



Eco Friendly Energy
NATURAL GAS



About Kazancı Holding

Kazancı Holding has always been a leader in the energy industry with its genset production, natural gas distribution, power generation, electricity distribution and sales operations, in addition its sharp focus on customer satisfaction and trust.



7.539
Employees



TL 9.7 Billion
Turnover



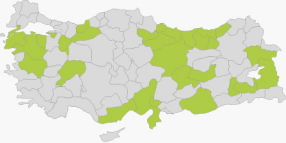
21 Countries
Operations

With foundations dating back to the 1950s, Kazancı Holding ranks among the leading companies of the energy sector. The Group started genset manufacturing in the 1980s and went on to build an integrated structure in the energy industry. Kazancı Group reached new levels in its vertical and horizontal integration efforts by establishing power plants and commencing electricity generation in the 1990s and setting up natural gas distribution operations in the 2000s. In 2010, the Group entered electricity distribution. Today, Kazancı Holding engages in production on four continents, employs over 7 thousand staff from 74 countries, conducts operations in 21 countries and exports products to over 160 countries around the world.



AKSA DOĞALGAZ

- 2.5 million subscribers
- 8.9 billion m³ of natural gas distribution



■ Aksa Doğalgaz Distribution Areas

www.aksadogalgaz.com.tr

AKSA TOURISM

- 687 room capacity
- 1,433 bed capacity

www.kazanciholding.com.tr/tr/AksaTurizm.aspx

AKSA ELECTRICITY

- 7.5 TWh electricity sales and 6.02 TWh of electricity distribution in 101 districts
- Serving more than 36 million persons via distribution and retail sales companies



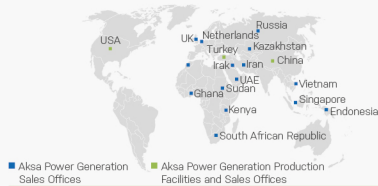
■ Aksa Electricity Sales Regions
■ Çoruh Electricity Distribution Regions/Çoruh Electricity Retail Sales Regions
■ First Electricity Distribution Regions/First Electricity Retail Sales Regions

www.aksaelektrik.com.tr

With foundations dating back to the 1950s, Kazancı Holding has always been committed to customer satisfaction and trust during its history that spans over half a century.

AKSA POWER GENERATION

- One of the world's top five genset manufacturers
- 50% of production exported



www.aksa.com.tr

AKSA AGRICULTURE

- 18 thousand tons milk production
- 31 thousand tons corn production for silage

www.aksatarim.com

AKSA ENERGY

- Energy production in five countries on two continents with 2,236 MW installed capacity
- Turkey's largest independent power producer listed on the stock exchange



■ Aksa Energy Production Facilities

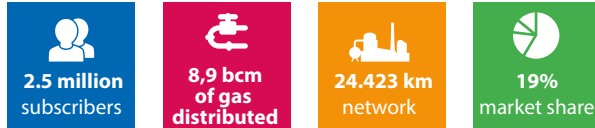
www.aksaenerji.com.tr

Aksa Natural Gas Distribution

In 2017, Aksa Doğalgaz invested a total of TL 469 million, bringing its cumulative direct investment up to TL 2.25 billion. The total size of the network has climbed to 24,423 km.

Aksa Doğalgaz was established in 2002 in light of the government's decision to support the distribution of natural gas by the private sector and to mitigate the air pollution caused by urbanization. Aksa Doğalgaz started its first natural gas distribution operation in the Balıkesir region. As of end-2017, the Company holds licenses from the Energy Market Regulatory Authority for 21 regions across Turkey.

Aksa Doğalgaz commenced natural gas distribution operations in the 277 cities, 167 districts with:



Aksa Doğalgaz boasts the widest aggregate geographic distribution area in the sector and serves a total of 15 million persons. In 2017, Aksa Doğalgaz invested a total of TL 469 million, bringing its cumulative direct investment up to TL 2.25 billion. The total size of the network has climbed to 24,423 km.

Shaping its operations in line with the core principle of top quality service, Aksa Doğalgaz undertakes swift investments in every region where it is responsible for natural gas distribution. The Company completed the obligatory investments in its distribution regions well before the statutory deadlines and provided the comfort and convenience of natural gas to its subscribers.

