

Monthly Energy Bulletin

TSKB Economic Research

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Excess electricity beyond internal consumption to be given to the system for free

According to the decision by the Energy Market Regulation Authority (EMRA) published in the Official Gazette, in the calculation of the excess electricity that can be sold at unlicensed electricity generation facilities, the total amount of imbalanced electricity drawn by the facility from the electric network in the previous calendar year will be taken as a basis. In case the uncollected electricity consumption drawn from the network exceeds the determined electricity consumption, in the current year, the amount of excess electricity to be sold will be calculated by the data of the current year. Based on this decision, in the event that the facility does not have any consumption in the previous year, this consumption amount will be calculated based on the average of current monthly consumption, and on an annual basis. Any electricity supplied to the electricity grid through the generation of more than the amount of excess electricity to be determined on the basis of the consumption amount determined by these methods will be accepted as supplied to the system by the assigned supplier. No payment will be made by the market operator and the supplier related to this energy, and YEKDEM will be considered as a contribution without charge.

Production facilities which are related to residential subscribers which have an installed capacity of less than 50 kilowatts have been excluded from the scope of this decision. In a statement concerning the decision, the President of EMRA, Mustafa Yılmaz, said that the purpose of this regulation was to support those who produce electricity for their own consumption. He remarked that where generation exceeds consumption, this amount will be reflected to the system free of charge. President Yılmaz also announced that EMRA had removed the condition of being in the same distribution zone to be able to build a facility outside of industrial zones and in different distribution zones for the consumers who could not find a place for their unlicensed production facility in the places where there dense housing or in organized industrial zones .

31.40
TWh

August Gross
Generation

3,066.6
TL/MWh

Average
MCP

10.3%

Daily average licensed electricity generation increased by 10.3% MoM with a decline of 4.2% YoY in August.

[Click](#) for details.

31.6%

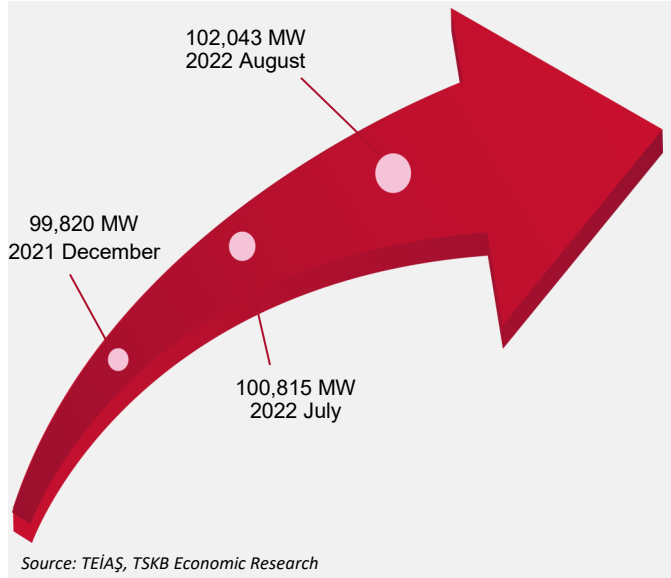
Market Clearing Price (MCP) increased by 450.2% YoY and by 31.6% MoM in August.

[Click](#) for details.

