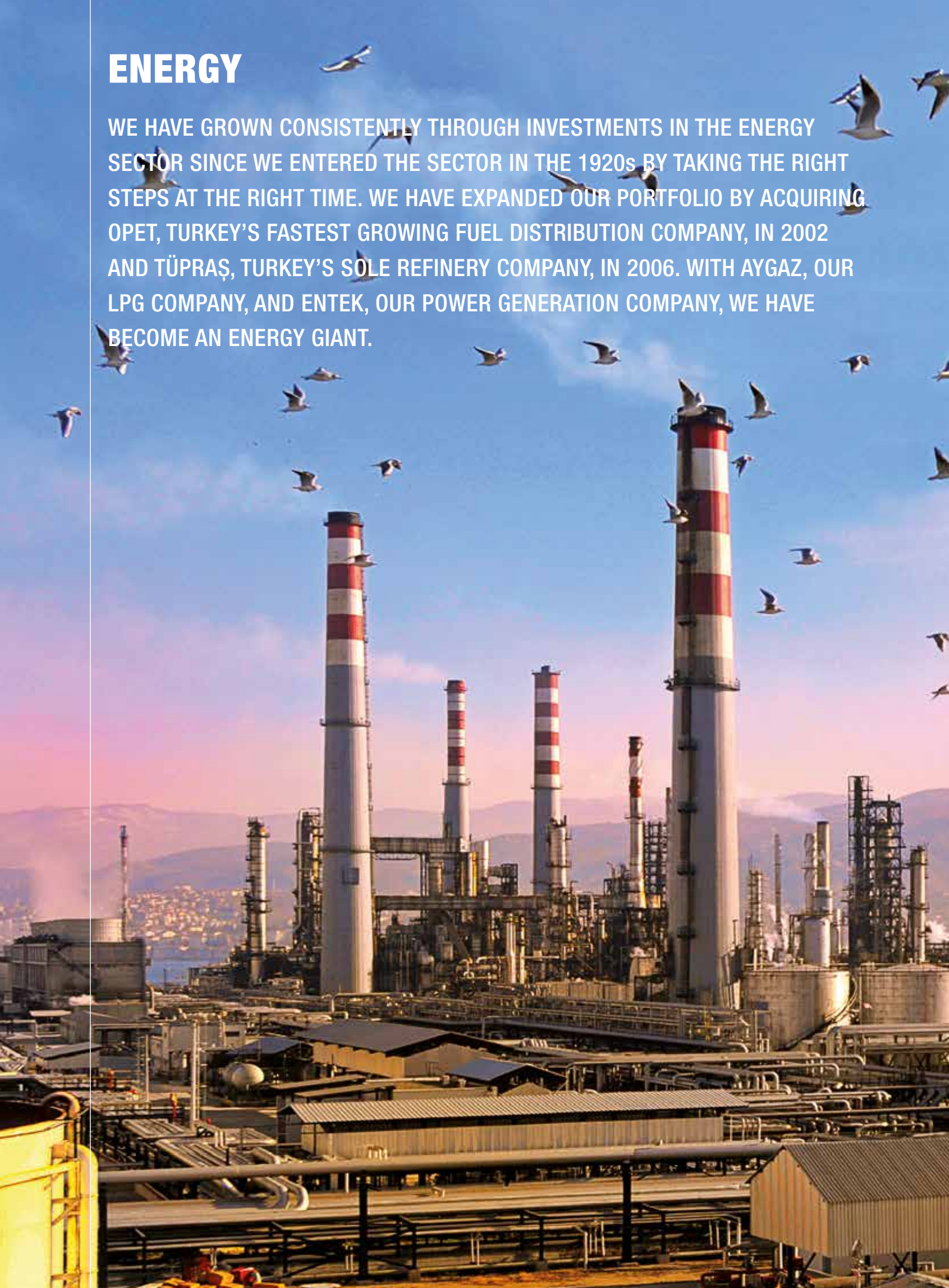


# ENERGY

WE HAVE GROWN CONSISTENTLY THROUGH INVESTMENTS IN THE ENERGY SECTOR SINCE WE ENTERED THE SECTOR IN THE 1920s BY TAKING THE RIGHT STEPS AT THE RIGHT TIME. WE HAVE EXPANDED OUR PORTFOLIO BY ACQUIRING OPET, TURKEY'S FASTEST GROWING FUEL DISTRIBUTION COMPANY, IN 2002 AND TÜPRAŞ, TURKEY'S SOLE REFINERY COMPANY, IN 2006. WITH AYGAZ, OUR LPG COMPANY, AND ENTEK, OUR POWER GENERATION COMPANY, WE HAVE BECOME AN ENERGY GIANT.



