

Sustainability Report 2019

## **ENERGY FOR TOMORROW**



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#### **ABOUT THIS REPORT**

We hereby present our sustainability performance and progress report on our environmental, social and economic impacts and corporate governance practices to our stakeholders.

Our sustainability report aims to inform all our stakeholders in a transparent manner about our business activities and our sustainability approach based on the pillars of "Environmental Sustainability," "Employees" and "Social Responsibility." This report covers the period between January 1, 2019 and December 31, 2019. Unless otherwise stated, the scope of data in the report includes all our operating regions in Turkey and abroad.

This report was prepared in accordance with GRI Standards (Core); and the Electric Utilities Sector Disclosure was used as a reference guide. In preparing our report, we also complied with the principles of the United Nations Global Compact (UNGC), to which we are a signatory, and followed the guidelines of the United Nations Sustainable Development Goals (SDG).

You can access our sustainability report at http://www.aksaenerji.com.tr/en/home and send your questions, feedback, and recommendations regarding this report to surdurulebilirlik@aksa.com.tr.



# We shape our business and sustainability strategy as a global energy company pursuing investments in Turkey, TRNC, Ghana, Mali and Madagascar.

Embracing a vision of becoming a socially responsible global energy company, Aksa Energy moves forward by focusing on creating sustainable value for the economy, environment and society. We are working toward a common goal: Providing people with access to energy in different countries of the world.





Total Employees in Africa

**406** 

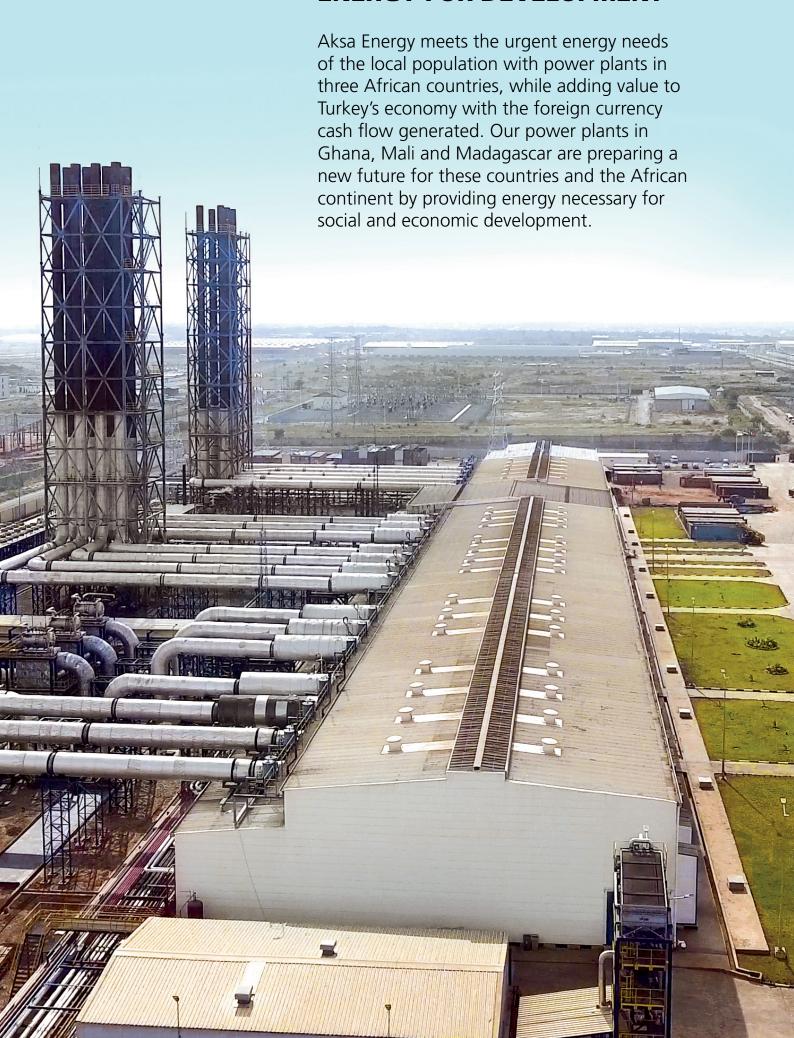
Implementing its investment decisions toward becoming a global energy company, Aksa Energy commissioned three power plants in Africa in 2017. With a total installed capacity of 476 MW in Africa today, we are meeting a major part of the energy needs of Ghana, Mali and Madagascar.



Total Installed
Capacity
in Africa
476
MW



## **ENERGY FOR DEVELOPMENT**













Distance Traveled for ENERGY FOR TOMORROW

**6,500+** Km

With ENERGY FOR TOMORROW, a joint initiative of all Aksa Group companies within Kazancı Holding, we provided education on energy and conservation to students at 22 rural schools in 19 provinces across Turkey in just nine months.



Number of Students Reached

2,000+







Amount of Water Recovered at Power Plants

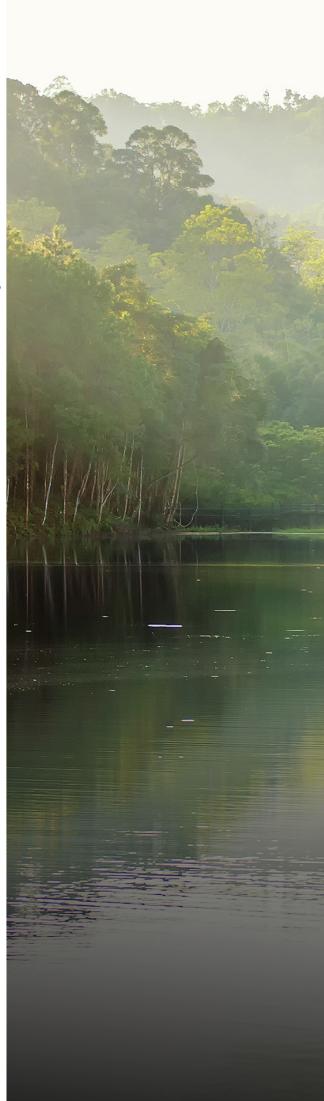
355,225

Aksa Energy's
Environmental
Policy defines our
responsibilities related
to the environmental
impacts of operations.
Our responsibilities
in this arena include
fighting against climate
change, effectively
managing natural
resources, prudently
managing waste, and
protecting biodiversity.



Land Protected via Biodiversity Projects

**12,000**Decares





## **MESSAGE FROM THE CHAIRMAN AND CEO**

In 2019, we demonstrated a successful financial and operational performance, increasing the value we create for all our stakeholders.

Dear Distinguished Stakeholders,

Energy is an essential part of our everyday lives and it is critical for industrial production and economic development of countries. However, dependence on natural resources in energy production, challenges posed by climate change, opportunities provided by technological advances and global economic fluctuations continue to stoke uncertainty about energy-related issues

While negative developments in world commerce diminished global foreign trade in 2019, real sector confidence dipped, resulting in decreased risk appetite and therefore lower investment. Despite the negativity caused by a sluggish business climate and geopolitical risks, in this year's contracting global economic environment, Turkey adopted a successful stabilization strategy and recorded significant improvements in its key macroeconomic indicators.

2019 was a difficult year for the world energy industry, in line with challenging economic developments in both global and national markets. The deadlock between the expanding demand for energy in developing countries and the rising need for initiatives to transition to a low-carbon future has set the agenda of the global energy sector.

Despite this challenging environment, Aksa Energy demonstrated a successful financial and operational performance, increasing the value we create for all our stakeholders. Our year-end financial results have proven that we are moving in the right direction on our journey toward achieving our globalization objective. At year-end 2019, our Earnings Before Interest Tax Depreciation and Amortization (EBITDA) increased by 42%

Revenue

5.6

TRY Billion

We are aware that energy production is a basic requirement for national economic growth and social development. With this perspective, we have adopted a business model that embodies a holistic approach to sustainability since 2014.

compared to the previous year, climbing to TRY 1,467 million. Meanwhile, we increased our consolidated net profit threefold, reaching TRY 455 million at year's end – the highest ever in our Company's history. We successfully reduced our net financial debt to EBITDA ratio to 2.1 at end-2019, down from 3.6 at end-2018. In addition, we have managed to decrease our net financial debt significantly in recent years. We had reported net financial debt of USD 860 million in 2015, when we decided to expand internationally; and as at year-end 2019, we reduced this figure to USD 529 million while making international investments in three countries during this period.

Today, Aksa Energy conducts business operations in 5 countries on 2 continents. We have made large-scale investments in different countries in a very short time, thanks to our unique service approach that embodies a commitment to quality and social responsibility. We started out on our journey to become a global brand in 2015 with the motto "Power Beyond Borders", and since then, we have been working to consolidate our brand reputation with new international investments. In January 2019, we reached full capacity at our power plant in Madagascar, for which we executed a rehabilitation and operation agreement in 2018 and undertook operation of the plant for 5 years.

At Aksa Energy, we conduct our business operations with the awareness that energy is a vital need for national economic growth and social development. With this perspective, we have adopted a business model that embodies a holistic approach to sustainability. We embrace the concept of sustainability at every level of our corporate organization; and we take the considerations and priorities in this key area as seriously as financial strategies while setting our business objectives. Against the backdrop of the sustainability initiatives



EBITDA

TRY Billion



that we launched in 2014, we pursue sustainable development by contributing to social welfare, without compromising our environmental responsibilities in all the regions we operate in.

When formulating our corporate strategies, we assess the potential environmental, social and governance impacts, as well as the economic risks and opportunities of our business activities.

Our aim is to ensure continuous value creation for our stakeholders. To that end, we have been included in the BIST Sustainability Index since 2015; we also signed the "The Trillion Tonne Communiqué," in 2015, and the United Nations Global Compact (UNGC) in 2017. These initiatives are indicators of our commitment to sustainability, both locally and internationally.

At Aksa Energy, we build our sustainability efforts on three main pillars - "Environmental Sustainability," "Employees" and "Social Responsibility" - in alignment with widely recognized domestic and international standards.

Aksa Energy Sustainability Report 2019 At Aksa Energy, we build our sustainability efforts on three main pillars - "Environmental Sustainability," "Employees" and "Social Responsibility" - in alignment with widely recognized domestic and international standards. We regularly update our policies on the Environment, Occupational Health & Safety, Quality, Energy and Corporate Social Responsibility to provide a framework on how we manage sustainability issues.

Being keenly aware of the environmental impacts of the energy industry, we embrace the core principle of "maximum energy production with minimum natural resources" to manage the impacts of our operations on the environment. In line with this principle, we made an environmental investment of TRY 1.96 million in 2019. As a company that attaches great

## MESSAGE FROM THE CHAIRMAN AND CEO

We support the economic, social and cultural development of the local communities residing in the regions where we operate in order to create value for our wide network of stakeholders.

importance to the use of efficient and environmentally friendly technologies in our power plants, we completed the necessary environmental investments at our Bolu Göynük Thermal Power Plant, while it was still under construction. Thanks to its fluidized bed combustion technology and flue gas treatment system, the Plant has been compliant with the European Union's target emission limits for 2018 since its commissioning in 2015. Thanks to this approach, Bolu Göynük Thermal Power Plant continues to generate electricity uninterruptedly while several power plants, which did not have flue gas filters were forced to suspend operations.

Furthermore, we have continued our efforts to preserve biological diversity with various collaborations since 2015. In 2019, we sponsored initiatives in Bolu for the preservation of the brown bear (Ursus arctos), the largest predator and the only bear species living in Turkey, to protect the species in its native habitat and contribute to scientific literature on this topic. We plan to support a similar project in 2020.

At Aksa Energy, we embrace our responsibility as a global energy company while conducting our business operations. In addition to reducing Turkey's foreign dependence on energy, we actively work to increase local residents' access to energy in developing countries, through our operations in Africa. Furthermore, we take utmost care to recruit local residents at our power plants. We have hired 60% of our 406 employees in African countries from the local residents. With this strategy, we further support socio-economic development of local communities by creating employment opportunities in addition to offering access to energy in these energy-strapped countries.



Local Residents Employed in African Power Plants

60%

In addition to reducing
Turkey's foreign
dependence on energy,
we actively work to
increase local residents'
access to energy in
developing countries
through our operations
in Africa.



**Environmental Investments** 

1.96
TRY Million

Aksa Energy Sustainability Report 2019 We are committed to creating value for our wide network of stakeholders, whom we approach with a sustainability-oriented perspective and a sense of social responsibility. To that end, we take initiatives to support the economic, social and cultural development of the local populations residing in the regions where we operate. We also carry out efforts to promote education and culture, with a particular focus on children, who are our future. In March 2019, we launched a social responsibility initiative called "ENERGY FOR TOMORROW" with all other Aksa companies under Kazancı Group. As part of the project, we visit village schools across Turkey and explain the concept of energy to middle school students. Under this effort, we visited 19 provinces and 22 village schools from the very East of Turkey to the West in only 9 months. During this short time, we travelled more than 6,500 km and provided education on energy to more than 2,000 middle school students. In 2020, we aim to visit more village schools to introduce the topic of energy to students in a simple and comprehensible way and reach out to a total of 4,000 children by the year end.

As Aksa Energy, we are proud to voluntarily release our Sustainability Report once again this year. As in the prior six years, we aim to carry out significant sustainability projects in the coming year; and consolidate our global competitive edge and position among the leading brands in the energy industry by pursuing growth opportunities that create added value. I hereby would like to express my gratitude to all of our stakeholders, particularly our employees, who have supported us on the path to sustainability.

Respectfully yours,



**Ş. Cemil Kazancı** Chairman and CEO





## **ABOUT US**

Aksa Energy is one of Turkey's largest independent power producers, and a global energy concern with its overseas power plants in Turkish Republic of Northern Cyprus and Africa.

Aksa Energy was established as a subsidiary of Kazancı Holding in 1997. We commissioned our first energy investment in 1998, and diversified our power plant portfolio over time by using various energy sources. We completed our first international power plant investment in Turkish Republic of Northern Cyprus. Shifting our investment strategy in 2015, we decided to expand abroad and entered the African market with the power plants we commissioned in Ghana, Madagascar, and Mali.

