



October 2018

#5

Monthly Energy Bulletin

As of 26/10/2018

Can Hakyemez | hakyemez@tskb.com.tr

TSKB Economic Research



Monthly Energy Bulletin

October 2018

#5

Can Hakyemez | hakyemezcc@tskb.com.tr

TSKB Economic Research

No electricity will be provided at the guaranteed tariff for industry

The number of subscribers required to procure electricity by bargaining increased from 388 to approximately 900. Hence, the share of last resource consumers in total electricity consumption increased from 17% to 27%. The consumption limit for subscribers required to procure electricity through bargaining is set at 10 million kWh and subscribers consuming more than 10 million kWh of electricity will purchase electricity without any tariff, directly from suppliers at the bargained price. With this decision, the profit margin (including all of the supplier's costs) has been reduced from 12.80% to 9.38%.

Installed Capacity Analysis

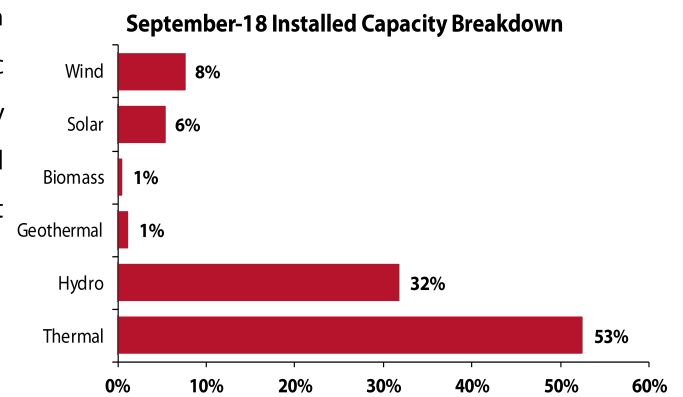
After reaching 85,200 megawatts (MW) at the end of 2017 and 87,737 MWs at the end of August, Turkey's total installed capacity had increased further to 87,948 MWs by the end of September. A total increase of 2,748 MWs was realized in the first nine months of 2018, with renewable power plants accounting for all of the increase. During this period, licensed and unlicensed solar power plants with a total installed capacity of 1,429 MWs were commissioned while hydroelectric power plants with a total capacity of 881 MWs were commissioned. A total reduction of 47 MWs was recorded in the combined capacity of thermal power plants.

While Turkey's total installed capacity increased by 211 MWs in September compared to the previous month, the country's thermal power plants recorded an increase of 2 MWs in their total capacity.

47% of the power plants, which were in operation in September, were renewable power plants, with hydroelectric power plants accounting for 32% of the total installed capacity of the renewables and the total share of solar power and wind power plants increasing to 13.3% in September, from 11.7% at the end of 2017.

Plant Type (MW)	2017	Jul-18	Aug-18	Sep-18
Thermal	46.352	45.958	46.302	46.304
Hydro	27.273	28.112	28.114	28.154
Geothermal	1.064	1.164	1.164	1.199
Biomass	575	624	623	623
Solar	3.421	4.744	4.793	4.850
Wind	6.516	6.693	6.742	6.818
Total	85.200	87.294	87.737	87.948

Source: Electricity Transmission Company (TEİAŞ) Monthly Installed Capacity Reports



Source: TEİAŞ, TSKB Economic Research

Electricity Generation Analysis

Approximately 246 gigawatt-hours (GWh) of electricity was generated in 2018, while the total generation in October had reached 18.54 GWh as of October 25.

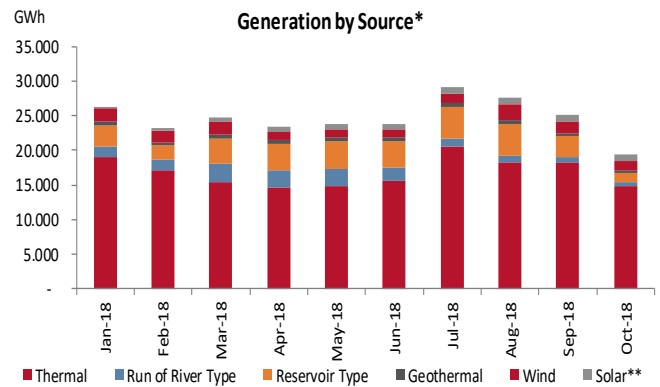
There was a 9.4% decrease in the amount of electricity generated in the first 25 days of October compared to first 25 days of September, which can be attributed to decreasing demand for electricity in line with economic indicators.