Boasting the most specialized staff in the sector, Aksa Doğalgaz is committed to keeping customer satisfaction at the highest level and continuously improving its service quality. In line with this vision, the Company provides solutions 24/7 to meet its subscribers' demands via the Alo 187 Emergency and 444 4 187 Customer Service hotlines. The Aksa Solution Center is seen as a pioneer and model in the sector thanks to its internationally recognized advanced technology and software infrastructure, state-of-the-art physical environment and high quality service.

In 2017, Aksa Doğalgaz distributed a total of 8.9 billion m3 of gas in its distribution areas and recorded turnover of TL 2.9 billion. The Company ranked 49th in Fortune 500's "Turkey's Largest Companies" list. In 2018, the Company aims to deliver a total of 9.63 billion m3 of natural gas with the completion of new production facilities and investments in its license areas.




2002

Aksa Natural Gas was established in 2002 in light of the government's decision to support the distribution of natural gas by the private sector and to mitigate the air pollution caused by urbanization.

TL 469 MILLION

Aksa Doğalgaz undertook direct investments totaling TL 469 million in 2017.

Aksa Natural Gas Operations Map


2.5 million
Subscribers


27 Provinces
167 Districts


21 Operating
Regions



Aksa Doğalgaz was established in 2002 as an umbrella company after the government committed to a national policy of spreading the use of natural gas, a safe and clean fuel, as an economically sound alternative for preventing air pollution caused by urbanization. Aksa Doğalgaz serves 2.5 million subscribers in 21 of the 72 license regions in Turkey.

Shaping its operations in line with the core principle of top quality service, Aksa Doğalgaz under-takes swift investments in every region where it is responsible for natural gas distribution. The Company completed most of the compulsory capital investments in its distribution areas prior to the legally prescribed deadlines, and swiftly delivered natural gas to its subscribers.

Aksa Doğalgaz commenced natural gas distribution operations in the Balıkesir region, and currently operates via its subsidiaries in the 21 regions for which it has acquired the necessary licenses from the Energy Market Regulatory Authority. The Company stepped up its investments in the Ağrı and Doğubayazıt license regions, which were the most recent areas to join its distribution network in 2016, and started to deliver natural gas to residents with the distinctive service quality of Aksa Doğalgaz.

Aksa Doğalgaz provides services to the widest geographic area in the sector in the 27 provinces and 167 districts and neighborhoods located within the 31 provinces covered by its license. With this vast scope of business activities, Aksa Doğalgaz is Turkey's largest private natural gas distribution company. The Company aims to deliver its top-quality service to other Turkish regions that have yet to receive natural gas services.

Aksa Doğalgaz expanded its distribution network to 24 thousand meters at end-2017 via carefully planned capital investments. The Company aims to add an additional 4,100 km to its natural gas network with an investment budget of TL 549 million in 2018.

