

Monthly Energy Bulletin

TSKB Economic Research

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Statements from Deputy Minister of Energy and Natural Resources, regarding the energy sector

In a statement at the "Renewable Energy Outlook Conference: Turkey, Central Asia, the Caucasus and the Western Balkans Finance, Investment, Regulations and New Technologies", the Deputy Minister of Energy and Natural Resources, Alparslan Bayraktar, stated that Turkey stood at the most important juncture of the last 15 years in the energy market. Mr. Bayraktar said "In general, we want to integrate more renewable energy into our energy system", adding that smart energy systems, artificial intelligence, the Internet of Things and energy efficiency issues are at the forefront of the government's activities. He added that the purchase guarantee incentive within the framework of the Renewable Energy Resources Support Mechanism, which will cease at the end of 2020, will remain in place but the numbers will change and new arrangements will be made. Noting that the prices would be different, especially for solar and wind energy, Mr. Bayraktar stated that each 1-point increase in the share of domestic and renewable resources in the total energy mix would bring a gain of USD 100 million. Emphasizing that the next big phase will be energy efficiency, Bayraktar said, "Energy efficiency will prevent 66 million tonnes of carbon dioxide emissions." Stating that in 2020, Renewable Energy Resource Areas (YEKA) would be allocated with 1,000 megawatts of resources with mini solar auctions, Bayraktar said that the government planned to hold the first of the mini YEKA auctions in the first half of the year.

In his statement at the 3rd Turkish Energy and Natural Resources Summit, the Deputy Minister Alparslan Bayraktar said that oil prices were advancing at reasonable levels and that now was a time to address decarbonization and digitalization in energy. Bayraktar stated that the government was aware that the carbon neutral economy had an important place in the sector, while the importance of demand-side management and storage would continue to increase this year. Adding that the government want to use coal in an environmentally sensitive manner, Bayraktar added that they wanted to bring their coal plants into operation by 2030. Stating the target of reducing equipment imports under the YEKA model, the Deputy Minister stated that the government would maintain their carbon neutral energy policies, even if Turkey was not a party to the Paris Agreement. He said he believed that the time was right for a fresh move towards investment and reform to begin.

25.00 TWh	298.41 TL/MWh
February Gross Generation	Average MCP

45.4%

The share of renewable electricity production in total electricity production increased by 9 percentage points compared to the previous month to 45.4%.

[Click](#) for details.

Unlicensed Electricity Generation

EMRA published "Electricity Market Sector Report—December".

[Click](#) for details.

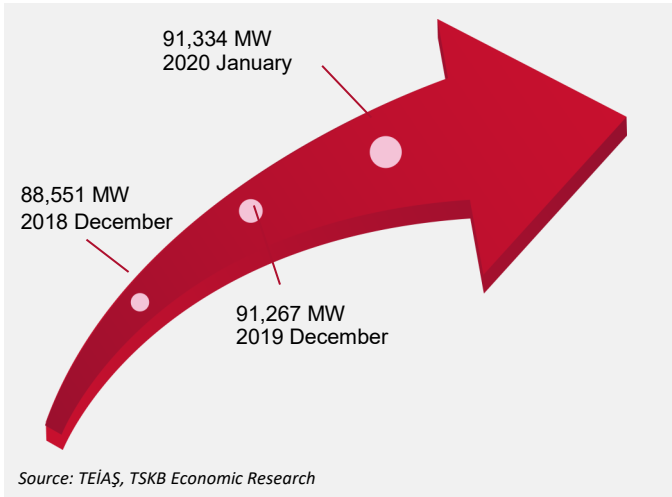
Oil Prices and Covid-19

Brent oil prices are falling due to Covid-19.

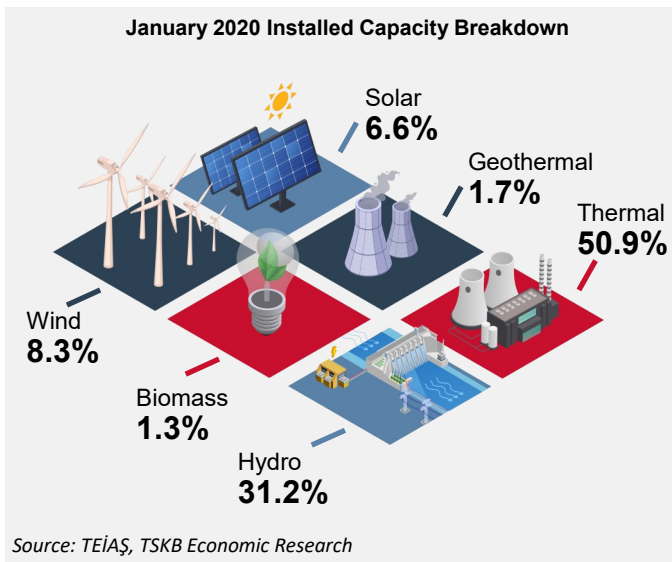
[Click](#) for details.

Installed Capacity Analysis

Turkey's total installed capacity, which had reached 91,267 megawatts (MW) at the end of 2019, edged up to 91,334 MWs by the end of January 2020. During this period, licensed and unlicensed solar power plants with a total installed capacity of 37 MW were commissioned. The total installed capacity of wind farms and renewable waste power plants increased by 18 MW and 14 MW, respectively. The total installed capacity of hydro and natural gas power plants increased slightly by 5 MW and 1 MW, respectively. There was no change in the installed capacity of geothermal and coal power plants operating with domestic/imported coal. The total installed capacity of fuel oil power plants decreased by 8 MW.

