

Monthly Energy Bulletin

TSKB Economic Research

June 2020 #25

Can Hakyemez hakyemez@tskb.com.tr
Emre Yanik yanikem@tskb.com.tr

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EMRA published its board decisions in the Official Gazette

The regulation on hybrid power plants was published in the Official Gazette. According to the Procedures and Principles Regarding the Regulations of the Power Plant Areas of Associate or Licensed Generation Plants in the Electricity Market prepared by the Energy Market Regulatory Authority (EMRA), all electricity generation plants are also given the opportunity to generate electricity based on an auxiliary source. In the geothermal energy-based power plants established in agricultural regions, biomass-based auxiliary resource units can be established in order to eliminate such wastes and increase electricity production by using agricultural residues and wastes in the region. With the new regulation, it became possible to generate electricity from renewable energy sources such as solar, wind and biomass in the fields of power plants based on conventional energy sources such as coal and natural gas.

With the amendment to the principles of "Associate Duration and Construction Times to be Reference in Determining the Date of Completion of the Facility" for electricity generation investments, the pre-license duration for the hydroelectric power plants with reservoirs and thermal electricity generation plants with domestic or imported coal fuel was determined as 36 months. For other generation facilities, the pre-license duration varies between 24 months and 36 months depending on the installed capacity of the plant. According to the amendment, the construction period of hydroelectric power plants to be referenced varies between 38-72 months, while this period of time is 22-46 months for wind power plants, 38-46 months for geothermal power plants, 24-38 months for biogas/biomass power plants and 22-36 months for solar/hydrogen power plants.

A change has been published in the calculation of the annual maximum generation amount, which will be taken as basis in determining the annual electricity generation amount to be added to pre-license or electricity generation licenses of the plants generating electricity from renewable energy sources. According to the amendment, it was decided to accept the maximum annual generation amount reported by the General Directorate of State Hydraulic Works (DSI) in hydroelectric power plants. It was decided to accept the annual maximum electricity generation amount in wind power plants as 45% capacity factor corresponding to 4 thousand hours per year, 22.8% capacity factor corresponding to 2 thousand hours per year in solar power plants, 85% capacity factor corresponding to 7,500 hours in biomass power plants and 92% capacity factor corresponding to 8 thousand hours in geothermal power plants.

23.59
TWh

June Gross
Generation

291.31
TL/MWh

Average
MCP

16.7%

Although electricity production increased 16.7% in June 2020 compared to the previous month, it was 3.1% below year-over-year.

[Click](#) for details.

The Rise of Green Hydrogen

Green hydrogen is known as "the energy of the future" given its characteristic of not harming the environment.

[Click](#) for details.

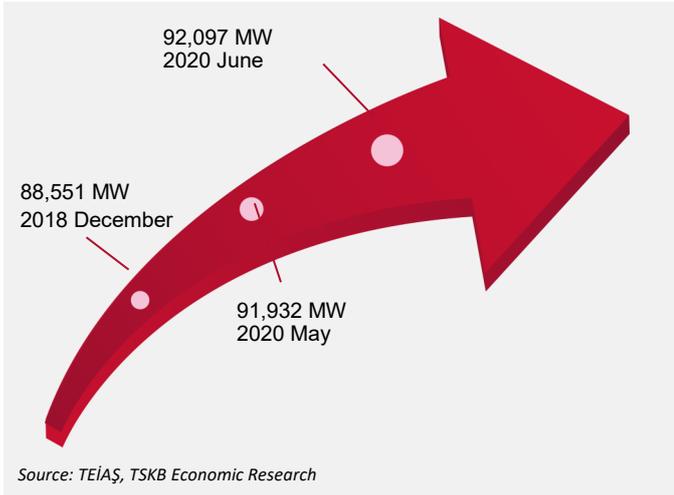
IEA Sustainable Recovery Special Report

Within the scope of the report, IEA prepared a Sustainable Recovery Plan for actions that can be carried out in the period of 2021-2023.

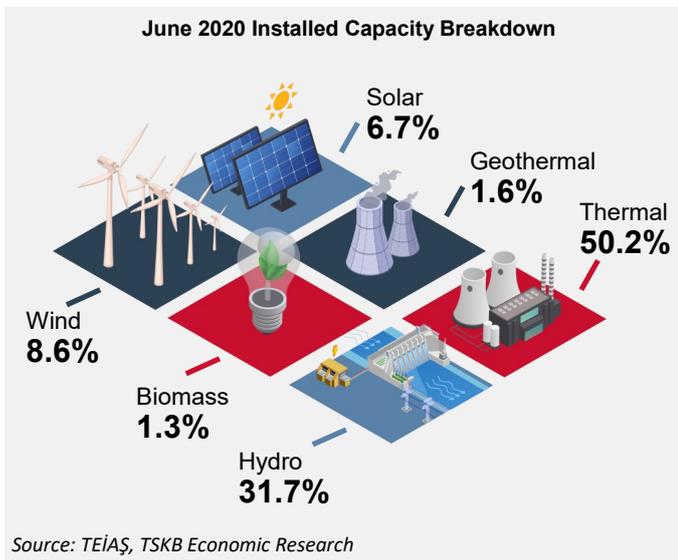
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Installed Capacity Analysis

Turkey's total installed capacity, which had reached 91,267 megawatts (MW) at the end of 2019, edged up to 92,097 MW by the end of June 2020. During this period, hydroelectric power plants with a total installed capacity of 138.8 MW were commissioned. The total installed capacity of licensed and unlicensed wind farms and solar power plants increased by 66.8 MW and 14.6 MW, respectively while the total installed capacity of renewable waste power plants edging up by 5.2 MW. There was no change in the installed capacity of geothermal and coal power plants operating with imported and domestic coal. The total installed capacity of natural gas power plants decreased by 60.2 MW.