Key Indicators of the Distribution Companies

Distribution Company	Number of Subscribers (BBS)	Number of Houses (Houses)	Net Sales	Consumption (m3)	Workforce*	Network Length (km)
Aksa Afyon Doğalgaz Dağıtım A.Ş.	85.958	73.116	112	108.697.436	108	1.116
Aksa Ağrı Doğalgaz Dağıtım A.Ş.	2.360	256	6	8.590.065	25	63
Aksa Balıkesir Doğalgaz Dağıtım A.Ş.	135.001	111.051	127	160.258.888	68	1.015
Aksa Bandırma Doğalgaz Dağıtım A.Ş.	54.998	49.554	58	1.557.315.658	41	356
Aksa Bilecik Bolu Doğalgaz Dağıtım A.Ş.	149.536	122.492	294	819.269.642	160	1.579
Aksa Çanakkale Doğalgaz Dağıtım A.Ş.	136.573	115.535	126	273.338.216	116	1.061
Aksa Düzce Ereğli Doğalgaz Dağıtım A.Ş.	139.648	125.752	197	689.968.590	108	2.247
Aksa Elazığ Doğalgaz Dağıtım A.Ş.	146.413	126.034	144	157.214.303	73	1.093
Aksa Gaz Dağıtım A.Ş.	379.908	306.173	396	2.081.782.818	303	4.744
Aksa Gemlik Doğalgaz Dağıtım A.Ş.	35.825	32.413	34	119.533.923	38	278
Aksa Gümüşhane, Bayburt Doğalgaz Dağıtım A.Ş.	32.306	22.957	41	37.760.735	43	393
Aksa Karadeniz Doğalgaz Dağıtım A.Ş.	130.976	101.836	124	159.248.464	109	777
Aksa Malatya Doğalgaz Dağıtım A.Ş.	191.312	154.729	198	230.402.923	83	1.382
Aksa Manisa Doğalgaz Dağıtım A.Ş.	147.735	127.468	190	563.661.084	99	1.129
Aksa Mustafakemalpaşa Susurluk Karacabey Doğalgaz Dağıtım A.Ş.	49.597	45.885	76	132.099.096	56	553
Aksa Ordu Giresun Doğalgaz Dağıtım A.Ş.	108.733	94.176	120	933.208.412	118	1.048
Aksa Siirt-Batman Doğalgaz Dağıtım A.Ş.	81.446	69.176	74	101.727.939	76	684
Aksa Sivas Doğalgaz Dağıtım A.Ş.	145.748	120.480	156	177.290.863	118	.320
Aksa Şanlıurfa Doğalgaz Dağıtım A.Ş.	113.846	83.979	140	281.708.434	80	800
Aksa Tokat, Amasya Doğalgaz Dağıtım A.Ş.	182.213	152.643	179	227.651.433	127	1.897
Aksa Van Doğalgaz Dağıtım A.Ş.	85.650	60.169	99	102.262.685	57	890
TOTAL	2.535.782	2.095.874	2.891	8.922.991.607	2.006	24.423

* *The workforce numbers do not include outsourced personnel.

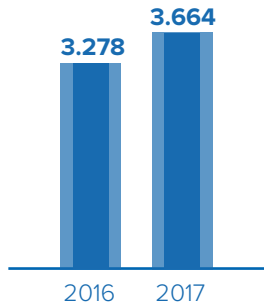
Financial and Operational Indicators

Leaving behind a financially successful year, Aksa Doğalgaz posted TL 169 million in net profit in fiscal year 2017. During the same period, the total assets of the Company increased 12% to TL 3.7 billion.

Financial Indicators (TL Million)	2016	2017	Change (%)
Net Sales	2,580	2,890	12%
Total Assets	3,278	3,664	12%
Total Investments	365	469	29%
Gross Profit for the Period	211	334	58%
Operating Costs	201	264	31%
EBITDA	269	390	45%
Net Profit for the Period	136	169	24%

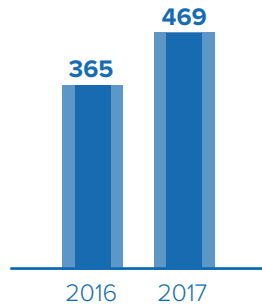
Total Assets (TL Billion)

+%12 Growth



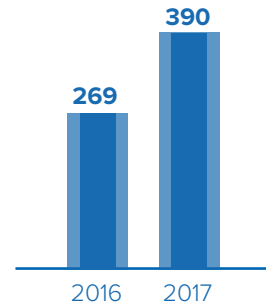
Total Investments (TL Million)

+%29 Growth



EBITDA (TL Million)

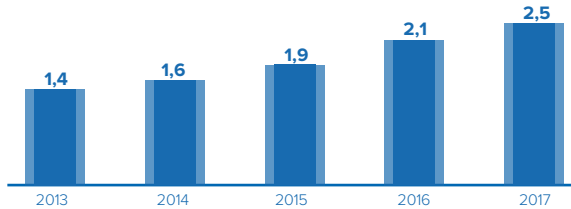
+%45 Growth



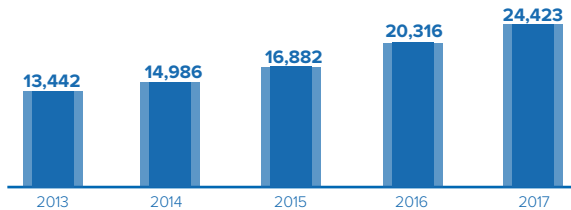
Financial and Operational Indicators

Aksa Doğalgaz ranked 49th in Fortune 500's "Turkey's Largest Companies" list (EBITDA).