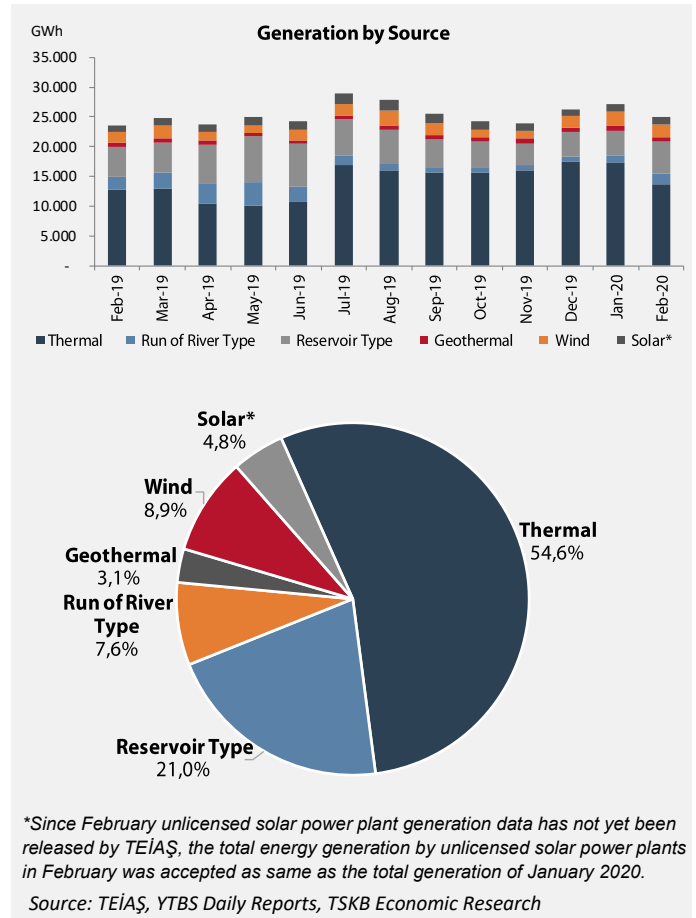


Of all the power plants in operation during January, 49.1% were generating electricity from renewable resources, with hydro-electric power plants accounting for 31.2% of the total installed renewables capacity. Thus, the share of renewable resources remained above 49%. Wind power and solar power plants saw their combined share reach 14.9% by the end of January 2020.



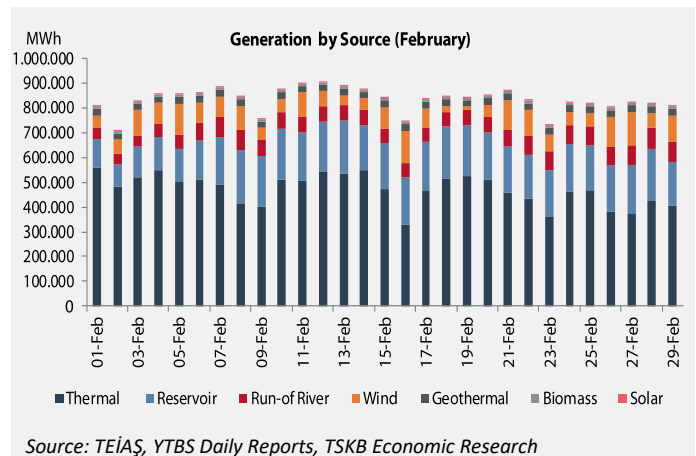
Electricity Generation Analysis

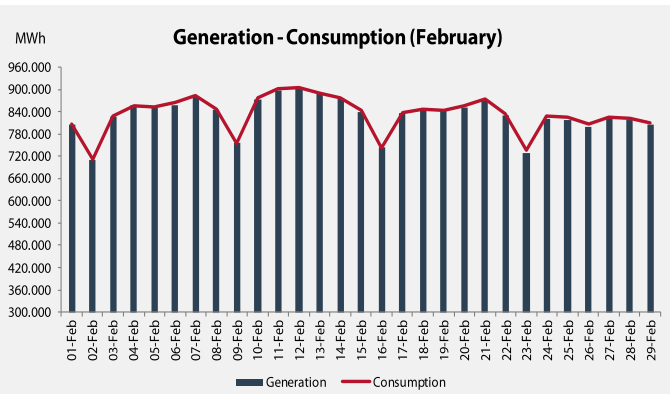
Approximately 27.1 terawatt-hours (TWh) of electricity was generated in January 2020, while total electricity generation in February 2020 reached approximately 25 TWh. There was a decrease of 1.6% in average daily electricity generation in February 2020 when compared to January. Compared to the same month of last year, electricity generation increased by 6% in February.



Thermal power plants, which had supplied 63.6% of all of the electricity generated in January, were responsible for 54.6% of the total electricity generated in February 2020, with the increase in the electricity generation from run-of-river and dam type hydroelectric power plants likely to have been the main reason for the 9-point decrease.

After accounting for 8.8% of electricity generated in January, wind farms provided 8.9% of the total electricity generated in February 2020. Another noteworthy development was that renewable power plants, which had an average share of 44.5% in electricity generation throughout 2019, accounted for 45.4% of all electricity generation in the second month of 2020, similar to the 45.5% proportion in the same period of 2019.





Source: TEİAŞ, YTBS Daily Reports, TSKB Economic Research

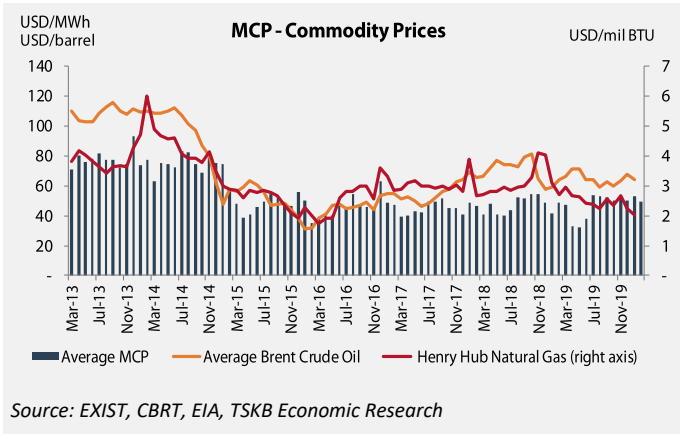
The average daily generation of licensed plants in February 2020 stood at 831,477 megawatt hours (MWh). The highest electricity generation from licensed power plants was realized on Wednesday, February 12th, at 903,896 MWh, with the lowest being on Sunday, February 2nd, at 709,171 MWh.

Daily consumption averaged 834,921 MWh in February 2020, peaking at 907,224 MWh on Wednesday, February 12th, while the lowest level of electricity consumption, of 713,144 MWh, was recorded on Sunday, February 2nd.

When compared to the January 2020 average, the average MCP for February was 8.3% lower. It is thought that the decrease in the share of non-renewable power plants in total production was effective in the stated decline.

The daily average MCP for February stood at TL 313.94 /MWh for peak hours (from 8AM to 8PM), 5.2% higher than the daily average value. The highest peak-hour average recorded was TL 347.01 /MWh on Wednesday, February 12th, while the lowest peak-hour average was TL 176.33 /MWh, recorded on Sunday, February 16th.

The average pricing in off-peak hours (from 8PM to 8AM) for the same period stood at TL 282.88 /MWh. The highest off-peak hour average was TL 310.25 /MWh, recorded on Wednesday, February 19th, with the lowest off-peak-hour average of TL 225.98 /MWh recorded on Thursday, February 27th.



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 January stood at USD 53.16 /MWh while the average MCP in February was USD 49.37 /MWh.