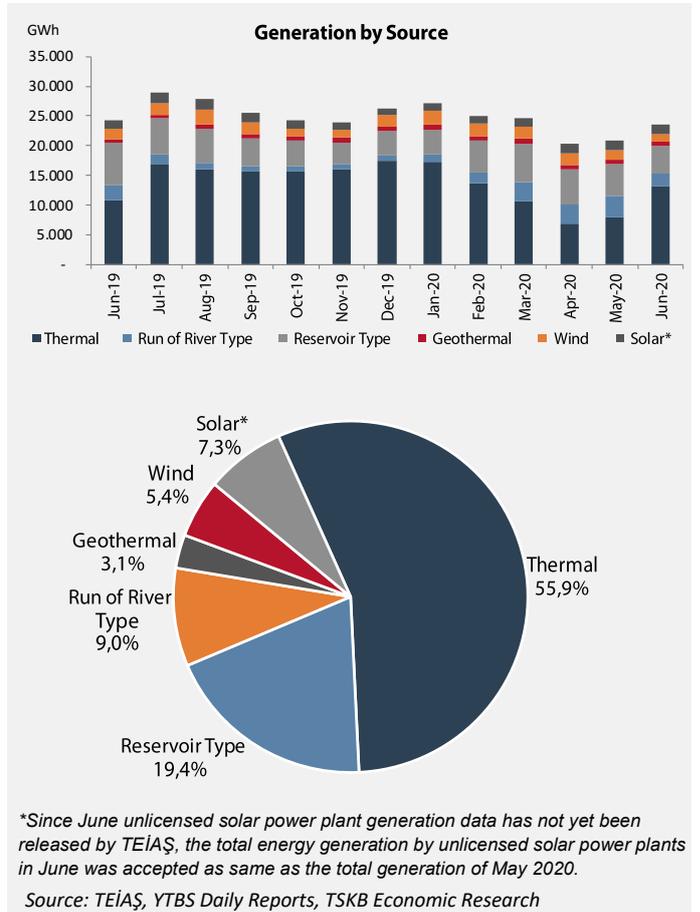


Of all the power plants in operation during June, 49.8% were generating electricity from renewable resources, with hydroelectric power plants accounting for 31.7% of the total installed renewables capacity. Thus, the combined share of wind farms and solar power plants increased to 15.2% by the end of June 2020.



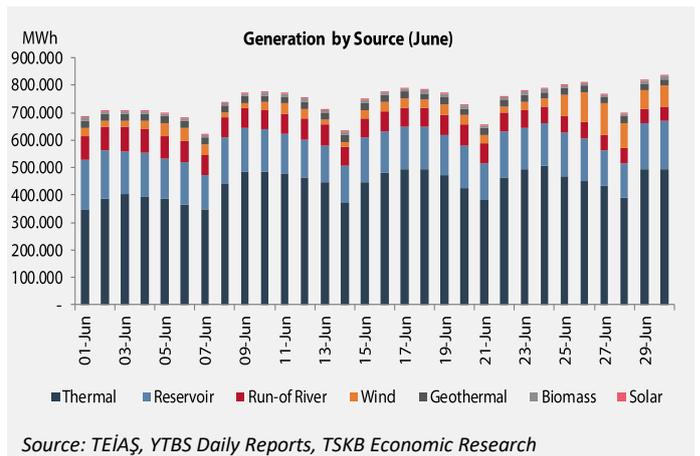
Electricity Generation Analysis

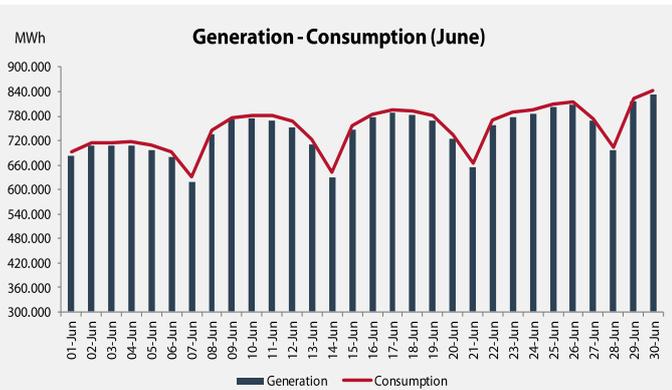
Approximately 20.9 terawatt-hours (TWh) of electricity was generated in May 2020, while total electricity generation in June 2020 increased slightly to 23.6 TWh, marking an increase of 16.7% in average daily electricity generation when compared to the previous month. Moreover, in June 2020, electricity generation decreased by 3.1% when compared to the same month of the previous year.



Thermal power plants, which had supplied 37.8% of all of the electricity generated in May, accounted for 55.9% of the total electricity generated in June 2020, with a decrease in the share of renewable energy resources in total electricity generation and the decrease in the electricity produced in all renewable energy plants likely to have been the main reason for the 18.1-percentage point increase.

After accounting for 43% of electricity generated in May, hydroelectric power plants provided 27.4% of the total electricity generated in June 2020. Another noteworthy development was that renewable power plants, which had an average share of 44.5% in electricity generation throughout 2019, accounted for 44.1% of all electricity generated in June 2020, a decrease of 11.3-percentage points over the share in the same period of 2019.





Source: TEİAŞ, YTBS Daily Reports, TSKB Economic Research

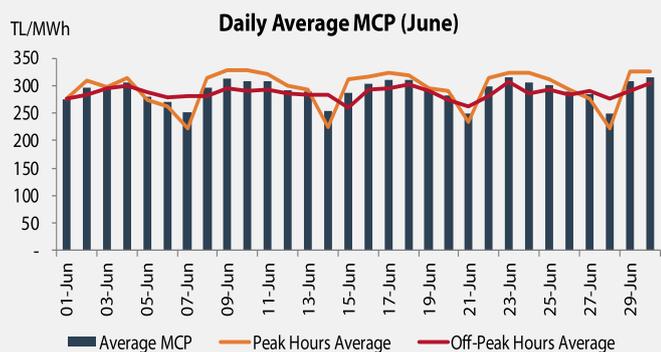
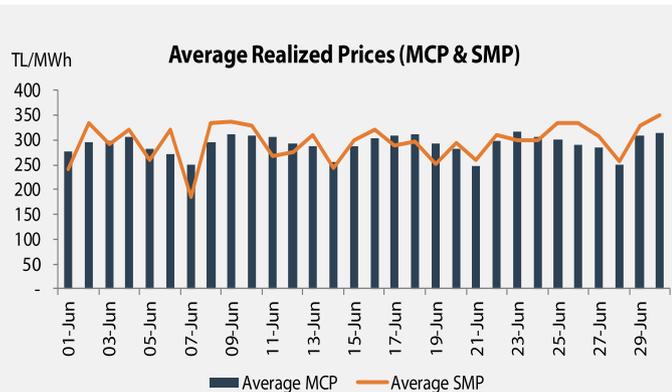
The average daily generation of licensed plants in June 2020 stood at 741,115 megawatt-hours (MWh). The highest level of electricity generation from licensed power plants was realized on Tuesday, June 30th, at 832,221 MWh, with the lowest being on Sunday, June 7th, at 619,899 MWh.

