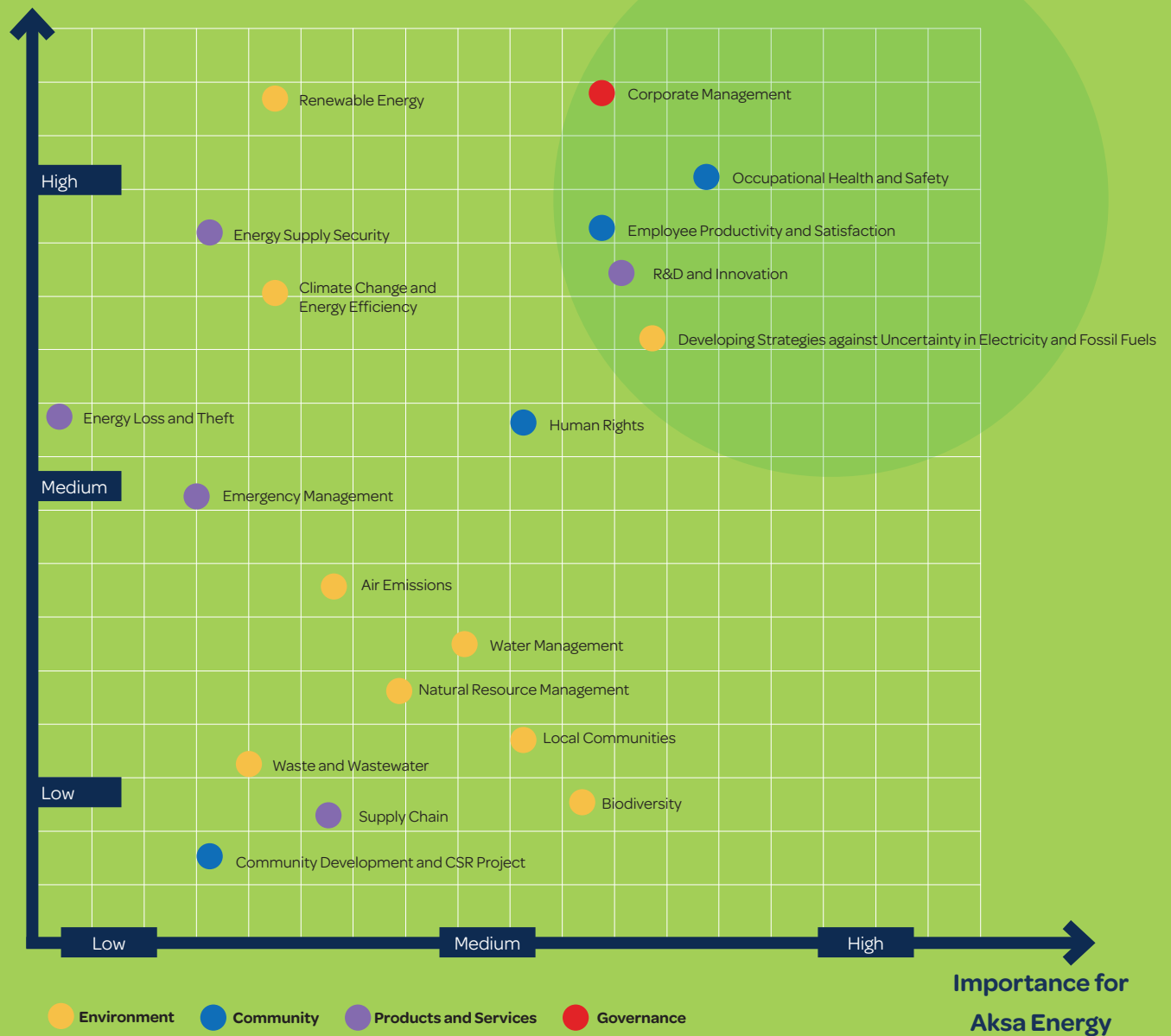
Stakeholders' material issues were reassessed based on feedback received through stakeholder communications, in addition to the comprehensive stakeholder analysis<sup>(\*)</sup> conducted the previous year. Aksa Energy's material issues were revised in line with the new investment strategy. Global trends and reports issued by

international organizations are taken into account while evaluating the priorities of Aksa Energy and its stakeholders.

Aksa Energy's new investment strategy has bolstered the global perspective in its sustainability approach. Taking those power plants that are losing their competitive edge in Turkey and transferring them to African countries at higher capacity utilization rates boosts Aksa Energy's productivity and sustainable profitability. In this geography where energy is in high demand, the Company has set the new strategic priorities of meeting this energy demand, creating employment and adding value to these national economies. Meanwhile, the protection of basic human rights also figure among the material issues in these countries, owing to the conditions on the ground.

<sup>(\*)</sup> Detailed information on stakeholder analysis can be found on page 14 of the 2015 Sustainability Report. <http://img-aksayatirimci.mncdn.com/media/6568/aksa-energy-sustainability-report-2015.pdf>

Importance for Stakeholders





## STAKEHOLDER COMMUNICATION

Among the primary objectives of Aksa Energy is understanding and meeting the needs and expectations of stakeholders.

Among the primary objectives of Aksa Energy is understanding and meeting the needs and expectations of stakeholders. The Company establishes dialogue with interested parties through various communication channels, such as its website, annual and sustainability reports, announcements on the Public Announcement Platform (KAP), feedback channels and meetings.

Aksa Energy meets with local administrations, public institutions, non-governmental organizations, financial institutions, and industry organizations as part of project-based cooperation. It establishes communication with its employees through training programs, meetings, intranet and the company website, performance appraisals, feedback systems, e-mails and annual reports. It communicates with its suppliers through face-to-face meetings, certification training, technical and occupational training, annual reports, the company website, and emails.

Aksa Energy's all stakeholders may send their opinions, expectations, suggestions and complaints through <http://www.aksaenerji.com.tr/en/write-to-us/> based on internal and external confidentiality. On the other hand, notifications on ethical issues are received through [etik@aksa.com.tr](mailto:etik@aksa.com.tr) address.

Aksa Energy meets with local administrations, public institutions, non-governmental organizations, financial institutions, and industry organizations as part of project-based cooperation.



### Association Memberships

Energy Trade Association  
Electricity Distribution Services  
Association (ELDER)  
Turkish Wind Energy Association  
TÜYİD Turkish Investor Relations  
Society



## Management Approach

# CORPORATE GOVERNANCE

Aksa Energy has built its corporate governance philosophy on the principles of transparency, fairness, responsibility and accountability. To create a sound corporate governance structure, all the requirements of Corporate Governance Principles are met.

Aksa Energy's Board of Directors is the highest management body in the Company and consists of a total of eight members appointed by the General Assembly, including three independent members. There is one female member on the Board of Directors. The Company has an Audit Committee, Corporate Governance Committee and Early Risk Detection Committee. The positions of Chairman and CEO are held by different persons.<sup>(\*)</sup>

**Aksa Energy's Board of Directors is the highest management body in the Company and consists of a total of eight members appointed by the General Assembly, including three independent members. There is one female member on the Board of Directors.**

The Company's "Ethical Principles"<sup>(\*\*)</sup> aims to make ethical conduct and high corporate governance standards an integral part of the corporate culture. All managers and employees are expected to act in accordance with the Ethical Principles and the Company values. It is intended to guide the Ethical Principles, actions and behaviors of the employees and representatives acting on behalf of the company (such as suppliers, consultants, lawyers, and external auditors) when they disclose their duties. The Ethical Principles covers issues such as legal compliance, risk prevention, confidentiality, reporting and control of unethical conduct, conflicts of interest, use of Company resources, giving and receiving

gifts on behalf of the company, donations, and discrimination.