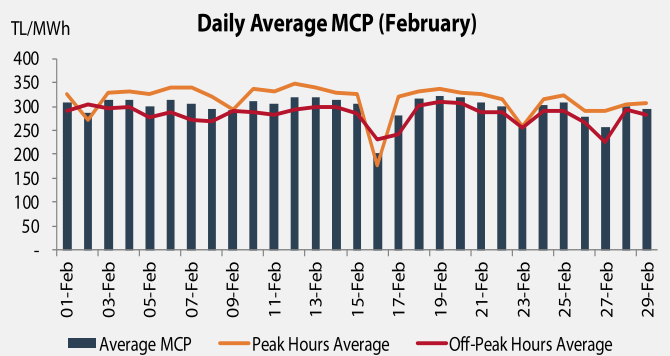
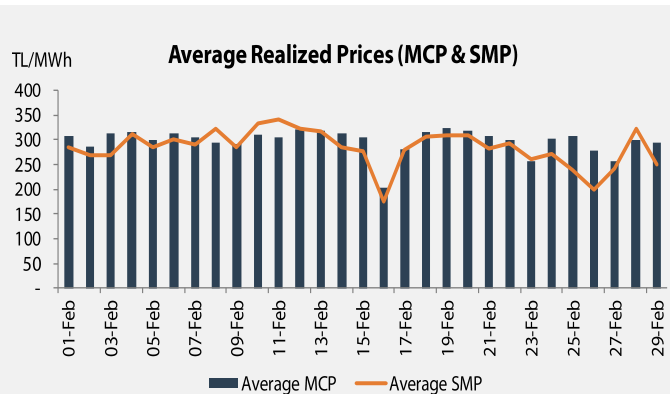
The MCP decreased by 7.1% in dollar terms in February when compared to January, mainly as a result of the 5.1% decrease in TL electricity price and the depreciation of the lira against the dollar.

Brent crude oil prices averaged USD 54.16 per barrel in January, compared to USD 64.36 per barrel in 2019. Brent oil barrel prices decreased by 5.2% in January when compared to the previous month. The average price of Henry Hub natural gas was USD 2.02 /mBTU in January, 9% lower than the USD 2.22 /mBTU average for December 2019.



Electricity Price Analysis

The average market-clearing prices (MCP) and system marginal price (SMP) fluctuated between TL 173 /MWh and TL 341 /MWh in February 2020. In the same period, the average MCP stood at TL 298.41 /MWh, while the SMP averaged TL 284.15 /MWh. The lowest average MCP, of TL 203.30 /MWh and the lowest average SMP, of TL 173.77 /MWh were recorded on Sunday February 16th.



Source: EXIST, TSKB Economic Research

Oil Prices and Covid-19



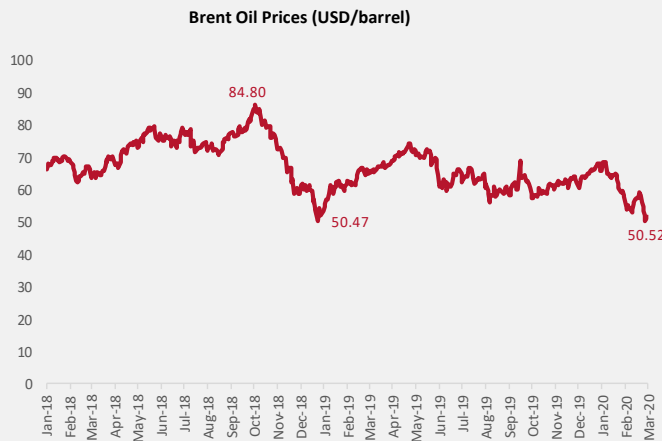
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The fallout of the new type of coronavirus (Covid-19), which has emerged in China and spread to the world, is increasing day by day. Covid-19 raises concerns about global growth, especially the Chinese and Asian economies. In China, the country most affected by Covid-19, demand-side pressure has been observed due to the cessation of many production activities in the country. This situation has led to a break in demand from China, which the world's

second largest economy and the biggest oil importer. When China's impact on the global economy is evaluated in this context, it is observed that global oil demand has been subdued by the spread of Covid-19. Brent oil prices, which averaged USD 64 per barrel in 2019, have declined to USD 50 per barrel. While these levels are the lowest since the beginning of 2019, oil prices have plunged by more than 20% when compared to the beginning of 2020.

The US Energy Information Administration (EIA) revised its global oil demand growth expectations for 2020. It now expects oil demand to grow by 1 million barrels a day, a downward adjustment of 300,000 barrels a day when compared to its previous month forecast. The IEA decreased its daily demand growth forecast for January to 1.2 million barrels per day in January, an adjustment of 365,000 barrels per day. OPEC also updated its demand growth forecast for 2020, which had been approximately 1.2 million barrels a day in January, to 990,000 barrels per day in February.

The decisions of the OPEC and non-OPEC members (OPEC +) meeting, to be held in Vienna on 5-6 March 2020, will be closely monitored for their impact on oil prices. To recap, the decision of OPEC + countries to reduce oil production by 1.7 million barrels / day will be implemented by the end of March. However, the technical committee meeting of the OPEC +, which was held on February 8, recommended extending the current 1.7 million barrel per day production cut, already in force, until the end of June, and extending the production cut by a further 600,000 barrels per day. The EIA's expectation from the meeting in question is for a further reduction in oil production of 0.5 million barrels a day, valid until May. The decision to be taken at the meeting and the impact of the course of the Covid-19 spread on oil prices is expected to continue to affect oil prices in the coming period.



Global Oil Demand Growth Forecast for 2020 (million barrels / day)	January 2020 Report	February 2020 Report	Change
EIA	1,3	1,0	-%23
IEA	1,2	0,8	-%31
OPEC	1,2	1,0	-%19

Source: Reuters, TSKB Economic Research

Unlicensed Electricity Generation

Energy Market Regulatory Authority (EMRA) has published the "Electricity Market December Sector Report". According to a review conducted from the monthly reports published in 2019, Konya was found to be the highest contributing city to the unlicensed electricity generation in Turkey. Konya was followed by Şanlıurfa, Kayseri, Ankara and Afyonkarahisar. According to the analysis, the total electricity generated from unlicensed plants in 2019 stood at 9,814.1 GWh. Unlicensed solar power plants in the Konya province accounted for 9.13% of the total electricity



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Top 10 Cities	Unlicensed Electricity Generation 2019 (GWh)	Share (%)
Konya	896.1	9.13
Şanlıurfa	569.7	5.80
Kayseri	566.7	5.77
Ankara	498.9	5.08
Afyonkarahisar	392.6	4.00
İzmir	365.0	3.72
Eskişehir	352.4	3.59
Manisa	341.6	3.48
Kahramanmaraş	314.9	3.21
Mersin	294.3	3.00

Source: EMRA, TSKB Economic Research

generated from unlicensed power plants in 2019, with a total electricity generation of 896.1 GWh. Şanlıurfa followed Konya, with unlicensed solar power plants there accounting for 5.80% of all unlicensed electricity generation in 2019. Konya and Şanlıurfa were followed by Kayseri (5.77% share), Ankara (5.08%) and Afyonkarahisar (4.00%). İzmir accounted for a 3.72% contribution to unlicensed electricity generation in 2019, while this rate was less than 0.1% in Istanbul. An analysis of the monthly breakdown for 2019 finds that the highest level of unlicensed electricity production in 2019 was realized in July at 11.7%, and in August at 11.3%.