Daily consumption averaged 750,689 MWh in June 2020, peaking at 841,876 MWh on Tuesday, June 30th, while the lowest level of electricity consumption, of 631,053 MWh, was recorded on Sunday, June 7th.

Electricity Price Analysis

The average market-clearing prices (MCP) and system marginal price (SMP) fluctuated between TL 185 /MWh and TL 351 /MWh in June 2020. In the same period, the average MCP stood at TL 291.31 /MWh, while the SMP averaged TL 295.97 /MWh. The lowest average MCP, of TL 248.30 /MWh was recorded on Sunday, June 21st, and the lowest average SMP, of TL 185.98 /MWh was recorded on Sunday, June 7th.

The average MCP for June 2020 increased by 43.3% when compared to the May average. The increase in electricity demand and decrease in the share of renewable power plants in total electricity generation are thought to have been the main reasons for this decline.

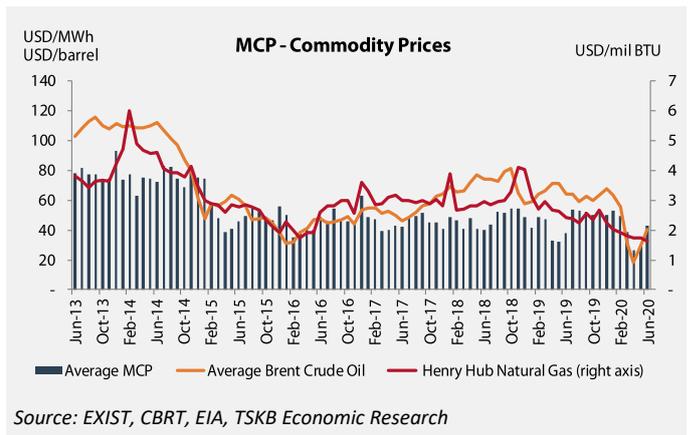


Source: EXIST, TSKB Economic Research

The daily average MCP for June stood at TL 295.74 /MWh for peak hours (from 8AM to 8PM), 1.5% higher than the daily average value. This indicates that the intensity of electricity consumption shifted back to peak hours. The highest peak-hour average recorded was TL 328.57/MWh on Wednesday, June 10th, while the lowest peak-hour average was TL 221.63 /MWh, recorded on Sunday, June 7th.

Average pricing in off-peak hours (from 8PM to 8AM) for the same period stood at TL 286.87 /MWh. The highest off-peak hour average was TL 307.82 /MWh, recorded on Tuesday, June 23rd, with the lowest off-peak-hour average of TL 260.43 /MWh recorded on Monday, June 15th.

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 June edged down to USD 42.78 /MWh, while the average MCP in first half was USD 40 /MWh. The downward trend in the MCP seen earlier in 2020 stalled.



Source: EXIST, CBRT, EIA, TSKB Economic Research

The MCP increased by 46.4% in dollar terms in June when compared to May, mainly as a result of the increase of more than 57% in TL-denominated electricity prices, despite the appreciation of the lira against the dollar.

Brent crude oil prices averaged USD 64.36 per barrel in June, compared to USD 64.36 per barrel in 2019, the level which oil prices converged to before the COVID-19 outbreak. Brent crude oil prices increased by 36.8% in June when compared to the previous month, while also being 37% lower than their level at the same period of the previous year. The average price of Henry Hub natural gas was USD 1.63 /mBTU in June, 7.1% lower than the USD 1.75 /mBTU average for May 2020.



The Rise of Green Hydrogen

In recent years, interest in alternative and sustainable energy sources has continued to grow as part of the efforts to combat climate change and global warming. In this process, which started with the generation of electricity from renewable energy sources, green hydrogen also started to be mentioned frequently. "Green Hydrogen" refers to hydrogen obtained by the electrolysis of water produced by renewable sources. Green hydrogen is known as "the energy of the future" given its characteristic of not harming the environment. Its characteristics of easy and efficient portability, cleanliness, being carbon-neutral and usable everywhere make green hydrogen the most important energy resource of the future.

Germany's Hydrogen Strategy, which was announced on June 3, is aimed at creating 5 GW of green hydrogen capacity by 2030 and a further 5 GW by 2040. This strategy is aimed at elevating Germany into being the world's most advanced green hydrogen technology supplier, while the country plans to invest EUR 9 billion in hydrogen technologies in order to expand green hydrogen. Portugal is planning a new solar hydrogen plant to produce hydrogen by electrolysis by 2023. The Netherlands also declared its hydrogen strategy at the end of March and announced plans for a 500-megawatt green electrolyser capacity by 2025. Australia has allocated USD 300 million to initiate hydrogen projects.

With the COVID-19 pandemic, green hydrogen has the potential of helping meet the decarbonisation targets, especially at a time when European countries have taken action in combating climate change. Turkey should be more open to green hydrogen, which is also called as "Energy of the Future". Moreover, Turkey should support more investment in green hydrogen production and must make maximum benefit from the opportunities that the world try to capture from the hydrogen.



Can HAKYEMEZ - Manager
TSKB Economic Research

IEA's Sustainable Recovery Special Report

The "Sustainable Recovery" report, prepared by the International Energy Agency (IEA) in collaboration with the International Monetary Fund (IMF), was published as part of the World Energy Outlook series. The IEA has prepared a Sustainable Recovery Plan for actions that could be carried out in the 2021-2023 period. Under the Plan, governments have been provided with roadmaps in six areas - electricity, transportation, buildings, industry, fuels and technology – so they can sustainably survive the COVID-19 crisis. However, the report emphasizes that the roadmap in question was not intended to tell governments what to do, but rather to show governments what they can do. The plan also draws attention to national and international goals for long-term growth, future-oriented employment and sustainable development goals.