WE PLAN TO MAINTAIN INVESTMENTS TO CREATE MAXIMUM VALUE FOR TURKEY AND OUR SHAREHOLDERS FOR THE FORESEEABLE FUTURE. WE WILL ALSO FOCUS MAXIMIZING OPERATIONAL PERFORMANCE. TÜPRAŞ AIMS TO BE IN THE TOP QUARTILE AMONG REFINERIES WORLDWIDE, IN TERMS OF TECHNICAL AVAILABILITY, ENERGY INTENSITY, AND OPERATING COSTS EFFICIENCY INDICES.

## GLOBAL ENERGY CONSUMPTION IS EXPECTED TO RISE BY OVER 40% BY 2035.

### Developments in the petroleum sector in 2013

The price of oil was US\$ 113/barrel at the beginning of 2013 and fluctuated throughout the year in response to economic and geopolitical developments. The year closed with oil prices at US\$ 110/barrel. Globally, the economic growth rate of 2.9% had a positive impact on the world's oil demand, with consumption rising by 1.2% to 91 million barrels/day.

Mediterranean refining margins weakened in 2013 on the following factors: Demand in Europe for oil products declined; US refineries using the advantage of lower oil price and energy costs operated at greater capacity utilization; heavy oil became relatively more expensive due to the closing of the price differential between heavy and light crude oil; and global refineries shut down for maintenance less than they had done in 2012. This excess of production, combined with weak demand from Europe due to recession, put downward pressure on Mediterranean refinery margins.

Competition in the domestic oil distribution sector intensified in 2013 and the number of gas station contract renewals rose. The diversity and quality of products and services grew. Regulations

were changed, requiring preparations for their implementation to be made. Measures taken before 2013 against illegal fuels (particularly the use of No. 10 oil as fuel), resulting unfair competition, began to pay off. However, there were still distributors competing unfairly by, for example, mixing VAT-exempt jet fuel with diesel and not paying VAT on imported products. New regulations addressed these issues for the most part but some regulations created additional burdens for honest companies.

Another important development was the TL 659-million fine the Energy Market Regulatory Authority (EMRA) imposed on the entire sector for deficiencies in the automation systems required at stations.

In terms of volume, there was a growth of 6.4% in white products (gasoline and diesel) and a decline of 11% in black products (fuel oil and heating oil) in 2013 compared to those of 2012.

### LPG sector developments in 2013

Internationally, the LPG sector grew in 2013, with consumption rising by 1.8% to 264 million tons. Natural gas production increased 1.9% in the year and LPG production rose by 3.1% to 274 million tons.

Domestic use of LPG, which makes up 45% of global consumption, increased by 1% but the largest increase in consumption was in industrial use, which rose 22%. Meanwhile, autogas use remained at last year's 24 million-ton level.

In the near future, propane supply is expected to grow, leading a decline in LPG supply prices.



LPG consumption in Turkey in 2013 was 3.7 million tons, a level that ranks it 15<sup>th</sup> worldwide and 2<sup>nd</sup> in Europe, behind Russia. 73% of consumption was in the form of autogas, while 23% was cylinder gas, which is used in nearly 8 million Turkish homes and businesses.

Autogas consumption in Turkey, Europe's 2<sup>nd</sup> largest autogas market, grew by 1.2% in 2013 to 2.7 million tons. Turkey makes up 11.3% of the world autogas market. It ranks 1<sup>st</sup> in the world in the number of vehicles which uses autogas and 2<sup>nd</sup> in level of consumption.

With the general increase in natural gas subscribers in Turkey, the use of cylinder gas continues to decline. According to EMRA 2013 data, the cylinder gas market contracted by 5.4%; However, Turkey is still Europe's 5<sup>th</sup> largest market. The bulk gas market continued to shrink in 2013.