In addition to the Ethical Principles, Aksa Energy has an Anti-Bribery and Anti-Corruption Policy. The Anti-Bribery and Anti-Corruption Policy aims to ensure compliance with anti-bribery, anti-corruption laws and regulations, ethical and professional principles, and universal rules in all countries where Aksa Energy operates.<sup>(\*\*\*)</sup> The Anti-Bribery and Anti-Corruption Policy covers the Company's implementation, audit and reporting principles governing the issues of bribery, corruption, business facilitation payments, compliance with applicable laws, rules and regulations, political assistance,

travel and accommodation expenses. The Company launched the email **etik@aksa.com.tr** to receive any information concerning violations of the Ethical Principles and the Anti-Bribery and Anti-Corruption Policy. The system is designed to protect the anonymity of the whistleblower; it was announced to all employees and disclosed to the public via the corporate web site. In 2016, the Company received no complaints or warnings regarding violations of the Anti-Bribery and Anti-Corruption Policy. In 2017, employees will be trained about Anti-Bribery and Anti-Corruption Policy. The Ethics Committee is responsible for evaluating, investigating and resolving allegations concerning ethical issues,

corruption and bribery. The Committee reports to the Aksa Energy Chairman. The Ethics Committee consists of the Internal Audit Director, Legal Affairs Director and Human Resources Director.

## Sustainability Management

Aksa Energy is cognizant of the global and national risks and opportunities present in the energy industry. The Company divides its sustainability approach into five key areas: Management Approach, Environmental Sustainability, Employees, R&D and Innovation, and Social Responsibility.

Aksa Energy places great importance on sustainability management with a view to sharpening its competitive advantage in the sector and ensuring effective risk management. Reporting to the Chairman and CEO, the Sustainability Committee was established to develop, monitor, revise and improve the sustainability strategy, policies and practices of Aksa Energy.

## Sustainability Committee

The Sustainability Committee is chaired by the Investor Relations and Corporate Communications Director. The Expert on Environment and Energy Legislation serves as the General Secretary of the Committee. Other committee members are appointed by the Board of Directors from among senior executives of the production, enterprise, operation, investment, engineering, human resources, procurement and logistics functions. Whenever deemed necessary, senior executives from the Energy Trade and Sales & Marketing Departments, selected in the same manner, also attend the committee meetings. The Sustainability Coordination Board was established to support the operation of the Sustainability Committee and to fulfill assigned tasks.

<sup>(\*)</sup> Further information on the Board of Directors committees is accessible at: <http://www.aksainvestorrelations.com/corporate-governance/board-of-directors-committees/>

<sup>(\*\*)</sup> The full text of the Ethical Principles is accessible at: <http://www.aksainvestorrelations.com/corporate-governance/ethical-principles/>

<sup>(\*\*\*)</sup> The full text of the Bribery and Anti-Corruption Policy can be found at <http://www.aksainvestorrelations.com/corporate-governance/anti-bribery-and-anti-corruption-policy/>





Energy Group Head,  
CEO and Member of the Board  
**Cüneyt Uygun**



#### **SUSTAINABILITY COMMITTEE**

Investor Relations and Corporate Communications Director  
**Özlem McCann (Chairperson)**

Environment and Energy Legislation Specialist  
**Ebru Aydeniz (Secretary General)**

Vice President/Energy Generation  
**Bariş Başer**

Director of Piston Power Plants  
**Şenol İnan**

Investment Director  
**Muammer Saner**

Director of Engineering and Turbine Power Plants  
**Senlav Güner**

Human Resources Director  
**Yeşim Ağaçeksen**

Director of Purchasing and Logistics  
**Meral Tunalı**



#### **SUSTAINABILITY COORDINATION AND WORKING GROUP**

Environment and Energy Legislation Specialist  
**Ebru Aydeniz**

Environment and Energy Systems Specialist  
**Mustafa Kurt**

Occupational Health and Safety Specialist  
**Oğuz Biçer**

Human Resources Manager  
**Ezgi Olgun**

Business Process Manager  
**Betül Işıklar**

Purchasing Manager  
**Uğur Muslu**

## RISK MANAGEMENT

**In 2016, Aksa Energy continued its efforts to proactively manage and prevent the risks arising from fluctuations in electricity and fossil fuel prices.**

**Aksa Energy's risk management policy is centered on safeguarding the value of Company assets, as well as ensuring operational safety and sustainability.**

Issues of corporate risk management, operational performance, legal compliance, business continuity and reputation are gaining in importance for businesses. Aksa Energy's risk management policy is centered on safeguarding the value of Company assets, as well as ensuring operational safety and sustainability. Risks are managed by the Early Risk Detection Committee with a view to rapidly detecting the risks that may jeopardize the Company's existence, continuity and development, and to taking the necessary measures against the risks identified. At the same time, the Committee makes recommendations to the Board of Directors concerning strategic issues, including fuel and energy price fluctuations. The Committee, which convenes six times a year under the chairmanship of the Independent Board Member, presents the results of its evaluations to the Board of Directors.

Corporate risk management helps to address the risks that businesses are exposed to, through a comprehensive and holistic perspective. Aksa Energy's risk management approach is an instrument for the Company in achieving its goals and objectives in line with its vision. With this approach, risks are assessed and managed through a holistic perspective.

Aksa Energy manages its non-financial risks, as well as its financial risks. The Company defines its financial risks as depreciation of the TL, energy prices (electricity tariffs and spot prices) lagging behind the natural gas and oil prices, legislative changes leading to cost increases, and slowdown in the growth of energy demand. Non-financial risks include climate change as well as carbon management, stakeholder relations, geopolitical issues arising from geographically dispersed production operations of the Company, human rights incompatibilities stemming from activities in non-OECD countries, fluctuations in energy and fossil fuel prices, energy supply security, occupational health and safety risks.

In 2016, Aksa Energy continued its efforts to proactively manage and prevent the risks arising from fluctuations in electricity and fossil fuel prices. For the management of price-related risks, Aksa Energy Early Risk Detection Committee provides the Board of Directors recommendations and actions on strategic issues, including uncertainties related to fuel and energy prices.



At Aksa Energy, risk management is divided into three steps:

**1<sup>st</sup>  
STEP**

The Sustainability Committee evaluates the Coordination Committee's work related to operational, social or financial risks, determines the necessary actions, and communicates its recommendations to the CEO/ Board Member that it reports to.

**2<sup>nd</sup>  
STEP**

The Board of Directors, chaired by the CEO/Board Member, discusses financial and operational risks and indicates to the Board of Directors the actions to be taken.

**3<sup>rd</sup>  
STEP**

The Early Risk Detection Committee, which convenes under the chairmanship of the Independent Board Member, identifies the potential risk areas of the Company and communicates its opinions to the Board of Directors.

Through this three-step risk management mechanism, the operational risks, financial risks, social risks and environmental risks including climate change are presented to the Board of Directors through separate channels. Detailed information on the management of financial risks is available in the Aksa Energy Annual Report 2016.<sup>(\*)</sup>

<sup>(\*)</sup>Aksa Energy 2016 Annual Report: <http://www.aksainvestorrelations.com/annual-reports/>

## ENVIRONMENTAL SUSTAINABILITY

**Aksa Energy monitors the environmental impact of its business activities and formulates solutions to manage and mitigate it in the most effective way.**

**The Aksa Energy Environmental Policy, which outlines the general framework of the Company's environment and climate change management, is divided into four key areas: climate change, efficient natural resource management, waste management and protection of biodiversity.**

Aksa Energy monitors the environmental impact of its business activities and formulates solutions to manage and mitigate it in the most effective way.

The Company views environmental sustainability as its priority in all business processes. The environmental impact of energy generation activities is managed in accordance with international management standards. Under environmental management efforts, all plants focus on generating maximum energy with minimum resources via the efficient use of natural resources and process innovations. Waste is managed and disposed of as prescribed by applicable legislation. Efforts are carried out in cooperation with specialized agencies to conserve and develop the biological diversity of the surrounding areas.

The Aksa Energy Environmental Policy, which outlines the general framework of the Company's environment and climate change management, is divided into four key areas: climate change, efficient natural resource management, waste management and protection of biodiversity. The Framework Environmental Management System has been issued to outline and keep track of the Company's environment management objectives and goals, and ensure compliance with

the policy. The Environmental Policy and Management System is accessible on the Aksa Energy website.<sup>(\*)</sup>

In keeping with the environmental sustainability approach, production is carried out in accordance with the ISO 14001 and ISO 50001 Management Systems at the power plants. Potential environmental risks and environmental performance that may arise in the facilities are regularly monitored and necessary precautions are taken.