Thermal power plants, which had supplied 76% of the total electricity in the first 25 days of September, generated 80.3% of the total electricity generated in October with the decrease in the amount of electricity generated from hydro-electric power likely to have been the main reason for the 4.3-point decline. Accounting for 6.3% of electricity generation in September, wind provided 7% of the total electricity generated in October. Another noteworthy point is that run-of-river type power plants, which accounted for a 12.7% share in the first 25 days of September, saw a decline in their share to 7.3% due to the increase in irrigation activities in October.

The average daily generation of licensed power plants in the first 25 days of October stood at 741,753 megawatt-hours (MWh), marking a 8.2% decline compared to September. The reason for the decline in the daily average generation when compared to the previous month can be attributed to the decline in demand for electricity in parallel with economic indicators.

Daily consumption averaged to 733,703 MWh in the first 25 days of October, peaking at 766,217 MWh on Wednesday, October 3, while the lowest electricity consumption, of 634,962 MWh, was recorded on Sunday, October 7.

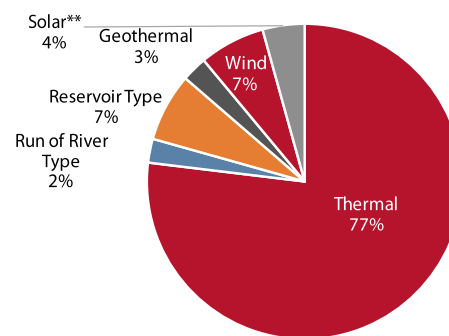
The highest electricity generation from licensed power plants was realized on Wednesday, October 17 and the lowest on Sunday, October 14. Total electricity generation from licensed power plants on Wednesday, October 17 was 773,742 MWh and the lowest was on Sunday, October 14, when 640,109 MWh of electricity was generated.



Source: TEİAŞ, YTBS Daily Reports, TSKB Economic Research

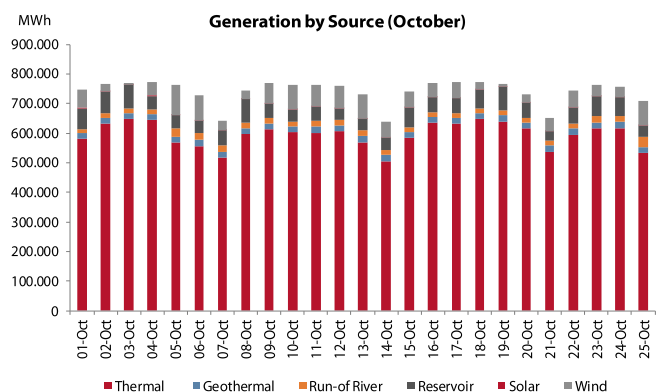
*October data consist of data up to October 26.

**Since October unlicensed solar power plant generation data has not yet been released by TEİAŞ, the total energy generation by unlicensed solar power plants in October was accepted as same as September.

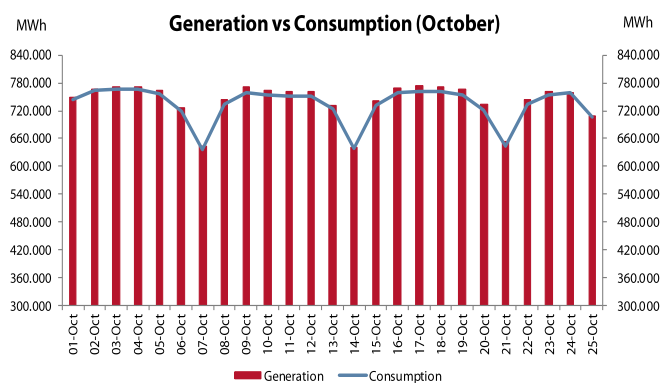


Source: TEİAŞ, YTBS Daily Reports, TSKB Economic Research

**Since October unlicensed solar power plant generation data has not yet been released by TEİAŞ, the total energy generation by unlicensed solar power plants in October was accepted as same as September.



Source: TEİAŞ, YTBS Daily Reports, TSKB Economic Research



Source: TEİAŞ, YTBS Daily Reports, TSKB Economic Research

Electricity Price Analysis

The average market-clearing price (MCP) and system marginal price (SMP) fluctuated between TRY215/MWh and TRY375/MWh between 1-25 October.

