

Monthly Energy Bulletin

TSKB Economic Research

March 2020 #22

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Bill on YEKA competitions to be held in TL terms published in the Official Gazette

The bill for holding Renewable Energy Resource Areas (YEKA) tenders in TL terms was accepted by the General Assembly of the Parliament and was published in the Official Gazette. According to the law on Amending Some Laws, Law No. 7226, YEKA competitions will be organized according to the lowest price to be offered for the ceiling price in TL terms, which will be determined by the Ministry of Energy and Natural Resources (MENR). YEKA competitions will also be implemented within the scope of the Renewable Energy Resources Support Mechanism (YEKDEM) for the period to be determined in the tender conditions. The TL-based price will be escalated in line with the terms of the tender specifications.

In the meantime, according to the bill, the MENR will set up new YEKA tenders at properties belonging to Public, Treasury and privately-owned properties by taking the opinions of institutions and organizations in order to use the renewable energy resources effectively and efficiently. The MENR also aims to quicken the investment period by allocating these areas and the connection capacities to investors. Zoning plans which affect the use and efficiency of YEKA will not be regulated. The provisions to be determined by this regulation include the competition of the provisions to be made, the amount of guarantees to be allocated, the characteristics of the components formed by the condition of use of the domestic goods, the procedures and principles related to the implementation, and the registration of the guarantee in case the obligations are not fulfilled.

24.40 TWh March Gross Generation	245.09 TL/MWh Average MCP
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54.8%

Share of renewable power plants in total electricity generation in March.

[Click](#) for details.

Electricity Consumption in COVID-19

Significant changes were observed in hourly distributions of electricity consumption.

[Click](#) for details.

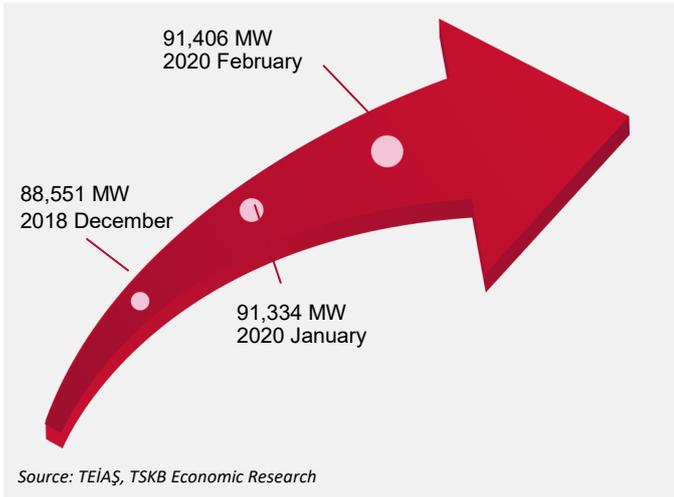
Greenhouse Gas Emissions

TurkStat announced Greenhouse Gas Emission Statistics for the 1990-2018 period.

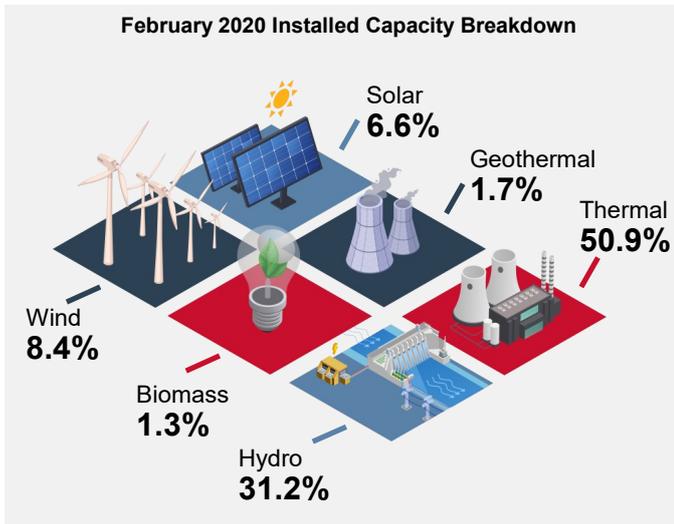
[Click](#) for details.

Installed Capacity Analysis

Turkey's total installed capacity, which had reached 91,267 megawatts (MW) at the end of 2019, edged up to 91,406 MW by the end of February 2020. During this period, wind farms with a total installed capacity of 37 MW were commissioned. The total installed capacity of licensed and unlicensed solar power plants and renewable waste power plants increased by 26 MW and 3 MW, respectively. The total installed capacity of hydroelectric power plants increased slightly by 2 MW. There was no change in the installed capacity of geothermal and coal power plants operating with domestic and imported coal. The total installed capacity of natural gas power plants decreased by 4 MW.