### Electricity sector developments in 2013

Paralleling economic growth, Turkey's consumption of electricity increased 1.4% to 245 TWh. Investments in the sector continued unabated and the amount of installed power rose by approximately 7,000 MW to 64,000 MW.

The eligible customer limit, which gives electricity consumers the right to choose providers, was set at 5,000 kWh/year in 2013. Distribution privatizations were completed with all distribution regions transferred to the private sector. Production plants by the Electricity Generation Company (EÜAŞ) continued to be privatized. Seyitömer, Kangal and Hamitabad thermal power plants were transferred to the private sector. The Energy Market Regulatory Authority (EMRA) continued to restructure regulations. The Electricity Market Law No. 6446, issued in March, was the most important development in 2013. The new law calls for the

establishment of a company, the Enerji Piyasaları İşletme A.Ş. (EPIAŞ, Energy Markets Administration A.Ş.), to operate the Energy Exchange with the intent of creating a more liberal and transparent electricity market.

### Koç Holding Energy Group

In the highly competitive petroleum sector, Tüpraş strives to produce value for its shareholders and Turkey. One way of doing this is by raising product efficiency in the light of demand. Tüpraş aims to be in top quartile among global refineries, in terms of technical availability, energy intensity, and operating costs efficiency indices.

In 2013, Tüpraş spent US\$ 2.29 billion of the US\$ 2.7 billion allocated for the Residuum Upgrade Project and brought it to 91.3% of completion. Once it is finished, Turkey's net annual energy imports will decline by US\$ 1 billion. As a result of the policy of optimum production and the use of upgrading units, white product yield increased by 2% at Tüpraş in 2013.

Through its excellence in service approach, Opet aims to be the consumer's first preference. Despite limited growth in the white product market in 2013, Opet raised its sales volume by 10%.

According to EMRA data, Aygaz maintained a clear lead in the LPG sector with a 28.7% market share. The Aygaz Group has a total market share of 42.6% in the cylinder gas market. It increased its market share of autogas to 24.3%, an increase of 1.2pps in the year. Moreover, it has maintained its market leadership with the highest market share in the last 7 years.

AES Entek's sales revenues rose 11% as a result of its acquisition of the 62 MW Damlapınar, Kepezkaya and Kumköy hydroelectric power plants.



WITH ITS ADDED VALUE AND THE REVENUES FROM ITS 28.1 MILLION-TON ANNUAL CRUDE OIL PROCESSING CAPACITY, TÜPRAŞ IS TURKEY'S LARGEST INDUSTRIAL COMPANY.

## TÜPRAŞ

### Total Revenues

(TL million)

# 41,078

### Domestic Market Position

Turkey's sole oil refining company

**60%** market share in petroleum products market, including gasoline, diesel fuel and jet fuel

### International Market Position

Europe's **7<sup>th</sup>** and the world's **28<sup>th</sup>** largest refining capacity

### Share of International Revenues

**19%**

### Profit Before Tax

TL **13** million

### Net Income

TL **1,197** million

### Shareholder Structure

Enerji Yatırımları A.Ş. **51.00%**

Free Float **49.00%**

[www.tupras.com.tr](http://www.tupras.com.tr)

Tüpraş, Turkey's sole oil refiner, operates four refineries in Izmit, Izmir, Kırıkkale and Batman, with a total annual crude oil processing capacity of 28.1 million tons. It is Turkey's largest industrial company by revenue and added-value generated. As Europe's 7<sup>th</sup> largest refining company, Tüpraş is among the most complex refiners in the Mediterranean region, with a Nelson Complexity Index of 7.25.

### Strategy

Aware of ever rising competition within the sector, Tüpraş aspires to the highest level of operational excellence to maximize value for Turkey and the Company's shareholders. To accomplish this; Tüpraş targets to be in top quartile among refineries worldwide, in terms of technical availability, energy intensity, and operating costs efficiency indices.

**As result of Tüpraş's optimum production policy and its effective use of conversion units, the Company achieved a 2% increase in white product yield in 2013.**

Under its inventory production optimization programs, the Company's achieved a capacity utilization rate of 79.1% and a 2% efficiency increase in the production of white products. The Company supplied 19.2 million tons of products domestically and exported 4.8 million tons. Sales totaled 24.1 million tons.