In the first 25 days of the month, the average MCP stood at TRY319.75/MWh, while SMP averaged TRY300.64/MWh. The lowest average MCP, of TRY293.07/MWh, was recorded on Sunday, October 7, and the lowest average SMP was TRY216.63/MWh on Saturday, October 6.

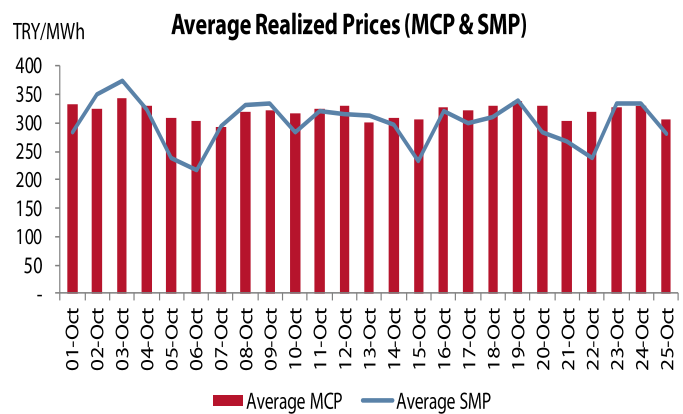
When compared to the September average, the October MCP average was 2.3% lower, which can largely be put down to decline in demand for electricity and decrease in electricity generation from thermal power plants.

An analysis of October's daily average MCP reveals an average tariff of TRY343.15/MWh for peak hours (from 8AM to 8 PM), 6.8% higher than the daily average value. The highest peak-hour average was recorded as TRY360.89/MWh on Monday, October 1, whereas the lowest peak-hour average was calculated as TRY287.76/MWh on Sunday, October 7.

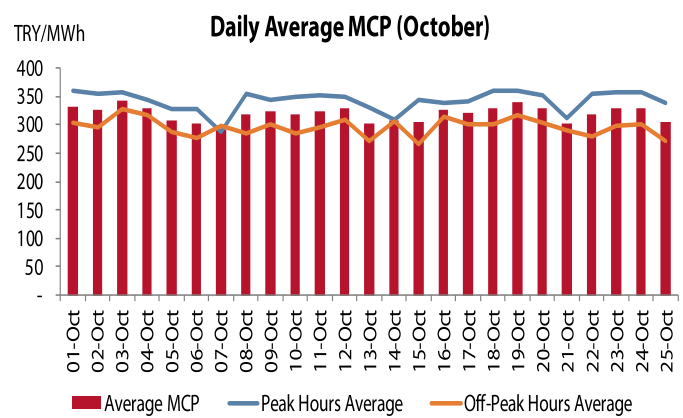
The average pricing in off-peak hours (from 8PM to 8AM) for the same period was calculated as TRY296.35/MWh. The highest off-peak hour average was recorded as TRY327.84/MWh on Wednesday, October 3, whereas the lowest off-peak-hour average was calculated as TRY266.84/MWh on Monday, October 15.

The annual average market clearing price (MCP) in 2017 was USD45.02/MWh, while the average MCP in the first ten months* coming in at USD46.60/MWh. The price of electricity, which was USD45.75/MWh on average throughout the first nine months of 2018, averaged USD54.25/MWh between 1-25 October. The fall in the value of the TRY against the USD was instrumental in the increase in the MCP.

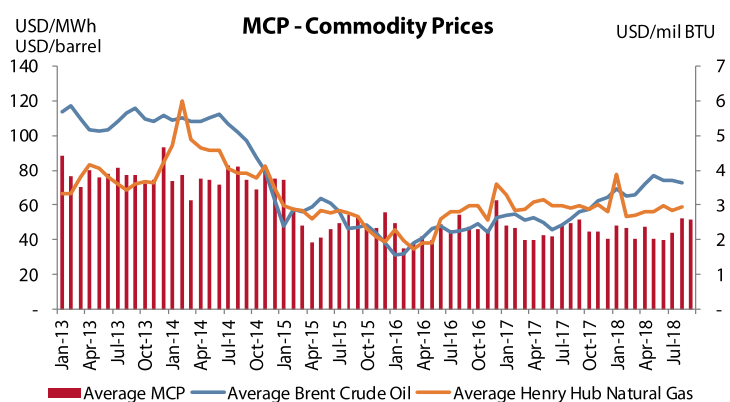
The spot electricity price was also in line with the Brent Oil price and the Henry Hub natural gas price in the global markets, as presented in the graph.