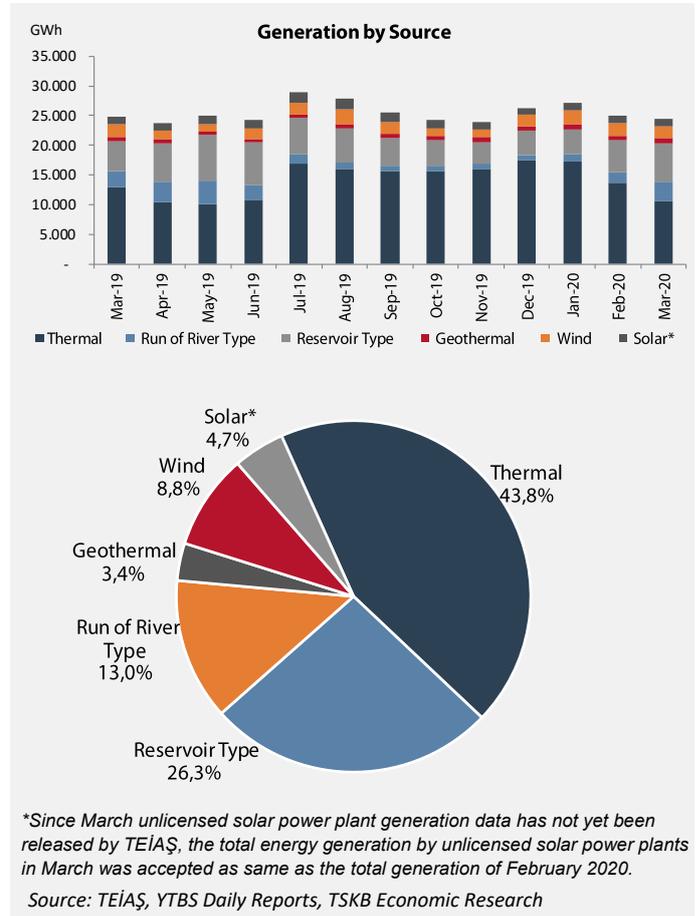


Of all the power plants in operation during December, 49.1% were generating electricity from renewable sources, with hydroelectric power plants accounting for 31.2% of the total installed renewables capacity. Thus, the proportion of renewable sources remained above 49%. Wind power and solar power plants saw their combined share increase to 15% by the end of February 2020.



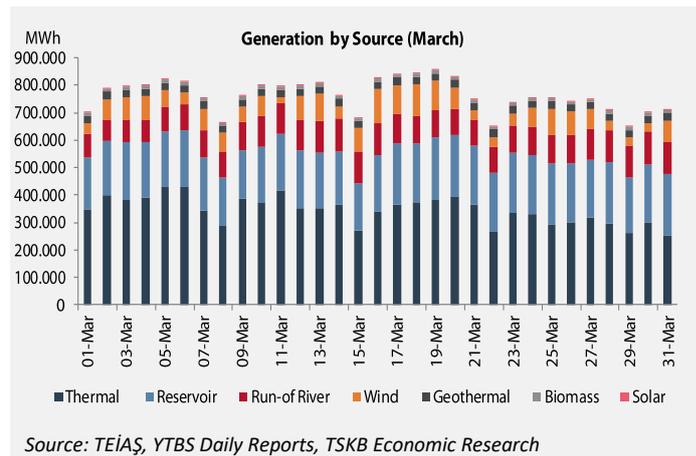
Electricity Generation Analysis

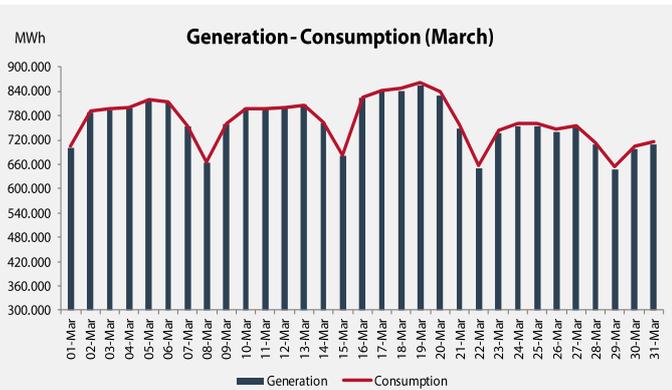
Approximately 24.9 terawatt-hours (TWh) of electricity was generated in February 2020, while total electricity generation in March 2020 reached 24.4 TWh. There was a decrease of 8.5% in average daily electricity generation in March 2020 when compared to February 2020. Moreover, in March 2020, electricity generation decreased by 1.9% when compared to the same month last year.



Thermal power plants, which had supplied 56.6% of all of the electricity generated in February, were responsible for 45.2% of the total electricity generated in March 2020, with the increase in electricity generation from run-of-river type hydroelectric power plants likely to have been the main reason for the 11.4-point decrease.

After accounting for 29.6% of electricity generated in February, hydroelectric power plants provided 40.6% of the total electricity generated in March 2020. Another noteworthy point was that renewable power plants, which had an average share of 44.5% in electricity generation throughout 2019, accounted for 54.8% of all electricity generated in March 2020, an increase of 9.4-percentage points over the 45.4% share in the same period of 2019.





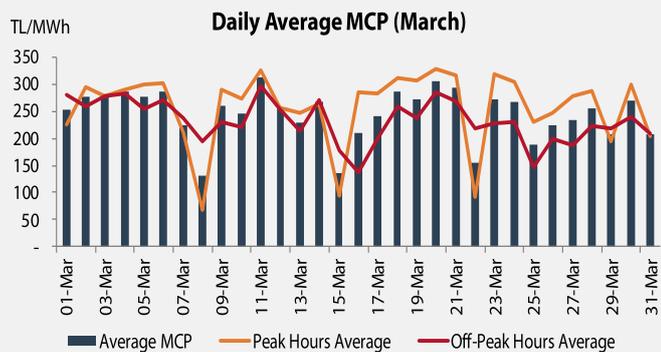
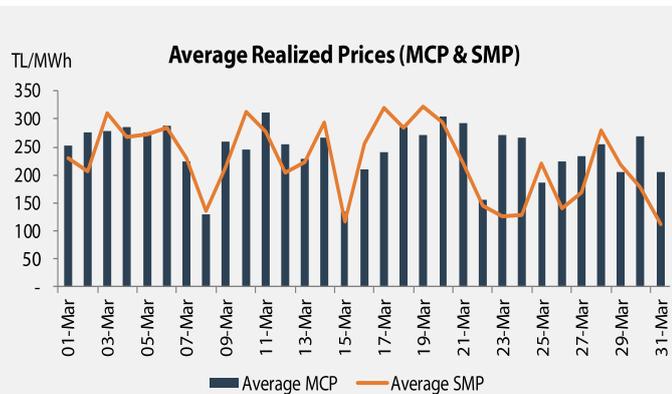
Source: TEİAŞ, YTBS Daily Reports, TSKB Economic Research

The average daily generation of licensed plants in March 2020 stood at 762,061 megawatt-hours (MWh). The highest level of electricity generation from licensed power plants was realized on Thursday, March 19th, at 855,026 MWh, with the lowest being on Wednesday, March 29th, at 648,383 MWh.