**Residuum Upgrade Project 91% complete: It will be operational in November 2014**

Investments in the Residuum Upgrade Units reached US\$ 2.29 billion by the end of 2013. These units will enable about 4.2 millions of tons of heavy fuel oil products, for which demand has fallen in recent years, to be converted into about 3.5 million tons of more valuable and more environmentally friendly white products, mostly Euro V diesel.

The US\$ 2.7-billion Residuüm Upgrade Project will put the Izmit Refinery into an elite league of refineries in global terms of complexity and it will create significant added value for the country's economy. All of the main equipment is at the construction site and its assembly is nearly complete. As of the end of 2013, 91.3% of the project had been completed.

### Strong corporate governance

Tüpraş raised its rating on the Borsa İstanbul (BIST) corporate governance index to 9.34 in 2013, up from 7.91 in 2007, when the index was first introduced. The Company has consistently ranked at the top of the index.

Conducting all its activities within the framework of the Basic Quality Management Systems, Tüpraş added the ISO 50001:2011 Energy Management System and the ISO/IEC 27001:2005 Information Security Management System in 2013 to its existing ISO 9001, ISO 14001 and OHSAS 18001 Quality Management Systems.

Essential for its innovative leadership and strong global competitive strength, Tüpraş conducted R&D activities under three main headings in 2013: innovation management, product development, and process development. As a result of TL 32.5 million R&D expenditures it made in 2012, Tüpraş raised its ranking among companies from 14<sup>th</sup> in 2011 to 9<sup>th</sup> in 2012, according to official R&D expenditure disclosures. In 2013, it worked on 40 projects, 16 of which were approved by Tübitak and EU R&D funds.

### Awards and achievements

- 1<sup>st</sup> on Istanbul Chamber of Commerce (ISO) 500 Companies, Fortune 500 and Capital 500 listings
- Turkey's 2012 export champion
- 3<sup>rd</sup> in the BIST Corporate Governance Index with an overall score of 93.43 and 1<sup>st</sup> in the Board of Directors category with a score of 97.82
- 1<sup>st</sup> in the Industrial Enterprises Above-the-Line Sectoral Performance Assessment Organization; The continuity award in 2013
- In Aegean Region Chamber of Industry (EBSO) rankings:
  - 1<sup>st</sup> among companies in production value, exports, employment and best environmental practices
  - 2<sup>nd</sup> in the category of corporate social responsibility in the area of the environment
  - 3<sup>rd</sup> in the category of EBSO companies with the highest amount of investment
- Energy-Oil sector Entrepreneur of the Year - the METU Young Entrepreneurs Society
- Batman Refinery named the Cleanest Industrial Facility

### MARINE TRANSPORT: DİTAŞ

Ditaş, a 79.98%-owned subsidiary of Tüpraş, provides crude oil and petroleum products logistics and transportation services to Tüpraş. In 2013, it carried 9.5 million tons of Tüpraş's cargo - 6.4 million tons of crude oil and 3.1 million tons of refined products. Ditaş's tanker fleet, which started operations in 1974, now includes the 164.85 DWT Cumhuriyet crude carrier, the 10.9 DWT Sevgi and Gönül, the 6.3 DWT Leyla and the 51.5 DWT Suna petroleum products/chemical tankers, and vessels on time lease. In addition, Ditaş provides pilotage, tugboat and mooring services with 11 tugboats and seven mooring boats.



CUSTOMER SATISFACTION  
LEADER FOR 8 CONSECUTIVE  
YEARS IN TURKEY'S PETROLEUM  
DISTRIBUTION SECTOR.

## OPET

### Total Revenues

(TL million)