Source: EXIST, TSKB Economic Research



Source: EXIST, TSKB Economic Research



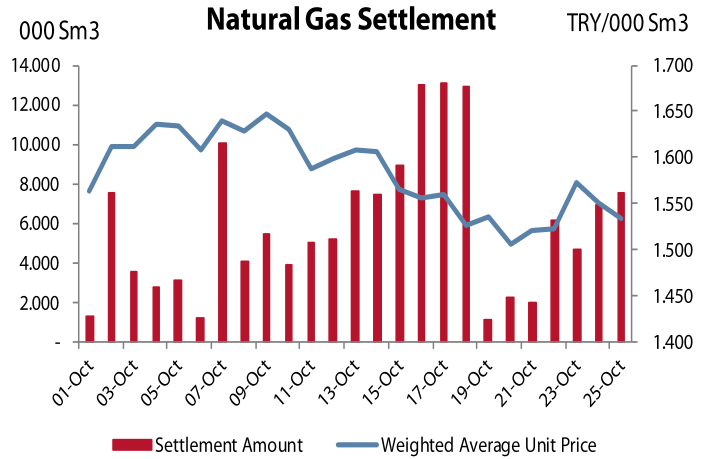
Source: EXIST, CBRT, International Energy Agency (IEA), TSKB Economic Research

* October data consist of data up to October 26.

Natural Gas Settlements

According to data obtained from the Organized Wholesale Natural Gas Sales Market, which was operated by EXIST, the daily average natural gas settlement was recorded as 5,886,480 Sm³ between 1-25 October. On Saturday, October 19th, settlements for a total of 1,125,000 Sm³ of natural gas were recorded, while on Wednesday, October 17th, settlements totaled 13,119,000 Sm³.

In the same period, the weighted average of the settlement unit price was calculated as TRY 1,579.57 per 1,000 Sm³.



Source: EXIST Natural Gas Platform, TSKB Economic Research

Sector News

Local News

- Environmentally Conscious Accommodation Facilities not to be given electricity support.** The electricity support, granted for enterprises holding the Environmentally Conscious Accommodation Facilities Certificate, has been halted under Presidential Order No. 191. Electricity support had been given since 2013 under the order of the cabinet. (October 25, 2018)
- Oil sales down 5.65% in September.** According to data pertaining to company sales, oil sales stood at 261,248 m³ during the month. In the same period, diesel fuel sales were down by 5.73%, kerosene sales declined by 61.28%, liquefied petroleum gas (LPG) sales were down by 2.29% and heating oil sales were 29.2% lower. Fuel oil sales increased by 13.56%. (October 25, 2018)
- New protocol signed between Turkcell and Huawei on building infrastructure for smart cities in Turkey.** Speaking at the protocol ceremony in China, Ahmet Akça, the Board of Directors of Turkcell, affirmed that Turkcell continued to pursue new international collaborations in order to bring the latest and most advanced technologies to Turkey, adding that continuing these collaborations was highly important in ensuring the country gained new generation technologies and played leading role in 5G technologies. (October 24, 2018)
- Foreign investors in wind power show interest in Renewable Energy Resource Areas (YEKA).** The General Manager of ENERCON GmbH, Hans-Dieter Kettwig, spoke of the mutual trust that had been fostered by the company's investments in Turkey's wind energy sector, adding that the company was interested in the YEKA Wind Power Plant-2 tender, implying that they were willing to invest in Turkey. (October 23, 2018)
- Turkey's mines are under exploration.** The Minister of Energy and Natural Resources, Fatih Dönmez, said that the government was ahead of schedule in its examinations of Turkey's mining resources. Dönmez stated that an area of 570,000 km² had been scanned in the first 100 days of the Aerial Geophysics Research Project, aimed at detecting mines through aerial geophysical observation methods. (October 23, 2018)