Technologies reducing potential adverse environmental impacts are employed in power plants, with a focus on the most efficient use of energy and natural resources in the implementation stage. To reduce environmental impact, the Company conducts systematic measurements and reporting wherever deemed necessary.

<sup>(\*)</sup> <http://www.aksainvestorrelations.com/sustainability/environmental-sustainability/>

### Climate Change and Energy

Today, climate change is one of the world's most significant issues with its global impact. At the Paris Climate Summit, the goal of keeping the global temperature increase below 2°C compromised is an important responsibility for the public, civil society and the business world.

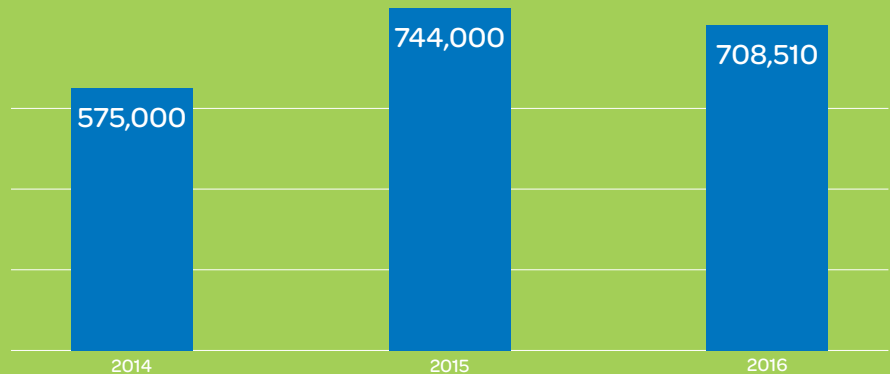
Aware of its industry's high impacts on the environment and climate change, Aksa Energy works to minimize them. Aksa Energy signed the Trillion Tonne Communiqué, which is a declaration to the entire world by the companies that demand measures against climate change due to their sensitivity to the climate change.

The company has determined its primary focus in reducing greenhouse gas emissions as conducting energy efficiency projects, diversifying energy resources and regularly monitoring its performance in the field. Furthermore, climate change is included as a criterion in the performance-based wage assessments of Company managers in all the administrative units. Greenhouse gas emissions are monitored based on short- and long-term goals. The Greenhouse Gas Emissions Report for the year 2016 was presented to the Ministry of Environment and Urbanization after confirmation of the verification body.

After the full-scale commissioning of the Bolu Göynük Thermal Power Plant in 2016, an increase in greenhouse gas emissions was recorded, but renewable energy production continued at the wind and hydroelectric power plants. **In 2016, 708 GWh of electricity was generated from renewable energy resources, thereby preventing 396 thousand tons of greenhouse gas emissions. By 2020, the Company aims to reduce its emission per MWh by 10% over the year 2008.** To work toward achieving this goal, investment plans will be reviewed and strategies for the next year will be revised.

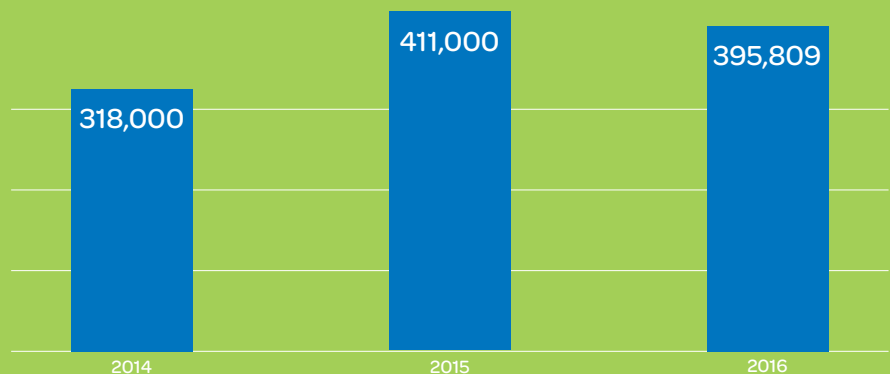
## Renewable Energy Production (MWh)

Aksa Energy's renewable energy production is 708,510 MWh in 2016



## Greenhouse Gas Reduction with Renewable Energy (tons CO<sub>2</sub>)

Aksa Energy's greenhouse gas emissions decreased by 3.9% in 2016 compared to 2015.



Greenhouse Gas Emissions (tons CO <sub>2</sub> )	2014	2015	2016
Scope 1	3,793,772	2,295,641	4,255,280
Natural Gas	2,785,936	1,429,583	1,709,737
Lignite	0	398,633	2,063,001
Fuel Oil & Diesel	1,007,836	467,424	482,542
Scope 2	81,936	77,021	163,781
Power Consumption	81,936	77,021	163,781
<b>TOTAL</b>	<b>3,875,708</b>	<b>2,372,661</b>	<b>4,419,061</b>
Greenhouse Gas Emissions per MWh (kg CO <sub>2</sub> )	471	323	601



ENVIRONMENTAL  
SUSTAINABILITY

Aksa Energy enhances its business processes and designs cost-cutting projects to reduce the resources consumed and the waste generated.

Energy efficiency projects in 2016 helped save about 20,000 MWh of energy and TL 1 million 230 thousand in costs.

Energy efficiency is of great importance in fighting against climate change and maintaining our competitive edge.

- One of the leading energy efficiency projects in the sector is energy generation from waste heat. Aksa Energy generates energy utilizing the heat from waste gas that occurs in production processes with combined cycle power plant technology and reduces energy use by 10% on average per unit through this method. Waste heat energy is produced in all natural gas power plants and in North Cyprus Kalecik Fuel Power Plant.
- Oxicat filters are employed in the natural gas power plants.
- Cooling fluids at Aksa Energy’s Manisa, Van and Cyprus plants get warmer due to high temperatures in summer. The company expands its generation capacity by spraying pulverized water via a system established to increase cooling capacity.
- Another application includes the use of engine jacket fluids’ heat in gas and building heating with a heat exchanger, which saves natural gas and electricity.

Energy efficiency projects in 2016 helped save about 20,000 MWh of energy and TL 1 million 230 thousand in costs.

Waste Management

Reducing the amount of waste generated during operations at the source and minimizing hazardous waste are the basic principles of Aksa Energy’s waste management approach. Waste is then disposed of as prescribed by environmental legislation.

Aksa Energy enhances its business processes and designs cost-cutting projects to reduce the resources consumed and the waste generated. In addition to these projects, new technologies are integrated into business processes to boost productivity.

Waste oil, contaminated packaging and cloth, absorbent filters, slob from oil-water separators and other scrap material are sent to licensed recycling companies for disposal. Hazardous waste is initially collected in the temporary waste storage areas within the Company’s facilities. Hazardous waste is then transferred by licensed vehicles to recycling facilities, as required by the Waste Management Regulation. In 2016, 195 tons of waste was sent to licensed firms and employed in energy generation. Waste that has calorific value was sent to cement factories. In these plants, waste was disposed of through incineration to generate energy.

Recycled Waste (tons)

	Hazardous	Non-hazardous	Recovered for Energy Use
2014	12	508	0
2015	325	327	0
2016	895	254	195



Water and Waste Water Management

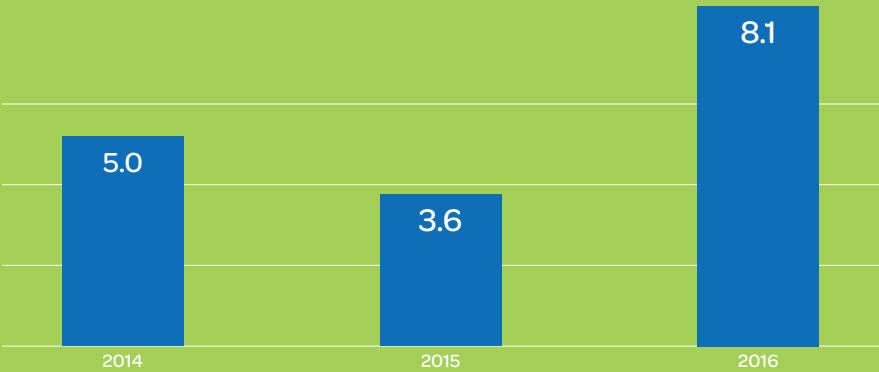
Water resources, which are under pressure of global trends such as climate change and rising population, are used in the most efficient manner in all the business processes of Aksa Energy. In line with this approach, the amount of water used in the processes is reduced through water saving projects. Waste water yielded by the processes is managed in accordance with applicable legislation, in line with the requirements set forth in the Water Pollution Control Regulation. The water discharged after use is analyzed periodically by accredited laboratories. The waste water generated by natural gas power plants is first collected in waterproof cesspools, and then transferred to water treatment plants in the vicinity.