Daily consumption averaged 765,811 MWh in March 2020, peaking at 860,905 MWh on Thursday, March 19th, while the lowest level of electricity consumption, of 653,015 MWh, recorded on Wednesday, March 29th. Since March 22nd, the decline in electricity consumption, due to Covid-19 outbreak, has been significant.

Electricity Price Analysis

The average market-clearing prices (MCP) and system marginal price (SMP) fluctuated between TL 111 /MWh and TL 323 /MWh in March 2020. In the same period, the average MCP stood at TL 245.09 /MWh, while the SMP averaged TL 225.40 /MWh. The lowest average MCP, of TL 130.47 /MWh was recorded on Sunday, March 8th, and the lowest average SMP, of TL 111.75 /MWh was recorded on Tuesday, March 31th.

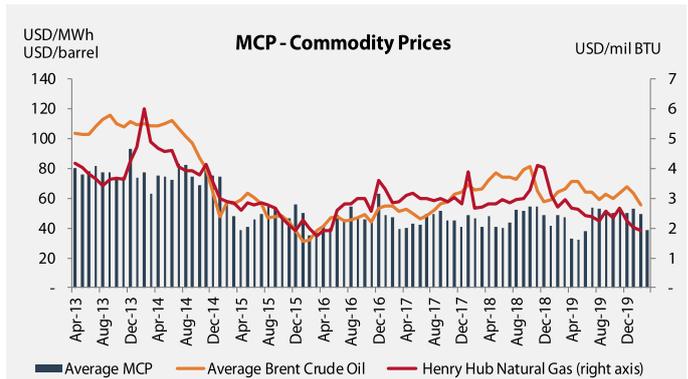


Source: EXIST, TSKB Economic Research

When compared to the February average, the average MCP for March 2020 was 17.9% lower. The increase in the share of renewable power plants in total electricity generation and the decline in the electricity consumption, due to the Covid-19 limitations and reduction in the manufacturing production, are thought to have been the main reasons for this decline.

The daily average MCP for March stood at TL 257.90 /MWh for peak hours (from 8AM to 8PM), 5.2% higher than the daily average value. The highest peak-hour average recorded was TL 326.75 /MWh on Friday, March 20th, while the lowest peak-hour average was TL 67.63 /MWh, recorded on Sunday, March 8th.

The average pricing in off-peak hours (from 8PM to 8AM) for the same period stood at TL 232.27 /MWh. The highest off-peak hour average was TL 297.84 /MWh, recorded on Wednesday, March 11th, with the lowest off-peak-hour average of TL 137.84 /MWh recorded on Monday, March 16th.



Source: EXIST, CBRT, EIA, TSKB Economic Research

The annual average MCP in 2018 was USD 47.39 /MWh while the annual average MCP was USD 45.98 /MWh in 2019. The average MCP in March stood at USD 38.81 /MWh, while the average MCP in January was USD 53.16 /MWh, edging down slightly to USD 49.37 /MWh in February.

The MCP decreased by 21.4% in dollar terms in March when compared to February, mainly as a result of the 17.9% decrease in the TL-denominated electricity price on the back of the depreciation of the lira against the dollar.

Brent crude oil prices averaged USD 55.70 per barrel in February, compared to USD 64.36 per barrel in 2019. Brent crude oil prices decreased by 12.5% in February when compared to the previous month. The average price of Henry Hub natural gas was USD 1.91 /mBTU in February, 5.4% lower than the USD 2.02 /mBTU average for January 2020. Although the official figures have not yet been released, there was a sharp plunge in Brent crude oil prices in March due to the disagreement between Russia and Saudi Arabia and the decrease in demand due to the Covid-19 outbreak.



Electricity consumption following the outbreak of COVID-19

The COVID-19 outbreak continues to spread rapidly in Turkey, as it does all over the world. According to the Ministry of Health, the first case in Turkey appeared on March 10, and some measures were taken in Turkey after that date, such as gradually encouraging working from home and distance learning, while ensuring that citizens over the age of 65 stay at home.

In terms of electricity consumption in Turkey on an hourly basis, an increase of 0.4% was observed between March 10-31, 2020 when compared to the same period last year, and an increase of 0.1% was observed when compared to the average of the same period between 2017 and 2019. Between 10-31 March, average electricity consumption was 31.88 gigawatt hours (GWh). The average electricity consumption for the same period in 2019 was 31.76 GWh and the average electricity generation for the same period between 2017 and 2019 was 31.86 GWh.

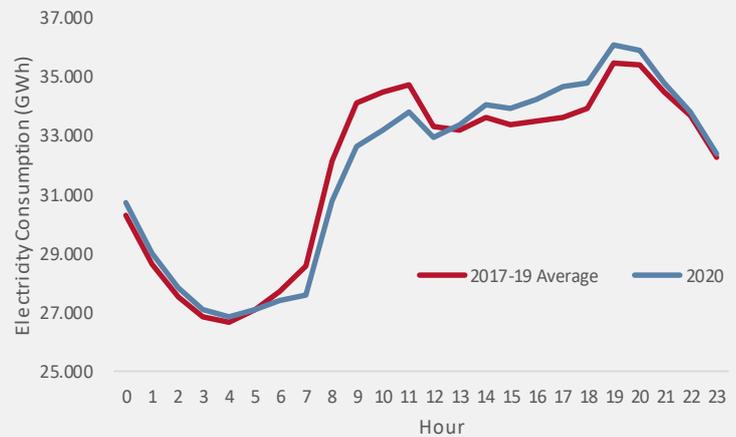
Although there was a slight increase in electricity consumption compared to the average of 2017-2019, in 2020, there was a significant change in hourly distributions. As seen in the graph on the right hand side, a significant decrease was observed for the morning hours. Between

6AM and 1PM, the average consumption between 2017 and 2019 was 32.15 GWh, while in 2020 the electricity consumption at this time of the day was 31.2 GWh. Between 2PM and 9PM, the electricity consumption averaged 34.13 GWh between 2017 and 2019, while in the same period of the day in March 2020, it was 34.8 GWh.