- **Data on licensed power plant investments released on the EXIST Transparency Platform.** Details of power including their license dates, license numbers, organization names, generation units, cities, production types, unit powers, additional installed capacities and provisional acceptance dates started to be released on the EXIST Transparency Platform starting from October 16, 2018. Data is planned to be updated on an annual basis. (October 22, 2018)
- **Star Refinery designated as a “Special Industrial Zone”.** Entering operation in a ceremony on October 19, 2018, the Star Refinery and the 1,453 hectare area containing the refinery have been designated as the “SOCAR Turkey Energy Inc. Special Industrial Zone” under Industrial Zones Law No. 4737. Investments in special industrial zones are exempt from certain licensing and permit fees. (October 22, 2018)
- **SOCAR Turkey to decide on investment in new petrochemical complex.** The Turkey division of the oil and gas giant SOCAR, owned by the Azeri government, continues to hold meetings with the German EWE for the acquisition of two natural gas distribution districts. Murat LeCompte, the Chief External Affairs Officer at SOCAR, said that feasibility assessments for a petrochemical complex which would produce petrochemical products alongside Petkim Petrokimya Holding A.Ş. (PETKİM) had been finalized, adding that the company planned to take the investment decision next year. LeCompte also mentioned that the complex would enter operation in 2022 or 2023, assuming that investments were realized next year. The complex will produce PTA and paraxylene. (October 22, 2018)
- **Star Refinery enters operation.** The opening ceremony of the Star Refinery, built by SOCAR Turkey, an affiliate of the Azeri Government Oil Company, took place in Aliağa, İzmir on October 19, 2018 with the participation of the Turkish President, Recep Tayyip Erdoğan. According to reports published by the Presidential Press, the President of Azerbaijan, İlham Aliyev, also attended the ceremony. The refinery is the first project to hold a “Strategic Investment Incentive Certificate” and it is projected to meet 25% of demand for oil products in Turkey, reducing current account deficit by USD1.5 billion. (October 19, 2018)
- **Up to 30% in energy savings achievable with small changes in consumers’ daily lifestyles, according to the Minister of Energy and Natural Resources, Fatih Dönmez, who says consumers should be better informed of energy savings.** Speaking at Energy Consumer Summit, Dönmez said “We carried out a study into word searches on the Internet and found that there were fewer searches for the word ‘efficiency’ last year. This suggests that consumers are not particularly concerned about energy efficiency. However, consumers are responsible for the efficient use of resources because these resources are imported from abroad. Our energy imports have averaged around USD40 billion over the last 10 years. When buying a product, we do not stop to consider how efficient it is, and yet we should. Developed economies pay more attention to the efficiency and effectiveness of energy use, rather than its price. Appreciation of energy as a resource in Turkey will be observed not from price but from efficiency.” (October 17, 2018)
- **Mines to go out to tender on the condition of R&D and plantation.** The Minister for Energy and Natural Resources, Fatih Dönmez said sites for potential mining could go out to tender on the condition that the buyer builds factories which could produce intermediate or final goods, and that they invest in R&D activities. He mentioned that all mines export raw materials, and that these conditions would ensure that the mines processed the materials, hence narrowing the technological gap. (October 16, 2018)

- **Support for renewable energy resources to continue, according to EMRA (Energy Market Regulatory Authority) President Mustafa Yılmaz, while adding that he did not expect any incentives in foreign currency from now on.** Yılmaz said that support could still be extended to certain types of renewable energy after the termination of the Renewable Energy Support Mechanism (YEKDEM) in 2020. “We do not know whether support will continue for every type of renewable energy that will depend on what the government decides, but I believe various support mechanisms could be put in place for different energy resources. Under incentive mechanisms for local resources, it may prove difficult to determine how much each company has produced”, he added. (October 15, 2018)
- **A new era for utility bills.** The Minister for Energy and Natural Resources, Fatih Dönmez, stated that simplified fees would be better understood, helping suppliers compare their agreements more easily. He added that a new system in billing with three categories -energy, distribution and tax-funds- would be in line with Eurostat’s categorization. (October 15, 2018)
- **Bağlık-İnağzı mine site in Zonguldak taken over from Turkish Coal Foundation by Bereket Energy.** Bereket Energy is committed to producing at least 2.5 million tonnes of coal at the site. Bereket Energy was the only bidder in the tender of Bağlık-İnağzı site held by Turkish Coal Foundation. It is estimated that the İnağzı Bağlık site has 136 million tonnes of coal reserves. Mining activities in the region are expected to bring 2,500 jobs to the local economy. (October 12, 2018)
- **Generation data from unlicensed power plants released in the scope of the YEKDEM project.** According to a statement from the EXIST, unlicensed power plants in the scope of YEKDEM project will be included in the Transparency Platform with effect from October 10th in order to provide accurate information to market participants in a timely manner and to facilitate a sustainable and predictable market. (October 11, 2018)
- **Mining and Petroleum Affairs directorates to merge.** The Minister of Energy and Natural Resources, Fatih Dönmez, announced that the Directorate General of Mining and the Directorate General of Petroleum Affairs were to merge under the name of Directorate General of Mining and Petroleum. Abbreviated as the MAPEG, the directorate will be responsible for mining and oil licenses and supervising mining and oil enterprises. “We broke a new record in solar power. We have built more solar power plants than any other EU country.” said Dönmez, stating that installed capacity reached 5,000 MWs and was on course to reach 6,000 MWs. Highlighting the technological advancements in the storage of electricity and energy, Dönmez pointed to the manufacture of batteries for electricity storage as the next step. Dönmez also mentioned that recent exploration had boosted lignite reserves from 15 billion tonnes to 18 billion tonnes. (October 11, 2018)