The Sustainable Recovery Plan has three main objectives; increasing economic growth, creating jobs and creating more flexible and cleaner energy systems. The report demonstrates that it is possible to simultaneously stimulate economic growth, create millions of jobs and pave the way for a structural decline in emissions together with the Plan in question. According to the report, global economic growth of around 1.1% per year can be achieved with the right policies and around USD 3 trillion in total investment over the 2021-2023 period. This would create 9 million jobs per year through investments in six areas for sustainable development. According to the stated plan, a structural decrease in emissions can be achieved by reducing greenhouse gas emissions from the energy sector by 4.5 billion tonnes over the 2021-2023 period. Carbon emissions are expected to decrease by 8% this year on the back of the measures taken and the lockdowns imposed to as governments struggled to tackle the COVID-19 pandemic, with the report also stating that a sustainable economic recovery should be achieved to prevent another peak in emissions.



Emre YANIK - Associate
TSKB Economic Research



Sector News

Local News

- **Ministry of Environment and Urbanization announces amendment to Procedures and Principles on the Implementation of the Regulation on the Recovery Participation Share.** The amendment published in the Official Gazette is aimed at improving the practices related to this Regulation and to clarify it by supporting it with explanatory examples. (June 30, 2020)

- **Minister for Energy and Natural Resources, Fatih Donmez, refers to the emphasis of marine based hydrocarbon exploration, with completion of seismic research period and initiation of exploratory drilling.** In his interview, Fatih Dönmez stated that 44 wells had been drilled in 2020, adding that Türkiye Petrolleri had discovered natural gas reserves in Akçakoca. Dönmez said that 38,000 tonnes of gold had been mined in 2019, adding that there was a target for 45,000 tonnes. (June 29, 2020)

- **EMRA Chairman Mustafa Yılmaz suggests opportunities for those using renewable electricity.** According to a Habertürk report, EMRA Chairman Mustafa Yılmaz stated that green certificate products would be defined as a new instrument in the energy exchange, and that studies on carbon trade would be carried out. (June 29, 2020)

- **EMRA revised board decisions regarding second tariff implementation period of 4 companies for retail sales tariffs.** EMRA's Board resolutions on the issue were published in the June 27th issue of the Official Gazette. Accordingly, the system usage fee upper limits for Palen Energy Natural Gas Distribution Industry and Trade Inc., Armadaş Arsan Maraş Natural Gas Distribution Inc., Enerya Kapadokya Gas Distribu-

tion and İzmir Natural Gas Distribution's were revised. These decisions will come into force on July 1. (June 29, 2020)

- **Energy Efficiency Consciousness Index introductory meeting held by video conference.** Speaking at the meeting, the Minister of Energy and Natural Resources Fatih Dönmez stated that 87.4% of the public was aware of the importance of using energy efficiently. Stating that attitudes and behaviours related to energy efficiency were addressed in the study. Dönmez added: "We determined the Energy Efficiency Consciousness Index as 157.7 out of 200. This value demonstrates that the public is at the middle-upper level of awareness. It turned out to be 177.9. This value shows us that the level of knowledge of the public is at a high-low level. The Behaviour Index is 137.5. We are a little behind the other two results regarding the evolution of knowledge and consciousness into behavior." (June 26, 2020)

- **April's Statistics for solid fuels announced.** According to data released by Turkey's Statistical Institute (TurkStat), lignite was the product with the highest level of production and delivery made in solid fuels in April. Lignite production amounted to 4.06 million tonnes in April. Saleable lignite production decreased 18.7% compared to the previous month, and by 15.5% compared to the same period of the previous year and 35.6% compared to the same month of the previous year. Hard coal production stood at 13,282 tonnes in April. In April, 47.9% of hard coal deliveries were made to thermal power plants, 24.1% to coke plants and 12.6% to industry other than iron and steel; while 85.8% of lignite deliveries were made to thermal plants and 10.4% to industry other than iron and steel. (June 26, 2020)

- **EMRA publishes "Electricity Market Sector Report" for April.** Licensed electricity production in Turkey declined by 16% YoY in April to 19.3 million MWh. Hydroelectric power plants accounted for the biggest share of licensed electricity production with a 47.4% share, followed by imported coal power plants (13.7% share), lignite (12.6%) and wind farms (10.3%). The amount of electricity consumption billed decreased by 14.5% in April compared to the same month of the previous year, to 15.6 million MWh. (June 26, 2020)

- **EMRA publishes "Natural Gas Market Sector Report" for April.** Turkey's natural gas consumption decreased by 20% in April to 3.17 billion cubic meters. In the same period, natural gas imports decreased by 25.8% compared to the same month of the previous year to 2.63 billion cubic meters. According to the report, approximately 1.38 billion cubic meters of imports were realized through pipelines and 1.25 billion cubic meters through liquefied natural gas (LNG) facilities. The highest volume of natural gas purchases were made from Azerbaijan (916 million cubic meters), followed by Russia (470 million cubic meters) and Algeria (352 million cubic meters). In April, 288 million cubic meters of natural gas were purchased from the US, where spot LNG was imported. While the consumption of natural gas in power plants decreased by 53.2% to 241 million cubic meters, residential consumption increased by 2.5% to 1.68 billion cubic meters. (June 26, 2020)

- **EMRA publishes "Liquefied Petroleum Gases (LPG) Market Sector Report" for April.** Turkey's LPG imports decreased by 28.2% in April compared to the same month last year, to 181,054 tonnes. LPG production fell by 26.4% to 61,922 tonnes in the same period. According to the published report, the countries supplying the most LPG through refinery and distributor license holders were Algeria, the USA, Kazakhstan, Norway, Russia and Angola, in that order. In this period, LPG exports made by refinery and distributor license holders decreased by 20% to 14,403 tonnes. (June 26, 2020)

- **EMRA Chairman, Mustafa Yılmaz, issues statements on online panel entitled "The Future Vision of Turkey's Energy Market and Energy Ecopolitics."** Yılmaz stated that renewable energy was of critical importance to ensure Turkey's independence in energy. He also said that it would take steps to ensure that Turkey's available capacity consisted of renewable energy. Yılmaz added that there would be opportunities for consumers seeking to consume electricity generated from renewable energy. He also stated that studies on the subject are continuing. (June 25, 2020)

- **Application submitted to Competition Board regarding acquisition of a 50% stake in Erguvan Energy from Demirer Energy, Yalçın Demirer and Önder Demirer by Batiyel Energy.** (June 23, 2020)