Sector News

Local News

- **Fuel duties on diesel and gasoline increased by TL 0.15 per litre according to the President's Decision published in the Official Gazette on Saturday, February 29.** This increase was reflected as a TL 0.18 increase in pump prices. The stated increase means approximately 6.3% increase in the SCT amount on gasoline and diesel. According to the decision, fuel duties were determined as TL 2.0559 per litre for diesel and TL 2.5265 for gasoline. (February, 29 2020)

- **Third drilling vessel sails from the UK.** The Minister for Energy and Natural Resources, Fatih Dönmez, announced over his social media account that Turkey's third drilling ship, reportedly built in South Korea, was on its way to Turkey. (February, 27 2020)

- **Energy Market Regulatory Authority (EMRA) publishes its "Electricity Market December Sector Report".** According to the report, the amount of electricity generated from power plants benefiting from the Renewable Energy Resources Support Mechanism (YEKDEM) in December totaled 4.46 million megawatts (MWh). The total amount paid for this production was TL 2.31 billion. According to the announced data, the average YEKDEM price was TL 518.62 / MWh while the additional cost of the YEKDEM was calculated as TL 51.53 / MWh. (February, 27 2020)

- **Turkey's crude oil imports up by 21.72% in December.** According to the "Petroleum Market Sector Report- December 2019" published by EMRA, Turkey's crude oil imports in December stood at 2.6 million tonnes, an increase of 21.72%. According to the data contained in the report, a total of 31.1 million tonnes of crude oil was imported in 2019. (February, 27 2020)

- **Decline in Turkey's natural gas imports and consumption in December 2019.** According to the "Natural Gas Market Sector Report" published by EMRA, imports of natural gas in December were stood at 5.4 billion Sm³, down 10.5% compared to the same period of the previous year. In the same period, natural gas consumption decreased by 6.2% to 5.2 billion Sm³. (February, 27 2020)

- **Polat Energy's partners reportedly authorise Barclays to sell entire firm.** Polat Energy holds a 45% share in PSP Investments, a Canadian pension fund investment manager, a 45% stake in France's EDF Energies Nouvelles, and a 10% stake in Batiyel Enerji Elektrik. According to the Reuters report, all three partners are seeking to transfer their shares in the company. (February, 27 2020)

- **OYAK announces it has applied to Competition Board to take over Güzel Energy (TOTAL Oil Turkey) and M Oil from Demirören Holding.** The statement also noted that with the transformation and potential foresight in the energy sector, negotiations with Demirören Holding continued regarding the purchase of Milangaz. (February, 26 2020)

- **Court ruling declares bankruptcy of Yeni Elektrik Üretim A.Ş., owned by Unit Group and its Italian partner, the Ansaldo Group, according to a report in the Dünya Newspaper.** New Electricity Generation, which has a natural gas cycle power plant with an installed capacity of 850 Megawatts in Gebze, applied for a concordat to the Commercial Court about 6 months ago. The court issued a three-month temporary grace and injunction order in September, and the deadline recognized in December 2019 was extended for two months. Finally, the Court, which rejected the concordat request, declared the bankruptcy of Yeni Elektrik. (February, 26 2020)

- **Energy and Natural Resources Minister Dönmez declares Turkey's purchase of a third drilling ship from the UK, which will be in Turkey within a few weeks.** In the 3rd Turkish Energy and Natural Resources summit, Fatih Dönmez stated that the third drilling ship was likely to operate in the Mediterranean, but that one of the drilling vessels could also be sent to the Black Sea. He also emphasized that the Trans Anatolia Natural Gas Pipeline (TANAP) and TurkStream were important projects in Turkey's energy supply security and added, "these two projects will contribute to our national energy supply security." Dönmez also noted that Turkey's natural gas storage capacity was increasing and that once the expansion work of the Tuz Gölü Natural Gas Storage and Silivri Underground Natural Gas Storage facilities were complete, it would be possible to store 10 billion cubic meters of natural gas, corresponding to 20% of the country's gas consumption. (February, 25 2020)

- **Licensed facility requirement introduced for fuel trade between distributors.** The Board Decision on the Amendment of the Resolution on the Distribution of Fuel among Distributors, numbered 7742, entered force with its publication in the Official Gazette by the EMRA. According to the decision, inter-distributor fuel trade will not be possible except for licensed facilities. Fuel distribution between distributors will be carried out by distributor license holders who have sold at least 60,000 tonnes of white products (gasoline and diesel) during the monitoring period. According to the amendment, permit applications related to fuel trade between distributors will be finalized within 60 days. These applications were previously concluded within 30 days. (February, 25 2020)

- **Target of 1,000 megawatts of generation set for rooftop solar power plants.** The Chairman of the Turkish Solar Energy Industry Association (GENSED), Halil Demirdağ, stated that costs had decreased to their lowest levels in the solar energy installation, adding "this may be a 1,000-megawatt rooftop solar panel installation this year due to the rapid evaluation of the call letters and the continuing financial spring in our country." Demirdağ also stated while investment in the solar energy sector had been around USD 5 million per year per investor in the past, this level had now reached USD 500-600 million. Demirdağ also added that if the effect of the Covid-19 outbreak in China was brought under control and that there were no major problems in China, roof solar panel costs would decrease further. Demirdağ said: "This will lead to the issuance of long-term credits in Turkey. The feasibility of solar projects was accepted with the support of credit." Demirdağ added that the increase in the number of electric vehicles in Turkey would increase electricity production from renewable energy. Demirdağ said in the future, the capacity of electric vehicles could reach 100 kilowatts, up from the current 60 kilowatts. (February, 21 2020)