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Average Electricity Consumption (March 10-31)



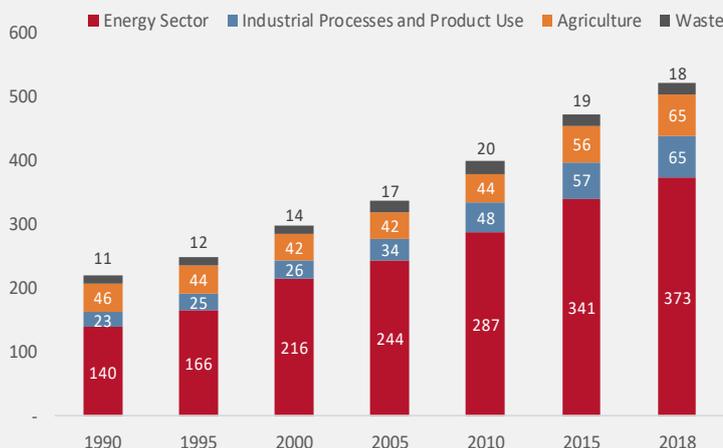
Source: EXIST, TSKB Economic Research

Greenhouse Gas Emissions

The Turkish Statistical Institute (TurkStat) announced Greenhouse Gas Emissions Statistics for the 1990-2018 period. According to the figures, Turkey's total greenhouse gas emissions increased at a compounded annual growth rate (CAGR) of 3.1% between 1990 and 2018 to reach a total of 520.9 million tonnes of carbon dioxide (CO₂) equivalent by the end of this period. "Industrial processes and product use" and "energy sector" emissions accounted for an important proportion of this rise, increasing at a CAGR of 3.8% and 3.6%, respectively. Turkey's total greenhouse gas emissions decreased by 0.5% in 2018 compared to the previous year, the fourth time they had declined since 2000, following declines in 2001, 2008 and 2013. Energy sector greenhouse gas emissions, which declined by 1.8% compared to the previous year, played a part in this decline. Energy-related emissions, which accounted



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Source: TurkStat, TSKB Economic Research

for the largest share (63.6%) of CO₂ equivalent emissions in 1990, increased their share in the total by 8 percentage points to 71.6% in 2018. In 2018, energy-related emissions were followed by industrial processes and product use at 12.5%, agricultural activities at 12.5% and waste at 3.4%. In the 1990-2018 period, the sector recording the steepest decline in their share greenhouse gas emissions was the agricultural sector, with an 8.4 percentage point fall (1990: 20.9%) According to TurkStat data, total greenhouse gas emissions per capita stood at 4 tonnes of CO₂ equivalent in 1990, rising to 6.5 tonnes of CO₂ equivalent in 2017 before declining to 6.4 tonnes of CO₂ equivalent in 2018.



Sector News

Local News

- **Energy Market Regulatory Authority (EMRA) revises Renewable Energy Resources Support Mechanism (YEKDEM) cost forecast for 2020.** According to the revised costs published in the Official Gazette, the additional cost of YEKDEM has been determined as TL 121.02 /MWh in April, TL 128.66 per MWh in May, TL 106.82 /MWh in June, TL 100.67 /MWh in July, TL 105,91 /MWh in August, TL 90,70 /MWh in September, TL 92,25 /MWh in October, TL 88,51 /MWh in November and TL 90,10 /MWh in December. (March 31, 2020)

- **EMRA publishes electricity tariff tables to be applied with effect from April 1, 2020.** According to the tariff tables published in the Official Gazette, the distribution costs of unlicensed power plants were determined as 4.8453 kuruş per kilowatthours (kWh) for facilities that received temporary acceptance before 31/12/2017, and 19,3810 kuruş per kWh for the areas after this date. According to the published tariff table, the wholesale electricity unit price sold by Elektrik Üretim A.Ş. (EÜAŞ) to distribution companies has decreased from 27.56 kuruş per kWh to 22.83 kuruş per kWh. The new tariffs will be in place over a 3-month period. (March 31, 2020)

- **Aksu Energy's share sale contract to Secoya Group canceled.** In a statement issued on the Public Disclosure Platform, the decision was taken to terminate the contract mutually with Secoya Group due to demand for changes in the terms of purchase by Secoya Group. (March 31, 2020)

- **Turkish Wind Energy Association (TÜREB) releases Turkish Wind Energy Statistics Report for January 2020.** According to the report, the installed power of wind farms in Turkey increased by 687 MW in 2019, to a total of 8,056 MW. The number of wind farms increased from 180 at the beginning of 2019 to 198, while construction work is underway for 25 new

wind farms. The total power of the projects under construction, which was 606.2 MW at the beginning of 2019, had reached 1,309.79 MW by the end of the year as investors seeking to benefit from the support of the existing YEKDEM accelerated work on their projects. (March 30, 2020)

- **Turkish Energy, Nuclear and Mineral Research Institute (TENMAK) established.** The purpose of establishment of the Ankara-based TENMAK was determined as meeting the need for innovation related to energy, minerals, ionizing radiation, particle accelerators, nuclear technology, boron, rare earth elements and other elements; providing researchers with a scientific environment; to ensure the production of new products and the development of existing products; and to contribute to scientific research in cooperation with public and private legal persons. With the establishment of TENMAK, the Turkish Atomic Energy Agency, the National Boron Research Institute and the Research Institute of Rare Earth Elements was closed. References to these organizations will now be considered as referral to TENMAK. (March 30, 2020)