Today, Aksa Energy is one of Turkey's largest independent energy producers, and a global energy concern with its overseas power plants in the Turkish Republic of Northern Cyprus and Africa. As at year-end 2019, we operate in 5 countries on 2 continents with a total installed capacity of 1,946 MW thanks to our globalization-driven investments.

Aksa Energy performs all steps in plant installation – from project development, procurement, construction and installation to operation, maintenance, and repair – inhouse with its well-qualified technical staff. To date, we have installed and operated more than 30 power plants using diverse energy sources, including coal, fuel oil,

4

1,946

We provide flexible and fast solutions with low-cost, high-speed investments in energy-strapped countries to meet their urgent energy demand. biogas, natural gas, hydroelectricity, and wind. Taking our know-know on power generation overseas with power plant installations in energy-strapped countries, we provide flexible and fast solutions to meet the urgent need for energy in these countries.

We have secured guaranteed energy sales and power plant installation contracts with the governments of TRNC, Ghana, Madagascar and Mali to transfer our efficiency and sustainability-oriented approach to overseas markets. We closely monitor new investment opportunities abroad to further expand our global presence.

Aksa Energy emphasizes key issues such as protection of the social structure and promotion of socio-economic development, human rights, energy conservation and efficiency in the regions where its operates. Aksa Energy's stock has been traded on BIST 100 since 2010; and on BIST Sustainability Index since 2015.



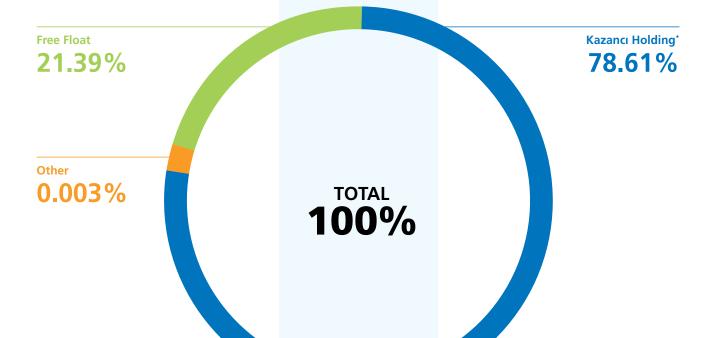
Power Plants Built and Operated to Date

30+

## **ABOUT US**

## **SHAREHOLDING STRUCTURE**

21.39% of Aksa Energy's shares are traded on BIST 100 and BIST Sustainability Indices under the ticker AKSEN.



Details on our Shareholding Structure are available in **Aksa** 

Energy Annual Report 2019.

<sup>\*</sup> As of December 31, 2019, Kazancı Holding A.Ş. owns a total of 4,958,962 free float shares acquired though share purchases. These shares are shown in "Free Float" shares above.



## **ABOUT US**

## **PRODUCTION PORTFOLIO**

As at year-end 2019, we operate in 5 countries on 2 continents with the international investments we have undertaken as part of our globalization strategy.



<sup>\*</sup>The generation license of Manisa Natural Gas Combined Cycle Power Plant was revoked in 2019.

Madagascar CTA-2

Number of Power Plants			7
Installed Capacity			1,946 MW
Antalya	Natural Gas Combined Cy	cle Power Plant	900 MW
Bolu, Göynük	Therr	nal Power Plant	270 MW
Şanlıurfa	Natural Gas Combined Cy	cle Power Plant	147 MW
Ghana	Heavy Fuel	Oil Power Plant	370 MW
TRNC	Heavy Fuel	Oil Power Plant	153 MW
Madagascar	Heavy Fuel	Oil Power Plant	66 MW
Mali	Heavy Fuel	Oil Power Plant	40 MW
Number of Power Plants Operated for Mad	lagascar		1
<b>Installed Capacity Operated for Madagasca</b>	r		24 MW

Heavy Fuel Oil Power Plant

24 MW

**1,047 mw**Natural Gas – Total Installed Capacity



Antalya 900 MW

Şanlıurfa 147 MW **Natural Gas** Combined

**Cycle Power Plants** 

**629** mw

Heavy Fuel Oil - Total Installed Capacity



Turkish Republic of Northern Cyprus

153 MW

Ghana 370 MW

Madagascar 66 MW

Mali 40 MW **Heavy Fuel Oil** 

**Power Plants** 

**270 mw**Lignite – Total Installed Capacity



Bolu, Göynük 270 MW

**Thermal Power Plant** 

**24** MW

Operated on Behalf of the Country



Madagascar CTA-2 24 MW

**Heavy Fuel Oil Power Plant** 

## **VISION AND MISSION**



## **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 in order to continue implementing high performance projects, with a focus on cutting-edge technologies and a well-educated, highly skilled workforce.



## STRATEGY AND OBJECTIVES

Our corporate values, combined with an innovative business model and effective change management, have been instrumental in our geographic expansion and transformation into a global company.

Aksa Energy is the electricity generation company of Kazancı Group, a leading group of companies with long-standing experience across the entire power supply chain from production to distribution and sales. As a result, we have major competitive advantages – such as cross-selling, higher brand recognition, and integrated service capability alongside the vertical and horizontal integration that we have built with other Group companies. Our corporate values, combined with an innovative business model and effective change management, have been instrumental in our geographic expansion and ultimately transformation into a global company.

We undertook significant investments in Ghana, Mali and Madagascar; and set our economic sustainability targets in line with our globalization strategy.

In line with our globalization strategy, we undertook significant investments in three African countries in 2017, and we aligned our economic sustainability and profitability targets with this strategy. While conducting negotiations with various energy-strapped countries abroad to expand our overseas investments, we also focus on effective management of our domestic power plant portfolio. As part of this strategy, we cancelled the production licenses of some of our power plants, which became less competitive due to rising natural gas costs and lower profit margins on domestic market or temporarily ceased production at some plants to reduce operating costs.

#### **Direct Economic Value Generated and Distributed**

	2017	2018	2019
i. Direct Economic Value Generated (TRY)			
Net Sales	3,599,311,868	4,669,249,102	5,578,594,781
Gains on revaluation of property, plant and equipment	1,148,789,260	0	1,855,172,202
Income from investment activities	591,940,550	2,640,864	633,402
Financial income	88,925,423	424,894,229	398,409,926
Revenues	5,428,967,101	5,096,784,195	7,832,810,311
ii. Economic Value Distributed (TRY)			
Cost of sales (Operating costs included)	3,292,553,203	3,967,572,291	4,572,664,580
Employee wages and benefits*	22,291,121	21,064,254	31,670,357
Community investments	89,633	201,068	411,854
Financial expenses	598,027,562	886,863,321	828,696,646
Tax expenses (Payment to government)**	58,902,533	27,022,279	23,501,379
Payment to shareholders (Dividend)	0	0	0
Expenses	3,971,864,052	4,902,723,213	5,456,944,816
III Francescia Value Bataine d (TDV)			
iii. Economic Value Retained (TRY)			
Revenues	5,428,967,101	5,096,784,195	7,832,810,311
Expenses	3,971,864,052	4,902,723,213	5,456,944,816
Economic Value Retained	1,457,103,049	194,060,982	2,375,865,495

<sup>\*</sup>Blue collar wages are not included as they are included in cost of sales.

<sup>&</sup>quot;Includes total tax payments to government by Turkey-based subsidiaries of Aksa Enerji Üretim A.Ş., which are consolidated into the Company's financial statements. Tax payments made in Africa and TRNC are not included as these payments are made to other governments.



## STRATEGY AND OBJECTIVES

#### **INVESTMENT STRATEGY**

Having transformed from a local energy company into a global powerhouse, Aksa Energy supports the Turkish economy with hard currency revenues, and actively pursues new investment opportunities in overseas markets.

Aksa Energy formulates its investment strategy by closely monitoring global and local risks and opportunities. In line with this strategy, we cancelled licences of some of our natural gas and heavy fuel oil power plants in Turkey, and undertook significant investment overseas by using their equipment.

Positioning energy-deprived Africa as its primary focus market, Aksa Energy has become one of the major energy players on the continent with its significant investments. We minimized total investment costs and significantly shortened the construction period by utilizing equipment from the existing plants in our portfolio in the construction of African power plants. By completing the construction of our power plants in Ghana, Madagascar and Mali and commissioning them in a very short time, we boosted our profitability and hard currency-denominated sales. These power plants also enabled us to create a natural hedge mechanism and to reduce the FX rate exposure caused by foreign currency loans on our financials.

In 2015, we signed our first agreement in Africa with the Republic of Ghana for the construction of a power plant, along with electricity generation and sales with guaranteed capacity payment. Ghana Heavy Fuel Oil Power Plant started commercial operations with an installed capacity of 192.5 MW in March 2017 and the Plant's installed capacity rose to 370 MW in November 2017.

Investments

1.34

TRY Billion (2015-2019)

Positioning energystrapped Africa as a primary focus market, Aksa Energy has become one of the major energy players on the continent with its significant investments.



Total Installed Capacity of Power Plants in Africa

**476** 

MW

Aksa Energy Sustainability Report 2019 Subsequently, in 2016, we entered into an agreement in Madagascar for the construction of a power plant and the sale of the electricity generated with guaranteed capacity payment. The plant was initially commissioned with an installed capacity of 25 MW in July 2017, and it reached an installed capacity of 66 MW in September 2017.

We signed our third contract in Africa to build a power plant in Bamako, the capital of the Republic of Mali. As in previous international agreements, this contract includes guaranteed capacity payment and energy sales. First commissioned in August 2017, the Plant continues its commercial operations with an installed capacity of 40 MW since September 2017.

In 2018, we undertook the rehabilitation and operation of a 24 MW power plant in Madagascar and commissioned 12 MW of the plant's capacity in December 2018. The Plant reached an installed capacity of 24 MW in January 2019.

Having transformed from a local energy company into a global powerhouse, Aksa Energy supports the Turkish economy with hard currency revenues, and actively pursues new investment opportunities in overseas markets via ongoing negotiations with countries that have an urgent demand for energy in Latin America, Asia and Africa.



## STRATEGY AND OBJECTIVES

#### **SALES STRATEGY**

We have accelerated our foreign currency based income and profitability by relocating the power plants in our portfolio, which had diminishing competitive advantage on domestic market, to the high-potential African continent with low installation costs.

As Aksa Energy, we have boosted our foreign currency based income and profitability by relocating the power plants in our portfolio, which had diminishing competitive advantage on domestic market, to the high-potential African continent with low installation costs. Thus, we aim to increase the share of our foreign currency-denominated sales in total revenues to forestall potential effects of exchange rate differences.

Hard currency-denominated sales form the HFO power plants in Ghana, Madagascar, and Mali, which commenced operations in 2017, in addition to that of Kalecik HFO Power Plant in Turkish Republic of Northern Cyprus, became the cornerstone of our financial transformation. As at year-end 2019, 73% of Aksa Energy's Earnings Before Interest Tax Depreciation and Amortization (EBITDA) is denominated in hard currency.

Despite potential risks in overseas markets, including changing energy demands of each country, seasonality and electricity generation by renewable power plants; our international power plant portfolio significantly contributes to the Company's profitability, as the quaranteed capacity payment constitute a larger portion in total overseas turnover. The guaranteed capacity is 332 MW out of 370 MW at Ghana HFO Power Plant; 60 MW out of 66 MW at Madagascar HFO Power Plant; 30 MW out of 40 MW at Mali HFO Power Plant; and 120 MW out of 153 MW at Northern Cyprus Kalecik HFO Power Plant. Guaranteed capacity payments for CTA-2 Heavy Fuel Oil Power Plant, for which we have undertaken operations for five years from year-end 2018, are not collected on the basis of a guaranteed capacity but at a fixed monthly amount set forth in the contract.



FX-Based EBITDA 73%

We pursue a sales strategy that prioritizes profitability rather than sales volume by operating combined cycle power plants in Turkey on days and hours when spot energy prices are high.



Capacity Payment Received in 2019

114
TRY Million

Aksa Energy Sustainability Report 2019

Aksa Energy focuses on flexible and effective portfolio management, efficiency optimization and operational excellence. We pursue a sales strategy that prioritizes profitability rather than sales volume by operating combined cycle power plants in Turkey on days and hours when spot energy prices are high. In line with this risk management approach, we have reduced the number of bilateral contracts relative to previous years, focusing primarily on spot energy sales. The increase in spot energy prices boosted the profitability of local coal-fired Bolu Göynük Thermal Power Plant. Recording about half its sales on the spot market, the Plant sells the remainder of its generation to Electricity Generation Company of Turkey (EÜAŞ) within the framework of the tender for "Purchase of Electricity from Private Companies Operating Only Domestic Coal-Fired Power Plants".

Furthermore, we also benefit from the capacity payment provided by EÜAŞ to licensed power plants that meet the determined efficiency and age criteria, under the Regulation on Electricity Market Capacity Mechanism issued by Energy Market Regulatory Authority (EMRA). Capacity payments are made within the scope of an annual budget provided to establish and/or maintain an adequate installed power capacity, including the reserve capacity in order to ensure supply security on the electricity market. In 2019, Ali Metin Kazancı Antalya Natural Gas Combined Cycle Power Plant and Bolu Göynük Thermal Power Plant received a total capacity payment of TRY 114,425,220. Both plants are deemed eligible to be included in the capacity mechanism in 2020.



## **DEVELOPMENTS IN 2019**

Madagascar CTA-2 Heavy Fuel Oil Power Plant, commissioned with 12 MW installed capacity in December 2018, reached an installed capacity of 24 MW in January 2019.

#### **CTA-2 Heavy Fuel Oil Power Plant** Reached 24 MW Installed Capacity

In 2018, we executed an agreement with the Government of Madagascar for the rehabilitation and operation of a 24 MW power plant (CTA-2), owned by Societe Jiro Sy Rano Malagasy, located next to our existing 66-MW power plant in Madagascar for five years. After the commissioning of its 12 MW capacity in December 2018, Madagascar CTA-2 Heavy Fuel Oil Power Plant reached an installed capacity of 24 MW in January 2019.