- **According to the 2018 Renewable Energy Report prepared by the International Energy Agency (IEA), Turkey is poised to boost its capacity for solar energy by 5.1 gigawatts (GW), for wind power by 4.4 GWs, for hydro-electric energy by 3.2 GWs, in biomass energy by 0.7 GWs and in geothermal energy by 0.3 GWs.** Hence, Turkey's electricity generation from renewable energy resources is set to increase from 87 terawatt-hours (TWh) in 2017 to 137 TWh by 2023. Installed capacity is expected to increase by 14 GWs to reach 53 GWs by 2023. Turkey will then be one of the top 5 countries in terms of the increase in its hydro-electric power and geothermal power capacity between now and 2023. (October 9, 2018)
- **Nord Stream 2 Pipeline Project -which aims to double the supply of Russian natural gas to Germany and Europe- to be ready for supply by January 2020.** Aleksey Miller, the CEO of Gazprom, the Russian natural gas giant owned by the Russian government, stated that Nord Stream-2 would be ready to have gas pumped through it by January 2020. Miller also added that Nord Stream-1 had supplied 7% more than its planned capacity. Miller also stated that 70% of the financing for the pipeline had been obtained. Gazprom has taken on 50% of the financing for Nord Stream-2, which is estimated to be around EUR9.5 billion. The remainder of the financing will be provided by Uniper, Wintershall, Royal Dutch Shell, Engie and OMV. (October 9, 2018)
- **Solar Power Renewable Energy Resource Areas (YEKA) competition announced in Official Gazette.** According to the Official Gazette, three different competitions will be held for three different YEKA sites. Competitions will be held for 500 MWs in Şanlıurfa-Viranşehir, 200 MWs in Hatay-Erzin and 300 MWs in Niğde-Bor. The winners will acquire a capacity utilization permit for 30 years. The price ceiling in the competition will be at 6.50 USD cents/kWh and will be valid for a period of 15 years starting from the signing of the Right of Use Agreement for the YEKA. The deadline for applications is January 31, 2019. (October 5, 2018)
- **System utilization and reactive power fees for unlicensed electricity generation facilities dropped by 3%.** The Energy Market Regulatory Authority (EMRA) announced electricity tariffs to enter effect as of October 1, 2018. Distribution fees for unlicensed electricity generators have also changed under new tariffs. The distribution price per kilowatt-hour was decreased from 2,9477 to 2,858 kuruş for unlicensed suppliers which acquired provisional acceptance report before December 31, 2017 and from 11,7907 to 11,4318 kuruş for unlicensed suppliers which acquired provisional acceptance report after December 31, 2017. The reactive energy price, which had been 19,193 kuruş per kVARh, decreased to 18,6089 kuruş. (October 2, 2018)
- **Minister of Energy and Natural Resources announced YEKA sites designated for solar and wind power.** According to the announcement in the Official Gazette, solar power YEKA sites have been designated as the Bor province in Niğde, the Viranşehir province in Şanlıurfa and the Erzin province in Hatay. Locations in Toprakkale (Osmaniye) and Ceyhan (Adana) have also been included in the Erzin YEKA site. Meanwhile, wind power YEKA sites have been allocated in Enez and Keşan (Edirne), Vize and Demirköy (Kırklareli), Gürün (Sivas), Tepebaşı (Eskişehir) and Karapınar (Konya). (October 1, 2018)
- **BOTAŞ raises natural gas prices.** BOTAŞ increased the wholesale price of natural gas by 9% for domestic use and by 18.5% for industrial use, with effect from October 1, 2018. (1 October, 2018)