- **PwC Turkey launches "Turkey's Energy Sector Mergers and Acquisitions in 2019" report.** According to the report, the volume of mergers and acquisitions in the energy sector, which was USD 1.52 billion in 2018, reached USD 600 million in 2019 with 22 mergers and acquisitions. Thus, the average trading volume fell from USD 66 million to USD 27 million. The report also stated that all mergers and acquisitions in 2019 were among private sector players. While almost all of the energy mergers and acquisitions in 2018 were carried out by domestic players, the share of the total estimated value of mergers and acquisitions involving foreign investors increased to 57% in 2019. (February, 21 2020)

- **Total of 506.3 million cubic meters of gas transferred through TurkStream, which transmits natural gas to Turkey and Europe via Turkey, in January.** The TurkStream

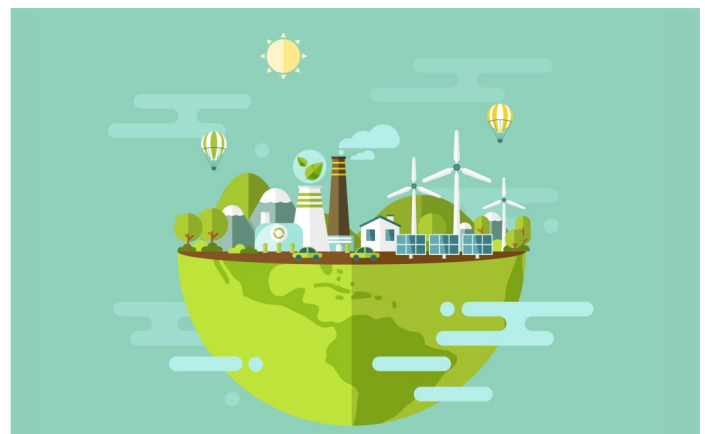
project, consisting of two 930 km long sea lines from the Russian city of Anapa to Kiyıköy and two 142 and 70 km long land lines, was ready for gas flow as of 31 December 2019 and opened by President Recep Tayyip Erdogan and President Vladimir Putin of Russia on 8 January. (February, 20 2020)

- **10% increase in volume of crude oil carried through the four pipelines passing through Turkey compared to the previous year, to 485.8 million barrels in 2019.** According to figures released by the Petroleum Pipeline Company (BOTAŞ), the Baku-Tbilisi-Ceyhan (BTC) Crude Oil Pipeline (COP) carried 235.2 million barrels, the Iraq-Turkey COP carried 194 million barrels, the Ceyhan-Kırıkkale COP carried 34.9 million barrels and the Batman-Dörtyol COP carried 21.5 million barrels of crude oil. In 2018, 442 million barrels of oil were transported through the same pipelines. The amount of transportation made in The Iraq-Turkey Crude Oil Pipeline and Batman-Dörtyol Crude Oil Pipeline in 2019 stands out as the highest amount of oil transportation monitored since 2008. (February, 20 2020)

- **Regulation on "Electricity Generation and Electricity Storage Facilities Acceptance Regulation" published in the Official Gazette.** With the regulation to enter into force on April 1, 2020, the procedures and principles regarding the acceptance processes of the investments that will enable electricity stored in these units to be reintroduced to electricity grid? by adding the energy storage units to the electricity generation facilities. In the regulation, electricity storage facilities are defined as facilities that can store the electrical energy drawn from the system by converting it into another type of energy, and convert the stored energy back into electrical energy for use. (February, 19 2020)

- **Renewable Energy Resource Areas (YEKA) auctions proposed to be made in TL.** Within the scope of the bag law submitted to the Presidency of the Parliament, it is proposed that YEKA auctions are offered in TL terms over the ceiling price to be determined by the Ministry of Energy and Natural Resources and that the price is valid for the period to be determined in the competition conditions within the scope of the Renewable Energy Resources Support Mechanism (YEKDEM). (February, 18 2020)

- **Zorlu Energy plans to release details of its energy portfolio.** The CEO of Zorlu Energy, Sinan Ak, said that the company's power generation plants based on renewable energy resources would be transferred to the Zorlu Renewable Energy company, which was established some time ago, and the public offering of the shares of this company would be possible from September this year. Sinan Ak emphasized that geothermal energy would be an area which Zorlu Energy will especially focus on while they are interested in new wind and solar energy projects. (February, 18 2020)



- **Ministry of Agriculture and Forestry General Directorate of Meteorology releases "2019 Year of Turkey Climate Assessment" report.** According to the report, there were 935 extreme weather events in Turkey in 2019. Of these events, 36% were heavy rainfall and flooding, 27% were thunderstorms and 18% were hail. The average temperature in 2019 was 14.7°C. In 2019, the lowest temperature was -28.1°C, in Yüksekova, while the highest temperature was 46.8°C, in Cizre. Last year, the average rainfall in the area was 1.9% above the 1981-2010 normal (574 mm). (February, 18 2020)

- **The Board Decision on the import of natural gas from countries outside the list of countries where EMRA's public company, BOTAŞ, has signed a natural gas purchase agreement published in the Official Gazette.** According to the Board's decision, the deadline for the applications of natural gas imports from Iraq was determined as 28 February 2020. In addition, the amount of natural gas that can be imported from Iraq between 2023 and 2043 is determined as approximately 2.7 billion cubic meters per year. (February, 17 2020)

- **Turkey's natural gas imports from Russia down by 35%.** According to a statement issued by Gazprom, the company's natural gas exports to Western Europe in 2019 decreased by 9% compared to 2018, to 147.4 billion cubic meters. Last year, 53.5 billion cubic meters of natural gas was exported to Germany and 22.1 billion cubic meters to Italy. On the other hand, 15.51 billion cubic meters of natural gas were exported to Turkey, down 35% from the previous year. (February, 17 2020)

- **Turkey's first Pumped-Storage Hydroelectric Power Plant (HEPP) investment to be initiated in 2020.** According to the 2020 Investment Program published in the Official Gazette dated February 12, 2020, the investment budget of the project, which will cover the years 2020-2032, will be TL 6.3 billion. The project will consist of the Gökçekaya Dam and HEPP with its lower reservoirs to be built in Eskişehir, and will have a power capacity of 1,400 megawatts. The project will be built by Kalyon Construction in cooperation with the Japanese Itochu and Toshiba. (February, 17 2020)

- **Türkerler Holding sells the Tekno Rüzgâr Enerji Yatırım company.** Fina Holding, is owned by the Özyeğin Family, is acquiring Tekno Rüzgâr Energy company, currently under the ownership of Türkerler Holding, marking a USD 40-50 million investment in Balıkesir. Tekno Rüzgâr Enerji Yatırım, which owns the 44 MW Pazarköy wind farm project in Balıkesir, aims to generate 162 million kWh of energy per year at this facility. Ziyaret WPP Elektrik Üretim San. ve Tic. A.Ş. applied to the Competition Board for the acquisition of all of the shares in the company. (February, 14 2020)