#### Minority Shares of the Company in **Madagascar Acquired**

Aksa Madagascar B.V., a fully-owned subsidiary of Aksa Energy, acquired all shares of Aksaf Power Ltd., 41.65% of which was held by a foreign partner as minority shareholder, for USD 15 million. With this transaction, Aksa Energy became the sole owner of Aksaf Power Ltd., the owner of Madagascar power plant.

**Power Plant passed** the Integrated **Environmental Inspection** carried out by Bolu **Provincial Directorate** of Environment and Urbanization, with zero offense.



#### Aksa Energy Pursues New Investments in Cameroon and the Republic of Congo

In 2019, Aksa Energy established local companies to develop projects in Cameroon and the Republic of Congo where negotiations are underway. We signed a 12-month Memorandum of Understanding with the Ministry of Water Resources and Energy (MINEE) of Cameroon to develop a 150-MW natural gas-fired power plant project in Cameroon, and a non-binding agreement with Gaz du Cameroon S.A. for natural gas supply. We also obtained a 12-month pre-license for two natural gasfired projects on electricity generation and sales in the Republic of Congo.

In order for these developments to become effective agreements in both countries, the parties must agree on various conditions such as tariff price, financial guarantee, project development, equipment to be used, and fuel supply during this period.

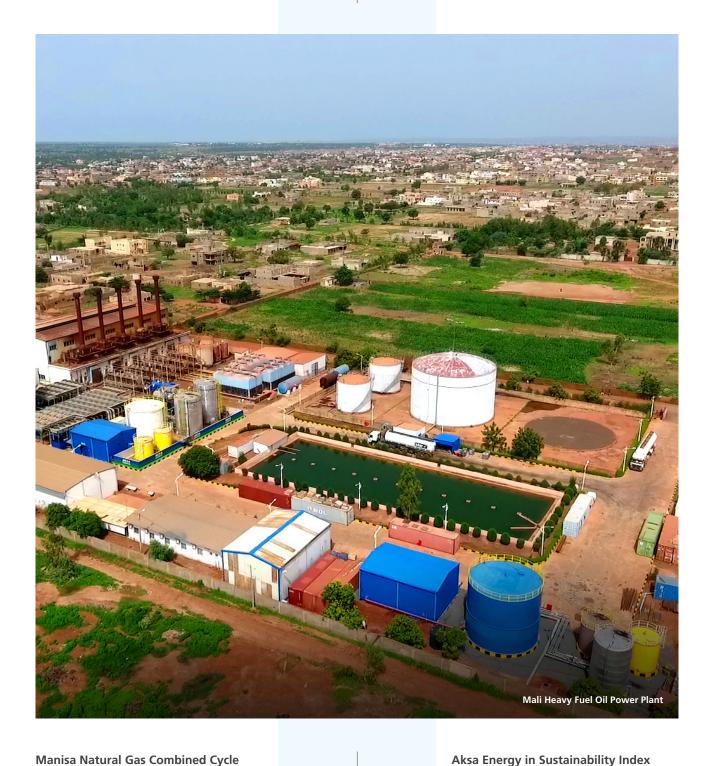
#### Bolu Göynük Thermal Power Plant Passed the Integrated Environmental Inspection with Zero Offense

As the period given for thermal power plants to complete their flue gas filtration investments expired on December 31, 2019, Bolu Göynük Thermal Power Plant, which had previously made flue gas filter and all other necessary environmental investments, was not included in this scope.

We continued the environmental monitoring activities during the year to ensure continuation of the "Environmental Permit and License Certificate" granted to Bolu Göynük Thermal Power Plant on air emissions, wastewater discharge and landfill.

In 2019, Bolu Göynük Thermal Power Plant passed the Integrated Environmental Inspection carried out by Bolu Provincial Directorate of Environment and Urbanization, with zero offense.





#### **Manisa Natural Gas Combined Cycle Power Plant's License Cancelled**

The electricity generation license of our 115-MW Manisa Natural Gas Combined Cycle Power Plant was cancelled on April 30, 2019 as per our application filed with the Energy Market Regulatory Authority (EMRA) as the power plant has diminished prospects of electricity generation at competitive prices under free-market conditions in Turkey. However, we plan to re-commission it if market conditions change, or alternatively, use its equipment in potential projects abroad with hard currency denominated revenues and higher profit margins.

**Aksa Energy qualified** once again for the **Sustainability Index for** the period November 2019-October 2020, as in previous periods.

in the Sustainability Index of Istanbul Stock Exchange, which incorporates publicly-

Since 2015, Aksa Energy has been included

traded companies with high corporate sustainability performance. As one of 14 firms that were included in the index in 2015, our Company qualified once again for the Sustainability Index for the period November 2019-October 2020, as in previous periods.

## SUSTAINABILITY APPROACH

Embracing a vision of becoming a socially responsible global energy company, we base our sustainability approach on the three pillars: "Environmental Sustainability," "Employees" and "Social Responsibility."

Aksa Energy is keenly aware of the responsibility placed upon the energy industry to build a secure future and a more livable world, and the increasing role of sustainability in accomplishing this goal. By closely monitoring the developments in the field of sustainability, we regularly assess our business processes and strive to embed sustainability in all our operations. We shape our business and sustainability strategy as a global energy company with power plants in 5 countries on 2 continents. Embracing a vision of becoming a socially responsible energy company, we base our sustainability approach on the three pillars: "Environmental Sustainability," "Employees" and "Social Responsibility."

We conduct our business operations with the awareness that energy is a vital need for economic growth and social development. Embracing this perspective, we have adopted a business model that embodies a holistic approach to sustainability. Thanks to our sustainable business model, we add value to Turkey's economy by reducing dependence on imported energy, and by providing foreign-currency cash flow into the country. Meanwhile, with our operations in developing markets such as African countries, we expand access to energy for the local population. Thus, we support the growth of these countries by meeting their urgent need for energy, while contributing to the socio-economic development of local communities with the employment opportunities we create.

We conduct effective communications across the organization to convey the sustainability goals, set by top management in line with our strategies by focusing on creating value across three main pillars of our sustainability approach. Additionally, we implement multistakeholder feedback efforts to monitor our performance against these goals.

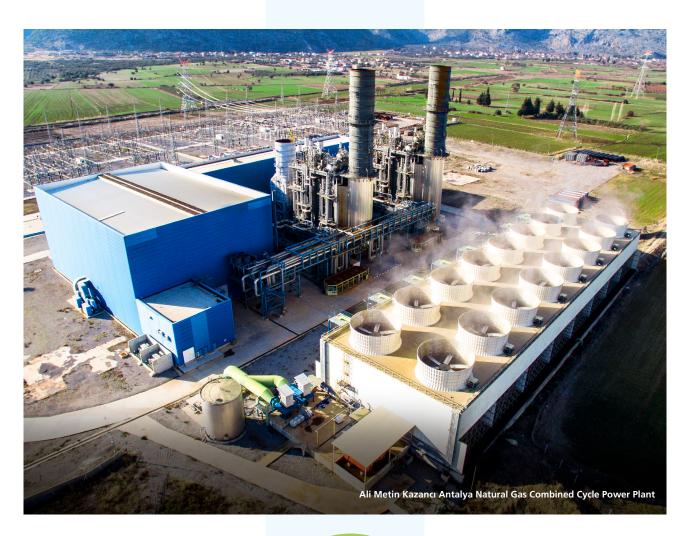
We support the growth of energy-strapped countries by meeting their urgent need for energy, while contributing to the socio-economic development of local communities with the employment opportunities we create.

As a global company with international investments, we manage our sustainability efforts with a global perspective; and closely monitor local and global sustainability platforms. We attach great importance to aligning our business processes and methods with the rapidly advancing technology as technological innovation is an integral part of a sustainable business model. At Aksa Energy, we believe that encouraging our employees to embrace this innovative understanding and corporate culture will facilitate the holistic development of our Company. This approach also supports our sustainability performance as we constantly improve and develop our business strategy while creating additional social benefits through transfer of our technology and know-how in the regions where we operate.

As a global company with international investments, Aksa Energy manages its sustainability efforts with a global perspective, and closely monitors local and global sustainability platforms. Our Company has been included in the BIST Sustainability Index since 2015, and a signatory to the United Nations Global Compact (UNGC) since 2017. We are committed to conducting our business operations in line with the 10 principles outlined in the Global Compact. To this end, we prioritize identifying and managing the significant environmental impacts of our industry, respecting human and employee rights, and contributing to social development in the regions where we operate. In line with our vision of becoming a socially responsible global energy company, we also signed the Trillion Tonne Communiqué in 2015, which is a declaration to the world from companies that are sensitive to climate change and demand measures to combat it.

To make sustainability a core part of our business conduct and long-term strategic approach, we take utmost care to regularly update our policies on the Environment, Occupational Health and Safety, Quality, Energy and Corporate Social Responsibility; and engage in continuous communications with our stakeholders. We report our sustainability performance to the public through our Sustainability Reports which we voluntarily issue in accordance with GRI standards every year since 2016.

Aksa Energy Sustainability Report 2019 GRI 102-42, GRI 102-43, GRI 102-44, GRI 102-46, GRI 102-47





## **SUSTAINABILITY MANAGEMENT**

Aksa Energy Sustainability Committee aims to develop the strategies, policies, and objectives required to manage environmental, social and governance risks with a view to creating long-term value.

Aksa Energy Sustainability Committee reports directly to the Chairman of the Board of the Directors and CEO. The Committee develops the strategies, policies, and objectives required to manage environmental, social and governance risks in order to ensure integration of sustainability with the Company's decision-making, management, operation and audit processes, and to create long-term value.

The Committee regularly updates the Company's sustainability priorities; determines the focus areas in light of these priorities; evaluates the impact of sustainability efforts on Aksa Energy's operations; and presents recommendations and suggestions to the CEO.

The Sustainability Committee is comprised of members from multiple departments to ensure that all of Aksa Energy's business activities are in compliance with sustainability principles and values, and relevant recommendations are provided to this end.

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Committee is comprised
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provided to this end.

To foster a multi-faceted sustainability approach, Sustainability Committee members have been appointed from among the top executives of the production, business, financial affairs, operations, investment, engineering, corporate communications and investor relations, human resources, supply chain, risk, internal audit and QHSE units. If necessary, senior executives from other relevant departments are invited to meetings held by the Committee.

The Sustainability Committee contributes to the reporting of sustainability performance, as well as to the management and integration of sustainability-related matters with the Company's business processes, with a more holistic approach. Committee members play a crucial role in managing key and material sustainability-related issues that fall within their respective areas of expertise. Sustainability risks and opportunities related to key and prioritized issues are evaluated by the relevant units, and the utmost care is taken to analyze the environmental, social and economic impacts of these actions in an integrated manner. The Sustainability Coordination and Working Group established under the Sustainability Committee assists the Committee in carrying out these tasks.

#### **CHAIRMAN AND CEO**

#### **Sustainability Committee**

Chief Operating Officer (COO)
Chief Financial Officer (CFO)

Investor Relations & Corporate Communications Director

Human Resources Director
Supply Chain Director
Risk & Control Director
Internal Audit Director

#### **Sustainability Coordination and Working Group**

Environment & Energy Systems

Quality & Social Responsibility Management
Occupational Health & Safety
Human Resources
Financial Affairs / Budget & Reporting
Investor Relations & Corporate Communications
Supply Chain

Supply Chain Risk & Control Internal Audit



## **SUSTAINABILITY MATERIAL TOPICS**

While determining our sustainability material topics, we reviewed and evaluated global and industrial trends, risks and opportunities, management opinions and corporate strategy, in addition to the stakeholder analysis we conducted in 2018.

At the core of Aksa Energy's sustainability approach lie several material topics, which we prioritize and revise in line with our evolving business strategy and stakeholders' opinions. While determining our material topics, we reviewed and evaluated global and industrial trends, risks and opportunities, management opinions and corporate strategy, in addition to the stakeholder analysis we conducted in 2018. We also took into account international guidelines, such as United Nation's Sustainable Development Goals, and the UN Global Compact, to which we are a signatory.

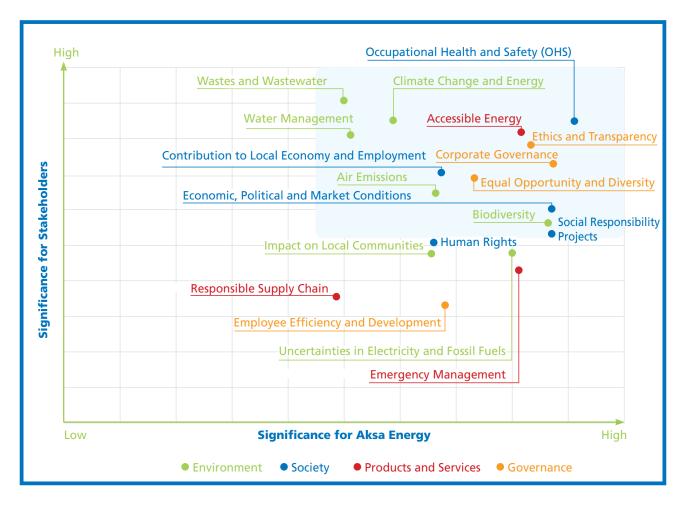
In line with the three pillars of our sustainability approach, namely Environmental Sustainability, Employees and Social Responsibility, we group our material topics in four focus areas: Environment, Society, Products and Services, and Governance.

As one of Turkey's largest independent energy producers, we prioritize corporate governance, ethics and transparency as well as equal opportunity and diversity as our material topics.

Since we operate in an industry that has a high environmental impact, we consider issues related to climate change, air emissions, water and waste management, and protection of biodiversity in our regions of operation among our material topics.