- **EMRA revised unit energy cost of Renewable Energy Resources Support Mechanism (YEKDEM) for June 2020 to TL 134.36 per hour.** This amount had stood at TL 106.82 per MWh as previously revised by EMRA. (June 22, 2020)

- **Turkey adds the 9th most hydroelectric power plant capacity in the world in 2019.** According to REN21's "2020 Renewables Global Energy Status" report, hydroelectric power plants with a combined capacity of 15.6 GW were established worldwide in 2019, led by Brazil, which realized one third of the total new capacities with 4.95 GW of new hydroelectric capacity. (June 22, 2020)

- **EMRA imposed fines of various levels to five companies, two dealers and three distributors due to violations detected in audits.** The total amount of administrative fines imposed on companies found to be in breach was approximately TL 7.2 million. In addition, four electricity suppliers and a fuel dealer requested written defence from the company. The institution also cancelled the distribution license of the company with two fuel distributors. (June 22, 2020)

- **Energy and Natural Resources Minister Fatih Donmez said that investments in efficiency increasing projects have reached TL 210 million.** The Minister of Energy and Natural Resources stated that thanks to the activities carried out within the scope of the National Energy Efficiency Action Plan, total savings from reductions in energy consumption had reached USD 960 million by the end of 2019, adding that with the Small-Scale Renewable Energy Resource Areas (Mini-YEKA) competitions, an integrated sector and production line would be created throughout the country. Fatih Dönmez said that the purchase support to be provided to YEKDEM and mini-YEKA was based on Turkish lira, and that the issue was handled with the financial environments. He stated that the government wanted to develop an investor profile that generated its own electricity with roof and facade applications in solar energy. (June 19, 2020)

- **EMRA's Update on Electricity Market Tariffs Regulation published in the Official Gazette.** The expression "consumer groups included in the tariff proposals are mainly composed of the residential, industrial, commercial, agricultural irrigation and lighting groups." was removed. In addition, the phrase "Different User Groups" was added to the 19th item entitled "Tariff Proposal Price Structure". With this amendment, setting tariffs for different preferences such as renewable energy use is expected to be an option for both companies and individuals, as was previously announced by the Minister of Energy and Natural Resources, Fatih Dönmez. (June 19, 2020)

- **Turkey Electricity Transmission Company (TEİAŞ) to extend deadline due to unforeseen circumstances.** According to the statement issued by TEİAŞ, the obligation to provide a reactive power support service ancillary service certificate, the deadlines for renewal of the primary frequency control test certificate within five years at most and the obligation to renew the secondary frequency control performance test report within five years, which expires between 10 March 2020 and 31 December 2020, have been extended for a period of six months without any action required. (June 18, 2020)



- **TL 5.2 billion of support provided to renewable energy plants in May.** According to figures compiled by the Anadolu Agency from EXIST, TL 1.05 billion of the payment made to the power plants benefiting from YEKDEM in May was allocated to power plants generating unlicensed electricity. The plants under YEKDEM generated a total of 8.65 million MWh of electricity in May. (June 18, 2020)

- **Ministry of Environment and Urbanization publishes the Circular of Wastewater Information System.** With the related circular, the aim is to create inventories of the amount of wastewater discharged to the environment, the amount of wastewater reused after treatment, the amount of wastewater connected to the wastewater infrastructure system and the amount of treatment sludge which are generated by all kinds of activities. Within the scope of the circular, municipalities, organized industrial zones, free and/or industrial zones, industrial sites or cooperatives, industrial facilities, tourism facilities and all other facilities producing domestic wastewater will enter data through the Integrated Environmental Information System. (June 16, 2020)

- **Petroleum Pipeline Company (BOTAŞ) stated that no natural gas delivered to transmission network by pipeline due to the planned maintenance and repair work carried out on the TurkStream Natural Gas Pipeline between 23-28 June.** In its press release, BOTAŞ stated that "During the work on the specified dates, the companies using the TurkStream Kıyıköy Entry Point and related transfer points must establish the Transportation Quantity Notification (TMB) values" of 0 (zero) "Sm³." It was stated that there was no negativity in the supply-demand balance of the transmission network during the said maintenance and repair works. (June 16, 2020)

- **Incentive certificates given to 29 energy investments and 7 mining projects in April.** The Ministry of Industry and Technology reported that a total of 542 projects were found eligible for investment incentive certificates in April. A total of 29 of the projects were granted to the energy sector, seven being mining projects. A total of 32 projects in the energy sector and one project in the mining sector were completed. The project to command the highest investment amount among the projects granted an incentive certificate in the energy sector was the wind farm with a capacity of 110 MW, which will be realized by Erguvan Energy Electricity Generation in Yalova in a TL 795.6 million investment. (June 15, 2020)

- **Ministry of National Education to provide USD 50 million from European Bank for Reconstruction and Development (EBRD) for energy efficiency.** According to the announcement on the EBRD's website, energy efficiency practices are planned to be carried out in 200-250 state schools with a resource of USD 50 million to be provided to the Ministry of National Education, thereby achieving 30% energy savings. The total investment will be USD 63 million with the project implemented over a 3 year period. (June 15, 2020)

- **Total gas transported to Turkey to reach 6 billion cubic meters with Trans-Anatolian Natural Gas Pipeline (TANAP).** Speaking to the Anadolu News Agency, the Director General of TANAP, Saltuk Düzyol stated that the transfer of natural gas from Azerbaijan through Turkey was expected to reach 6 billion cubic meters as of June 30, 2020. (June 12, 2020)

- **İller Bank (İlbank) to implement 576 infrastructure-superstructure projects with a total budget of TL 10 billion lira by 2023 on the anniversary of its foundation, according to Minister of the Environment and Urbanization, Murat Kurum.** Murat Kurum stated that the Ministry was taking firm steps towards their 2023 goals and in this context, were seeking to complete the existing projects as soon as possible, and 116 projects with a total budget of TL 1.5 billion in the field of waste water and 96 drinking water with a total budget of TL 1.5 billion. He stated that the Ministry planned to realize his project. In addition, he stated that in addition to these projects, the Ministry would implement the urban development square, industrial sites rehabilitation and superstructure-other infrastructure projects. (June 12, 2020)