- **EMRA to able to issue different tariffs in order to support renewable energy resources.** According to the amendment published in the Official Gazette, EMRA will set a different tariff for electricity supplied from renewable energy sources and consumers will be able to benefit from this tariff upon request. (March 27, 2020)

- **No increases in electricity tariff in the second quarter.** Noting that the electricity tariffs for the April-June 2020 period were determined in the board meeting held within EMRA, the Chairman of EMRA Mustafa Yılmaz stated that there would be no increase in electricity tariffs in April, May or June 2020. (March 27, 2020)

- Time extension introduced for waste management operations. Additional time was given for procedures (excluding the waste management application and waste declaration system, and hazardous waste declaration system operations) which were arranged and foreseen based on the 15th article of the Waste Management Regulation. In this context, the date of completion of the notification, declaration, application and certification processes that should be submitted to the Ministry of Environment and Urbanization or Provincial Directorates by waste producers, authorized institutions, municipalities, plastic bag producers, and all other businesses subject to extended producer responsibility, including the sales points on the market, was extended to 2020. (March 27, 2020)

- Ministry of Environment and Urbanization announces extension in deadline for greenhouse gas emission report. In the statement made by the Ministry, the deadline set for April 30, 2020 was postponed to May 22, 2020. (March 27, 2020)

- Energy efficiency support conditions determined by MENR. Energy efficiency support to be provided for industrial enterprises with annual total energy consumption of 500 tonnes of oil equivalent or more, which operate in connection with the chamber of commerce and / or industry, which produce all kinds of goods and which operate in the manufacturing sector will not include legal entities with a license. Energy efficiency support will be provided for industrial enterprises with a total annual energy consumption of 500 tonnes of oil equivalent or more, operating in connection with the chamber of commerce and / or industry, which produce all kinds of goods and which operate in the manufacturing sector. However, it will not include legal entities whose main field of activity is electricity generation and which hold an electricity generation license. Industrial enterprises will submit their projects to the Ministry without being subject to any period within the framework of determined issues. Within the scope of efficiency-enhancing project supports, the applications for projects with a maximum total of TL 5 million and a payback period of less than five years, excluding Value Added Tax (VAT), will be accepted. Applications will be limited to a maximum of five projects for the same industrial enterprise. (March 26, 2020)

- Eti Maden to produce boron disinfectant. The Minister for Energy and Natural Resources, Fatih Dönmez, said that there had been rapid increase in demand for hand sanitizer in Turkey due to Covid-19 outbreak in Turkey. Dönmez added; "The National Boron Research Institute (BOREN) has completed the R&D process in the production of hand disinfectants. Eti Maden will begin mass production of boron disinfectant with the positive results of the studies." (March 26, 2020)

- İSTAÇ, one of the affiliates of Istanbul Metropolitan Municipality (İBB), conducts its first carbon sales to British Numerco, selling 10,000 tonnes of carbon credit. According to a statement made by the İBB, İSTAÇ, which has gained carbon credit under the control of the Gold Standard, the leading company of the international carbon market, continues its efforts to sell 6.5 million tonnes of carbon credit in the international market. (March 26, 2020)

- TurkStat publishes waste statistics for the month of January. According to the announced statistics, the highest production and delivery of lignite took place in January, when 7.14 million tonnes of lignite was produced and 7.03 million tonnes of lignite was delivered. While production of salable lignite increased by 10.0% compared to the same month of the previous year, it decreased by 17.5% compared to the previous month. According to the figures, production of salable hard

coal increased by 7.3% in January, compared to the same month of the previous year and by 5.1% compared to the previous month, to 107,601 tonnes. Salable hard coal production decreased by 0.1% compared to the same month of the previous year and by 0.2% compared to the previous month, to 380,269 tonnes. In January, 63.0% of hard coal deliveries were made to thermal power plants, 12.3% to coke plants and 7.6% to industries other than iron and steel, while 86.6% of lignite delivery was to thermal plants and 9.2% to industry other than iron and steel. In hard coal, the highest delivery was made to the iron and steel industry with 98.5%. (March 24, 2020)

- Production of elbow pipes to be used in cooling pipeline of the first unit of the Akkuyu Nuclear Power Plant now complete. A total of 16 elbow pipes were produced at AEM-technology's Atomash facility in Volgogradsk, Russia, which is part of Rosatom's engineering division, Atomenergomash. Each of the elbow pipes weighs 7 tonnes and produces an outer diameter of 995 millimeters. (March 24, 2020)

- Rolls-Royce and EÜAŞ to develop mini-nuclear power plants. According to the statement from the British company Rolls-Royce, Rolls-Royce and EUAS International ICC, the company operating abroad, signed a memorandum of understanding for the technical, economic and legal applicability of compact nuclear power plants, as well as the production possibilities. (March 23, 2020)

- The rate of Special Consumption Tax (SCT) on Liquefied Petroleum Gas (LPG) was increased by 7 kuruş per litre. (March 23, 2020)

- Solar power plant financing provided through The Turkey Sustainable Energy Financing Facility (TurSEFF) reaches EUR 280 million. TurSEFF financial institutions Relations Manager, Seyran Hatipoğlu, stated that TurSEFF's share of the installed power reached 67.5% in the total Turkish solar installed power at the end of 2014, which was 40 MW, and reached 61% of the total solar installed power at the end of 2015, which reached 249 MW. Hatipoğlu stated that the total power of solar energy projects, which have already been implemented with TurSEFF funding, had reached 355 MW. Hatipoğlu also stated that a total of 404 solar energy projects had been financed through TurSEFF, while the financing provided for these projects has reached EUR 280 million. (March 23, 2020)

-National Inventory Liability List in Liquefied Natural Gas market published for the period of 1 April 2020 - 31 March 2021. According to the announcement on the EMRA website, a total of 9 companies are required to keep 200,641 tonnes of liquefied natural gas in their stocks between the relevant dates. (March 20, 2020)