Occupational health and safety, another key concern for the industry, remains to be one of material topics. Additionally, social responsibility projects are incorporated among our material topics, considering our relations with society. As a global energy company with international investments, Aksa Energy's material topics also encompass economic, political, and market conditions, contribution to local economy and employment, and accessible energy. Ranking among Turkey's largest independent energy producers, we also prioritize corporate governance, ethics and transparency as well as equal opportunity and diversity as our material topics.





#### Relation Between Our Material Topics and UN Sustainable Development Goals

Group	Material Topics	Contributed Sustainable Development Goals	
	Climate Change and Energy		
	Wastes and Wastewater	12 RESPONSIBLE 13 CLIMATE CONSUMPTION	
Environment	Water Management	IZ CONSUMPTION AND PRODUCTION	
	Air Emissions		
	Biodiversity		
Products and Services	Accessible Energy	7 AFFORDABLE AND CLEAN ENERGY 8 DECENT WORK AND ECONOMIC GROWTH	
Society	Contribution to Local Economy and Employment		
	Occupational Health and Safety (OHS)	7 AFFORDABLE AND CLEAN ENERGY 8 DECENT WORK AND ECONOMIC GROWITH	
	Economic, Political and Market Conditions		
	Social Responsibility Projects		
Governance	Corporate Governance	16 PEAGE, JUSTICE AND STRONG INSTITUTIONS	
	Ethics and Transparency		
	Equal Opportunity and Diversity	5 CENDER EQUALITY  10 REDUCED  NEQUALITIES	

## STAKEHOLDER RELATIONS AND COMMUNICATION CHANNELS

We believe in the importance of interacting and cooperating with stakeholders in all our business processes; and we take into account the potential social impacts on our stakeholders while conducting our operations.

As part of our sustainability approach at Aksa Energy, we value building and maintaining relations with our stakeholders. We seek to understand stakeholder expectations and integrate their opinions into our business processes. We obtain our stakeholders' opinions on sustainabilityrelated matters via stakeholder surveys. In 2018, we conducted a stakeholder analysis, which we first carried out in 2015, with employees, brokerage firm analysts, banks, investors, clients, members of the media, public officers, and NGOs. As part of the survey, stakeholders stated their expectations in the framework of sustainability and their opinions about our material topics and sustainability efforts. According to stakeholder analysis results, Aksa Energy's stakeholders expect the Company to lead others in the field of sustainability and serve as a role model for stakeholders in the value chain.

As part of our sustainability approach, we value building and maintaining relations with our stakeholders; we seek to understand stakeholder expectations and integrate their opinions into our business processes.

We believe in the importance of interacting and cooperating with stakeholders in all our business processes; and we take into account the potential social impact on our stakeholders while conducting our business operations. Furthermore, we consider contributing to the economic and social development of local communities in the regions where we operate as our primary objective.

As disclosed in our Quality Policy, which is available on our corporate website for the information of all our stakeholders, while maintaining our business, we are committed to fulfilling the expectations and demands of our stakeholders everywhere where we operate, and continuously improving our business processes.

Details on our Quality Policy are available on our website.



Aksa Energy Sustainability Report 2019 GRI 102-40, GRI 102-42, GRI 102-43, 102-44



Via our request & complaint platform, we collect and evaluate requests and complaints of all our stakeholders and inform relevant parties appropriately. Aksa Energy's diversified stakeholder communications channels include:

#### E-mail addresses:

- enerji@aksaenerji.com.tr
- surdurulebilirlik@aksa.com.tr
- etik@aksa.com.tr
- investorrelations@aksaenerji.com.tr

# "Write to Us" form on the corporate website:

http://www.aksaenerji.com.tr/en/write-to-us/

#### Phone numbers:

Ethics Hotline: +90 850 511 11 12

Aksa Energy Sustainability Report 2019 GRI 102-40, GRI 102-42, GRI 102-43, GRI 102-44

## **MEMBERSHIPS AND SUPPORTED INITIATIVES**

As a pioneering company in field of sustainability in Turkey, Aksa Energy collaborates with and supports several associations and initiatives.

## **Associations**













## **Initiatives**





## **CORPORATE GOVERNANCE STRUCTURE**

Aksa Energy is committed to complying with the four principles of corporate governance – transparency, fairness, responsibility, and accountability – and the requirements of the Corporate Governance Principles.

Good governance is a basic requirement to ensure the sustainability of companies. Aksa Energy is committed to complying with the four principles of corporate governance – transparency, fairness, responsibility, and accountability - and the requirements of the Corporate Governance Principles. We transparently share relevant developments and actions taken to reinforce our compliance with these principles, via the Corporate Governance Principles Compliance Report we issue annually.

At Aksa Energy, the Board of Directors is the highest executive body. The Board consists of eight members -one of whom is female- including three independent members appointed by the General Assembly. To enhance our competitiveness

We issue annual **Corporate Governance Principles Compliance** Reports to transparently share the relevant developments and actions taken to reinforce our compliance with these principles.

in the market, in July 2019, Chairman of the Board of Directors was appointed to the CEO position, which was vacated on December 31, 2018. Our Board members have all the qualifications specified in the Corporate Governance regulations issued by the Capital Markets Board.

The committees that directly report to the Board of Directors include the Audit Committee, Corporate Governance Committee, and Early Risk Assessment Committee. The Corporate Governance Committee executes the duties of the Nomination Committee and the Remuneration Committee. Additionally, the Sustainability Committee reports directly to the Chairman of the Board and CEO.

Details on our Corporate Governance and Committees are



## **CODE OF ETHICS AND TRANSPARENCY**

Aksa Energy Code of Ethics aims to embed ethical behavior and high corporate governance standards in our corporate culture to ensure an effective corporate governance.

At Aksa Energy, we are aware that effective corporate governance can only be achieved with a corporate identity based on strong foundations. Aksa Energy Code of Ethics aims to embed ethical behavior and high corporate governance standards in our corporate culture. Our Code of Ethics is focused on eliminating risks relevant to business ethics, providing ethical guidelines for employees, auditing the healthy and continual execution of reporting processes for unethical conduct, and ensuring continuity of the corporate culture, which is reinforced by ethical values. The Code of Ethics is applicable to all board members, managers, and employees. In addition, each newly recruited employee is required to sign the Code of Ethics Commitment Form.

In addition to our Code of Ethics, which requires acting sensitively to the needs and interests of all stakeholders in conducting business operations; Aksa Energy Anti-Bribery and Anti-Corruption Policy is designed to protect stakeholders against risks and boost the corporate value and reputation of our Company. Our Anti-Bribery and Anti-Corruption Policy sets forth principles, practices, audit and reporting standards related to bribery, corruption, facilitation payments, compliance with applicable laws, rules and regulations, political donations, travel and entertainment expenses and gifts. The Policy applies to all board members, managers and employees of Aksa Energy, as well as all business partners and any individuals acting on behalf of the Company.

Any issues or violations related to the Anti-Bribery and Anti-Corruption Policy or the Code of Ethics can be reported via etik@aksa.com.tr or the Ethics Hotline at +90 850 511 11 12.

Any issues or violations related to the Anti-Bribery and Anti-Corruption Policy or the Code of Ethics can be reported via the email address etik@aksa.com.tr or the Ethics Hotline at +90 850 511 11 12. The Ethics Committee is responsible for investigating and resolving complaints and notifications. All reports received by the Committee are treated with strict confidentiality and held in anonymity. The Committee consists of the Internal Audit Director, General Counsel and Human Resources Director, and reports to the Chairman of the Board of Directors.

Compliance with the Anti-Bribery and Anti-Corruption Policy and Program is closely monitored by all business units. In 2019, no non-compliance was reported to the Ethics Committee or the senior management. Likewise, no complaints regarding bribery or corruption were received from the employees or those acting on behalf of the Company. Compliance with the Policy and the Program was internally audited in 2019 and their effectiveness was also reviewed. The Corporate Governance Committee also presented an independent report on compliance with this Policy and Program to the Board of Directors.

The function of the e-mail address etik@aksa.com.tr has been communicated to all employees and publicly disclosed on the corporate website under the heading "Ethical Principles." In 2018, all employees were provided with a one-hour online ethics training based on the Human Resources Policy and the Anti-Bribery and Anti-Corruption Policy. This training is planned to be repeated in 2020.

Details on our Code of Ethics and Anti-Bribery and Anti-Corruption Policy are available on our corporate website.



## **RISK MANAGEMENT**

We implement an effective risk management policy to prevent and mitigate all risks in line with our risk management philosophy, which is based on safeguarding the value of company assets, operational security and sustainability.

High vulnerability of the energy sector to the impacts of global and local market conditions, combined with the fierce global competition, increased the need for effective risk management in the energy industry. The scope of risk management has expanded and diversified to cover additional issues such as sustainable growth, stable revenue, reducing costs, combating climate change, legal and regulatory compliance. Thus, it is more important than ever to accurately evaluate existing and future risks faced by the industry and ensure the energy sector's financial, social and environmental sustainability.

Aksa Energy is committed to managing risks effectively and efficiently. Our Board of Directors has overall responsibility for the establishment and oversight of our Company's risk management framework. The Board of Directors has established the Early Risk Assessment Committee to oversee the development and monitoring of risk management policies. The Early Risk Assessment Committee convenes under the chair of an Independent Board Member twice a year. The Committee conducts efforts to identify risks and implement necessary measures regarding potential risks, to manage and review these within the framework of the risk management system, and to report the results to the Board of Directors.

We handle our financial risks with a centralized management approach; and effectively manage the risks and opportunities faced by the Company by revising our policies where necessary.

Evaluating existing and future risks faced by the industry and ensuring the energy sector's financial, social and environmental sustainability has become more important than ever.

Aksa Energy implements an effective risk management policy in order to prevent and mitigate all risks. Our risk management philosophy is based on safeguarding the value of company assets, operational security and sustainability. We regularly review the Company's risk management policies and systems in order to identify and analyze potential risks, set appropriate risk limits and establish risk controls, and monitor risks relative to the relevant limits. In addition, we aim to develop a disciplined and constructive control environment where all staff members recognize their roles and obligations through training, management standards, and procedures.

We handle our financial risks with a centralized management approach, managing risks and opportunities faced by the Company effectively via policy revisions, if deemed necessary. We purchase hedging instruments in line with policies determined by senior management to minimize risk exposure.

Aksa Energy operates in an investment-intensive industry and mainly finances its investments with bank loans. Therefore, we regularly monitor liquidity, currency and interest rate risk positions and market developments. For all our operational facilities, we perform on-site and organizational controls; and group the identified risks into three categories as operational, strategic and compliance risks. We monitor the identified actions via technical studies regularly, and report the eliminated risks. Through regular follow-ups, we systematically monitor and manage new risks that arise in our operations.



At Aksa Energy, we regularly monitor and identify our non-financial risks as well as our financial risks. For each risk identified, we establish the Key Risk Indicators (KRI); and we gather data from the relevant units at regular intervals to report to senior management. We holistically consider the environmental, social and economic implications of the actions to be taken. Starting from the investment decision, we perform environmental risk assessments at every stage of our business operations. To ensure compliance with legal and regulatory requirements on environmental matters, we identify potential risks by performing onsite visits. We take actions to prevent these risks and regularly monitor the actions taken to mitigate risks.

We consider
the environmental,
social and economic
implications of our risk
management actions
with a holistic approach;
and starting from the
investment decision, we
perform environmental
risk assessments at every
stage of our business
operations.

Our Internal Audit Department performs risk-based assessments in order to evaluate and develop the control and governance processes of the Company. The Internal Audit Department conducts regular audits on the reliability of our financial reporting system; compliance of the Company's investment and operating activities with legal and internal regulations; the effectiveness and efficiency of business operations; the security and reliability of the our information systems; and reports its activities to the Board Member Responsible for Audit. In 2019, the Internal Audit Department performed on-site internal audits at power plants along with centralized internal audits at the headquarters.

Details on our Risk Management procedures are available in Aksa Energy's 2019 Annual Report.

## **ENVIRONMENTAL SUSTAINABILITY**

In addition to our exemplary initiatives to minimize environmental impacts caused by energy generation, we also lead the industry with our environmental management practices covering all aspects of our value chain.

Aksa Energy sees environmental sustainability as one of the three fundamental pillars of its sustainability approach. We conduct our business operations in an environmentally sensitive way for a sustainable future with our core principle of "maximum energy production with minimum natural resources." In addition to our exemplary initiatives to minimize environmental impacts from energy generation, we also lead the industry with our environmental management practices covering all aspects of our value chain. We are committed to continuously improving our environmental performance.

We execute our environmental management practices with a risk-based and systematic approach in accordance with applicable legal and regulatory requirements applicable in our regions of operation as well as the corporate environmental and energy policies, and internationally-recognized management systems.

Aksa Energy Environmental Policy has been developed to introduce our environmental management understanding at the corporate level and ensure that it is adopted and implemented by all stakeholders. The Policy is built on four core principles: climate change, natural resource management, waste management and conservation of biodiversity. Our Environmental Policy ensures regularly reporting, monitoring, and communication of the Company's performance toward its sustainability goals based on efficiency, transparency, stakeholder engagement, and cooperation.



**Environmental Investments** 

1.96
TRY Million

Our Environmental
Policy ensures regularly
reporting, monitoring,
and communication
of the Company's
performance toward
our sustainability
goals based on
efficiency, transparency,
stakeholder
engagement, and
cooperation.



**Environmental Management Training** 

88 Man x Hours

Aksa Energy Sustainability Report 2019 While carrying out our business activities, we strive to use natural resources efficiently, reduce greenhouse gas and air emissions, minimize waste generation, and preserve biodiversity.

We have a Framework Environment Management System (FEMS) in place in order to ensure that our environmental goals and targets are set, managed, monitored and controlled in line with the Environmental Policy. We strive to comply with environmental laws and other legal and regulatory requirements through FEMS, which sets forth the rules and responsibilities regarding the Environmental Policy.