In parallel with the rising production at natural gas power plants, water consumption has increased since 2014. This increase in water use can also be attributed to the two boilers in operation at the Bolu Göynük Thermal Power Plant, which became operational at full capacity in 2016.

To save water, decarbonization facilities are installed at the power plants. At Ali Metin Kazancı Antalya Natural Gas Combined Cycle Power Plant, a decarbonization facility was established with an investment of EUR 2.5 million in 2012, helping save 500 m³ of water per hour. Following the launch of this facility, water consumption at the power plant fell from 1.16 m³ to 0.71 m³ per MWh. Some 297,000 m³ of water, equivalent to one-tenth of the total water consumption at the power plant, was recycled and reused in 2016. At the Bolu Göynük Thermal Power Plant, the decarbonization project realized with an investment of EUR 2.8 million saves 270 m³ of water per hour.

Total Water Consumption (million m³)

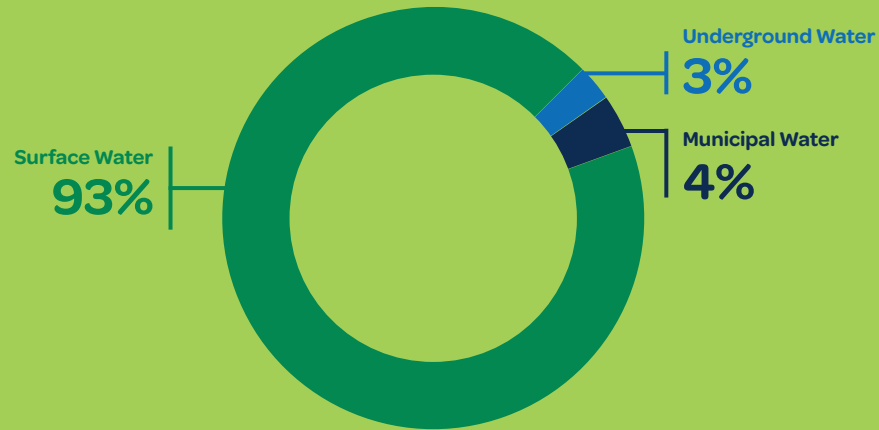
Aksa Energy’s total water use was 8.1 million m³ in 2016.



Water Consumption by Source (m³)

	Surface Waters	Underground Water	Municipal Water	Total
2014	312,365	4,013,781	598,260	4,924,406
2015	235,824	3,220,939	141,083	3,597,846
2016	320,261	7,536,569	230,893	8,087,723

Total Water Consumption by Resource (%)



## ENVIRONMENTAL SUSTAINABILITY

**Water resources, which are under pressure of global trends such as climate change and rising population, are used in the most efficient manner.**

**Aksa Energy regularly measures the effect of its operations on air quality and ensures that the emissions fall within the legal limits.**

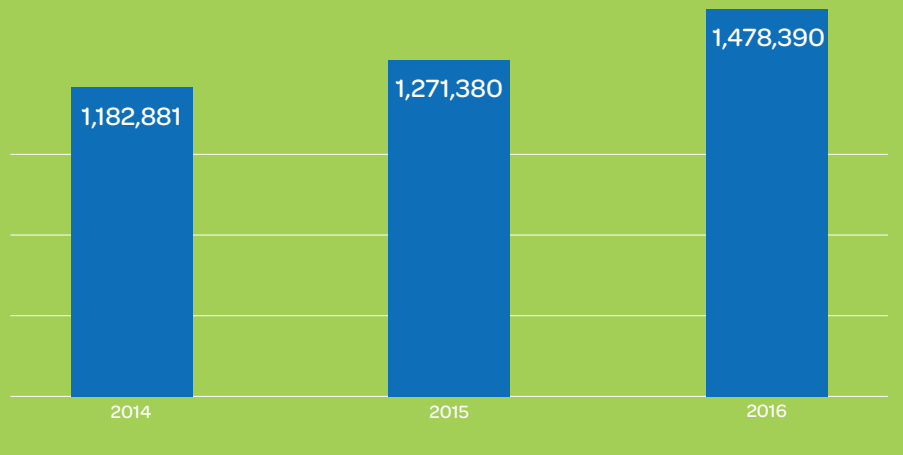
A project was completed to collect reverse osmosis waste water in a separate pool in order to humidify ashes. The project now yields water savings of 14.4 m<sup>3</sup> per hour.

In addition, the Çatak Pond was created with an investment of TL 17.5 million at the Bolu Göynük Power Plant to meet the operational requirements of the plant and to manage the effects of the plant on the water resources in the surrounding areas in a responsible way. The pond also meets some of the drinking and irrigation water needs of the local population via the intermediation of DSI.

At the Manisa and Şanlıurfa Natural Gas Combined Cycle Power Plants, the water treated by the reverse osmosis method started being recycled and reused in the cooling towers due to efforts carried out in 2011. Thanks to this project, 13% of the total water used since 2013 was recycled. At the end of five years, the project has helped cut TL 60,000 in costs at Manisa Natural Gas Combined Cycle Power Plant and TL 329,000 in costs at Şanlıurfa Natural Gas Combined Cycle Power Plant.

### Total Amount of Waste Water (m<sup>3</sup>)

Aksa Energy's waste water amounted to 1,478,390 m<sup>3</sup> in 2016.





### Air Emissions

A significant area of impact within energy generation is air emissions other than greenhouse gas emissions. Aksa Energy regularly measures the effect of its operations on air quality and ensures that the emissions fall within the legal limits. Emissions can be instantaneously controlled through emission measurement systems installed in the plants, and various measures are taken for reduction purposes. These studies aim to eliminate any adverse impact of the air emissions on the environment and human health.

Under these studies, Bolu Göynük Thermal Power Plant, which produces energy from lignite, employs technologies that reduce air emissions. The plant has a flue gas treatment system, which is the first of its kind in Turkey.

Thanks to this system, Bolu Göynük Thermal Power Plant reached in 2015 the legal emission target set by the EU for the year 2018. In addition, the NOx emission volume has been reduced to a low level thanks to the fluidized bed combustion technology used at the Bolu Göynük Thermal Power Plant. In addition to these technologies, limestone is used in the desulphurization process to eliminate hazardous emissions during combustion. The process is carried out within the boiler to prevent harmful gas emissions.

No legal penalties were imposed on the Company within the area of environmental management in 2016.

<b>Air Emissions (kg)</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
NOx	3,577,900	1,885,255	2,408,120
SOx	5,498	11,464	9,644



## ENVIRONMENTAL SUSTAINABILITY

# Aksa Energy monitors the impacts of its activities on biodiversity

**Aksa Energy provides support to biodiversity projects that protect and enhance natural habitats, with a view toward monitoring the environmental impact of its operations and mitigating any negative impact.**

### Biodiversity

Aksa Energy provides support to biodiversity projects that protect and enhance natural habitats, with a view toward monitoring the environmental impact of its operations and mitigating any negative impact. Setting off from this perspective, Aksa Energy keeps a watchful eye on its business activities' effects on biodiversity and partners with specialist NGOs to preserve local biodiversity.

In 2015, the Company initiated partnerships for preserving biodiversity in collaboration with the Association for the Protection of Turkey's Nature (TTKD) to protect mountain gazelles.