- **Atlantic Council Turkey and the European Bank for Reconstruction and Development (EBRD) hold conference on "Renewable Energy Outlook Conference: Financing, Investment, Legal Arrangements and New Technologies in Turkey, Central Asia, the Caucasus and the Western Balkans" to evaluate regional cooperation and investment opportunities in the field of renewable energy.**

- North Macedonia and Serbia, which are dependent on coal for their energy, aim to increase renewable energy installations within the scope of tackling the climate crisis. Speaking at the session entitled "Evaluating Potential: The View of Renewable Energy in the Region", the Macedonian Minister of the Environment and Physical Planning, H.E. Naser Nuredini, pointed out the dominant share of coal in the Balkan energy market, adding, "In the Balkans, we have the same problems where we focused on coal in the past and we are trying to move away from our dependence on coal, which is one of the main causes of the air pollution problem. There is significant potential for solar energy in Macedonia and the government is working hard on this issue. Because we share the air, this problem is not just our problem - we have to share it." Speaking at the session, Serbia's Secretary of State for Energy and Mining, Mirjana Filipovic, noted that Serbia was 78% dependent on lignite, and provided some information about their efforts as a government to increase their renewable energy investments in the energy composition.
- Azerbaijan plans to invest USD 400 million in solar and wind energy. Speaking at the session "Evaluating Potential: View of Renewable Energy in the Region", the Private Secretary of the Ministry of Energy of Azerbaijan, Zaur Mammadov, said that they will increase their renewable energy investments in line with their targets to reduce greenhouse gas emissions. Stating that they received seven offers for 240 MW wind and solar energy projects, Mammadov said that with these investments, the country would reduce its natural gas consumption by 350,000 m³. Adding that a total investment of USD 400 million was expected, Mammadov stated that their goal is to decrease the share of natural gas from 80% to 51% by 2030. (February, 14 2020)

- **Applications for the Renewable Energy and Energy Efficiency Technical Support Project (YEVDES) for Municipalities and Universities carried out by the Ministry of Energy and Natural Resources with EU funding have been finalized.** According to the news reported by the Anadolu Agency, the project will be targeted at the fields of energy efficiency in buildings and installation of solar power plants. Site visits will be made for 80 renewable energy and 80 energy efficiency projects prioritized according to the scores received by the institutions, and the accuracy of the data submitted for the projects will be evaluated and the results will be finalized. The technical support service will be implemented by the consortium led by the German International Cooperation Agency for 30 months, with a budget of about EUR 4.5 million. (February, 14 2020)

- **Record broken in natural gas consumption in January.** According to the infographic shared from the official Twitter account of the Ministry of Energy and Natural Resources, it was reported that the highest level of natural gas consumption ever to occur on a monthly basis, at 6.7 billion cubic meters, was recorded in January 2020. This was the highest consump-

tion of natural gas recorded in the last 5 years on a monthly basis. (February, 13 2020)

- **EMRA publishes project approval and acceptance fees to be applied in 2020 for investments in unlicensed solar power plants (SPP) with installed capacities of 10 kilowatts (kW) or more in the Official Gazette.** According to the decision, different approval and acceptance fees will be applied for capacity increments of up to 100 kW, 300 kW, 500 kW, 700 kW, 1,000 kW. In this context, the lowest project approval and acceptance fees have been set at TL 278 and TL 529 respectively, while the highest rates are TL 2,574 and TL 2,601.50, respectively. Within the scope of the decision, the project approval and acceptance fees will be applied for plants with capacities of more than 1 megawatt (MW) by adding 50% of the service price of 700 kW-1.000 kW per MW. (February, 12 2020)

- **Change in energy efficiency legislation published in the Official Gazette.** The Ministry of Energy and Natural Resources has repealed the published communications on energy efficiency supports adopted in 2012, on energy efficiency training and certification activities, and on authorizing institutions and organizations that will conduct energy efficiency services. (February, 12 2020)

- **Zorlu Enerji Elektrik Üretim A.Ş. plans to open a branch in Kazakhstan.** According to the announcement made on the Public Disclosure Platform, the purpose of the branch to be established is to invest in the capacity of investors in order to operate in Kazakhstan in the fields of solar energy, renewable energy and other energy, to be able to engage in engineering, procurement and installation (EPC) activities and to conclude EPC contracts. (February, 12 2020)

- **Ministry of Energy and Natural Resources publishes report entitled "Efficiency Increasing Projects in the Decade 2020" within the scope of the Productivity Enhancing Projects (VAP).** According to the report, while the projected annual savings for these projects was 43,616 tonnes of equivalent petroleum (TEP), 61,305 TEP savings were achieved in practice. The annual monetary value of the savings was estimated at TL 60.9 million, but actually amounted to TL 84 million. The report emphasized that the energy savings achieved amounted to 493,500 TEP in total over the 10-year period corresponding to the consumption of 598.2 million Nm³ (normal cubic metres) of natural gas. Accordingly, it was pointed out that 180 million dollars of natural gas imports (and therefore 1.3 million tonnes of CO₂ emissions) were prevented. (February, 11 2020)

- **Minister of Energy and Natural Resources Fatih Dönmez speaks in National Technologies Meeting in the Petroleum Industry conference (PEMT 2020).** Dönmez said: "A 13.7% indigenization rate was achieved in the tenders carried out by Turkish Petroleum (TP) in 2019, so we have almost tripled the rate of indigenization in 2018. We will strive to completely domesticate the technology used by TP. We will provide our manufacturers with all kinds of support on the road to National Technology." Dönmez emphasized that the bulk of the materials used in the oil exploration and production process had been indigenized, adding that TP had carried out onshore drilling in 24 rigs and 121 wells in 2019. Dönmez also stated that in 2019, domestic and international oil production had exceeded 150,000 barrels per day. (February, 11 2020)

- **SOCAR AQS, the drilling unit of Azerbaijan State Oil Company, announces opening of first fully equipped and modern Field Facility Center in Turkey for The Salt Lake Underground Gas Storage Project.** According a written state-

ment released by SOCAR AQS, the facility includes a fully equipped office building, a living area, an enclosed warehouse, a cement mixing area and a drilling and mud fluids facility to provide drilling and completion services to its customers. The company stated that since the inception of the project, five major drilling rigs had completed the mobilization processes. The Tuz Gölü Underground Gas Storage Project will consist of 40 wells to be opened to the salt dome to create an underground gas storage capacity of 4.4 billion cubic meters. (February, 11 2020)