In addition to FEMS, which is designed to provide an effective and living environment management system, Aksa Energy has received certifications for ISO 14001 Environmental Management System, ISO 9001 Quality Management System, ISO 50001 Energy Management System, ISO/IEC 27001: 2013 Information Security Management System and OHSAS 18001 Occupational Health and Safety Management System to support our environmental management system.

In addition to the headquarters, Bolu Göynük Thermal Power Plant and Şanlıurfa Natural Gas Combined Cycle Power Plant are also included in the scope of ISO/IEC 27001: 2013 Information Security Management System. In October 2017, we initiated efforts to extend the Integrated Management Systems practices under ISO 9001, ISO 14001, ISO 50001 and OHSAS 18001, which are already in effect at the headquarters, to Ali Metin







ISO 50001 ENERGY **MANAGEMENT SYSTEM** 



**ISO 9001 QUALITY MANAGEMENT SYSTEM** 



**OHSAS 18001 OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM** 



**ISO 14001 ENVIRONMENTAL** MANAGEMENT SYSTEM



ISO/IEC 27001: 2013 **INFORMATION SECURITY MANAGEMENT SYSTEM** 

Sustainability Report 2019

suppliers. In 2019, we implemented 88 man x hours training on environmental management. Additionally, we boosted our environmental investment spending to TRY 1.96 million during the reporting year. Furthermore, we were not issued any penalties due to noncompliance with environmental laws and regulations.

**Bolu Göynük Thermal Power Plant** 

At Aksa Energy, we conduct ongoing studies on the environmental effects of our existing production facilities. We also carry out an environmental impact analysis for our new production facilities to be established, prior to the project. In the coming year, we plan to further our investments aimed at mitigating the environmental impacts of our activities and boosting our performance.

Details on our Environmental Policy are available on our corporate website.

Kazancı Antalya Natural Gas Combined Cycle Power Plant and Bolu Göynük Thermal Power Plant. As of year-end 2019, the required documentation has been completed by 95%. We plan to obtain the certification by the first half of 2020 by developing field applications. In addition, we began operating at the Ghana Heavy Fuel Oil Power Plant under the ISO 14001 Environmental Management System and ISO 45001 OHS Management System.

We promote responsible environmental management across all our stakeholders, in particular our employees. We regularly organize training sessions for employees on this key topic and raise awareness of our

Aksa Energy

## **ENVIRONMENTAL SUSTAINABILITY**

#### **CLIMATE CHANGE AND ENERGY**

We are keenly aware of our responsibilities regarding the ever-increasing impact of climate change; and we strive to continuously improve our performance on climate change and energy efficiency.

As a company operating in the energy sector, Aksa Energy is keenly aware of its responsibilities regarding the ever-increasing impact of climate change. We strive to continuously improve our performance on climate change and energy efficiency as part of our holistic approach to environmental sustainability.

Our Energy Policy is designed to ensure that the Company's energy management system is implemented in accordance with the ISO 50001 Energy Management System standard. We aim to fully comply with applicable laws, rules and regulations at all locations where we operate, improve our energy production efficiency and reduce energy losses.

Energy efficiency is an essential component of our environmental policy. Aksa Energy generates energy through recovery of the waste heat emitted during production processes via combined cycle technology. With this technique, we reduce energy consumption per unit by an average of 10%. We generate energy through waste heat recovery at all of our natural gas power plants and Northern Cyprus Kalecik Heavy Fuel Oil Power Plant.

Thanks to our efficiency-enhancing projects, we achieved energy savings of over 280,000 MWh and natural gas savings of over 11 million m³ during the reporting period.

We conduct a wide range of activities to mitigate the adverse effects of our operations on the environment. Our technological investments and initiatives help reduce costs and cut greenhouse gas emissions. We monitor and assess our performance both in terms of energy consumption and greenhouse gas



Energy Savings **280,000+** 

Considering energy efficiency an essential component of our environmental policy, we generate energy through recovery of the waste heat emitted during production processes via combined cycle technology.



**Natural Gas Savings** 

11.3 Million m<sup>3</sup>

Aksa Energy Sustainability Report 2019

emissions. Since 2015, we have periodically prepared Greenhouse Gas Emission Reports to track greenhouse gas emissions at our power plants. We submit our reports to the verification bodies approved by Turkish Republic Ministry of Environment and Urbanization, which are then presented to the Ministry of Environment and Urbanization. Our 2019 Greenhouse Gas Emission Report is currently being prepared and will be presented to the Ministry of Environment and Urbanization, gradually during the year. We notify stakeholders about our environmental performance data, such as energy consumption and greenhouse gas emissions, via our sustainability reports. In addition, we plan to set new objectives related to energy consumption and greenhouse gas emissions for our investments in Africa.

Pursuant to our sustainability approach and vision of becoming a socially responsible global energy company, we signed the Trillion Tonne Communiqué in 2015, which is a declaration made by companies that acknowledge the issue of climate change and demand significant measures to fight against it. We are proud to be a signatory to the Prince of Wales Corporate Leaders Group's declaration, which has over 1,000 signatories in 60 countries and advocates that immediate, new and long-lasting measures should be enforced to combat climate change. We continue to shape our energy investments in this regard.

Furthermore, at Aksa Energy, we consistently inform all our employees, including subcontractors, through various communication tools and trainings to raise awareness about climate change and energy efficiency.

Details on our Energy Policy are available on our corporate website



We conduct a wide range of activities to mitigate the adverse effects of our operations on the environment, including technological investments and initiatives taken to reduce our costs and cut greenhouse gas emissions.



Energy Savings per Unit through Waste Heat Recovery 10%

We signed the Trillion
Tonne Communiqué
in 2015, which is a
declaration made
by companies that
acknowledge the issue
of climate change and
demand significant
measures to fight
against it.



## **ENVIRONMENTAL SUSTAINABILITY**

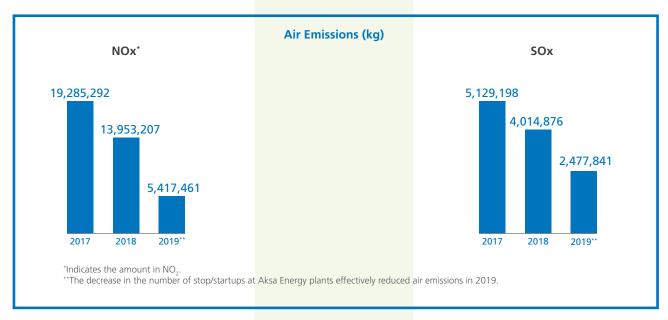
#### **AIR EMISSIONS**

We regularly monitor and measure the impact of our activities on air quality including air emissions arising from our business operations.

Aksa Energy is aware of the possible effects of all air emissions on the environment and human health that originate from its energy production processes. We regularly monitor and measure the impact of our activities on air quality including air emissions arising from our business operations. To that end, we monitor and strive to reduce other air emissions besides greenhouse gases. Emissions are controlled on a real time basis through continuous emission measurement systems installed in our power plants; air emissions from domestic plants are also monitored online by the Ministry of Environment and Urbanization.

Besides implementing measures to ensure that all emissions remain within legally prescribed limits, Aksa Energy conducts multiple initiatives and invest in new With the "fluidized bed combustion technology and flue gas treatment system" used at Bolu Göynük Thermal Power Plant, we meet the European Union legal emission target for 2018 since the plant's commissioning in 2015.

technologies to mitigate its air emissions and minimize the potential risks it poses. With the "fluidized bed combustion technology and flue gas treatment system" used at Bolu Göynük Thermal Power Plant, legally mandated emission values that the European Union targeted for 2018 are being achieved by our power plant since it first became operational in 2015. Thanks to the fluidized bed combustion technology, the desulphurization process is realized directly in the boiler using limestone during combustion. This technology both minimizes emission of the gases harmful to the environment and boosts the plant's efficiency. We strive to minimize air emissions from our activities with the efficiency-boosting projects we carry out on an ongoing basis. We also use Oxicat filters to reduce greenhouse gas emissions at our natural gas power plants.



#### **WASTE MANAGEMENT**

In 2019, we recycled 37,000 tons of hazardous waste.

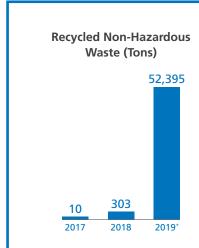
Waste management is a key component of our environmental sustainability approach. At Aksa Energy, all waste is disposed of in accordance with applicable laws, rules and regulations, and in line with our Environmental Policy. We recycle hazardous and non-hazardous waste sourced from our operations within the periods defined in the Waste Management Regulation. In addition, we regularly enhance our waste management processes with innovative technologies to mitigate resource use and waste generation.

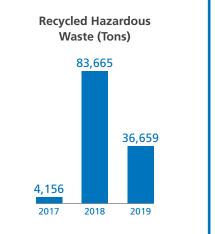
We store hazardous waste – such as waste oil, contaminated packaging, contaminated clothing, absorbent filters, sludge in oil/water separators – originating during the course of our business operations in temporary waste landfills at our facilities. During this process, we prevent substances and materials that may affect human and environmental health from contact with the external environment. Later, these materials are transported in licensed vehicles to recycling or disposal facilities, at regular intervals. In addition, we

We recycle hazardous and non-hazardous waste sourced from our operations in line with Waste Management Regulation; and we regularly enhance our waste management processes with innovative technologies to mitigate resource use and waste generation.

send non-hazardous packaging waste and scrap materials, to recycling companies accredited by municipalities in the areas where our facilities are located. In 2019, we recycled 37,000 tons of hazardous waste.

Prior to commissioning Bolu Göynük Thermal Power Plant, Aksa Energy planted over 6,000 trees to prevent erosion around the plant site and to reinforce the surface ground. Furthermore, ashes that are discharged from power plant operations are stored at Southern Regular Ash Landfill, which was constructed in 2017. This site was granted environmental approval from the Provincial Directorate of Environment and Urbanization, and replaces the formerly used temporary ash landfill. We rehabilitated the Southern External Dump Site, which completed its lifecycle in 2019, and handed over the site to the Ministry of Agriculture and Forestry. The Ministry has planted approximately 140,000 saplings in this site area. Each year, we strive to enhance our waste management performance with efforts to generate less waste, reduce resource use and boost process efficiency.





\*The increase in the amount of Recycled Non-Hazardous Waste in 2019 mostly comes from the recycling of scrap material remaining from the construction phase at the Ghana Heavy Fuel Oil Power Plant site.

## **ENVIRONMENTAL SUSTAINABILITY**

#### WATER AND WASTEWATER MANAGEMENT

In 2019, the amount of groundwater used in our operations dropped to zero, while our municipal water consumption decreased by 59%. Furthermore, the amount of water we recycled increased more than 3.5 times compared to the previous year.

Many factors that impact the world overall – such as climate change and urban migration – lead to depletion of natural resources. Aksa Energy is committed to efficient use of water, which is critically important among the world's dwindling natural resources. We structure our business activities and processes to reduce water consumption through effective management. Using an innovative approach, we carry out efforts to enable efficient use of water across the organization.

Aksa Energy uses water from varied resources, such as municipal water supply, surface water, and groundwater, depending on the region of operation. We ensure that wastewater from our operations is analyzed by accredited laboratories and discharged pursuant to the Water Pollution Control Regulation.

In 2019, the amount of groundwater used in our operations dropped to zero, while our municipal water consumption decreased by 59% compared to 2018. Furthermore, the amount of water we recycled increased more than 3.5 times compared to the previous year.

Aksa Energy continues to implement various methods and develop projects to conserve water. We use decarbonization systems in production processes at Ali Metin Kazancı Antalya Natural Gas Combined Cycle Power Plant and Bolu Göynük Thermal Power plant. With a EUR 5.3 million investment, we installed decarbonization facilities at both plants. With these facilities, over 272,000 m³ of water was saved in our plant in Antalya, and over 1.8 million m³ of water in our plant in Bolu in 2019.



**Decarbonization Investments** 

5.3

EUR Million

The seawater desalination system installed at Northern Cyprus Kalecik Heavy Fuel Oil Power Plant meets 100% of the facility's water requirements.



Water Savings at Bolu Göynük Thermal Power Plant

1.8

Million m<sup>3</sup>

Aksa Energy Sustainability Report 2019 The Bolu Göynük Thermal Power Plant employs a reverse osmosis technology to collect wastewater in a different pool and reuse it for ash humidification. Moreover, we created Çatak Pond with a TRY 17.5 million investment to meet the power plant's water requirement. The regional community also benefit from this water resource via the General Directorate for State Hydraulic Works. We employ the reverse osmosis method also in Şanlıurfa Natural Gas Combined Cycle Power Plant, and we use the recycled water in the facility's cooling towers. Since 2013, we have recycled 12% of the total water consumed and achieved 78,000 m<sup>3</sup> total water savings. In 2019 alone, we recorded a total of 5,674 m<sup>3</sup> of water savings.

The seawater desalination system installed at Northern Cyprus Kalecik Heavy Fuel Oil Power Plant meets 100% of the facility's water requirements. Modification of the purifier tank system for seawater treatment, which was established in 2019, improved the efficiency of internal consumption by commissioning a pump that consumes 37 kW per hour, down from 200 kW per hour with the previous pump. With this effort, we decreased internal water consumption demand by 10%. We also purify wastewater by evaporating and condensing it with the Evaporator Treatment System for natural gas closed-cycle systems and internal needs.

At Ghana Heavy Fuel Oil Power Plant in Africa, where water resources are more limited, we have built measurement tools to monitor water consumption. We also use the wastewater discharged from the power plant's water-softening unit for garden irrigation purposes.



Water Use (m³)	2017	2018	2019
Municipal Water	226,713	148,643	61,630
Surface Water	7,649,666	7,000,446	7,289,340
Groundwater	161,987	112,095	0
TOTAL	8,038,366	7,261,184	7,350,970



Wastewater Amount (m³)	2017	2018	2019*
	1,869,430	1,656,947	1,894,771

<sup>\*</sup>The amount of wastewater increased in 2019 due to water consumption to improve the quality of water used in production processes.