The collaboration with TTKD continued in 2016 with a project to explore the current situation and ecology of the striped hyena (*hyaena hyaena*) living in the same region. After a striped hyena was detected by the security camera at the Hatay Mountain Gazelle Breeding Station in December 2015, a study was initiated on the highly endangered wild species of striped hyenas living in Kırıkhan – Gölbaşı Village. In the first phase of the study, interviews were conducted among the local population. The overarching goal of the project was to highlight the importance of protecting the striped hyena and preserving the rich biodiversity of Hatay and Turkey. Aksa Energy has donated instruments such as photo traps to enable scientists to monitor and capture wildlife without causing disturbance to the animals.

In the very first day of the two-month project, photo traps positioned in the landscape captured the images of the rock gerbil (*gerbillus dasyurus*), which had not been observed in the last 22 years and was thought to be extinct.

With the support of Aksa Energy, TTKD's Hatay branch published its studies in the area in a report entitled "Preliminary Study on the Striped Hyena's Spread and Habitat in the Hassa – Reyhanlı Region." The study pointed to the need for the meticulous protection of the local habitats rich in local mammals. Its results were published in regional and national media, thereby broadening awareness on the rich biological diversity of the area.

The project, conducted under the guidance of specialized scientists, is crucial for scientifically analyzing the mammals of the Hatay province, and identifying any rare or hitherto unknown species.

To ensure the continuity of the project, the Company plans to continue collaborating with TTKD in 2017.

## EMPLOYEES

# Human Resources Policy includes practices that will boost business success and productivity, and enhance competitive advantage within the sector.

Aksa Energy sees its employees as its most valuable asset. The Company places a great emphasis on providing personnel with a working environment where all health and safety measures are duly taken, and where they can work in a satisfied and productive fashion. Aksa Energy always strives to invest in its workforce, whom it sees as its most important stakeholder. With this approach, the Company aims to remain an employer of choice among development-oriented, productive and highly motivated employees, and to realize its long-term corporate goals. Aksa Energy Human Resources Policy<sup>(\*)</sup> includes practices that will boost business success and productivity, and enhance competitive advantage within the sector. The policy targets a work environment based on respect for diversity, difference, and universally accepted human rights. Aksa Energy has a highly diverse workforce across Turkey, without any discrimination based on region and gender.

As of end-2016, Aksa Energy employed 782 personnel, of whom 75% are blue collar and 25% are white collar. Eleven percent of the staff is located at the Head Office, while the remaining 89% work at the power plants and enterprises in different geographic regions. As a global company, Aksa Energy operates in different regions and believes that the resulting diversity strengthens its organizational structure. As of year-end 2016, the Company has 481 employees in Turkey, 111 in TRNC, 166 in Ghana (of whom 79 are Turkish and 87 are locals), nine in

Mali and 15 in Madagascar. Aside from its own staff, the Company also chooses its contracted employees from among the local population to contribute to the development of regional economies.

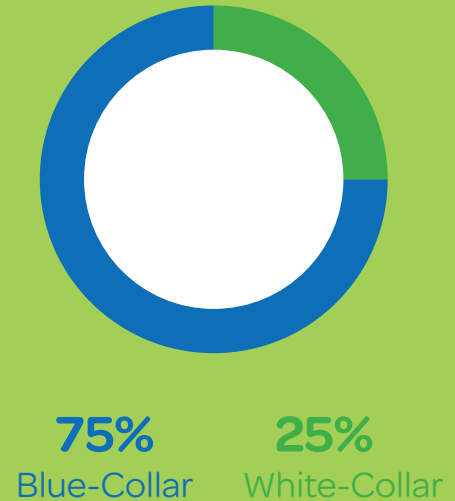
Women personnel account for 5% of the total workforce. Eight percent of female employees and 5% of male employees took maternity and paternity leave, with all of them returning to their jobs at Aksa Energy afterwards.

34% of employees have worked at Aksa Energy between 5-9 years, while 10% of the staff have worked 10 years or more years at the Company.

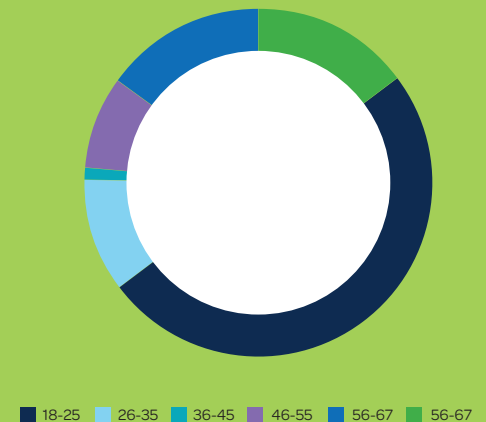
### Respect for Human Rights

Wherever it operates, Aksa Energy is committed to conducting its operations in accordance with the basic human rights of its employees and business partners. In 2016, the Company issued the "Aksa Energy Human Resources Policy," which was developed in line with the Universal Declaration of Human Rights and International Labor Organization Principles. The harmonization of Company operations with this policy is under the responsibility of the Ethics Committee. The policy is translated into the official languages of the countries where Aksa Energy operates.

Percentage of Employees by Category



Percentage of Employees by Age Groups

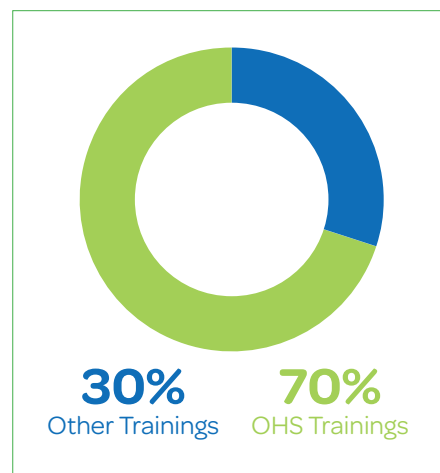
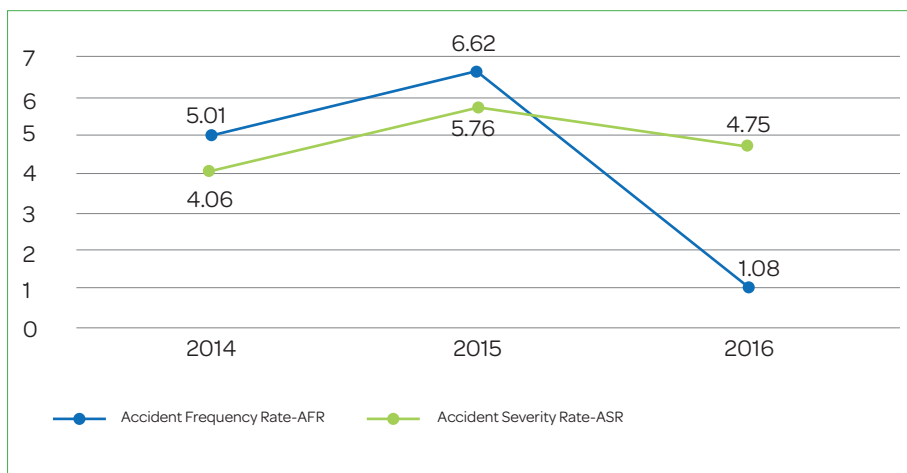


<sup>(\*)</sup> For more detailed information on the Human Resources Policy, please visit <http://www.aksaenerji.com/en/insan-weldings/>.



## EMPLOYEES

**Aksa Energy aims to offer all employees and business partners a “zero accident” working environment, where all necessary OHS measures are taken, and preventive safety measures are in place.**



### Safe Working Environment

Occupational health and safety (OHS) is among the material issues of Aksa Energy and stakeholders. Aksa Energy aims to offer all employees and business partners a “zero accident” working environment, where all necessary OHS measures are taken, and preventive safety measures are in place. In all the facilities and contracted companies across Turkey, Aksa Energy’s work practices cover visitors and other collaborators as well. The Company approaches OHS related issues with a risk management perspective. OHS issues are managed according to the Company’s international OHSAS 18001 Occupational Health and Safety management certification. Aksa Energy’s best practices go beyond the standards set by applicable laws and regulations. In addition, systems such as ISO 14001 Environmental Management System and

ISO 9001 Quality Management System require OHS performance monitoring and uphold productivity.