- **“MW100 Turkey” report, prepared in cooperation with international consulting firm Kearney and Energy Journal, and which identified the 100 largest electricity producers in Turkey, is published.** The study, which was examined the installed power of electricity producers as of December 31, 2019, revealed that despite the efforts of privatization that started from 2001 and accelerated after 2013, the weight of the public institution EÜAŞ continues in the sector. In the list of the largest electricity producers in Turkey, EÜAŞ is ranked first with 20.541 MW of capacity, followed by ENKA (3,830 MW) and Enerjisa (3,598 MW). The list of the top 10 includes Eren Enerji, Çelikler Holding, Cengiz Enerji, Limak Enerji, Aydem Enerji, İÇDAŞ and Bilgin Enerji. (March 19, 2020)

- **Kalyon Solar Technologies Production Inc. General Manager Ahmet Taşkın issues statement on progress in the integrated solar panel factory project, which is still under construction.** Taşkın stated that the factory, which will operate in Ankara's Capital Organized Industrial Zone, will start production on June 15, 2020. Taşkın also stated that Kalyon Energy will undertake a total investment of USD 1,298 billion, including USD 348 million for the factory installation of the project and USD 950 million for the installation of the power plant. Ahmet Taşkın stated that the factory, which will start production with an annual capacity of 500 MW and monthly 42 MW, will only produce for the solar power plant to be established in Karapınar, Konya. He added that at the end of this period, production for the market including the European and Middle Eastern countries is planned. (March 19, 2020)

- **Borusan EnBW completed financing agreements for Saros Wind Farm.** According to a statement made by Borusan EnBW, an agreement was reached with the Industrial Development Bank of Turkey (TSKB) and DZ Bank to provide loans to finance the USD 180 million project. İş Bank and Garanti BBVA were also included in the financing agreement by

providing a letter of guarantee for ECA financing. TSKB will provide USD 80 million of funding. (March 17, 2020)

- **Turkey's third drill ship "Kanuni" arrives in Turkey.** According to a statement made by the Minister for Energy and Natural Resources, Fatih Dönmez, the maintenance, procurement and testing procedures of the Kanuni Drilling Ship was completed in the United Kingdom and the ship entered into inventory of Turkey Petroleum as of January 31, 2020. Fatih Dönmez stated that entry and exit would be prohibited for a period of time within the framework of Covid-19 measures for the Kanuni Drilling Ship, which has the ability to drill in very deep waters. After the quarantine measures process is completed, the maintenance, updating and development works of the Kanuni Drilling Ship will be started. (March 16, 2020)

- **EMRA postpones applications for “Wind Energy Based Pre-licensing”.** According to the announcement made by EMRA, the decision was taken to delay the pre-licensing applications for the wind power connection capacity of 2,000 megawatts, which was planned to be received on 6-10 April 2020, until 5-9 October 2020. (March 13, 2020)

- **Changes made in regulation on control of packaging waste.** According to the amendment published in the Official Gazette, the authorized institutions and the marketers applying the deposit/return system are required to ensure that the material-based recycling rates determined in glass, plastic, metal, paper/cardboard and wood reach their targets by 2020. The determined material-based recycling rate is 60% for glass and paper/cardboard, 55% for plastic and metal and 15% for wood. (March 13, 2020)

- **SOCAR's investment in new petrochemicals plant to begin in early 2021.** Mesut İlter, General Manager of Star Refinery, a subsidiary of SOCAR Turkey, said in a statement that evaluation and engineering work had begun for the new

Sale of Beşiktepe Enerji Üretim ve Ticaret A.Ş. to İş Asset Management Infrastructure Venture Capital Investment Fund and Kangal Elektrik Enerji Üretim ve Tic. A.Ş. has been completed.

İş Asset Management Infrastructure Venture Capital Investment Fund and Kangal Elektrik Enerji Üretim ve Tic. A.Ş. acquired the 100% shareholding of Beşiktepe Enerji Üretim ve Ticaret A.Ş. from Adalı Family and Adalı Holding. TSKB acted as the sell side advisor to Adalı Holding. With 45 MW installed capacity and over 160 million kWh annual electricity generation Kıyıköy WPP is one of the most efficient wind power plants located in Turkey. Following the transaction, the buyers are planning to increase the installed capacity by 55 MW to 100 MW.

The transaction is an indicator of TSKB's technical and financial advisory experience and expertise, especially in the renewable energy sector.



Beşiktepe Enerji Üretim Ve Ticaret A.Ş.
(Kıyıköy WPP)

Acquired by

İŞ PORTFÖY

Infrastructure Venture
Capital Investment Fund

Kangal Elektrik

Kangal Elektrik Enerji
Üretim ve Ticaret A.Ş.

Sell Side Advisor to

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petrochemical investment, which will be carried out with an investment of about USD 1.8 billion. Ilter also stated that Socar aimed to complete the plant in 2024, adding that the facility would meet Turkey's needs for pure terephthalic acid (PTA), which are currently met through imports. Ilter added that one of the sectors to be most affected by the outbreak would be air transportation, meaning that jet fuel, one of the company's important products, had also observed a decrease in demand due to the slump in the airline sector. Ilter expressed hope that the world would overcome the problem between April and the summer months, adding that the important season was the summer." (March 12, 2020)

- Minister of Energy and Natural Resources Fatih Dönmez states that preparations for specification and contract draft for Mini-YEKA competitions are complete. In his speech at the opening of Turkish Electricity Industry Association (TESAB) 16th Annual General Meeting, Dönmez stated that; "We are moving towards a sector with high participation with our Mini YEKA competitions. An amendment to the law will be completed in this regard. We will publish the announcement of the contest in the Official Gazette shortly and will hold our first contest in the first half of 2020. We will have solar projects in approximately 40 cities, with capacities ranging from 10-40 MW." (March 11, 2020)