- **Sea passage of the Trans Adriatic Natural Gas Pipeline (TAP), the final section of the Southern Gas Corridor, now complete according to Fatih Dönmez, Minister of Energy and Natural Resources.** Dönmez shared on his Twitter account that "The giant project which will reinforce our role as a central country in energy will also contribute to European energy supply security." (June 12, 2020)

- **Extension to closing date of grant agreement signed between International Bank for Reconstruction and Development (IBRD) and Turkey in the energy sector.** According to the protocol published in the Official Gazette, the protocol on the extension of the the closing date of the grant agreement, which was signed on June 19, 2015 between the Republic of Turkey and IBRD and named the Energy Sector Program Phase-2 Project, has been approved. The agreement was extended to the May 28, 2021. (June 11, 2020)

- **Carbon Disclosure Project (CDP) 2019 Climate Change and Water Program leaders of Turkey announced.** Eti Soda and Yapi Kredi Bank were selected as Turkey's Leader companies in the Water Program. Arçelik, Aselsan, Brisa, Tekfen Holding and Migros were selected as leader companies of Turkey in the Climate Change Program. (June 10, 2020)

- **Financing costs of delays in collection of natural gas and electricity bills due to the pandemic to be covered by the Ministry of Energy and Natural Resources (MENR).** The Regulation on the Postponement of Accrual and/or Collections of Electricity and Natural Gas Consumption Costs due to Disasters Related to Public Life was published in the Official Gazette. The regulation will enter effect from January 1, 2020. (June 10, 2020)



- Announcements regarding mini-YEKA auctions prepared, according to Minister of Energy and Natural Resources, Fatih Dönmez. In his evaluation, Fatih Dönmez stated, "Our intention is to hold these competitions in October. Mini YEKA's will come in capacities ranging from 10 to 50 megawatts, with a total of 1,000 megawatts. Small and medium-sized investors will take advantage of the potential for solar energy generation in their cities." Dönmez also added that within the scope of the agreement with Libya in the Eastern Mediterranean, the government had determined seven license areas and would conduct seismic research studies over a period of 3-4 months, with the locations to be determined after evaluating data received from them. Fatih Dönmez also said that Turkey had filled its oil tanks to 90% capacity in the COVID-19 period, when oil prices were low. (June 9, 2020)

- Temporary working license for one year period granted to producers whose units and chimneys were brought in line with requirements among the six thermal power plants which were closed. The Minister for the Environment and Urbanization, Murat Kurum, said, "In the current period, these producers invested approximately TL 142 million in our power plants in accordance with the legislation. They activated both flue gas treatment systems and other systems. In this context, four of the six units of the Soma Thermal Power Plant, two units from the Kangal Thermal Power Plant, two units from the Çatalağzı Thermal Power Plant, two of the four units from the Seyitömer Thermal Power Plant, two out of the three units of the Tunçbilek Thermal Power Plant and two out of the four units of the Afşin A Thermal Power Plant were granted a temporary working license for one year. These units and chimneys have been made compliant with the legislation." (June 9, 2020)

- EMRA published "2019 Electricity Market Development Report". According to the report, the share of renewable energy sources in total installed power increased from 44.7% in 2018 to 45.2% in 2019. Last year, natural gas had the highest share in licensed installed power with a 30.5% share, followed by dam type hydroelectric power, with a 24.3% share, lignite with an 11.9% share and imported coal power plants with a 10.6% share. Licensed electricity production decreased by 0.6% compared to the previous year. Hydroelectric power plants accounted for the highest share of licensed production with a 30.2% share. This was followed by imported coal (20.5% share), natural gas (19.2% share) and lignite (15.9% share). On the other hand, unlicensed installed power increased by 18.8% compared to the previous year to reach 6,309 MW. Solar power plants consisted of 92.3% of this amount. (June 8, 2020)

- Turkey's total oil imports up 18% YoY in 2019 to reach 44.82 million tonnes. According to EMRA's "Oil Market Sector Report Year 2019", crude oil purchases constituted the largest item in Turkey's total oil imports, rising by 53.7% to 31.07 million tonnes. During this period, Russia provided the highest volume of crude oil (15.9 million tonnes), followed by Iraq (9.53 million tonnes) and Kazakhstan (3.18 million tonnes). In the same period, imports of diesel decreased by 20.7% to 10.9 million tonnes. (June 8, 2020)

- Russia's weight in natural gas imports decreases. According to EMRA's "2019 Natural Gas Market Sector Report", the share of liquefied natural gas (LNG) stood at 29%, with approximately 13 billion cubic meters imported from Russia out of the total of 45.21 billion cubic meters of natural gas imported in 2019. In 2018, the share of LNG in natural gas imports stood at

22.5%. Russia accounted for about 47% of Turkey's natural gas imports in 2018, while in 2019 this proportion declined to 33%. (June 8, 2020)

- Turkey needs to "reduce its energy intensity", according to Energy Efficiency and Environment Agency Chairman, Oğuz Can. In his presentation covered in IRENEC 2020, Oğuz Can stated that the Turkey's energy sector was in the midst of a serious effort and movement in terms of domestic and renewable energy. He also noted that energy efficiency was crucial, adding, "Turkey's energy density is very good compared to the world. We are one click worse than the Organisation for Economic Cooperation and Development (OECD) average, but when we look at the developed economies which are the leading lights of this business, we need to lower our energy intensity. Since 2000 we have seen our emissions intensity drop by 21%, but this effort needs to continue even further. There is a project investment of about TL 198 million, with additional projects." (8 June 2020)

- Electricity capacity mechanism payments for April announced by TEİAŞ. According to TEİAŞ data, a total of TL 260.47 million 6,784 will be paid for 36 out of 45 power plants within the scope of the capacity mechanism in electricity. Within the scope of the capacity mechanism, the highest payment will be made to the Soma Thermal Power Plant (TL 18.24 million), followed by Yatağan Thermal Power Generation, with a payment of TL 17.42 million, and Yeniköy Kemerköy Electricity Production, with a payment of TL 17.42 million. (June 5, 2020)

- Renewable resources account for 66% of Turkey's domestic electricity generation in January-May period, according to Minister of Energy and Natural Resources, Fatih Dönmez. Fatih Dönmez also expressed on his Twitter account that "We continue to reap the fruits of our long-term investments. Following the daily record on May 24, the proportion of our electricity generated from domestic and renewable sources, which was 62% last year, was 66% in the first 5 months of this year." (June 4, 2020)