The OHS Board, which comprises 20% of Aksa Energy employees and represents 70% of the workforce, evaluates and enhances OHS activities based on statistics in Turkey and Europe. Striving to ensure work productivity through practices that prevent work accidents and occupational disease, the Board reports to the CEO any issue that it considers important. In addition, the Sustainability Committee, which normally focuses on sustainability, also makes evaluations on OHS matters, supports the activities in this field, and provides reports to the CEO when it deems necessary.

To reach the “zero accident” target, the Company takes measures to avoid employee injuries and enhance the OHS

performance, with the conditions assessed through Corrective and Preventive Action Reports. Within the scope of Aksa Energy’s “zero accidents” objective, emergency plans for all the plants have been drafted to be prepared for any potential job-related accident or emergency scenario. The accident severity rate is 4.75 and the accident frequency rate is 1.08. There was a 90% drop in the number of accidents, and an 84% reduction in the accident frequency rate. At the power plants, there were no accidents resulting in death or severe injury.

All the precautionary measures and emergency plans against potential workplace accidents are shared with employees in training programs, and thus the implementation of plans is ensured. OHS training accounts for 70% of the total training provided to employees at the Company.



### Performance and Career Management

Recruiting employees from among individuals open to innovation and change is key to ensure customer satisfaction and therefore business success. Aksa Energy's working environment not only rewards creative initiatives, but also ensures the regular advancement of employee performance.

All personnel undergo performance and career development assessments. The white-collar performance management system includes a competency-based assessment once a year. In the future, this assessment will be expanded to cover blue-collar workers as well.

The performance management system plays an important role in the Remuneration Policy. Based on the principles of fairness and transparency, the Remuneration Policy encourages sustainable success by upholding measurable and balanced performance criteria.

Aksa Energy plans to create career maps and a talent pool based on the Company's risks and opportunities for the period up to 2020. This effort aims to accurately predict human resources requirements according to possible changes in the industry, maintain competitive edge, and respond to necessities that cannot be immediately resolved through transfers and promotions, which are normally prioritized at the Company.

### Training

Employees undergo regular training to support personal and professional development, and to help them acquire new skills. Training programs focus on the latest technologies and industry-specific innovations, thereby contributing not only to the individual development of the staff but also to their performance development.

Employee training programs totaled 7,289 man hours and OHS trainings totaled 5,102 man hours in 2016. In addition to the in-house and external training activities

designed to share our corporate values and working principles with our partners, OHS training was offered to 839 staff members of subcontracting companies.

Aksa Energy prioritizes maintaining a work environment open to communication, where employees can express all their complaints and opinions. Personnel who want to communicate their complaints anonymously can use the tab on the corporate web site, at <http://www.aksaenerji.com.tr/en/write-to-us/>. Complaints transmitted in this manner are assessed at the Head Office and then managed according to the topic. The contact email address [etik@aksa.com.tr](mailto:etik@aksa.com.tr) is used to receive complaints related to ethical issues, as well as in-house allegations as detailed by the Corporate Governance Department. In 2016, only one complaint was received pertaining to employee rights, and this complaint was resolved in light of the Labor Law and related procedures.

At Aksa Energy, staff opinions are also collected via employee satisfaction and engagement surveys. These surveys will be realized once again in 2017, and turned into a regular mechanism by 2020.

## INNOVATION

**Fostering a progress-centered innovative culture that all employees can contribute to is one of Aksa Energy's strategic priorities.**

**At Aksa Energy, employees actively participate in innovation processes, in line with our management approach that embraces innovation and change.**

In line with the target of becoming a global player in the energy industry, and further enhancing our extensive knowledge and experience in the sector, Aksa Energy views R&D and innovation as its key tools to achieve success. Innovative solutions are created by adapting to rapidly changing technologies, thereby contributing to Turkey's supply security and developing countries' access to energy. R&D and innovation are critical to maintaining and bolstering competitive advantage, and effectively using the latest technologies at lower costs.

Work is ongoing to integrate R&D and innovation across all business processes. At Aksa Energy, employees actively participate in innovation processes, in line with our management approach that embraces innovation and change. Fostering a progress-centered innovative culture that all employees can contribute to is one of Aksa Energy's strategic priorities.

Aside from cultivating a corporate culture of innovation, the Company also makes efforts to identify any deficiencies in the power plants in terms of efficiency, and takes measures to address these. During meetings at the power plants, these issues are raised, the Head Office is informed when deemed necessary and feasibility studies are realized.

When feasibility studies yield positive results, pilot tests are conducted for these new practices, and successful ones are realized on larger scale. To reduce steam consumption at the TRNC power plant, a cartridge heater was installed in an HFO storage tank, resulting in a rise in productivity. The Company will continue to boost productivity through similar studies.

**In 2016, Turkey's first Floating LNG (FSRU) facility was established in Aliaga. This effort supplemented natural gas storage and LNG terminal capacities, increased resource diversity, and bolstered Turkey's energy supply security.**

In line with its globalization strategy, Aksa Energy prioritized overseas investments, quickly dismantled its power plants and installed them on another continent. The Company also brought its competence in this area to superior levels thanks to preliminary work conducted. The export of know-how to the African continent has also generated foreign currency revenues for Turkey and contributed to the national economy.

## COMMUNITY RELATIONS

# Contributing to the economic, cultural and social development of neighboring communities is among the top priorities of Aksa Energy.

As a company operating in the energy industry, Aksa Energy sees its stakeholders as all the groups that use the energy it generates or are affected directly or indirectly from its operations. The Company bases its social responsibility approach on this foundation, and conducts its business operations in consideration of their social impact on its stakeholders. Aksa Energy aims to contribute to the economic, cultural and social development of the local populations in the regions where it operates.

To this end, the Company focuses on employing local residents and meets its human resources needs from among the regional population. The workforce of the Bolu Göynük Thermal Power Plant was recruited from the neighboring villages of Bölücekova, Himmetoğlu and Karaardıç. When additional services are required at the power plants, the subcontracting firms are chosen from the region to provide more local employment opportunities for the community.

**In line with its approach to provide “electricity with added value,” Aksa Energy focuses on the regions where it conducts operations and works to contribute to their socio-economic development.**

**Aksa Energy has taken the first steps toward becoming a global energy giant, by entering the energy-strapped African market.** This strategic shift is important for the Company in both economic and humanitarian terms. Throughout the African continent, especially in sub-Saharan Africa, access to electricity is still very limited. Some 660 million persons in Africa have no access to electricity at all. Meanwhile, the existing power plant infrastructure in Africa is largely primitive and sub-standard, leading to frequent blackouts and increased costs. Aksa Energy’s current and future investments in the region will not only help Africa’s people access electricity, but also contribute to economic development in the region by boosting investment and production. The Company’s investments also expand local employment opportunities. For instance, **650 of the 700 employees who worked at the Ghana power plant’s construction were local residents.**

Establishing efficient communication channels is key to contributing to the development of the local communities where Aksa Energy plants are located. The Environmental Impact Assessment (EIA) process is an important tool that helps the Company learn the demands and needs of

the local population, and act accordingly. Aksa Energy’s power plants – Antalya Ali Metin Kazancı Natural Gas Combined Cycle Power Plant, Manisa Natural Gas Combined Cycle Power Plant, Şanlıurfa Natural Gas Combined Cycle Power Plant and Bolu Göynük Thermal Power Plant – all passed EIA processes with success and now hold EIA reports.

During each EIA process, meetings are organized at the power plants with the participation of local residents. The local population’s opinions about the power plants are received via municipal bodies, and efforts are made to fulfill their demands and requests. In these regions, the Company’s infrastructure work and maintenance projects contribute to local economic development and create permanent added value. During the Bolu Göynük Thermal Power Plant project, a community meeting hall, children’s playground, cemetery areas, roads and bridges were built, and firefighting, ambulance and health services were provided. In cases where the plant operations lead to the displacement of local residents, the Company provides them with compensation higher than the figure set by the state, and assists in the construction of new residential areas.

Complaints and requests received through specified feedback mechanisms for the different requirements and demands of stakeholders and the local community are evaluated through various channels.