- Turkish Petroleum Corporation (TPAO) to build crude oil storage tanks capable of holding 150,000 barrels of oil, and connected pipelines at the Fuel Distribution and Filling Facilities in Batman owned by Petroleum Pipeline Corporation (BOTAŞ). While the total cost of the project is calculated as TL 9.5 million, it will be used by TPAO for 15 years after the tanks are put into operation according to the contract. Currently, the facility has 7 storage tanks owned by BOTAŞ with a total capacity of 1.05 million barrels. (March 10, 2020)

- EMRA determines principles regarding licensing processes of power plants produced from multiple sources (hybrid). The Regulation on the Amendment of the Electricity Market License Regulation was published in the Official Gazette. Accordingly, a single electricity generation facility - a "unified electricity generation facility" - established to generate electricity from multiple energy sources connected to the grid from the same port, where the facility is established to produce electricity from multiple energy sources, all of which is connected to the grid through the same connection point, is considered to be a "combined renewable electricity generation facility." Electricity generation facilities where sources other than renewable energy resources are used will be considered as "co-fired electricity generation facilities" if they have a renewable auxiliary source next to the main source. The auxiliary welding unit used in multiple source electricity generation facilities will be considered as the unit of the facility based on the main source and the facility will be under a single pre-license or license. In the combined production and combined renewable electricity generation facility, the auxiliary resource will not be converted into a main resource under any circumstances. In the stated facilities, the installed powers of the auxiliary resource and the main resource will be collected and evaluated together over the main resource. The regulation will enter force on July 1, 2020. (March 9, 2020)

- EMRA determines the principles for the support of hybrid electricity generation facilities over the purchase guarantee with the Regulation on the Amendment to the Regulation on Certification and Support of Renewable Energy Resources. Accordingly, the amount of net energy supplied to the system from combined renewable electricity generation

facilities will be evaluated at the lowest of the prices determined for the renewable energy sources used in the facilities and within the scope of YEKDEM for the remaining period of the facilities. In the event that all of the resources are renewable in the supportive source of the electricity generation facility, the support to be provided to this facility will be calculated at a price determined for the main energy source. The regulation will enter force on July 1, 2020. (March 9, 2020)

- An investigation by the EMRA against Shell & Turcas Petroleum on the grounds that it had limited refueling to its dealer stations before the hike following the attack on Saudi Aramco facilities has concluded. As a result of the investigation, EMRA imposed an administrative fine of TL 2.75 million on Shell & Turcas Petrol. (March 6, 2020)

- Cost of energy production in Turkey increases by 12.34% YoY in February. According to data from the TurkStat domestic producer price index for February 2020, energy production prices of the main industry groups decreased by 4.17% in February compared to the previous month and increased by 12.34% compared to the same month of the previous year. The TurkStat domestic producer price index increased by 19.24% in the electricity, gas production and distribution sector, which is one of the four industrial sectors in February, and decreased by 2.38% compared to the previous month. On the other hand, water, electricity, gas and other fuel consumption costs increased by 15.31% compared to the same month of the previous year and increased by 0.48% compared to the previous month. (March 4, 2020)

- Bursa Clean Air Action Plan published on the Bursa Governorship Environment and Urbanization Provincial Directorate website. According to the report, the main causes of Bursa's air pollution are pollution caused by traffic, industry and domestic heating. Among the important sources of airborne particles, the use of coal for heating purposes has a 67% share, followed by diesel motor vehicle emissions (19%) and coal consumption used in industry (9%). According to the action plan, new crushing-screening and quarry facilities close to residential areas and which are visible will not be established in districts where the industry is concentrated, where the natural gas line passes. Afforestation will be done around the health protection band, especially around the Organized Industrial Zones (OIZ), between 2020 and 2024. (March 4, 2020)

- Mustafa Yılmaz reappointed as President of EMRA. The decision regarding the appointment of Mustafa Yılmaz was published in the Official Gazette on March 3. (March 3, 2020)



- **TSKB provides total of USD 83 million of financing to wind farms under the Mutlu Group.** The stated financing will be used for the projects of Mutluer Energy company Mutlu 5 RES with a capacity of 44 MW and Yeniköy RES project with a capacity of 48 MW being undertaken by Mutlu Gelibolu. The number of wind farms to receive funding from TSKB, which accounts for 22% of the power of Turkey's total wind energy capacity, has reached 38. (March 3, 2020)

- **Power plants to benefit from capacity mechanism announced in January 2020.** The Turkey Electricity Transmission Company (TEİAŞ) will pay approximately TL 110 million in January within the capacity mechanism. Although a total of 45 facilities are entitled to benefit from the capacity mechanism, a total of 37 facilities were entitled to receive payments in January. It is noteworthy that the capacity mechanism support for the power plants which do not make the environmental investments foreseen in the legislation, and especially for the flue gas treatment plant, was stopped. The closed Seyitömer, Tunçbilek, Kangal and Çatalağzı thermal power plants were removed from the mechanism. The Kangal power plant, which started production in the second week of January and Soma, which was partially closed, were able to benefit from the capacity mechanism. (March 3, 2020)

- **European Bank for Reconstruction and Development (EBRD) to focus on smart grid investments in Turkey.** EBRD Sustainable Infrastructure Group Director Nandita Parshad said that, "We believe more needs to be done for smart grid investment. Smart grid investments in Turkey offer good

potential and these investments can be realized easily. Sustainability and renewable energy investments accounted for nearly half of our investments last year", adding that the EBRD sought to maintain its investments in Turkey at EUR 1 billion this year – the same as in 2019. Parshad also added that "In 2020 we will focus more on smart grid investments and electricity distribution companies." (March 2, 2020)

- **Privatization Administration announces tender for Ahiköy I and Ahiköy II hydroelectric power plants.** The tender will be held in a closed envelope with a bargaining procedure by receiving bids and conducting negotiations. The power plants in Sivas have a total installed power of 4.6 megawatts. (March 2, 2020)