17,846

### Domestic Market Position

2<sup>nd</sup> in white products with a **19.1%** market share

2<sup>nd</sup> in black products with a **13.4%** market share

### Share of International Revenues

**19%**

### Profit Before Tax

TL **314** million

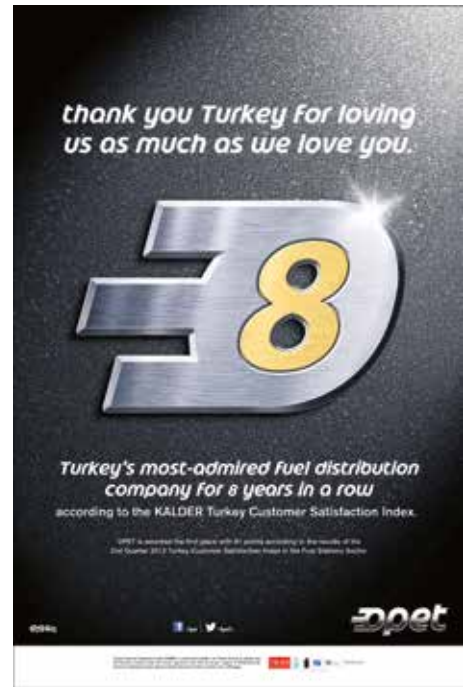
### Net Income

TL **258** million

### Shareholder Structure

Tüpraş	<b>40.00%</b>
Other Koç	<b>10.00%</b>
Öztürk Group	<b>50.00%</b>

[www.opet.com.tr](http://www.opet.com.tr)



### Continued market share growth

Opet conducts retail and wholesale operations in the fuel distribution sector. It also sells jet fuel, provides storage services and engages in the international trade of petroleum products. Through Opet-Fuchs, a 50:50 partnership with the German lubricant company Fuchs, Opet produces and markets lubricants; through THY-OPET, a 50:50 partnership with Turkish Airlines, Opet supplies and sells jet fuel.

Opet aims to be the first choice of consumers through its philosophy of perfect service.

Despite the limited growth in the white products market, Opet increased its sales volume by 10% YoY in 2013.

### A year replete with national and international awards

Opet's many awards underlined its successes in 2013. The most important of these is Opet's having become the sector's unrivaled leader in customer satisfaction for eight consecutive years, according to the Turkish Quality Association's Customer Satisfaction Index. It has thus achieved sustainable leadership due to the importance it places on customer satisfaction.



Other important awards include:

- GfK: Most Admired Company
- Lovemark: Most Loved Company
- Stevie: Company of the Year and Clean Toilet Social Responsibility Project
- Capital: Most Admired Company
- Media Cat: Most Sincere and Most Talked about Company

### Respect for the environment and social responsibility

Opet conducts all its operations in accordance with the highest ethical standards and a strong sense of responsibility towards its stakeholders. This awareness guides the Company in its development of social responsibility projects. Having embedded social responsibility into its corporate culture, Opet has carried out many social responsibility initiatives, such as Respect for History, Green Path, Model Village, and Clean Toilet. In 2013, it launched a children's traffic education project, "Traffic Detectives", in conjunction with the Ministry of Education and the Ministry of Interior General Directorate for Security.

### 2014 and beyond

The continuous improvement of product and service quality through a customer-focused approach is the foundation of Opet's corporate strategies going forward. The Company's main targets include maintaining benchmark level customer satisfaction and growing market share by expanding its station network.

In addition to its existing dealer network, Opet has adopted a property investment strategy for its stations in strategic locations to increase the competitive strength of its brands. To this end, it founded Opet Aygaz Gayrimenkul A.Ş., a partnership between Opet and Aygaz. The aim of this company is to put the presence of Opet and Aygaz, its autogas partner, on sounder and more lasting foundations in the market.

OPET'S SALES VOLUME GREW BY 10% IN 2013 DESPITE LIMITED GROWTH IN DOMESTIC WHITE PRODUCTS MARKET.



WE HAVE MET OUR CUSTOMERS'  
CHANGING NEEDS AND  
EXPECTATIONS FOR 53 YEARS AND  
WE HAVE BECOME A MEMBER OF  
YOUR FAMILY.

## AYGAZ

### Total Revenues

(TL million)

6,005

### Domestic Market Position

**Leader** in the LPG market since its founding in 1961

**Leader** with **42.6%** market share in cylinder LPG, **24.3%** market share in autogas, **28.7%** market share in total LPG markets

### International Position

Europe's **5<sup>th</sup>** largest LPG distribution company

### Share of International Reserves

**10%**

### Profit Before Tax

TL **237** million

### Net Income

TL **205** million

### Shareholder Structure

Koç Holding	<b>40.68%</b>
Other Koç	<b>10.53%</b>
LPG DC	<b>24.52%</b>
Free Float	<b>24.27%</b>

[www.aygaz.com.tr](http://www.aygaz.com.tr)



The country's first and only publicly traded LPG company, Aygaz is 10<sup>th</sup> on the Istanbul Chamber of Industry's 2012 listing of Turkey's largest industrial enterprises. Established in 1961 as Koç Group's first company in the energy sector, Aygaz has since maintained its lead in the domestic market.