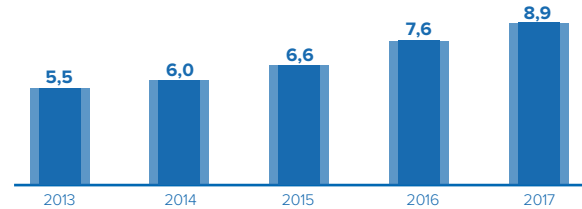
Number of Subscribers (Million) Change (2012->2021)
+%81 Growth



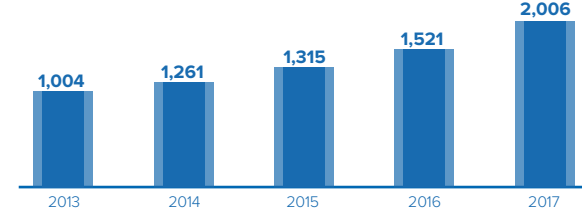
Network Length (Thousand km) Change (2012->2021)
+%82 Growth



Consumption (bcm) Change (2012->2021)
+%64 Growth



Headcount (Thousand) Change (2012->2021)
+%98 Growth



Natural Gas Wholesales

Aksa Doğalgaz Toptan Satış A.Ş. was established on October 19, 2006 following the enactment of Law No. 4646 on the Natural Gas Market. The Law was passed to grant an unfettered and transparent structure to the natural gas market, in order to deliver high quality, continuous and economical natural gas to consumers in line with the principles of free competition and environmental protection. The Company engages in wholesale operations in the natural gas sector.

By winning the tender held on January 12, 2007 by Turkish Petroleum (Türkiye Petrolleri Anonim Ortaklığı – TPAO), the Company obtained the right to sell the natural gas produced at the Akçakoca-Çayağzı Natural Gas production facilities from Turkey's own resources for a three-year period. On May 23, 2007, with the commissioning of the TPAO Akçakoca Çayağzı production facility, Aksa Doğalgaz Toptan Satış A.Ş. became the first Turkish company to engage in wholesale natural gas activities in Turkey. Aksa Doğalgaz Toptan Satış A.Ş. has diversified its supply sources over time as a result of its proactive and market-oriented strategies.

Aksa Doğalgaz Toptan Satış A.Ş. engaged in supply and resource planning efforts prior to 2017, reaching agreements for medium term natural gas procurement from different sources and methodologies. The Company also signed the necessary agreements for the sale of natural gas extracted by TPAO in the Adana Paşaoğlu field and started operations in early 2017. In consideration of market risks, production volumes were decided to be kept at a lower level. In 2017, the natural gas trade amounted to a total of 200 million m3.

Aksa Doğalgaz Toptan Satış A.Ş. plays an active role in all market-related activities in order to help create and develop a free market in natural gas. The Company has obtained a stake in the Energy Exchange Istanbul (EPIAŞ), which was established to this end. The Company will continue its efforts as an active player of the continuous trade platform which will also host free market transactions. The company aims to source inexpensive natural gas from overseas and supply it to domestic customers, in the event a competitive market is created and natural gas imports are liberalized.



Aksa Doğalgaz Toptan Satış A.Ş. plays an active role in all market-related activities in order to help create and develop a free market in natural gas.

Technology Management and Investments

With its comprehensive investments and systems, Aksa Doğalgaz significantly contributed to the sector by providing new solutions and tapping into domestic resources.



Placing a special focus on identifying technological needs and formulating accurate solutions, Aksa Doğalgaz is committed to operating all systems in an integrated manner at the product selection and design stage and maintaining information security. In order to improve processes and diversify services provided to subscribers, the Company assesses its needs by using advanced technology products based on cost-benefit optimization results.