Recycled Wastewater (m³)	2017	2018	2019
	567,969	96,969	355,225

## **ENVIRONMENTAL SUSTAINABILITY**

#### **BIODIVERSITY**

We take into account our potential effects on the living species in the regions where we operate; and conduct environmental risk analyses starting from the initial investment decision stage.

As Aksa Energy, we are aware that natural resources play a significant role in securing the continuity of our operations. We place great importance on protecting and monitoring the natural habitat and biodiversity in the areas where our power plants are located. We take into account our potential effects on the living species in the regions where we operate; and conduct environmental risk analyses starting from the initial investment decision stage. In addition to monitoring, assessing and reporting on the impacts of our operations on biodiversity, we also support various projects through our collaborations to mitigate and supervise potentially negative impacts in the regions where we operate.

Since 2015, we have collaborated with Hatay Nature Conservation Association (TAKODER) to develop projects to monitor endangered species, and minimize the detrimental effects upon their habitats. Thanks to this collaboration, an area of

We have developed projects to monitor endangered species, and minimize the detrimental effects upon their habitats in collaboration with Hatay Nature Conservation Association since 2015.

12,000 decares in Hassa district of Hatay, Turkey has been registered as Natural Monument by the Ministry of Agriculture and Forestry.

In 2015, with our first biodiversity project – Conversation Project for Hatay Mountain Gazelles – we supported conservation of the mountain gazelle species and its native habitat in Hatay, Turkey. As part of this project, a special Mountain Gazelle Observation Event was organized on World Environment Day. Students selected from the region's rural schools had the chance to observe mountain gazelles from the observation tower constructed on the land.

In 2016 and 2017, Aksa Energy supported a project to study striped hyenas (hyaena hyaena), an endangered species residing nearby Gölbaşı Village in Kırıkhan, Hatay. As part of the project, local residents were interviewed and photo traps were placed in the region to assess the current status of





striped hyenas and collect information about their natural habitats and ecology. During these efforts, the rock gerbil (gerbillus dasyurus), which had not been observed for 22 years in the region and was thought to be extinct, was also encountered. Even though the rock gerbil was not the target species in the project, this discovery was a key output for initiation of research for conservation of the species. Observation of the rock gerbil was included in the report titled "Preliminary Study on the Determination of Striped Hyenas' Dispersion and Ecology in the Kırıkhan – Reyhanlı Region." The report reveals the need for meticulous protection of habitats with rich mammal diversity. In addition, the results of this study were published in regional and national press, raising public awareness on this important topic.

In 2018, we continued our efforts on biodiversity in cooperation with TAKODER. A project was conducted to determine the presence and ecology of the red deer (Cervus elaphus), an iconic species in terms of biodiversity, around Yedigöller National Park. The population of red deer – which is included on the Red List of the International Union for Conservation of Nature (IUCN), indicating an endangered species – is gradually decreasing. Under the project, key factors – such as height, inclination, flora, water resources, road

#### **Aksa Energy Biodiversity Projects**

Year	Project	Location
2015	Mountain Gazelles	Hatay
2016	Striped Hyenas I	Hatay
2017	Striped Hyenas II	Hatay
2018	Red Deer	Bolu
2019	Brown Bear	Bolu

In 2019, we conducted studies in Bolu in cooperation with TAKODER for conservation of the brown bear (Ursus Arctos) population – the only bear species and the biggest predator in Turkey.

Thanks to our biodiversity efforts, existence of the rock gerbil (gerbillus dasyurus), which had not been observed for 22 years in the region and was thought to be extinct, was also confirmed.

Aksa Energy Sustainability Report 2019 network and status of agricultural activities – affecting the distribution of the population were determined. Visual records were collected about the species via photo-traps installed to obtain exact information about the size of the population. At completion of the project, the size, density, distribution, natural habitat, food, and nutritional sources of the red deer population, as well as their social behavior and interaction with humans and the threats facing the species, were defined. Alongside prescribed measures to be taken for preservation of the species, notes were also created to raise public awareness for continuity of the red deer population.

In 2019, we initiated activities in Bolu in cooperation with TAKODER for the conservation of the brown bear (Ursus arctos), the biggest predator and the only bear species living in Turkey. This initiative aims to preserve the species in the Yedigöller region of Bolu, and raise awareness of the public. As part of protection efforts, the threatening factors in the geographic areas that the species inhabits were identified and protection measures were established. Informational signage was placed in road networks and areas where tourism activities are conducted; and ecological bridge passages were identified. Additionally, measures taken to protect the species were reported to the Bolu Branch of the Nature Conservation and National Parks.

Aksa Energy plans to further promote research in this area in the future, and manage the Company's impact on biodiversity. Our efforts will focus on the continuity of endangered animal species in Turkey. In line with these objectives, we aim to conduct a project in 2020 to reveal the existence of the bobcat (lynx lynx) in Bolu, identify factors that threaten the species and set forth protection recommendations.

## **EMPLOYEES**

Adopting the approach "Our most valuable asset is our human capital," we implement modern human resources systems and practices, aligned with our strategic objectives.

Aksa Energy shapes its human resources approach around the core values of right person for the right job, management of diversity, equal opportunities for all, and personal and professional development. We embrace an approach best summarized as "Our most valuable asset is our human capital," which serves as the cornerstone of our Human Resources Policy. In line with our mission of being the employer of choice in the industry, we implement modern human resources systems and practices aligned with our strategic objectives. We offer a workplace environment that respects employees' rights, supports training and development, and allows us to create a competent, best-in-class team to continue our sustainable growth.

At year-end 2019, 19% of our 907 employees are white-collar and 81% are blue-collar; 6% of the employees work at headquarters and 94% work at power plants. Aksa Energy has 418 staff members in Turkey, 83 in TRNC, 191 in Ghana, 76 in Mali and 139 in Madagascar, conducting business operations in 5 countries on 2 continents. We are committed to employing local residents at our facilities located in Turkey and abroad. As a result, 60% of our 406 employees in African countries are local residents.

We prioritize employing well-educated, highly skilled, successful individuals with the awareness that achieving our corporate



**Employees** 907

We offer a workplace environment that

respects employees' rights, supports training and development, and allows us to create a competent, best-in-class team to continue our sustainable growth.



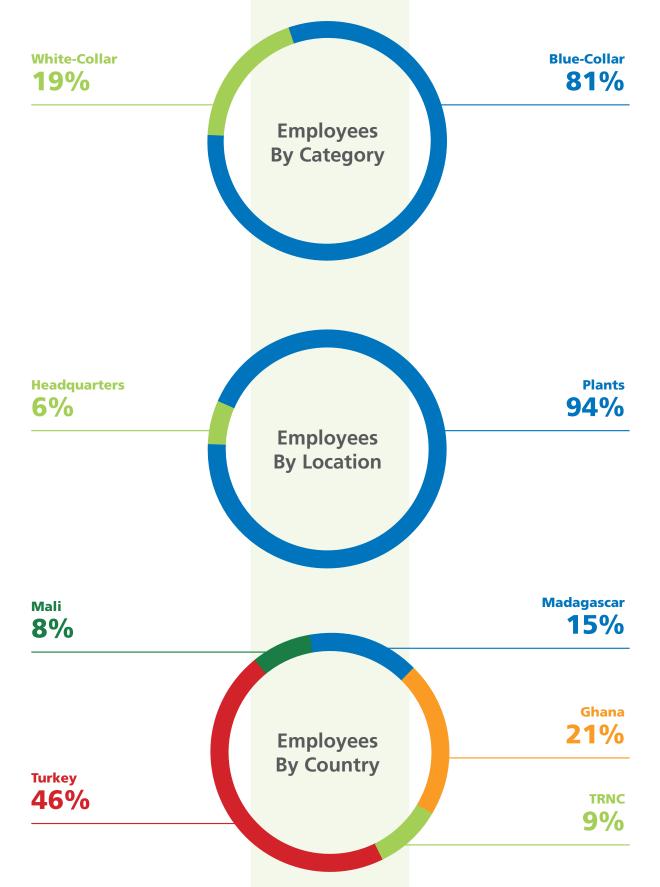
**Local Residents Employed in African** 

Aksa Energy Sustainability Report 2019

targets requires quality human capital. Our Human Resources Policy, which also includes our recruitment criteria, is disclosed to the public on the corporate website. For recruitment needs, we assess internal and external resources within the context of job description and requirements. In recruitment process, we consider not only the current needs for personnel vacancies, but also our long term objectives.

We manage employee relationships through our Human Resources Department, which is staffed by human resources professionals with specific roles and responsibilities. In addition, our Board of Directors provides support in developing a succession plan for key management positions.

Aksa Energy continues to develop its policies and practices to further improve employee engagement. We place great importance on employee satisfaction and loyalty, one of the immutable elements of the Company's human resources vision. As of 2018, we have introduced Request Boxes at headquarters and the power plants in order to manage the suggestions, requests and complaints of our employees systematically. Our other communication channels include the "Write to Us" form on the corporate website, the Ethics Hotline, and the email address enerji@aksaenerji.com.tr. In 2019, we received 458 requests via Request Boxes. All requests were assessed individually, and necessary actions were taken for 28 requests that were deemed feasible.



Details on our Human Resources practices are available on our corporate website.

## **FMPI OYFFS**

#### SAFE WORKING ENVIRONMENT

We take all requisite safety measures across the organization to meet our target of "zero-accidents"; and prevent occupational diseases.

As a global organization, we recognize our responsibilities in occupational health and safety (OHS) management, one of our material topics. We are committed to complying with applicable local and global regulations and other legal requirements to ensure that our employees work in a healthy and safe environment. At Aksa Energy, we implement pioneering OHS practices, and pursue continuous improvement of our performance in this key area

Aksa Energy effectively manages its OHS practices and processes in compliance with the corporate Occupational Health and Safety Policy and applicable legal requirements as well as the standards of OHSAS 18001 Occupational Health and Safety Management System certification. Currently, efforts are underway to extend the OHSAS 18001 standard at our power plants, which we already implement at our headquarters. Using a risk management approach, we define, assess, and classify the OHS related risks and threats, and take measures to reduce risks to an acceptable degree. In accordance with OHSAS 18001 notification instructions, we fully record the health and safety data of our employees. In addition, we conduct assessments and improvement efforts by comparing our data with overall Turkey and European statistics. We are committed to taking preventive OHS measures at our subcontractors and affliated parties.



OHS Training
20,229
Man x Hours

Aksa Energy
effectively manages OHS
processes in compliance
with legal requirements
and the standards of
OHSAS 18001
Occupational Health and
Safety Management
System.



Prequency Rate (2018-2019)

48%

Aksa Energy Sustainability Report 2019 OHS-related assessments and improvement actions are carried out by the OHS Committee at Aksa Energy. The Committee is comprised of Aksa Energy employees and represents the entire Company workforce. The Chairman of the OHS Committee reports directly to the Chief Operating Officer (COO). Additionally, the Quality, Health, Safety & Environment (QHSE) department collects OHS data from power plants on a monthly basis, and reports on the overall OHS performance biannually.

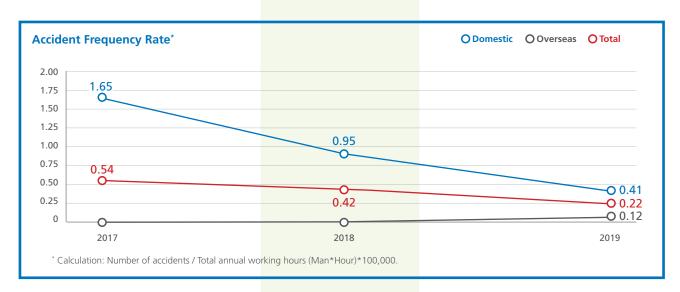
We take all requisite safety measures across the organization to meet our target of "zero-accidents", and to prevent occupational diseases. Our Corrective and Preventive Action Reports include assessments and recommendations to prevent situations that may cause injury to employees; enhance our OHS performance; and eventually, help us achieve the zero-accident objective. These reports also provide emergency plans for all scenarios in order to be prepared for possible incidents and emergencies. In 2019, Aksa Energy recorded 4 work accidents with minor injuries (injuries requiring outpatient care or first aid only) and 1 accident with severe injuries at its domestic power plants while 3 accidents with minor injuries occurred at the overseas power plants. Our Company completed 2019 with no fatal work accidents. In 2019. 7 lawsuits were raised against the Company alleging liability for work accidents; 1 lawsuit filed in 2018 for fatal work accident is still ongoing.



In 2019, we maintained our efforts to enhance the health and safety conditions at our domestic and overseas power plants, and reduce work accidents and occupational diseases. During the year, we provided 20,229 man x hours of OHS training to our employees. We strive to raise the OHS competency of our workforce to achieve the "zero accident" target at our power plants. In 2019, OHS training accounted for 93.6% of all the training we provided to our workforce. At year's end, our accident frequency rate declined by 48% compared to the previous year.

In 2019, accident frequency rate decreased by 48% compared to the previous year. To optimize OHS management processes, we plan to introduce an integrated system by 2020 to ensure systematic recording of all accident data, and reporting of accident details to the Head Office, and facilitate notification to authorities within three business days by Human Resources department. This new system will allow recording and investigation of any incidents as well as unsafe situations that might give rise to accidents or near misses.

Details on our Occupational Health and Safety Policy are available on our corporate website.



## **EMPLOYEES**

#### **EMPLOYEE EFFICIENCY AND DEVELOPMENT**

We invest in our human capital to make our employees feel that they are members of a team that cultivates development and creativity, rewards efforts and appreciates achievements.

Aksa Energy understands that it is only possible to achieve its long-term goals with the help of its employees. We strive to recruit and retain staff members, who are dynamic, motivated, open to creativity and change. At Aksa Energy, we are committed to investing in our human capital to make our employees feel that they are members of a team that cultivates development and creativity, rewards efforts and appreciates achievements, from the day of recruitment onwards.