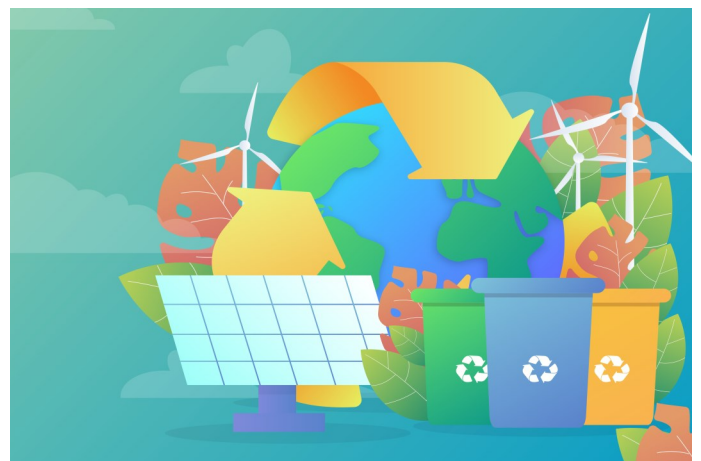
- **Turkish Petroleum Corporation (TPAO) acquires new drilling ship, to join the Fatih and Yavuz ships.** According to a report on Habertürk, TPAO purchased the ship for USD 37.5 million in an auction for a ship drilling vessel by the name of Sertao, which has been moored in Britain's Port Talbot port for two years. The drilling vessel, built by Samsung in South Korea in 2012 and used by Brazilian Petrobras until 2015, is capable of working under very high pressure and temperatures. (February, 10 2020)

- **In December 2019, a total of 20 energy investment incentive certificates were issued, 43 energy projects received a visa and two incentive certificates were canceled.** The Ministry of Industry and Technology announced in December 2019 that 788 projects in various sectors were entitled to receive investment incentive certificates. The total investment amount of the projects receiving an investment incentive certificate in December 2019 was approximately TL 19.1 billion. (February, 10 2020)

- **Turkey's energy import bill declines by 4.2% in 2019 when compared to the previous year.** According to data released by the Turkey Statistical Institute (TUIK), Turkey's total imports in 2019 decreased by 9.1% compared to the previous year to USD 202.7 billion. Turkey's energy import bill decreased by 4.2% compared to the previous year, to USD 41.2 billion. It had stood at USD 43 billion in 2018. (February, 7 2020)

- **Interest support or profit share support amount reduced for photovoltaic solar panel production facility investment in Niğde province.** The decision of the Presidency on the subject was published in the Official Gazette. According to the decision, interest support and / or dividend support, which had been determined as a maximum of 10 years from the date of the credit use, was reduced to TL 200 million for such investment, with an upper limit of TL 350 million. (February, 7 2020)

- **Naturelgaz taking over SOCAR Turkey's liquefied natural gas (LNG) and compressed natural gas (CNG) distribution operations.** Naturelgaz, which is active in the Turkish transport natural gas market, signed a share purchase agreement to



acquire a 100% stake in SOCAR Turkey LNG. The takeover will be completed after meeting the terms of the deal, as well as after obtaining approvals from the Energy Market Regulatory Authority and the competition authority. Following the share transfer, Naturelgaz and SOCAR Turkey LNG plan to merge under Naturelgaz. (February, 7 2020)

- Electricity regulated by a renewable energy tariff for consumers. The Minister of Energy and Natural Resources, Fatih Dönmez, stated that work on a tariff was continuing for users seeking to consume electricity generated only from renewable energy sources. Dönmez added that "Currently we are working on the tariff in the related commission of the Turkish Grand National Assembly. The process will be completed in accordance with the parliamentary calendar and that EMRA would later publish the relevant tariff. Thus, subscribers seeking to benefit from this tariff through the supply companies will be able to do so." Speaking about geothermal power plants, Dönmez said, "We will be the first in the world in terms of installed power from geothermal power and we will open up the difference with Europe. We have projects that are currently under development. When we consider these, and I believe that we will soon increase our installed capacity in geothermal energy to 2,000 megawatts." (February, 6 2020)

- Commissioning of first reactor at the Akkuyu Nuclear Power Plant targeted for 2023. Sergey Butskikh, the First Deputy General Manager and Director of Construction Affairs at Akkuyu Nuclear A.Ş., stated that the construction of the four reactors would continue simultaneously, adding, "Our goal in Akkuyu is to commission the first power unit in 2023." Butskikh stated that the Akkuyu Nuclear Power Plant would meet 10% of Turkey's electricity needs once fully operational. He also added; "The construction of the Akkuyu NGS is carried out in compliance with all security standards of the International Atomic Energy Agency, all security standards of the International Nuclear Security Advisory Group, and the requirements of the International Business Club." (February, 6 2020)

- Communiqué on Amendment to the General Communiqué on the Recycling Participation Share Statement published in the Official Gazette. With the amendment, the phrase "plastic bags from products" in the first paragraph of Article 1 of the General Communiqué on the Recycling Participation Share Statement was changed to "products". At the same time, in addition to the share received from the points of sale for plastic bags, the definition of "Share from other marketers / importers for other products" was added to the definition of Recovery Participation Share. (February, 5 2020)



- Collection of electricity and natural gas bills in earthquake affected area postponed. According to a statement from the Minister of Energy and Natural Resources, Fatih Dönmez, the collection of electricity and natural gas bills for January has been postponed for 90 days for households where buildings have been destroyed or damaged. Mr. Dönmez added that the Aksa Natural Gas and Electricity Distribution Company serving in the region had postponed the accrual periods for 2 weeks. (February, 3 2020)

- Futures transactions to get underway in the electricity market. The procedures and principles to be applied in the Futures Electricity Market (VEP) that will enable further transactions within the Energy Exchange Istanbul (EXIST) were determined and published in the Official Gazette. In the VEP, which will be operated with continuous trade method, transactions will be performed on the basis of offer region, delivery period and load type. VEP contracts will impose the obligation to the parties of the contract to supply 1 lot, 0.1 megawatts per hour (MWh) and multiples of electricity delivery or withdrawal, in the relevant bidding region, in the respective bidding period, on the days subject to the delivery period, at the hours covered by the relevant cargo type. While the work on market setup is being completed in the process of VEP's implementation, it is planned that the VEP will be brought into operation in December 1, 2020, with operations to start in 2021 upon completion of the technical infrastructure. (February, 3 2020)