Aksa Doğalgaz believes in the importance of staying up-to-date and ensuring development through continuous improvement and change. As a result, the Company closely monitors emerging state-of-the-art technologies. Since its first natural gas delivery in 2005, the Company has attached great importance to network management automation efforts and built the necessary systems infrastructure for this purpose. Aksa Doğalgaz engages in long

term collaborations with specialized technology firms and contributes to the industry by providing new innovative solutions and tapping into domestic resources thanks to its comprehensive investments and systems

Aksa Doğalgaz's distribution companies shifted to EMRA's new Natural Gas Distribution Sector Regulatory Account Plan as of January 1, 2017 and harmonized their tariff methodology with the referenced scheme. This account plan allows for the practical filtering from accounting records of data required in tariff determination; the presentation of data necessary for audit and supervision in a verifiable and auditable fashion; in addition to a standard and classified organization of financial analysis, risk analysis and productivity analysis information.

Aksa Doğalgaz employs SAP in its basic enterprise resource planning (ERP) systems, which include accounting, finance, maintenance, stock management and procurement.

The FIORI project, initiated in 2017 and completed at end-2017, enabled the Company to conduct maintenance management and reporting in a more efficient manner, allowing senior management to analyze and manage the field with a continuous data flow. After the launch of the software, Aksa Doğalgaz established a uniform procedure for the maintenance and repair activities of all distribution companies. The Company also ensured asset update and deduplication via CBS integration. Real-time follow-up of planned maintenance activities, breakdown records and material consumption keep maintenance and warehouse stocks up-to-date. In addition, this approach creates a productive, reportable and transparent work follow-up scheme which optimizes service

Technology Management and Investments

quality and security. Moreover, it contributes to the Company's Paper-free Office efforts with a view to reducing paper consumption. Document management system integration, as part of the Subscriber Information System enhancement efforts, prevents the Company from demanding the same document again from subscribers and reduces paper consumption. The system integration also keeps subscribers' documents in the digital archive to lessen the physical archive workload and complete any lacking parts of the subscriber documents.

SAP inventory meter delivery integration has made it possible to track the meter lifecycle from beginning to end and to prevent possible difficulties related to meter delivery procedures. SAP banks receivables integration, realized under the Company's 2017 upgrade efforts, enabled monitoring of the receivable return process, reporting of the processes independently of employees, and managing of processes solely via systems. Furthermore, upgrades were completed to reduce payments made by the Company to banks per transaction by executing transactions wholesale. These efforts yielded savings in labor, time and cost, while reducing paper consumption equivalent to two mature trees. In 2018, with the E-State Integration of the Subscriber Information System, Aksa Doğalgaz will work to ensure that subscribers can conduct their transactions securely over the Internet as an alternative channel without having to come to company offices, and thus reduce subscriber traffic in the branches.

In the coming year, the Company also plans to: transfer the meter reading and subscriber work order application over to new generation Android handheld terminals; upgrade the technologies



and techniques used; realize field meter reading operations by means of new methods outside the conventional ones; simplify and accelerate the procedures; enhance user – system interaction to facilitate mutual communication; and thus arrive at a monitorable structure where continuous improvements take place.

IBM Cognos TM1 software was acquired to analyze budget and planning processes according to new scenarios, and enhance predictability and reliability for consolidation of the Group, which has a large number of distribution companies. In its infrastructure information systems (CBS/GIS), the Company opts for ESRI, one of the most advanced products in this field. Day-to-day field measurements are marked directly on this system.

Technology Management and Investments

Manufacturing data for the same day (e.g. installation date/contractor/brand and type of the material used) are also recorded in the database in association with the graphics. All inquiries and work follow-up can be performed over mobile devices. The Company's subscriber management system is ATOS ABYS.

In 2017, a new infrastructure was established so that field teams can conduct meter reading, work order, urgent warning management and other processes via up-to-date mobile software, eliminate the system's dependence on industrial products, and manage it by using ergonomic devices.

The Customer Relations Management (CRM) system in place is Microsoft Dynamics. The Shipment Control Center completed its transition to new software, with the new systems Iconics Genesis 64 and Schneider Citect SCADA employed simultaneously. Work to expand Genesis 64 across distribution regions is now complete; in three months, it will start to operate as a single active system. The SCADA project is also a crucial component of the Company's digital transformation process.