- **Fuel duties on diesel and gasoline increased by 15 kuruş per liter according to President's Decision published in the Official Gazette on Saturday, February 29.** This increase was reflected as an 18 kuruş increase in pump prices. Accordingly, duties on diesel and gasoline increased by approximately 6.3%. According to the decision, SCT amounts were determined as TL 2.0559 per liter of diesel, and TL 2.5265 per liter of gasoline. (March 2, 2020)



News From Abroad

- **Austrian-based energy company OMV increases stake in Borealis, one of Europe's leading petrochemical companies, to 75%.** OMV increased its 36% stake in the petrochemical company Borealis to 75% with an additional 39% stake, for USD 4.68 billion. The deal is expected to be completed by the end of the year. (March 26, 2020)

- **Royal Dutch Shell announces plans to cut capital spending by USD 5 billion to USD 5 billion for 2020, following drop in oil prices.** The company also halted a USD 25 billion buy-back transaction. (March 25, 2020)

- **Green hydrogen pipeline to be established in Germany.** Open Grid Europe (OGE) has announced that a group of gas network operators and the oil and utility company are planning to establish a 130-kilometer hydrogen pipeline to supply to industrial customers in Northwest Germany. The target locations for the pipeline will be Lingen and Marl and Gelsenkirchen in North Rhine Westphalia. In the OGE statement, which is part of the consortium of British Petroleum, Evonik, Nowega and RWE Generation, the pipeline will begin to supply hydrogen for chemical plants and refineries from a hydrogen plant to be built by RWE in Lingen, by 2022. (March 23, 2020)

- **New oil reserve discovered in the Caspian Sea.** The Azerbaijan State Oil Company (SOCAR) has announced that it had discovered an oil reserve in the Caspian Sea as part of its work with Norway's Equinor company. It is stated that the oil reserve has more than 60 million tonnes of oil reserves. (March 20, 2020)

- **USD 2.7 trillion of financing provided to fossil fuels since the Paris Agreement.** According to the report, "Banking on Climate Change 2020: Fossil Fuel Finance Report Card", prepared in cooperation with the Rainforest Action Network, BankTrack, the Indigenous Environment Network, Oil Change International, Reclaim Finance and Sierra Club, over USD 2.7 trillion in financing has been transferred by 35 global banks to fossil fuels each year, since the adoption of the Paris Agreement in December 2015. (March 19, 2020)

- **Solar capacity in USA increases by 23% in 2019.** According to a study carried out by the Solar Energy Industry Association (SEIA) and Wood Mackenzie Power & Renewables, new solar installations in the U.S. reached 13.3 GW in 2019, up 23% from 2018. Thus, the total solar installed capacity of the United States reached 76 GW. (March 19, 2020)

- **The U.S. Energy Information Administration (EIA) revises average Brent oil price forecast for 2020 downwards to USD 43.30 per a barrel.** In its "Short Term Energy Outlook" monthly report, the Covid-19 outbreak led to a downward revision in the global oil price forecast due to the drop-in demand caused by the outbreak and the end of the OPEC+ cooperation. The EIA also predicted that the average price of Brent oil in 2021 would be USD 55.36 per barrel. (March 16, 2020)

- **Russian Energy Minister Aleksandr Novak said dialogue with OPEC was continuing.** Novak announced that the Russian government would send a representative of Russia to the Joint Committee meeting to be held in Vienna on 18 March. (March 13, 2020)

- **OPEC President believes members will agree to reduce oil production.** Algerian Energy Minister and OPEC President Mohammed Arkab claimed he was optimistic that OPEC+ members would adapt to reduce oil production and would reduce existing stocks. (March 12, 2020)

- **World Meteorological Organization (WMO) publishes 2019 Global Climate Report.** With the report, it was confirmed that the global average temperature in 2019 was 1.1°C higher than in the pre-industrial period in what was the second hottest year after the record breaking levels reached in 2016 with the effect of El Niño. In the report, it was pointed out that the hottest five-year period was 2015-2019, and the hottest 10-year period was 2010-2019, with each ten-year period being hotter than the last since the 1980s. In his speech at the press conference, WMO Secretary General Petteri Taalas shared his predictions that as long as greenhouse gas levels continued to increase, global warming would continue and the new record annual increases would be experienced in the next five years. Taalas also pointed out that last January the hottest January on record. (March 11, 2020)

- **Carbon dioxide concentration in the atmosphere reaches 414.11 parts per million (ppm) last month.** According to the data announced by the Mauna Loa Station operating in Hawaii under the U.S. National Oceanic and Atmospheric Administration, this value increased by 2.36 ppm compared to the same period of a year ago. However, this intensity has exceeded the limit of 350 ppm by 64.11 ppm, which is the reliable limit for combating climate change. (March 11, 2020)

- **International Energy Agency (IEA) predicts that oil demand will decrease to 99.9 million barrels/day in 2020.** Pulling down its prediction of 2020 for global oil demand by about 1 million barrels, the IEA stated that demand would decrease by 90,000 barrels/day in 2020 compared to 2019. Estimating that demand for oil would decrease by 2.49 million barrels/day in the first quarter of 2020 compared to the same period of the previous year, the IEA stated that demand would decrease by 40,000 barrels/day in the second quarter but with demand expected to recover in the third and fourth quarters. (March 10, 2020)

- **OPEC member countries and Russia fail to agree on a supply cut.** After OPEC countries agreed on a daily cut of 1.5 million barrels on Friday, Russia refused to implement the cut which OPEC was seeking. Saudi Arabia then went on to cut prices in oil exports. Following this decision, Brent oil's barrel price decreased by about 30% to USD 30 per barrel. (March 9, 2020)

- **Russian energy giant Gazprom reduces price of natural gas sold to Bulgaria by 40%.** According to the announcement, the discounted prices to be agreed will be effective from August 5, 2019. No explanation was made regarding natural gas prices before and after the discount. (March 4, 2020)





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