## COMMUNITY RELATIONS

**In the regions where it conducts operations, the Company contributes to socio-economic development in accordance with the feedback received from the local population.**

Notifications and requests communicated via the Company's web site, through the "Write to Us" tab under the "Contact" menu, are reviewed and evaluated at the Head Office.

Complaints and other requests are also received via the email addresses **enerji@aksaenerji.com.tr** and **investorrelations@aksa.com.tr**. These complaints and requests are forwarded to the responsible officials within the Holding, depending on their content. All necessary measures concerning the issue at hand are taken in a swift fashion.

Complaints of the local population in the regions where the Company operates are also communicated to the relevant power plant management via the concerned municipality. It is also possible to directly transmit complaints to the plant managers. In such cases, the Head Office is informed of the situation following the assessment at the plant level. The necessary solutions are implemented according to the response from the Head Office.

The Company operates the email address **etik@aksa.com.tr** to collect any internal and external complaints or allegations on issues related to ethics. No complaints on ethical issues were received in the year 2016.

In the regions where it conducts operations, the Company contributes to socio-economic development in accordance with the feedback received from the local population. The infrastructure and

superstructure projects add value to the lives of local residents. The Çatak Pond created in Bolu Göynük Thermal Power Plant with an investment of TL 12 million meets the operational needs of the power plant, as well as the water requirements of the surrounding community. Other investments are also made to improve the local public health service.

Examples of such investments include donation of approximately TRY 180,000 for health-related projects to the municipalities of Kiyıköy and Antalya Döşemealtı, where Kiyıköy Wind Power Plant and Ali Metin Kazancı Antalya NGCCP are located. Moreover, permanent value is created through infrastructure works and repair projects that support local economic development in regions of operation, as well as contributions for the development of local suppliers.

During the reporting period, the Company contributed to local economic development by making donations totaling TL 108 thousand to infrastructure projects and maintenance work in the regions where Manisa NGCCP, Ali Metin Kazancı Antalya NGCCP and Bolu Göynük Thermal Power Plant are located. In addition, various project partnerships were developed with the Association for the Protection of Turkey's Nature (TTKD) and other NGOs. The Company donated TL 40 thousand in support of these efforts.

The value chain is being expanded to include business partners and suppliers.

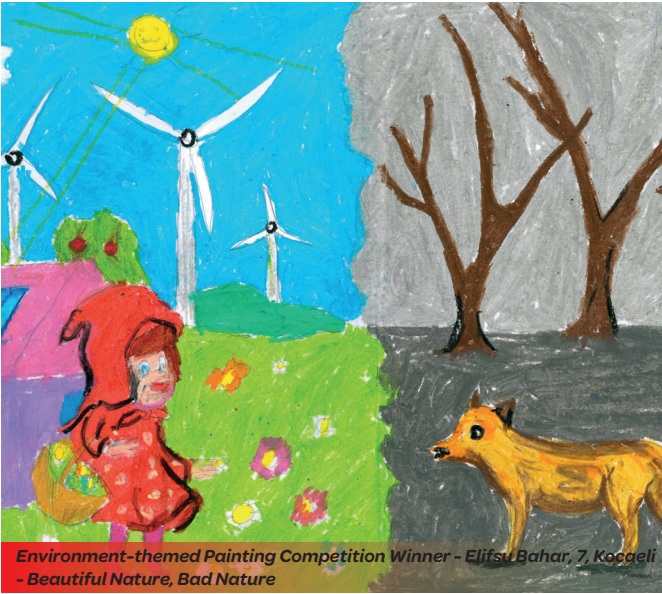
Since 2014, Aksa Energy has recorded an almost 35% increase in the number of its suppliers. As of 2016, the Company collaborates with 1,279 supplier companies, which include subcontracting companies, intermediaries and consulting firms from 12 countries. During the year, Aksa Energy made purchases totaling USD 183 million in 96 different categories, and indirectly contributed to the employment of 500 persons via its suppliers.

When selecting suppliers, the Company prefers local options to contribute to regional development. In 2016, local suppliers accounted for 79% of the Company's total procurement. Through the agreements it executes, Aksa Energy also encourages suppliers and sub-suppliers to comply with international standards in occupational health, safety, and environmental protection. With this approach, the Company also creates social and environmental value along its value chain.

To increase the transparency of the supply chain and manage the procurement process in a more efficient manner, Aksa Energy is developing a digital platform for the supplier and procurement portal. This system will facilitate new supplier participation and is planned to be completed in 2017.



**Aksa Energy continues its efforts in the areas of education and culture through projects that focus on children, who are the guarantee of our future.**



### **Painting Competition for the Protection of Energy and Natural Resources**

To raise children's environmental awareness, Aksa Energy administered a painting competition around the theme "Protection of Energy and Natural Resources." During the competition, which was organized in collaboration with National Geographic Kids magazine, children aged 6-12 depicted the environmental importance of renewable energy sources, natural resources, and their correct usage. The successful contestants were granted various awards at the competition, which drew ample participation from across the country. The participating artworks were exhibited at the Aksa Energy Head Office.



### **Energy Workshop**

Aksa Energy conducted the Energy Workshop project to raise more eco-friendly generations for the future. The first stop of the project was the Kovanlık Junior High School located in Döşemealtı, Antalya. As part of the project, Aksa Energy broadened children's awareness on energy, energy resources and the functioning of power plants. The young attendees learned about energy resources in various activities organized during the workshop, and were given Energy Workshop participation certificates at the end. The most eco-friendly class designated by the school administration was offered the opportunity to visit Antalya Ali Metin Kazancı Natural Gas Combined Cycle Power Plant and to observe the energy generation process on site.

# REPORTING PRINCIPLES

These reporting principles constitute the principles for data collection and calculation concerning greenhouse gas emissions and energy consumption presented in this report.

The greenhouse gas benchmark year has been designated as 2015, a year with full and reliable data, and in tune with the current operations. The greenhouse gas calculation method chosen is based on "greenhouse gas activity data multiplied with greenhouse gas emission or removal factors."

Greenhouse gas emissions have been calculated in line with the Greenhouse Gas Protocol methodology of the World Resources Institute (WRI) and World Business Council on Sustainable Development (WBCSD). Enterprise limits were determined through the control approach: Greenhouse gas emissions from all buildings, generators except head office building and cooling gases under the control of Aksa Energy were included in the inventory.

The activity limits were designated as scope 1 (direct) and scope 2 (indirect). In the calculations, CO<sub>2</sub> equivalent factors comprising the CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O and HFC (cooling gas) emissions were employed.

The Global Warming Potential (GWP) factors were taken from Intergovernmental Panel on Climate Change's (IPCC) 5. Assessment Report. The grid emission factor was calculated according to data by Turkish Electricity Emission Company (TEİAŞ).

Greenhouse gas resources can be divided into the following categories:

**Scope 1:** Rented cars, F-gases used in air conditioners, fuel used in buildings and facilities, diesel generators employed in emergencies.

**Scope 2:** Electricity consumption. The electric energy factor is calculated in an up-to-date manner based on the TEİAŞ data issued every year. Energy consumption at all buildings, facilities and generators except head office building under the control of Aksa Energy are being monitored. The report covers the full range of this energy consumption data. The calorific values and Tons of Oil Equivalent conversion factors for the energy resources used are drawn from "Regulation on Increasing the Efficiency of Energy Resources and Energy Use" Annex-2, Table on "Energy Resources' Lower Calorific Values and Oil Equivalent Conversion Factors", as issued on the Official Gazette dated October 27, 2011 and numbered 28097.

In unit energy conversions, it was assumed that 1 kcal = 4,184 kJ and 1 GJ= 0.2777 MWh (1 MWh = 3.6 GJ).