The 3D-supported drawing platform – the first of its kind in the sector – coupled with IoT support, data analysis, advanced report structure, effective alarm status management, trend support for practical data visualization, and other such developable additional modules have allowed for the creation of a robust systems infrastructure. These advanced technology efforts also drew significant interest in the international arena in 2017, and were highly appreciated at the Microsoft Technology Summit and at an automation workshop in Boston where they were showcased.

Across the organization, great importance is attached to managing all procedures in line with defined processes. Aksa Doğalgaz has acquired Paperwork software as its process and document management system and uses it efficiently. In 2017, projects were prepared to manage digital and print archives from a single center.



To meet the requirements of BOTAŞ's automation specification which was updated in 2017, the Company reached an agreement with the British firm Swinton to jointly develop a product that has received full approval. As such, a significant contribution was made to the natural gas expansion drive in 2017, with entrance stations providing natural gas to multiple cities established in a short span of time.

Technology Management and Investments

All data in the Shipment Control Center is communicated in real time, automatically, at an accuracy rate of almost 100% to the Electronic Bulletin Table system, within the deadlines indicated by BOTAŞ Transmission Network Operation Regulations (ŞİD).

Alarm Management is implemented in line with the criteria and levels set out in the Emergency Action Plan. Service is delivered via a web portal where customers can keep track of the data. The necessary intervention systems have been set up for management of the network, in line with technical and method requirements.

Mobile platforms top the agenda of the Shipment Control Center upgrade project. With the launch of the new software, the Company will start to use customizable applications which run on all types of mobile devices and that can be easily configured according to one's needs.

Aksa Doğalgaz has reached an agreement with Turkcell related to the disaster recovery center which will ensure the system's continuity in case of a disaster. The Company also completed work on satellite communication solutions to ensure communication backup in regions that lack terrestrial lines. Across the organization, great importance is attached to managing all procedures in line with defined processes.

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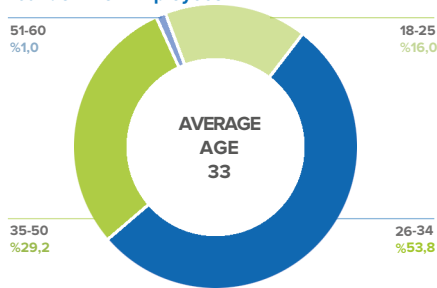
The Company has installed special illegal gas usage detection devices on four monitoring vehicles that run along the steel and PE natural gas distribution lines and at all A, B, and C-type pressure reduction and measurement stations of Aksa Doğalgaz's 21 natural gas distribution companies. The Company also uses handheld detection devices employing optic sensor technology to check for unauthorized gas use. These efforts cover a total distance of 100 thousand km, twice a year, to check for any illegal gas usage. All findings are reported in detail.



Human Resources

Accounting for 24% of total employment in the natural gas distribution sector, Aksa Doğalgaz strives to reach its corporate objectives driven by a strong sense of team spirit that is based on the power of solidarity, thanks to its dedicated staff, and the importance it places on employees' families.

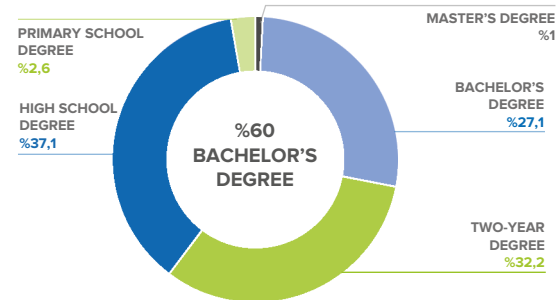
Age Breakdown of Employees



Gender Breakdown of Employees



Education Breakdown of Employees







Eco Friendly Energy NATURAL GAS



**Natural Gas
does not harm the
environment**

It, containing scarcely any sulfur or organic compounds of sulfur, is cleaner than other fuel types. Therefore, it does not pollute the atmosphere.



**Natural Gas
is clean**

When it burns, it does not leave ash or residue behind. It does not cause environmental pollution, unlike petroleum products and coal.



**Natural Gas
is efficient**

Its combustion efficiency is high. Modern natural gas burners, that can perform fast heat transfer, using programmable automatic control systems could conserve energy.



**Natural Gas
is healthy**

It is nonpoisonous and does not harm human health. It does not contain sulfur, unburned gas, soot or fly ash particles.