- **Fuel distribution companies to cut prices by between TL 0.17 and TL 0.25 per litre from midnight, according to EMRA Chairman Mustafa Yılmaz.** In a statement, EMRA Chairman Mustafa Yılmaz announced that EMRA had completed negotiations with fuel distribution companies on the price cuts. According to the information given by Yılmaz, as a result of these negotiations, the distribution companies agreed to apply discounts on fuel prices to be covered by the dealer and distributor profits. Expressing that the discounts to be made will be a discount independent of oil prices and exchange rate movements, Mr. Yılmaz also said, "A discount will be made directly from the profit margins of the distributors and dealers. EMRA will continue to follow the price movements." (June 4, 2020)

- **Çatalağzı Thermal Power Plant (ÇATES) started generating electricity again, after operations were suspended since the beginning of the year for failure to complete environmental obligations.** The Ministry of the Environment and Urbanization and the Zonguldak Provincial Directorate issued ÇATES in Zonguldak, which is part of Aydem Energy, with a Certificate of Conformity. The power plant is expected to start generating electricity again shortly after the Ministry of Energy issues its temporary activity document. (June 4, 2020)

- **EMRA announced electricity market license decisions for May.** According to the decision published in the Official Gazette, while EMRA provided licenses for four power generation projects, it canceled a license which had been issued in 2014. The licenses provided include two solar, one hydroelectric and one geothermal power plant (June 3, 2020)

- **A total of 18 electric vehicles and 485 hybrid vehicles sold in May, according to data compiled by the Automotive Distributors Association of Turkey.** The total sales figures in the first five months of 2020 reached 133 for electric vehicles and 4,317 for hybrid vehicles. In the first five months of 2019, 76 electric vehicles and 3,860 hybrid vehicles had been sold. (June 3, 2020)

- **First quarter average price for YEKDEM of TL 675.13 /MWh.** According to EMRA's "Electricity Market Sector Report", the average price of YEKDEM between January-March 2020 was TL 675.13 /MWh and the additional cost of YEKDEM was TL 134.41 /MWh. (June 2, 2020)

- **EXIST Natural Gas Market Weekly Products opened as of June 1.** According to the announcement made by EXIST, with the Weekly Products, the participants are given the opportunity to manage the imbalances flexibly, the opportunity to organize their transactions with the Weekly Products with up to 7 days delivery, while also benefiting from price advantages with analysis-prediction studies. In addition, with the Weekly Products, where natural gas market participants may trade in a manner similar to daily spot transactions, they are able to trade for the weekend (2 days), weekdays (5 days) and all week (7 days). (June 2, 2020)

- **Total licensed electricity generation in Turkey falls in May.** According to TEİAŞ Load Dispatch Information System data, total electricity generation from licensed power plants decreased by 17.8% compared to the same month of the previous year, to 19.55 billion kWh with 46% of the licensed electricity generation in May coming from hydroelectric power plants and 7.79% from wind farms. Renewable resources accounted for 59.94% of the electricity generated in May. (June 2, 2020)

- **EMRA transferred all transactions to an electronic environment, with some exceptions.** EMRA decided to receive electronic applications for transactions in the field of expropriation with effect from July 1. For the generation facilities, in addition to the electronic application for a while, a written application will be received, and the sector will be harmonized with the process. Subsequently, expropriation requests related to license types within the scope of electricity distribution facilities, natural gas market and oil market will be received in stages as electronic applications. At the end of the process, all expropriation services will be provided electronically. (June 1, 2020)



News From Abroad

- **International Atomic Energy Authority announced 2019 data on global nuclear power plants and projects.** As of the end of 2019, 443 nuclear power reactors with a total installed power of 392.1 GW were operating in 30 different countries around the world. In 2019, six reactors with a total installed power of 5,174 MW were commissioned, while 13 reactors with a capacity of 10,196 MW were deactivated. The total power decreased by 4.5 GW compared to the previous year. As of the end of 2019, 54 reactors, which will have a total installed power of 57.4 GW in 19 different countries, are under construction. 36.5 GW of this capacity is being built in the Asian region. Nuclear power plants generated 2,586.2 TWh of electricity in 2019, equivalent to 10% of global electricity generation. (June 29, 2020)

- **IEA published European Union (EU) Energy Policy 2020 Assessment.** Underlining that energy saving incentive investments should be the “main target” within the framework of the “green” recovery target after the pandemic, IEA noted that accelerating low-carbon building renovations would help reduce the bills of 513 million energy consumers. It was also emphasized that the new public plans, which would encourage consumers to replace old cars and white goods with new and efficient ones, would be extremely beneficial. (June 26, 2020)

- **Decline in carbon dioxide emissions in 2020 to wipe out one decade of increasing emissions at once, according to IEA President Fatih Birol, while expressing his sadness for the reason for the decline.** In an evaluation made on IIEEC webinars on “Sustainable Energy & New Reality”, IEA President Fatih Birol stated that the IEA expected a sharp decrease in carbon dioxide emissions this year. Stating that the IEA has carried out a Sustainable Economic Development Package for the energy sector with the IMF, Birol also underlined that more than 3 million people had lost their jobs in the global energy sector over the last 6 months and that 3.5 million people were at risk of becoming unemployed in the next 6 months. (June 24, 2020)

- **China established world's first renewable electricity transmission line.** The State Electricity Authority of China announced that it had completed the installation of a 1,500 km long transmission line, which will only transmit electricity from renewable sources. The high-capacity line, built with an investment of USD 3.2 billion, will transmit electricity to Hanan. The line is expected to be fully operational in December and carry 40 billion kWh of electricity per year. (June 24, 2020)

- **Danish government's Climate Action Plan, covering 2020-2030 period, ratified by Denmark's parliament.** The plan, prepared by the Danish Ministry of Energy, Climate and Infrastructure, aims to reduce the country's greenhouse gas emissions by 70% below their 1990 levels by 2030, with the goal of reaching net zero emissions by 2050. The Danish government plans to achieve this goal by realizing a number of important projects, especially in the field of wind energy. (June 24, 2020)