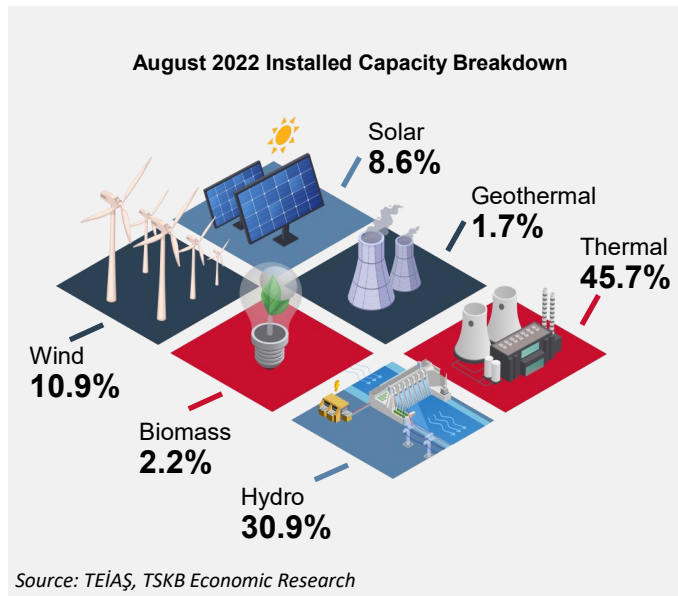


Installed Capacity Analysis

Turkey's total installed generation capacity, which had reached 99,820 megawatts (MW) at the end of December 2021, reached 102,043 MW by the end of August 2022. A net total of 229 MW in installed capacity came onstream in August, with solar power plants accounting for 135 MW of this installed capacity. In the same period, there was an increase of 84 MW in the total net installed capacity of wind farms, while the increase was 12 MW for renewable waste energy power plants.

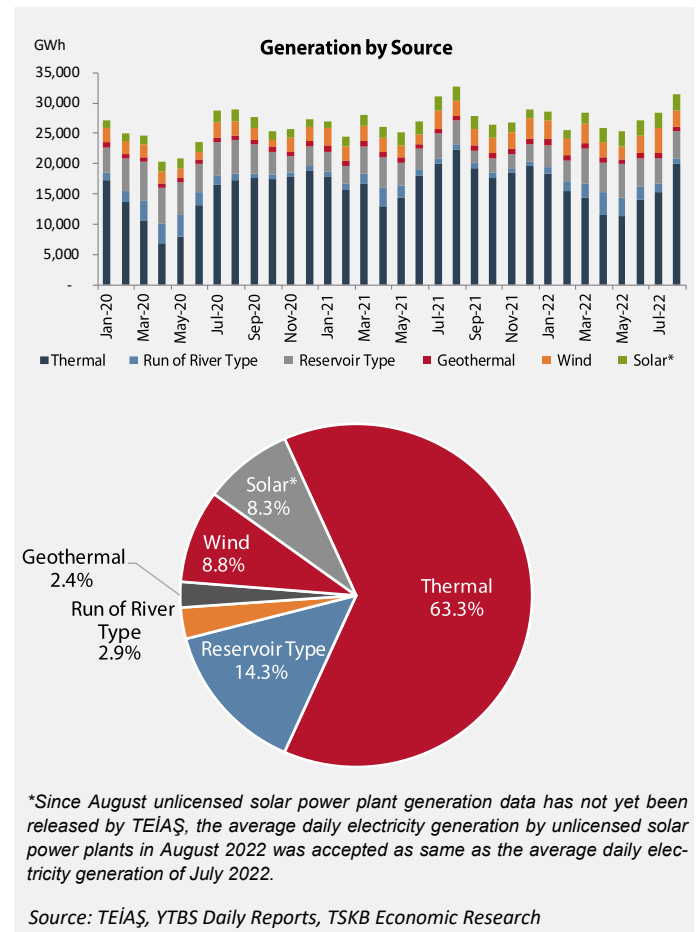


In August, 54.3% of the capacity of the power plants in operation consisted of renewable energy. Thus, the share of renewable resources remained above 54%. Hydroelectric power plants accounted for a 30.9% share of Turkey's total installed electricity power, followed by wind and solar power plants with a 19.5% share.



Electricity Generation Analysis

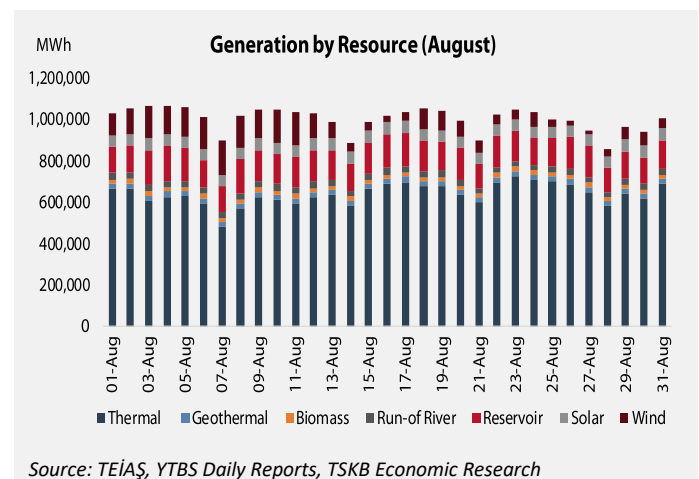
Total electricity generation, which stood at approximately 28.47 terawatt-hours (TWh) in July, was realized at 31.40 TWh in August with a 10.3% increase in daily average electricity generation in August when compared to July. When compared to the same period of the previous year, there was a 4.2% decrease in daily average electricity generation in August.