We recruit skilled employees who can adopt and actively work to realize the Company's vision. As a rule, we primarily meet our staffing needs internally from the current workforce. To fill vacancies that cannot be met internally, via promotion or transfer, we use external resources to facilitate new staff recruitment. We discover and recruit our current and potential human capital via talent management efforts. Career paths are created on a common ground that benefits both employees and the Company, enabling staff members to improve their skills and help the Company achieve its corporate goals.

At Aksa Energy, job descriptions are documented under ISO 9001 Quality Management System, and shared with all staff members. We implement career and performance management systems developed with a target-based approach; and set smart objectives for manager positions and above. Aksa Energy plans to establish specific performance targets to evaluate individual performance in the coming year. We also aim to introduce a risk and opportunity assessment matrix in 2020 to analyze human capital needs more effectively and faciliate management of vacancies that cannot be filled by internal transfer or promotion.

We aim to recruit skilled employees who can adopt and actively work to realize the Company's vision. As a rule, we primarily meet our staffing needs internally from the current workforce.

For more effective and efficient management of human resources, we aim to develop integrated ERP systems, and plan to formulate career maps and a talent pool by 2021.

Aksa Energy Sustainability Report 2019 For more effective and efficient management of human resources, we aim to develop integrated ERP (enterprise resource planning) systems; and to that end, we plan to formulate career maps and a talent pool by 2021.

#### **Remuneration and Benefits**

Aksa Energy focuses on remuneration and benefits to provide the most suitable conditions that are meaningful to employees and sustainable for its business. In parallel with our objective of being the employer of choice within the industry, we implement a remuneration policy that is competitive, sensitive to the market conditions, and which aims to improve the quality of life of our staff. The Corporate Governance Committee is responsible for execution of our Remuneration Policy\* on behalf of the Board of Directors. In line with the Remuneration Policy, which is available on our corporate website, we offer performance-based remuneration, as per the core principle "equal pay for equal performance". Additionally, we closely monitor macroeconomic factors and trends in the industry to ensure implementation of a fair and accurate remuneration policy across the Company.

In addition to remuneration and benefits provided to employees, Aksa Energy has furnished health and personal accident insurance to 614 personnel in total. This number includes headquarters staff who visit the power plants as part of their job descriptions, along with those working at the power plants.



#### **Personal and Professional Development**

Aksa Energy promotes personal and professional development of its staff members, and organizes frequent training sessions to support employees. We provide various training opportunities to all staff members in order to meet their career and personal development needs; fulfill occupational requirements occurring over time; and achieve the Company's targets and strategies. These trainings are designed to ensure that employees acquire new skills and remain aware of innovations in the energy industry, where ever-advancing technology is the norm. Our training efforts aim to continuously improve employee performance while providing access to all technical and professional knowledge they require to become more competent in their respective roles, and develop their personal skills.



Total Training Hours
21,621
Man x Hours

Aksa Energy Sustainability Report 2019 In 2019, Aksa Energy provided its workforce with 21,621 man x hours of training in total.

# Features of Aksa Energy's remuneration system:

Fair

Transparent

Based on measurable and balanced performance targets

Promotes sustainable success

Compliant with the Company's risk management principles

Details on our Remuneration Policy are available on our corporate website.

## **EMPLOYEES**

### **EQUAL OPPORTUNITY AND DIVERSITY**

We are firmly against discrimination based on race, religion, language, gender or sexual orientation, in any stage of our business operations including the nomination, recruitment and promotion processes.

As a global energy company, we respect the rights of all our employees and business partners, and advocate respect for fundamental human rights in the society across all countries where we operate with an efficiency and sustainability-oriented approach.

We have committed to meeting basic human rights requirements with our Aksa Energy Human Rights Policy,\* which we prepared in 2016 and translated into the official languages of all of the countries where we operate. Our Human Rights Policy is shaped around the Universal Declaration on Human Rights and International Labor Organization (ILO) Conventions, United Nations Global Compact, UN Guiding Principles on Business and Human Rights, and OECD's Guiding Principles for Multinational Enterprises. The Policy is disclosed to the public on the corporate website. Our Human Rights Policy further states that we are opposed to child labor and forced labor. The Policy covers our employees, business associates, and suppliers, and is executed by the Ethics Committee.

Believing that diversity and respect for diverse beliefs and opinions enrich corporate culture, we provide our employees with equal opportunities to strengthen their competencies. Aksa Energy and its subsidiaries are firmly against discrimination based on race, religion, language, gender or sexual orientation, in any stage of its business operations including the nomination, recruitment and

Believing that diversity and respect to diverse beliefs and opinions enrich corporate culture, we provide our employees with equal opportunities to strengthen their competencies.



Rate of Female Board Members

**13%** 

We take every precaution and actively implement the Code of Ethics to prevent discrimination among employees and protect the staff from physical, mental and emotional abuse within the organization.

Aksa Energy Sustainability Report 2019 promotion processes. We support women's participation in the labor force to ensure gender equality in the workplace. At Aksa Energy, female employees account for 9.5% of the total workforce; meanwhile, 13% of our board members are female. We believe that returning to work after maternity leave should be considered as part of gender equality in business, and encourage our female employees in this regard. In 2019, 50% of our female staff returned to work after maternity leave.

We take every precaution and actively implement the Code of Ethics to prevent discrimination among employees and protect the staff from physical, mental and emotional abuse within the organization. We encourage our employees to contact the Human Resources Department if they experience any kind of management related problems. In 2019, no complaints alleging discrimination by race, religion, language or gender were received from our employees.

Details on our Human Rights Policy are available on our corporate website.

## **SOCIAL RESPONSIBILITY**

We aim to create further value for our extensive network of stakeholders, directly or indirectly affected by our operations, with a strong sense of social responsibility.

As a global company with operations spanning 5 countries on 2 continents, Aksa Energy considers all individuals and entities, directly or indirectly affected by its business operations, as stakeholders. With this perspective, and coupled with a strong sense of social responsibility, we aim to create further value for our extensive network of stakeholders. We manage our corporate social responsibility pursuant to the principles outlined in our Corporate Social Responsibility Policy.

We carry out initiatives to support economic, social and cultural development of the local communities residing in our regions of operation. Aksa Energy actively works to minimize the adverse impacts of its operations. We evaluate potential outcomes that may arise from these impacts and take responsive measures as needed, by listening to the opinions and suggestions of local residents in the areas where our power plants are located. Moreover, we carry out initiatives to support economic, social and cultural development of the local communities residing in our regions of operation.

Details on our Corporate Social Responsibility Policy are available on our corporate website.



## SOCIAL RESPONSIBILITY

#### CONTRIBUTION TO THE LOCAL ECONOMY AND EMPLOYMENT

We meet the urgent energy needs of developing markets, such as African countries; indirectly support growth and contribute to their socio-economic development by creating employment opportunities.

Aksa Energy is keenly aware that energy generation is a vital need for economic growth and social development. Embracing this perspective, we help reduce Turkey's foreign dependence on energy while meeting the urgent need for energy in developing markets such as African countries, through our operations. Thus, we indirectly support the growth of these countries by expanding access to energy, and contributing to the socio-economic development of local communities with the employment opportunities we create.

We employ the human resources we need from the local population in order to provide employment opportunities for people in our operating regions. As at year-end 2019, 60% of our staff in African countries and 85% in TRNC are local residents. Similarly, Bolu Göynük Thermal Power Plant's staff was recruited from the villages of Bölükcekova, Himmetoğlu and Karaardıc, in the vicinity of the plant.

In addition to providing employment opportunities at our power plants, we also select subcontracting companies from the region when additional services are needed at the power plants. Thus, we contribute to the expansion of the local labor market, and create a source of income for the local population. As at year-end 2019, 94% of our 1,112 suppliers in 15 countries across four continents are local, along with subcontractors, brokerage houses and consultancy firms operating in energy production and mining. In 2019, our procurement spending amounted to TRY 634.8 million in nine main and nine sub-merchandise groups; and 35% of this amount was paid to local suppliers.



Local Residents Employed in African Power Plants

60%



Local Suppliers

94%



Local Residents
Employed in TRNC

85%

Aksa Energy Sustainability Report 2019 In line with its vision of being a socially responsible energy company, Aksa Energy expects its suppliers to comply with international standards in terms of occupational health and safety and environmental policies. Our Supplier Relations Management (SRM) system, scheduled for implementation in 2020, is designed to facilitate supplier selection at the Company by methodically assessing suppliers from a social and environmental perspective.

Aksa Energy also carries out infrastructure work and maintenance projects in the regions where it operates to support local economic development and create lasting value. We provide dedicated feedback mechanisms to receive and assess the requests and expectations of our stakeholders and local communities in this regard. In 2019, we made donations of TRY 264,603.78 in order to meet various local requirements in places where we conducts business. In addition, we donated a total of TRY 411,853.78 to various associations, including TRY 147,250 to Hatay Nature Conservation Association, sports clubs and schools.

Location	Local Employees
Ghana	60%
Madagascar	60%
Mali	63%
Northern Cyprus	85%



## SOCIAL RESPONSIBILITY

#### **SOCIAL RESPONSIBILITY PROJECTS**

In 2019, we teamed up with Aksa Natural Gas, Aksa Electric and Aksa Power Generation under Kazancı Group to execute a joint social responsibility project: "ENERGY FOR TOMORROW."

Social responsibility constitutes one of the three pillars of our sustainability approach. As part of our strong commitment in this key area, we develop and carry out various social responsibility projects to promote education and culture, with a particular focus on children, the future of us all, especially those living in rural regions.

In 2019, we teamed up with Aksa Natural Gas, Aksa Electricity and Aksa Power Generation under Kazancı Group to execute a joint social responsibility project, "ENERGY FOR TOMORROW." Under this initiative, employee volunteers from participating Group companies travel across Turkey and provide training sessions on energy in rural middle schools.

As part of the nationwide effort, which started in March 2019, we covered more than 6,500 km and reached more than 2,000 students at 22 village schools in 19 cities. Prioritizing regions where Aksa Energy and other Group companies operate, we visited village schools in Rize, Trabzon, Ağrı, Van, Elazığ, Malatya, Balıkesir, Çanakkale, Amasya, Tokat, Ordu, Giresun, Zonguldak, Düzce, Bolu, İzmir, Manisa, Bursa and Bilecik in a nine-month period. During our visits, we provided comprehensive energy education for 5th-, 6<sup>th</sup>-, 7<sup>th</sup>- and 8<sup>th</sup>-grade students. Formed by the Corporate Communications staff of Group companies, the ENERGY FOR TOMORROW team provided students with useful information on many energy-related subjects, including energy resources, energy efficiency, conscious use of energy, clean energy concept and energy production. In addition, students had the opportunity to learn about the Group companies operating in the energy industry.



Distance Traveled with ENERGY FOR TOMORROW

6,500+

Kn

With a strong commitment to social responsibility, we carry out efforts to promote education and culture, with a particular focus on children - the future of us all.



Total Number of Students Targeted by End-2020

4,000

Aksa Energy Sustainability Report 2019

We intented to entertain the children while reinforcing the information and concepts, presented during the training, with an energythemed math game developed specifically for the project. Numerous energy-themed experiments were also used to demonstrate key points. The energy-themed math game was specially designed for the Aksa brand. The innovative game was developed by taking into account the mathematics skill level of each class. With this game, we intended to entertain the children while supporting their learnings as they try to solve the math questions in a fun game. The game is played with groups of four and specifically designed for all groups to be completed at a similar time, thus it does not allow any team to win by a landslide, considering the emotional development of children, as well. The educational gameplay is conducted by a team of advisors consisting of math teachers; these instructors support those children who experience difficulties during the game.

At the end of the instructional activities, students are presented with various school supply products, a backpack and the Energy Encyclopedia -a specially designed illustrated book on energy. We also provide a copy of the energy game to each school, so that teachers can use it as an educational tool in their classes. In 2020, we plan to provide further energy education at village schools by traveling across Turkey with the "ENERGY FOR TOMORROW" team. By year-end 2020, we aim to reach out to 4,000 students in total.

In addition to this initiative, we organize technical trips and training sessions to contribute to the development of our youth. In 2019, Aksa Energy hosted 227 visitors from various schools and institutions at Ali Metin Kazancı Antalya Natural Gas Combined Cycle Power Plant, Bolu Göynük Thermal Power Plant and Şanlıurfa Natural Gas Combined Cycle Power Plant.

# Impact Groups Targeted with the "ENERGY FOR TOMORROW" project





5<sup>th</sup> to 8<sup>th</sup> grade students at rural schools in Turkey











**Families** 







## PERFORMANCE INDICATORS

#### **ENVIRONMENTAL PERFORMANCE**

Energy Consumption (GJ)	2017	2018	2019
Electricity (Internal Consumption from Own Production)	1,288,598	1,292,659	1,223,834
Natural Gas	33,523,085	20,124,335	16,410,100
Lignite	19,713,139	22,148,489	12,741,995
Fuel Oil	13,450,687	14,275,678	13,724,053
Diesel	1,958.4	323,392	9,793
Total	67,977,468	58,164,552	44,109,775
Energy Consumption per GJ of Electricity Generation	2.18	2.50	1.64*

<sup>\*</sup> In 2019, calculation method for Energy Consumption per GJ of Electricity Generation has been revised as Total Fuel Energy Used / Total Energy Generated (Electricity and Steam Power).

Greenhouse Gas Emissions (ton CO <sub>2</sub> e)*	2017	2018	2019
Scope 1	4,888,820	4,446,485	3,882,434
Scope 2	183,315	182,049	0**
Total	5,072,135	4,628,534	3,882,434
Greenhouse Gas Emissions per MWh Production	(kg CO <sub>2</sub> e/MWh) 586	716	535***

<sup>\*</sup>The calculation methodology is based on activity data multiplied by GHG emission/removal factors. The calculation methodology is based on the GHG Protocol. Global Warming Potentials (GWPs) are based on Intergovernmental Panel on Climate Change (IPPC) Fifth Assessment Report Values.