## Social Performance Data

<b>Employees by Gender</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Women	29	33	37
Men	748	746	745

<b>Employees by Category</b>	<b>2014</b>		<b>2015</b>		<b>2016</b>	
	<b>Women</b>	<b>Men</b>	<b>Women</b>	<b>Men</b>	<b>Women</b>	<b>Men</b>
White-collar	21	244	28	228	29	270
Blue-collar	8	504	5	518	8	475

<b>Employees by Contract Type</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Full-time	775	777	782
Part-time	2	2	0

<b>Average Age of Employees</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Average	35.11	35.47	34.84

<b>Educational Level</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Graduate, Postgraduate, Doctorate	166	169	168
Vocational School	137	144	159
Vocational High School, High School and Below	474	466	455

<b>Senior Management Structure</b>	<b>2014</b>		<b>2015</b>		<b>2016</b>	
	<b>Women</b>	<b>Men</b>	<b>Women</b>	<b>Men</b>	<b>Women</b>	<b>Men</b>
Over 50 Years Old	0	2	0	2	0	0
31-49 Years Old	1	5	1	5	0	2
Under 30 Years Old	0	0	0	0	0	0

<b>Parental Leave</b>	<b>2014</b>		<b>2015</b>		<b>2016</b>	
	<b>Men</b>	<b>Women</b>	<b>Men</b>	<b>Women</b>	<b>Men</b>	
Employees on Parental Leave	2	-	4	35	3	38
Employees Returned to Work After Parental Leave	2	-	4	35	3	38

<b>Internal and External Training Programs</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Man x Hours	39,081	15,549.50	7,289

<b>New Recruits by Gender and Age</b>	<b>2014</b>		<b>2015</b>		<b>2016</b>	
	<b>Women</b>	<b>Men</b>	<b>Women</b>	<b>Men</b>	<b>Women</b>	<b>Men</b>
Number of New Recruits	14	247	9	162	17	146
Over 50 Years Old	-	19	-	7	-	6
31-49 Years Old	5	106	3	38	8	51
Under 30 Years Old	9	122	6	117	9	89

<b>Employees Quitted Work by Gender and Age</b>	<b>2014</b>		<b>2015</b>		<b>2016</b>	
	<b>Women</b>	<b>Men</b>	<b>Women</b>	<b>Men</b>	<b>Women</b>	<b>Men</b>
Number of Employees Quitted Work	6	35	8	163	7	166
Over 50 Years Old	-	6	-	14	1	19
31-49 Years Old	5	15	5	77	3	104
Under 30 Years Old	1	14	3	72	3	43

## Environmental Performance Data

<b>Energy Consumption (MWh)</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Electricity	148,407	139,504	333,334
Natural Gas	13,741,082	7,060,440	8,450,047
Lignite	0	1,080,849	5,618,960
Fuel Oil	3,623,873	1,686,248	1,750,346
Diesel	284	77	80
<b>TOTAL</b>	<b>17,513,647</b>	<b>9,967,119</b>	<b>16,152,765</b>
Energy Consumption per MWh	2.13	1.36	2.20

# GRI CONTENT INDEX

GRI Standard	Disclosure	Page Number/ Link	Omission Reason
<b>GRI 101: Foundation 2016</b>			
<b>General Disclosures</b>			
<b>GRI 102: General Disclosures 2016</b>	<b>Organizational Profile</b>		
	102-1	1	
	102-2	8	
	102-3	<a href="http://www.aksaenerji.com.tr/en/contact-us/">http://www.aksaenerji.com.tr/en/contact-us/</a>	
	102-4	10, 11	
	102-5	9	
	102-6	8	
	102-7	8-11	
	102-8	39	
	102-9	44	
	102-10	19-21	
	102-11	18	
	102-12	38	
	102-13	27	
	<b>Strategy</b>		
	102-14	14-17	
	102-15	22-24	
	<b>Ethics and Integrity</b>		
	102-16	28	
	102-17	28, 44	
	<b>Governance</b>		
	102-18	28 - 29	
	102-19	28	
	102-20	28-29	
	102-22	<a href="http://img-aksayatirimci.mncdn.com/media/6832/aksa-energy-2016-annual-report-page:105-109">http://img-aksayatirimci.mncdn.com/media/6832/aksa-energy-2016-annual-report page: 105-109</a>	
	102-23	<a href="http://www.aksainvestorrelations.com/corporate-governance/list-of-insiders/">http://www.aksainvestorrelations.com/corporate-governance/list-of-insiders/</a>	
	102-24	<a href="http://img-aksayatirimci.mncdn.com/media/6832/aksa-energy-2016-annual-report.pdf">http://img-aksayatirimci.mncdn.com/media/6832/aksa-energy-2016-annual-report.pdf</a> page: 105-109	
	102-29	28-30-31	
	102-30	28-30-31	
	102-32	24-28-29	
	102-33	<a href="http://img-aksayatirimci.mncdn.com/media/6832/aksa-energy-2016-annual-report.pdf">http://img-aksayatirimci.mncdn.com/media/6832/aksa-energy-2016-annual-report.pdf</a> page: 105-109	
	102-35	<a href="http://www.aksainvestorrelations.com/corporate-governance/remuneration-policy/">http://www.aksainvestorrelations.com/corporate-governance/remuneration-policy/</a>	
	102-36	<a href="http://www.aksainvestorrelations.com/corporate-governance/remuneration-policy/">http://www.aksainvestorrelations.com/corporate-governance/remuneration-policy/</a>	
	<b>Stakeholder Engagement</b>		
	102-40	27	
	102-41	No employee is covered by the collective labor agreement.	
	102-42	24	
	102-43	24	
	102-44	25	

<b>GRI 102: General Disclosures 2016</b>	Reporting Practices		
	102-45	<a href="http://img-aksayatirimci.mncdn.com/media/6832/aksa-energy-2016-annual-report.pdf">http://img-aksayatirimci.mncdn.com/media/6832/aksa-energy-2016-annual-report.pdf</a>	
		page: 26	
	102-46	24	
	102-47	25	
	102-48	None	
	102-49	24	
	102-50	1	
	102-51	1	
	102-52	1	
	102-53	1	
	102-54	1	
	102-55	48	
	102-56	No external assurance sought for this report	
<b>GRI 200: Economic Standard Series</b>			
<b>Economic Performance</b>			
<b>GRI 201: Economic Performance 2016</b>	201-1	<a href="http://img-aksayatirimci.mncdn.com/media/6832/aksa-energy-2016-annual-report.pdf">http://img-aksayatirimci.mncdn.com/media/6832/aksa-energy-2016-annual-report.pdf</a>	
		page: 30, 31	
<b>Indirect Economic Impacts</b>			
<b>GRI 203: Indirect Economic Impacts 2016</b>	203-1	43-44	
	203-2	43-44	
<b>GRI 300: Environmental Standard Series</b>			
<b>Energy</b>			
<b>GRI 302: Energy 2016</b>	302-1	47	
	302-3	47	
	302-4	34	
<b>Water</b>			
<b>GRI 303: Water 2016</b>	303-1	35	
	303-3	35	
<b>Emissions</b>			
<b>GRI 305: Emissions 2016</b>	305-1	33	
	305-2	33	
	305-4	33	
	305-5	33	
	305-7	37	
<b>Effluents and Waste</b>			
<b>GRI 306: Effluents and Waste 2016</b>	306-2	34	
<b>Environmental Compliance</b>			
<b>GRI 307: Environmental Compliance 2016</b>	307-1	37	
<b>GRI 400: Social Standard Series</b>			
<b>Employment</b>			
<b>GRI 401: Employment 2016</b>	401-1	39, 47	
	401-2	39	
	401-3	39, 47	
<b>Occupational Health and Safety</b>			
<b>GRI 103: Management Approach 2016</b>	103-1	40	
	103-2	40	
	103-3	40	
<b>GRI 403: Occupational Health and Safety 2016</b>	403-1	40	
	403-2	40	
	403-3	40	
<b>Training and Education</b>			
<b>GRI 404: Training and Education 2016</b>	404-1	41	
	404-2	41	
	404-3	41	
<b>Diversity and Equal Opportunity</b>			
<b>GRI 405: Diversity and Equal Opportunity 2016</b>	405-1	47	







**Aksa Energy**

Rüzgârlıbahçe Mahallesi, Özalp Çıkması No: 10 34805

Kavacık Beykoz - ISTANBUL/TURKEY

Tel: +90 216 681 00 00

Fax: +90 216 681 57 83

[www.aksaenerji.com.tr/en](http://www.aksaenerji.com.tr/en)

[www.aksainvestorrelations.com](http://www.aksainvestorrelations.com)



**KAZANCI HOLDİNG**