News From Abroad

- International Energy Agency (IEA) President Dr. Fatih Birol warns that oil demand growth projections may need to be reduced due to impact of Covid-19 outbreak. Dr. Birol stated that oil demand growth forecasts were at the lowest levels in the last 10 years. In the Petroleum Market Report published in February, the IEA set out its expectation that demand for oil would decrease by 435,000 barrels a day in the first quarter of this year. For 2020, it updated its global demand growth forecast by 365,000 barrels a day to 825,000 barrels a day. (February, 26 2020)

- Saudi Arabia launches shale gas development project. The CEO of Saudi Aramco, Amin Nasser, announced that the company had started a shale gas development project to increase domestic gas production and meet the fuel needs of the power generation plants. According to the statement, the project planned for the development of the Jafurah rock gas field has a size of USD 110 billion. (February, 26 2020)

- United States plans to raise USD 1 billion in energy projects to reduce Central and Eastern European countries' dependence on Russian natural gas. In his speech at the Munich Security Conference, the US Secretary of State Mike Pompeo said that the US administration intends to extend up to USD 1 billion in funding to energy projects in Central and Eastern Europe, as part of US efforts to reduce dependence on Russian natural gas. (February, 19 2020)

- IEA lowers global oil demand growth forecast for 2020. The IEA has reduced its global oil demand growth forecast for 2020 by 365,000 barrels / day in January due to the Covid-19 outbreak in China. The IEA also predicted that global oil demand would decrease by 435,000 barrels / day in the first quarter of 2020. Stating that China had accounted for more than three quarters of the growth in global oil demand in 2019, the IEA also stressed that China's oil demand had doubled since the 2003 SARS outbreak. (February, 14 2020)

- **Organization of the Petroleum Exporting Countries (OPEC) lowers its forecast for global oil demand.** According to OPEC's monthly oil market report, OPEC lowered its global oil demand growth forecast by 230,000 barrels per day for 2020, projecting that the growth in global demand would be 990,000 barrels per day in 2020 with total demand of 100.73 million barrels per day. OPEC emphasized that the biggest factor behind its decision to revise its forecasts for 2020 downward was the coronavirus outbreak in China. The report also shared its January global oil production data. Accordingly, global oil production decreased by an average of 10,000 barrels per day in January 2020 compared to the previous month, to 100.12 million barrels per day. In January, production increased by 780,000 barrels per day compared to the same period of 2018. (February, 13 2020)

- **Global energy sector related carbon dioxide emissions remain stable in 2019, at 33.3 gigatons (Gt) according to article published by the IEA.** The total amount of carbon dioxide emissions related to the energy sector, which stood at 32.7 Gt in 2017, reached 33.3 Gt in 2018. According to the report, although the global economy grew by 2.9% in 2019, the most important factors behind the stable carbon dioxide emissions from the energy sector were the increased role of wind and solar-led renewables in developed economies, the transition from coal to natural gas in fuel and higher nuclear power generation. The report added that the reduction in carbon dioxide emissions in developed countries also played a part. In his assessment of the issue, the IEA Executive Director, Fatih Birol, said "we now have to work hard to make sure that 2019 is remembered not only as a year of growth, but also as a definite peak in global emissions". Birol also noted that in order to achieve this, energy technologies were available, and all of them should be used. (February, 12 2020)

- **U.S. Energy Information Administration (EIA) lowers global oil demand forecast for the first quarter of 2020.** The EIA announced its global oil demand forecast for the first quarter of 2020 as 100.3 million barrels per day, down 0.9 million barrels / day compared to January. The EIA also announced that global oil demand was expected to increase by 1.0 million barrels for the 2020 full year. In its January report, the EIA forecasted that global oil demand would grow by 1.3 million barrels per day in 2020. The organization predicts that global oil demand will increase by 1.5 million barrels per day in 2021. The EIA also stated its expectation that members of OPEC would reduce crude oil production by 0.5 million barrels per day in the March-May period. The EIA expects OPEC's daily oil production to stand at 28.9 million barrels per day in 2020. (February, 12 2020)

- **Azerbaijan to produce less oil and more natural gas in 2020.** The Vice President of SOCAR, Yasar Latifov, stated that Azerbaijan planned to increase natural gas production from 35.6 billion cubic meters in 2019 to 38.4 billion cubic meters in 2020, while emphasizing that oil production would decrease from 37.5 million tonnes to 36.5 million tonnes. (February, 11 2020) (February, 12 2020)

- **OPEC+ Technical Committee to advise a deepening of the production cut.** The OPEC+ Technical Committee will advise OPEC+ members to further deepen its production cut by 600,000 barrels per day in an environment where the coronavirus outbreak has weakened global demand, following a 3-day meeting in Vienna. However, the Committee was unable to set a new date for the OPEC+ Committee of Ministers meeting and stated that ministers would decide on the date of such an extraordinary meeting. (February, 7 2020)

- **European Union (EU) reduces CO₂ emissions from electricity generation by 12% in 2019, while raising the proportion of electricity generated from renewable sources to 34.6%.** According to the "Energy Sector of Europe 2019" report prepared jointly by Agora Energiewende and Sandbag, greenhouse gas emissions from the electricity generation in the EU recorded their sharpest decline since 1990 during 2019. In a statement issued by Agora Energiewende, the President of European Energy Policy, Matthias Buck, stated that the drop in CO₂ emissions was due to CO₂ price increases to approximately 25 euros per ton. At the same time, wind and solar power plants in the EU produced more electricity for the first time in 2019 than coal-fired power plants. (February, 6 2020)

- **CO₂ concentration in atmosphere reaches average of 413.40 parts per million (ppm) in January 2020.** According to data announced by the Mauna Loa Station operating in Hawaii under the US National Oceanic and Atmospheric Administration, the mentioned value represents an increase of 2.57 ppm compared to the same period a year ago. However, this density concentration was 63.4 ppm higher than the 350 ppm level, which is taken as the reliable level February, 6 2020)

- **26th Conference held of Parties to the United Nations Framework Convention on Climate Change (COP26).** Speaking at the meeting, the UK Prime Minister Boris Johnson said that global hydrocarbon dependence had run completely out of control in 20th century and that too much carbon dioxide had been released into the atmosphere. (February, 5 2020)

- **U.S. automaker Tesla signs deal with Chinese battery maker, Contemporary Amperex Technology (CATL) for batteries which it will use in electric vehicles to be produced in China.** Tesla plans to use the batteries it will receive from CATL in the Model 3 sedan that is being produced at its factory in Shanghai. The deal will enter effect in July 2020 and will continue until June 2022. (February, 5 2020)

- **United Arab Emirates (UAE) announces discovery of a new natural gas field, estimated to have 80 trillion cubic meters of reserves.** The site will be developed by the Abu Dhabi National Petroleum Company (ADNOC) and the Dubai Supply Authority (DUSUP). (February, 4 2020)





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