### LPG Cylinders

Aygaz is the first company in the sector to apply body belts to small cylinders. This innovation served to differentiate Aygaz cylinders in the market and instilled consumer confidence in their home use. In 2013, this practice was expanded to 12 kg cylinders, receiving a positive reaction from customers and dealers, and had a favourable impact on sales.

"Aygaz Summer Festival on Anatolian Highways" was a first in the domestic LPG sector, bringing safety training by Aygaz's articulated trucks to one million people at 13 locations over the summer of 2013. People were shown how to use LPG cylinders safely and properly.

### Autogas

Aygaz and Mogaz brand's market positions were reviewed and their logos and names were modified according to consumer expectations. The Aygaz Euro LPG+ brand was renamed Aygaz Otagaz and a campaign articulating its new position was launched in January. The Mogaz Maxi LPG+ brand was renamed Mogaz Otagaz and this was announced to consumers at the end of 2013. Aygaz Group branded products were sold at over 1,500 stations across Turkey in 2013, giving the Group the largest domestic distribution network. The Company has

opened a website, www.aygaznerede.com, showing its autogas sales locations.

The Aygaz Conversion Club gathers 650 conversion centers under one roof. Two campaigns were initiated to expand the autogas market and to direct vehicles in the autogas market to stations. The autogas market grew 3% during the campaign. The awareness-raising campaign, "LPG: the Fuel of the Future", which was launched in 2012 to enlarge the autogas market, was expanded in 2013 with activities targeting consumers in 12 provinces. The message conveyed through the activities was that autogas is a high performance, safe, widely available, environmentally friendly, and economical fuel.

### Investments and the Aygaz-Mogaz merger

Capital expenditures of Aygaz and its subsidiaries reached US\$ 40 million in 2013.

In 2012, the Aygaz Board of Directors resolved to merge with Mogaz. This merger was completed on 22 January 2013 and has raised operational productivity and profitability as well as brand recognition.

### Pürsu

In 2013, Aygaz added a third natural spring water filling facility to those operating in Nazilli and Sapanca. While carboy water market contracted by 2% in 2013, Pürsu sales increased by 22%.

Aygaz plans to focus sales and marketing on large cities and regions where Pürsu is not currently sold.

### Main awards

- The Turkish Standards Institute designated Aygaz a Customer Friendly Enterprise and a Customer Friendly Brand, the first time such designations were made in Turkey
- Aygaz brands are among those that come on top in the Turkish Customer Satisfaction Index LPG Distributors category, a competition held by the Turkish Quality Association
- The Aygaz Annual Report received the Bronze prize in the International Stevie Awards
- Mogaz Otogaz's campaign "Git Git Bitmez" (Goes On and On) received the Silver prize in the Effie Awards, which rank advertising strategy and sales activities; in the same awards, Aygaz Otogaz received the Bronze prize with its "Kartopu" (Snowball) campaign
- Aygaz Otogaz's campaign "Kartopu" (Snowball) garnered the Crystal Apple at the prestigious Crystal Apple advertising awards, and its "Uzaktan Kumanda" (Remote Control) campaign won the Silver Apple at the same awards.

### 2014 and beyond

Aygaz's main goal is to be the leading energy solutions provider in Turkey's and other potential LPG and natural gas markets. Foremost among Aygaz's short- and medium-term strategies is increasing the Company's market share in all its segments to sustain its leadership and raise profitability. Its long-term goal is to expand its energy pool by generating alternative projects that will meet Turkey's growing energy needs.

### AYGAZ DOĞAL GAZ

In addition to selling and transporting liquefied natural gas (LNG), Aygaz Doğal Gaz sells natural gas obtained in the domestic market through pipelines to eligible consumers.

The Company's sales revenues increased by 130% to TL 434 million in 2013.

WE ARE THE LEADING BRAND IN THE  
SECTOR BECAUSE WE HAVE BEEN  
KNOWN FOR RELIABILITY AND  
QUALITY SINCE OUR FOUNDING.