- Rise in electricity tariffs. EMRA increased electricity tariffs by 9% for domestic consumption, 15% for industry and 25% for businesses, with effect from October 1, 2018. (1 October 2018)

News from Abroad

- **The Chairman of the International Energy Agency (IEA), Fatih Birol, said that hydrogen could support global energy transfer, facilitate energy security and decrease carbon dioxide emissions.** In his speech at the 'Hydrogen Energy Ministerial 2018' in Nagoya, Japan, Birol stated that hydrogen could support the transition from fossil fuel to clean energy resources, diversify fuel composition and troubleshoot energy security problems (October 25, 2018)
- **Russia increases daily oil supply by 150,000 barrels.** In his statement on Russia's oil production, Russia's Minister of Energy, Aleksandr Novak, said that Russia had increased its daily oil production by 150,000 barrels when compared to October 2016. (October 24, 2018)
- **The American Petroleum Institute (API) announced a buildup of 9.88 million barrels of crude oil inventories for the week ending September 19, sending oil prices decreasing to USD76. Market expectations for oil stocks stood at 3.7 million barrels.** After the API's statement, Brent crude oil prices decreased by 4.5% to USD76.75 per barrel in the morning of October, 24. (October 24, 2018)
- **Iran ships 22 million barrels of oil with its super tankers to China.** According to Reuters data, super tankers owned by the National Iranian Tanker Company carrying 22 million barrels of oil set sail to the Port of Dalian. These tankers were due to Dalian in September and November. It is thought that Iran relocated its stocks to China before the US sanctions entered force on November 4. (September 22, 2018)
- **Global carbon emissions to hit record high in 2018.** Speaking at a conference in Paris, the Chairman of the International Energy Agency, Fatih Birol stated that global carbon emissions had hit a new record high in 2018, eroding hopes at keeping global warming to 1.5- 2°C. (September 19, 2018)
- **Decline in Iranian oil exports to continue.** Having experienced a slight decline compared to September, Iran is expected to face a sharp downturn in oil exports once the oil embargo comes in place on November 4. China, India, Middle Eastern states, Turkey and Italy are the last countries still importing oil from Iran. (September 17, 2018)
- **Iran's first Vice-President, Eshaq Jahangiri commented that it would be impossible for the USA to fully shut down Iranian oil exports, adding that Iran had found new customers.** Speaking during a World Standards Day summit in Tehran, Iran's first Vice-President Eshaq Jahangiri affirmed that during efforts to continue trade with existing customers, the Islamic Republic had found new customers at the same time, according to the Islamic Republic News Agency (IRNA). (September 16, 2018)