- **French energy company Total announces a new climate target of net zero emissions in global production activities by 2050.** Supporting the EU's goal of becoming carbon neutral, Total stated in its announcement the goal of achieving net zero emissions by 2050, together with society, across the global production activities and energy products used by its customers. (23 June 2020)

- **IEA published "World Energy Outlook - Sustainable Development Special Report".** According to the report, annual global economic growth of 1.1% can be achieved between 2021-2023 with a total investment of USD 3 trillion and policies to promote sustainable development. This would create 9 million jobs annually through investments to be made for sustainable development. The report states that of the 40 million people employed in the global energy sector in 2019, about 6 million are at risk of losing their jobs due to COVID-19. (June 19, 2020)

- **Organization of Petroleum Exporting Countries (OPEC) published its oil market report for May.** OPEC's crude oil production decreased by 6.3 million barrels per day in May to 24.19 million barrels per day. Compared to the previous month, global oil supply also decreased by 10.04 million barrels per day to 89.89 million barrels per day. The report predicts that global oil demand will decrease by 9.07 million barrels per day to 90.59 million barrels this year. (June 18, 2020)

- **British Petroleum (BP) published its World Energy Statistics Outlook 2020 report.** According to the report, global primary energy consumption increased by 1.3% in 2019 compared to the previous year, to 583.9 exajoules (EJ). While three quarters of this growth was due to renewable energy and natural gas, the growth in consumption of all non-nuclear energy sources was slower than the average of the last decade. On a country by country basis, China accounted for three quarters of the increase in energy consumption. While India and Indonesia followed China, the biggest decrease in energy consumption occurred in the USA and Germany. According to the report, carbon emissions increased by 0.5% in 2019, below the 1.1-year average of the last decade. (June 18, 2020)

- **Saudi Aramco acquires 70% of SABIC, another Saudi Arabian company and the world's 4th largest producer of petrochemicals, for about USD 70 billion.** Saudi Aramco's payment was 27.5% higher than SABIC's nominal share value. (June 18, 2020)

- **German stimulus package to trigger energy investments.** The German Energy and Water Industries Association (BDEW) stated that the German government's economic stimulus package could trigger EUR 320 billion of energy investment in energy production, distribution, charging stations and hydrogen by 2030. (June 18, 2020)



- **IEA published May Petroleum Markets Report.** The report predicted that global oil demand would decrease by an average of 8.1 million barrels per day in 2020 due to the COVID-19 outbreak. According to the report, the Asia Pacific region will account for the highest level of demand with 35.4 million barrels per day followed by America (30.8 million barrels) and Europe (14.5 million barrels). The IEA predicted that global oil supply would decrease 7.2 million barrels a day this year when compared to the previous year. (June 17, 2020)

- **IEA published "Global Electric Vehicle Outlook 2020" report.** According to the report, sales of electric vehicles will increase despite being negatively affected by the COVID-19 outbreak. The IEA expects global sales of electric vehicles to reach 2.3 million units in 2020, bringing the share of electric vehicles in the total market to 3%. According to the report, while total vehicle sales decreased by 15% in 2019 when compared to the previous year, sales of electric vehicles increased by 40% to 2.1 million units. (June 16, 2020)



- **IEA published "Gas 2020" report, examining the effects of the COVID-19 pandemic on global natural gas markets.** According to the report, global demand for natural gas is expected to decrease by 4% (by 150 billion cubic meters) in 2020 due a combination of the mild winter and the COVID-19 pandemic. The report states the consumption of natural gas planned for electricity generation will decrease by approximately 5%, with this decrease representing approximately half of the total projected fall. (June 11, 2020)

- **German government approved national hydrogen strategy for decarbonizing the economy and reducing carbon dioxide emissions.** Germany plans to invest EUR 9 billion in establishing a clean hydrogen production capacity of 10,000 megawatts by 2040, to meet 10% of its electricity needs from hydrogen. (June 11, 2020)

- **U.S. Energy Information Administration (EIA) published June Short-Term Energy Outlook report.** According to the report, Brent oil, which averaged USD 29 / barrel in May, is expected to have an average price of USD 37 per barrel in the second half of 2020, with the price averaging USD 48 in 2021. The EIA projects that global oil demand will decrease by 83.6 million barrels / day in the second half of 2020, with a decrease of 16.6 million barrels / day compared to the same period of the previous year, while expecting oil production to be 92.6 million barrels / day in the same period. (June 10, 2020)

- **EU's Instrument for Pre-Accession Assistance (IPA), provided by the EU to candidate countries, announced to have a EUR 14.5 billion budget for the third period covering 2021-2027.** Speaking at a meeting, the European Commission's Enlargement Commissioner, Oliver Varhelyi, added that the Turkey would also benefit from the IPA III funds as a EU candidate country. However, in contrast with previous programs, there will be no country-specific allocations in the program. Instead, a competitive performance-based programming process will be carried out for the funds. With the IPA funds provided as a grant by the European Union, the funds are aimed at developing the capacity of candidate countries in harmonizing and implementing the EU acquis and to build their capacity for economic and social cohesion. (June 4, 2020)

- **Saudi Arabia and Russia reported to have reached preliminary agreement to extend oil production cut by 1 month.** According to Reuters' sources, Saudi Arabia and Russia reached a preliminary agreement to extend the production cut, which had originally been implemented for May and June, until the end of July. It was reported that an agreement to extend production cuts will depend on the extent the countries reduce production in the coming months to offset excess production, which had not fully complied with the cut in May. (June 4, 2020)

- **Qatar's public energy company, Qatar Petroleum, signed USD 19.23 billion deal with three South Korean companies.** Under the agreement, Daewoo Shipbuilding & Marine Engineering, Hyundai Heavy Industries and Samsung Heavy Industries will deliver over 100 liquefied natural gas (LNG) vessels to be built by 2027 to Qatar Petroleum. (June 3, 2020)

- **Bulgaria aimed to complete Turkish Stream pipeline by year-end.** The Bulgarian Prime Minister, Boyko Borissov, said that work was underway to complete the Balkan Stream section of the TurkStream Natural Gas Pipeline by the end of the year. (June 2, 2020)



Economic Research

ekonomikarastirmalar@tskb.com.tr

MECLİSİ MEBUSAN CAD.

NO:81 FİNDIKLI İSTANBUL 34427, TÜRKİYE

T: +90 (212) 334 50 50 F: +90 (212) 334 52 34

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