## PLACING A PREMIUM ON ALTERNATIVE RESOURCES, AES ENTEK AIMS TO RAISE ITS MARKET SHARE THROUGH NEW INVESTMENTS AND ACQUISITIONS.

### AES ENTEK

AES Entek, a joint venture partnership with the AES Corporation, currently has a total installed capacity of 364 MW. This includes two natural gas combined cycle plants with a total capacity of 300-MW (of which one is located in Kocaeli and the other one in Bursa), one 2-MW gas motor-based cogeneration facility and three hydroelectric power plants with a total capacity of 62 MW (of which two are located in Karaman and one in Samsun).

With the addition of 7,000 MW new generation capacity in 2013, Turkey's total installed capacity grew to 64,050 MW, of which 31,500 MW is owned and operated by the private sector. In 2013, AES Entek's consolidated revenues totaled TL 341.6 million.

The three hydroelectric power plants of AES were added to the portfolio in 2013. The investment process for a green-field co-generation plant with a total installed capacity of circa 225-MW to be built next to the Tüpraş facilities in Kırıkkale is ongoing and the natural gas interconnection approval from Botaş is currently being awaited. 625 MW imported coal fired power plant project in Adana, a %50-50 partnership with Oyak, also continues.

While AES Entek's natural gas power plants are not base load power plants, they have a flexible operating regime which enables them to mitigate market risks and remain competitive. Direct sales to busbars and steam customers bring distinctive advantages. The Company's natural gas power plants have begun providing secondary frequency control services to TEİAŞ (Turkish Electricity Transmission Company), making the Company one of only a few to do so. This has generated significant income. Similarly, Eltek Wholesale Company's ability to step in when system prices are low and purchase electricity from various sources, contributes AES Entek's competitiveness. In 2013, Eltek more than doubled its customer sales volume 2.5 times.

The flexibility of AES Entek through Eltek is a significant mitigant for the low system prices and natural gas take-or-pay risks by purchasing electricity from the system and selling it to its customers, thereby minimizing generation and income risks.

AES Entek received the Golden Voltage Electricity Sector Achievement Award at the Gas & Power IV Turkey Energy Summit. AES Entek is pursuing a range of expansion opportunities via merger and acquisitions as well as a development of new generation plants in order to increase its market share in 2014 and have a diversified generation portfolio consisting of various fuel sources.



DEMİR EXPORT DRILLED OVER 27,000 METERS IN 2013 COVERING VARIOUS LOCATIONS IN TURKEY. EXPLORATION TARGETS INCLUDE PRECIOUS AND BASE METALS AS WELL AS FERROUS METALS.

## DEMİR EXPORT

Demir Export is one of the largest and most well established mining companies in Turkey. The Company mines and sells coal, iron ore copper and chromite concentrates from 13 mining operations in various parts of Turkey.

In 2013, Demir Export continued development of underground coal mine at Manisa-Soma coal basin which started in 2012, and placed orders for fully mechanized mining equipment for coal extraction. In addition, the Company began investments in the Sivas-Bakırtepe gold and Kütahya-Kalkan iron ore extraction projects to make them operational within 2014. Legal proceedings regarding the Environmental Impact Assessment report for the Bakırtepe Gold Project continue. Development work is expected to kick off in 2014.

In addition, the Company won the rights through a tender held by Anadolu Birlik Holding A.Ş. to mine eight million tons of coal in Sivas-Kangal over a 15-month period. With its experience over 20 years in the field, Demir Export continues its production activities ahead of production schedule which was made in the tender process.



Demir Export performed over 27,000 meters of core drilling in various locations of Turkey in 2013 to explore exploration activities for gold, copper, silver, zinc and coal.

In 2013, Demir Export acquired Ferrocom Madencilik (Taşlıtepe Mine), which is near the annual 350,000 ton-capacity Purunsur site in Sivas. With the investment in the Taşlıtepe Mine scheduled for 2014, the two operations will reach to reach a total annual production capacity of 750,000 tons.

All current iron ore production is sold to integrated steel mills operating around the country.

Demir Export has been producing iron ore since its establishment. It now has a 1.5 million ton/year capacity and a market share of 25%. With new projects and company acquisitions, technological investments and capacity increases at existing mines, the Company's annual production capacity is projected to rise to over 2 million tons in the near future.