<sup>&</sup>quot;In 2019, the steam power generation is also included in calculation of GHG emissions per MWh Production. Otherwise this value is calculated as 612 kg CO<sub>2</sub>e/MWh. GHG intensity has decreased as a result of resource and energy efficiency policies and practices. In calculation of GHG inventory for Bolu Göynük Thermal Power Plant, only CO<sub>2</sub> emissions from lignite combustion are included as recommended by the Turkish Ministry of Energy and Natural Resources for the industry.

Air Emissions (kg)	2017	2018	2019**
NOx*	19,285,292	13,953,207	5,417,461
SOx	5,129,198	4,014,876	2,477,841

<sup>\*</sup>Indicates the amount in NO<sub>2</sub>

<sup>&</sup>quot;GHG emissions from use of electricity generated at the plants were included in Scope 2 in previous years. However, emission from fuels used to produce electricity for internal consumption is already included in Scope 1. To avoid double-counting, Scope 2 value is revised as 0 in 2019.
"In 2019, the steam power generation is also included in calculation of GHG emissions per MWh Production. Otherwise this value is calculated as 612 kg CO<sub>2</sub>e/

<sup>\*\*</sup>The decrease in the number of stop/startups at our plants effectively reduced air emissions amount in 2019.

## **SOCIAL PERFORMANCE**

2017

2018

2019

2019

Male

50

575

196

821

**Female** 

54

27

86

Domestic		512		501	501	
Overseas			507	1	476	406
Total			1,019		977	907
**Includes TRNC.						
Employees by Gender*		2017		2018		2019
Female		84		87		86
Male		935		890		821
	20	17		2018	20	019
Employees by Category*	Female	Male	Female	Male	Female	Male
White-Collar	65	179	37	190	38	138
Blue-Collar	19	756	50	700	48	683
Total (By Gender)	84	935	87	890	86	821
Employees by Type of Employment*			2017	,	2018	2019
Full Time			1.019	)	856	907
Part Time			(	)	121	0
					2019	
Employees by Tenure*				Fe	male	Male
0-5 Years					70	583
5-10 Years					10	156
10 Years and Above					6	82
Total (By Gender)					86	821

**Employees by Gender and Age\*** 

Above 50 Years

Between 30-50 Years
Below 30 Years

**Total (By Gender)** 

**Employees by Location\*** 

<sup>\*</sup> Includes five Board Members, excluding Independent Board Members.

# PERFORMANCE INDICATORS

## **SOCIAL PERFORMANCE**

	2	017		2018		2019	
Managerial Employees by Gender and Age*	Female	Male	Femal	e	Male	Female	Male
Above 50 Years	1	3		0	5	1	5
Between 30-50 Years	3	3		2	11	1	10
Below 30 Years	0	0		0	0	0	0
Total (By Gender)	4	6		2	16	2	15
Total		10		1	8	1	17

<sup>\*</sup> Includes Members of the Board of Directors (except for Independent Board Members), CFO, COO, Directors and Country Managers.

		2017		2018		2019	
Board of Directors by Gender and Age*	Female	e Male	Fema	ale	Male	Female	Male
Above 50 Years	1	2		1	3	1	5
Between 30-50 Years	(	) 5		0	4	0	2
Below 30 Years	(	) 0		0	0	0	0
Total (By Gender)	1	7		1	7	1	7
Total		8			8		8

 $<sup>^{*}</sup>$ Includes Independent Board Members.

	2	2017		2018		2019	
Newly-Recruited Employees by Gender and Age	Female	Male	Female	Male	Female	Male	
Above 50 Years	2	5	0	11	0	5	
Between 30-50 Years	13	64	12	93	5	45	
Below 30 Years	24	129	7	78	7	31	
Total (By Gender)	39	198	19	182	12	81	
Total		237		201		93	

	201	17	201	18	20	19
<b>Employees Resigned by Gender</b> and Age	Female	Male	Female	Male	Female	Male
Above 50 Years	0	20	1	15	0	6
Between 30-50 Years	20	229	6	151	4	72
Below 30 Years	3	83	13	99	1	27
Total (By Gender)	23	332	20	265	5	105
Total	3	55	2	85	1	10

10.98%

<sup>\*</sup> Calculation method for average number of employees: Total Number of Individuals Employed in 2019/12

2017	2018	2019
21,183	25,817	21,621
20.8	26.4	23.8
2017	2018	2019
2	1	2
11	11	10
	21,183 20.8	21,183 25,817 20.8 26.4

	2	2017		201	18	201	9
Parental Leave	Female	Male	Fema	le	Male	Female	Male
Number of Employees Taking							
Parental Leave	4	0		4	29	3	46
Number of Employees Returned to							
Work after Parental Leave	3	0		4	29	2*	46
Number of Employees Retained							
12 Months after Returning from							
Parental Leave				3	27	1**	38

<sup>\*</sup>Excludes one employee who is still on parental leave.
\*\*Excludes two employees, as the 12-month period has not elapsed yet after their return to work.

Subcontractors by Gender	2018	2019
Female	19	34
Male	749	466
Total	768	500

Occupational Health and Safety		2019
	Domestic	Overseas
Number of Employees	501****	406
Number of Accidents	5	3
Number of Fatalities	0	0
Number of Occupational Diseases	0	0
Number of Absentee Days*	2,237	-
Injury Rate (IR)**	0.41	0.12
Occupational Disease Rate (ODR)	0	0
Absenteeism Rate***	1.56	-

<sup>\*</sup> Absences other than paid leave, such as annual leave, maternity leave, paternity leave, compassionate leave and training leave. Indicates only domestic employee data.

"Injury Rate (IR) = [(Number of Accidents) / (Total Annual Working Hours (Person\*Hour))] x 100,000

"Absenteeism rate = [Number of Absentee Days / Total Annual Working Days Person\*Day)] x 100. Indicates only domestic employee data.

""Includes TRNC.

# ANNEX-1: UN GLOBAL COMPACT (UNGC) COMMUNICATION ON PROGRESS (COP)

Annex-1: UN Global Compact (UNGC) Communication on Progress (COP)

	Principles		Related Topic
HUMAN RIGHTS	Principle 1: Businesses should support and respect the protect of internationally proclaimed Human rights.	tion	Sustainability Approach Equal Opportunity and Diversity Human Rights Policy
	Principle 2: Make sure that they are not complicit in human righ abuses.		Sustainability Approach Equal Opportunity and Diversity Human Rights Policy
	Principle 3: Businesses should uphold the freedom of associat and effective recognition of the right to collective bargaining.		GRI Content Index Human Rights Policy
LABOR	Principle 4: Elimination of all for of forced and compulsory labor		Equal Opportunity and Diversity Human Rights Policy
	Principle 5: Effective abolition o child labor.	of	Equal Opportunity and Diversity Human Rights Policy
	Principle 6: Elimination of discrimination in respect of employment and occupation.		Employees Human Resources Policy Human Rights Policy
	Principle 7: Businesses should support a precautionary approat to environmental challenges.	ach	Environmental Sustainability Environmental Policy
ENVIRONMENT	Principle 8: Undertake initiatives to promote greater environmen responsibility.		Environmental Sustainability Climate Change and Energy Biodiversity Memberships and Supported Initiatives Contribution to Local Economy and Employment
	Principle 9: Encourage the development and diffusion of environmentally friendly technologies.		Sustainability Approach Climate Change and Energy Air Emissions Waste Management Water and Wastewater Management
ANTI-CORRUPTION	Principle 10: Businesses should work against corruption in all it forms, including extortion and bribery.	ts	Code of Ethics and Transparency Anti-Bribery and Anti-Corruption Policy



We developed the content of this Report in accordance with the GRI Standards 'Core' option requirements. The accuracy of the references for the General Disclosures between 102-40 and 102-49 is reviewed and confirmed based on the Turkish version of the Report by GRI within its Materiality Disclosures Service.

GRI STANDARD	DISCLOSURES	SECTION / ANSWER	PAGE NUMBER
<b>GRI 101: Foundation 20</b>	016		
General Disclosures			
	Organizational		
	Profile		
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	102 2	Production Portfolio	16-17
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	102 5	contact-us/	
	102-4	About Us	13
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	102-8	Employees	52-53
	102-0	Social Performance	65-67
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GRI 102: General		Employment	
Disclosures 2016	102-10	Developments in 2019	26-27
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		Sustainability Approach	28
	102-12	Memberships and Supported	36
		Initiatives	30
	102.12	Memberships and Supported	26
	102-13	Initiatives	36
	Strategy		
	102-14	Message from the Chairman and	0.10
	102-14	CEO	8-10
		Strategy and Objectives	20-24
		Developments in 2019	26-27
	102-15	Sustainability Approach	28-36
		Corporate Governance Structure	37
		Risk Management	40-41
	<b>Ethics and</b>		
	Integrity		
	102-16	Vision and Mission	18
	102-17	Code of Ethics and Transparency	38

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		Sustainability Management	30
		Corporate Governance Structure	37
	102-18	Annual Report 2019	https://629811665.r.radorecdn.net// media/7554/aksa-energy-annual- report-2019.pdf
		Sustainability Management	30
		Corporate Governance Structure	37
	102-19	Code of Ethics and Transparency	38
	102 13	Annual Report 2019	https://629811665.r.radorecdn.net// media/7554/aksa-energy-annual- report-2019.pdf
		Sustainability Management	30
		Corporate Governance Structure	37
	102-20	Annual Report 2019	https://629811665.r.radorecdn.net// media/7554/aksa-energy-annual- report-2019.pdf
		Sustainability Approach	28
		Sustainability Management	30
	102-21	Sustainability Material Topics	32
		Stakeholder Relations and Communication Channels	34-35
GRI 102: General Disclosures 2016	102-22	Annual Report 2019	https://629811665.r.radorecdn.net// media/7554/aksa-energy-annual- report-2019.pdf
		Corporate Governance Structure	37
	102-23	Annual Report 2019	https://629811665.r.radorecdn.net// media/7554/aksa-energy-annual- report-2019.pdf
	102-24	Annual Report 2019	https://629811665.r.radorecdn.net// media/7554/aksa-energy-annual- report-2019.pdf
		Sustainability Management	30
	102-26	Annual Report 2019	https://629811665.r.radorecdn.net// media/7554/aksa-energy-annual- report-2019.pdf
		Sustainability Management	30
	102-27	Annual Report 2019	https://629811665.r.radorecdn.net// media/7554/aksa-energy-annual- report-2019.pdf
		Sustainability Management	30
		Corporate Governance Structure	37
	102.20	Code of Ethics and Transparency	38
	102-29	Annual Report 2019	https://629811665.r.radorecdn.net// media/7554/aksa-energy-annual- report-2019.pdf

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	102-30	Risk Management	40-41
	102-31	Annual Report 2019	https://629811665.r.radorecdn.net// media/7554/aksa-energy-annual- report-2019.pdf
	102.22	Sustainability Management	30
	102-32	Sustainability Material Topics	32
		Sustainability Management	30
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	102-33	Stakeholder Relations and Communication Channels	34-35
		Memberships and Supported Initiatives	36
	102-35	Aksa Energy Remuneration Policy	http://www.aksainvestorrelations.com/ corporate-governance/remuneration- policy/
		Remuneration and Benefits	56-57
	102-36	Aksa Energy Remuneration Policy	http://www.aksainvestorrelations.com/ corporate-governance/remuneration- policy/
	102-38	Annual Report 2019	https://629811665.r.radorecdn.net// media/7554/aksa-energy-annual- report-2019.pdf
	Stakeholder Engagement		
102: General losures 2016	102-40	Stakeholder Relations and Communication Channels	34-35
		Memberships and Supported Initiatives	36
	102-41	No employee is covered by collective bargaining agreement.	71
		Sustainability Approach	28
	102-42	Sustainability Material Topics	32-33
	102 12	Stakeholder Relations and	34-35
		Communication Channels Sustainability Approach	28
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	102-44	Sustainability Material Topics	32-33
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	Practice		
	102-45	Annual Report 2019	https://629811665.r.radorecdn.net// media/7554/aksa-energy-annual- report-2019.pdf
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	102-46	Sustainability Approach	28
		Sustainability Material Topics	32-33
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		Emissions sourced from internal	
		consumption of the electricity	
		generated at power plants are	
	102-48	excluded from Scope 2 emissions	72
	102-48	to rectify the double-counting in	/ 2
		previous years. Steam power is also	
		included in calculation of the total	
		energy production.	
GRI 102: General	102-49	Sustainability Material Topics	33
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	102-52	Annual	72
	102-53	About This Report	Inside Front Cover
	102-54	About This Report	Inside Front Cover
	102-55	GRI Content Index	69
	102-56	No external assurance service has	72
		been received for the report.	/ 2
<b>GRI 200: Economic Stand</b>	dard Series		
<b>Economic Performance</b>			
	103-1	Strategy and Objectives	20-24
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GRI STANDARD Anti-Corruption	DISCLOSURES	SECTION / ANSWER	PAGE NUMBER
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	103-1	Anti-Bribery and Anti-Corruption Policy	http://www.aksainvestorrelations.com/ corporate-governance/anti-bribery-and- anti-corruption-policy/
		Code of Ethics and Transparency	38
GRI 103: Management Approach 2016	103-2	Anti-Bribery and Anti-Corruption Policy	http://www.aksainvestorrelations.com/ corporate-governance/anti-bribery-and- anti-corruption-policy/
		Ethical Principles	http://www.aksainvestorrelations.com/corporate-governance/ethical-principles/
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	103-3	Anti-Bribery and Anti-Corruption Policy	http://www.aksainvestorrelations.com/ corporate-governance/anti-bribery-and- anti-corruption-policy/
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		Also Francis Board of Directors	http://www.aksainvestorrelations.com/
		Aksa Energy Board of Directors	about-aksa-energy/board-of-directors/
	405-2	There is no gender discrimination	<i>J</i>
		in remuneration. Remuneration is	75
		based on performance.	
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