- **OPEC's oil production increased in September.** According to September's OPEC Monthly Oil Report, production of crude oil increased by 132,000 barrels per day compared to the previous month, to 32.76 million barrels per day. Global oil supply stood at 99 million barrels per day, marking an increase of 230,000 barrels per day when compared to the previous month. Among OPEC members, Iran, Venezuela and Algeria experienced the largest decline in daily oil production. In Iran, daily production dropped by 150,000 barrels to 3.447 million barrels. In Venezuela, daily oil production dropped by 42,000 barrels to 1.197 million barrels while in Algeria, production dropped by 8,000 barrels per day to 1.049 million barrels. On the other hand, sharp increases were seen in production from Saudi Arabia, Libya and Angola among OPEC members. In Saudi Arabia, daily production increased by 108,000 barrels to 10.512 million barrels per day. In Libya, daily production increased by 103,000 barrels to 1.053 million barrels while in Angola daily production increased by 57,000 barrels to 1.519 million barrels. (October 12, 2018)
- **UAE starts to increase crude oil production from third quarter of 2018, according to UAE Minister of Energy and OPEC chairman Suhail Al-Mazrouei.** In his statement, Al-Mazrouei predicted that daily production would rise to 3.5 million barrels by the end of 2018. Saudi Arabia's Minister for Energy, Industry and Mineral Resources, Khalid Al-Falih, mentioned last week in his statement that Saudi Arabia had recorded the second biggest increase in oil production among OPEC members, increasing its oil production by more than 300,000 barrels per day to 10.7 million barrels per day. (October 12, 2018)
- **U.S. Energy Information Administration (EIA) revised its oil price estimates upward for this year and next year.** According to the EIA's Short-Term Energy Outlook for September 2018, Brent crude oil is forecasted to average USD74 per barrel with West Texas Intermediate prices to average USD68 per barrel for the rest of the year. The EIA announced that it would maintain its forecasts for US oil production this year at 10.7 million barrels per day. (October 11, 2018)
- **USA to halt crude oil shipments to China amid trade war.** The President of China Merchants Energy Shipping (CMES) Xie Chunlin said that the USA had completely halted its crude oil shipments to China. Attending the Global Maritime Forum's Annual Summit in Hong Kong, he expressed his regret that as a major carrier of crude oil from the USA to China with a strong business, the trade had now ground to a halt. (October 5, 2018)
- **European Parliament sets commitment to a 20% cut in carbon emissions for cars and 40% reduction for heavy-goods vehicles by 2030.** By the end of 2020, new vehicles in the European Union will emit less than 95 grams of CO₂ per kilometer on average, 40% lower than in 2007. (October 4, 2018)
- **Kuwait stops exporting crude oil to the USA after 25 years since first exports, according to statistics from the U.S Energy Information Administration.** The USA did not import oil from Kuwait until 1992. Saudi Arabia and Iraq will substitute Kuwait oil. Riyadh had exported more than 1 million barrels of crude oil to the USA in the last month, whereas Iraq exported over 400,000 barrels of crude oil. (October 3, 2018)
- **Russian state-owned gas company Gazprom sells its 71% stake in Turkish company, Bosphorus Gaz.** According to information provided by Gazprom, Gazprom is withdrawing from all natural gas activities in Turkey. The Şen Group, which already holds the remaining 29% share in Bosphorus Gaz, purchased Gazprom's share. The transaction between Adnan Şen, the general manager of Bosphorus Gaz, and Gazprom was completed on September 21, but the transaction's monetary value has not yet been disclosed. (October 2, 2018)



Economic Research
research@tskb.com.tr

MECLİSİ MEBUSAN CAD. NO 81
FINDIKLI İSTANBUL 34427, TÜRKİYE
P: +90 (212) 334 50 50 F: +90 (212) 334 52 34

This document was produced by Türkiye Sınai Kalkınma Bankası A.S. ("Industrial Development Bank of Turkey") ("TSKB") solely for information purposes and for the use of registered broker or dealer, whether the registered broker or dealer is acting as principal for its own account or as agent for others, or a bank acting in a broker or dealer capacity as permitted by U.S.A. law. This document shall not be reproduced under any circumstances and is not to be copied or made available to any person other than the recipient. It is produced and distributed in the Republic of Turkey. This document does not constitute an offer of, or an invitation by or on behalf of TSKB or any other company to any person, to buy or sell any security. The information contained herein has been obtained from published information and other sources which TSKB considers to be reliable. No liability or responsibility whatsoever is accepted by TSKB for the accuracy or completeness of any such information. All estimates, expressions of opinion and other subjective judgments contained herein are made as of the date of this document. TSKB may, from time to time, have a long or short position in any of the securities mentioned herein and may buy or sell those securities or options thereon either on their own account or on behalf of their clients. TSKB may, to the extent permitted by law, act upon or use the above material or the conclusions stated above or the research or analysis on which they are based before the material is published to recipients and from time to time provide investment banking, investment management or other services for or solicit to seek to obtain investment banking, or other securities business from, any entity referred to in this document.

Any customer wishing to effect transactions in any securities referred to herein or options thereon should do so only by contacting a representative of TSKB.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, me-chanical, photocopying, recording, or otherwise, without the prior consent of Türkiye Sınai Kalkınma Bankası A.S.

This document does not constitute an offer to sell, or an invitation to subscribe for or purchase, any of the offer shares in any jurisdiction to any person to whom it is unlawful to make such an offer or solicitation in such jurisdiction. The distribution of this document in certain jurisdictions may be restricted by law. Persons into whose possession this document comes are required by TSKB and the managers to inform themselves about and to observe any such restrictions. No person has been authorized to give any information or to make any representation except as contained in this publication.

In making an investment decision investors must rely on their own examination of the Company and the terms of the offering including the merits and risk involved.