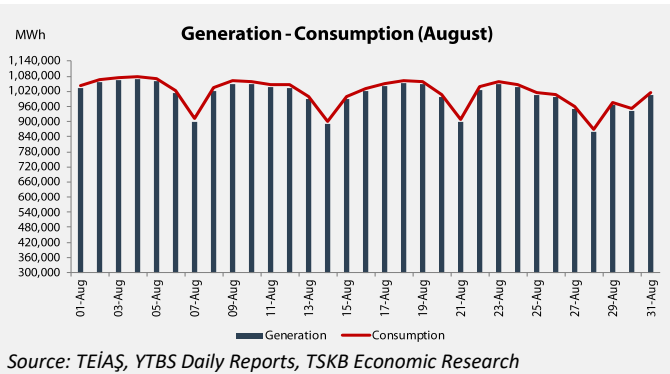


*Since August unlicensed solar power plant generation data has not yet been released by TEİAŞ, the average daily electricity generation by unlicensed solar power plants in August 2022 was accepted as same as the average daily electricity generation of July 2022.

Thermal power plants accounted for 53.9% of the electricity generated in July and 63.3% of the total in August. Hydroelectric power plants, which comprised a 19.7% share in the previous year, generated 17.2% of the total electricity in August. In the same period, the share of electricity generated by the wind decreased by 5.9 percentage points to 8.8%

Renewable power plants, which had accounted for an average of 36.0% total electricity generation in 2021, provided 36.7% of generation in the eighth month of 2022. In the same period hydroelectric power plants with a barrage contributed to 14.3% of the total production, while river-run hydroelectric power plants accounted for 2.9% of total generation.





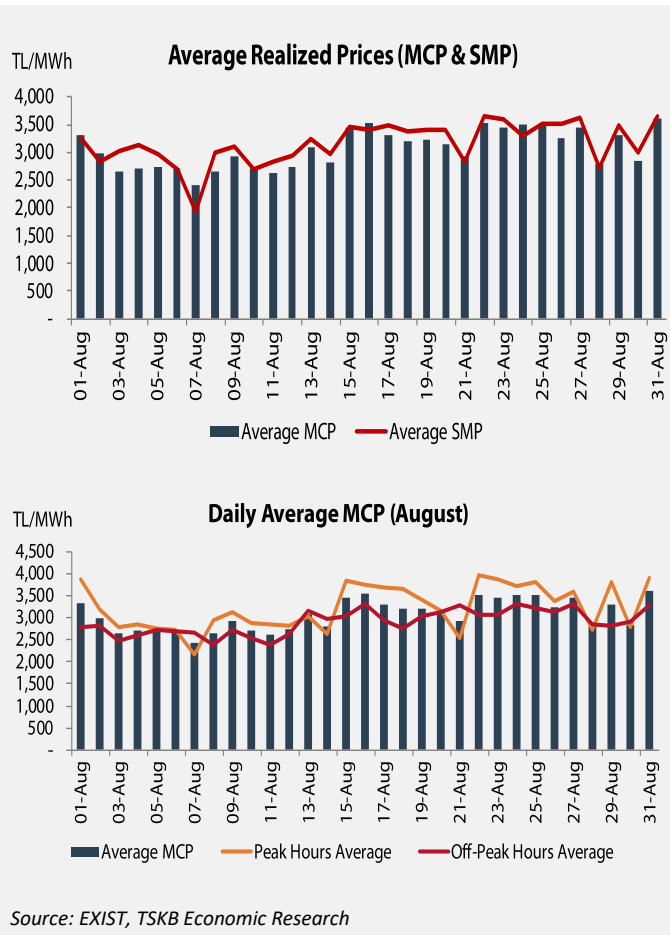
Daily average electricity generation of licensed power plants was realised at 1,004,814 MWh in August with the highest generation from licensed power plants realised on Thursday, 4 August at 1,068,761 MWh. The lowest generation from licensed power plants was recorded on Sunday, 28 August as 858,526 MWh.

The average daily electricity consumption was 1,015,336 MWh in the same period. The maximum consumption in the eighth month of the year was recorded on Thursday, August 4, at 1,078,864 MWh, with the lowest recorded on Sunday, August 28, at 869,384 MWh.

Electricity Price Analysis

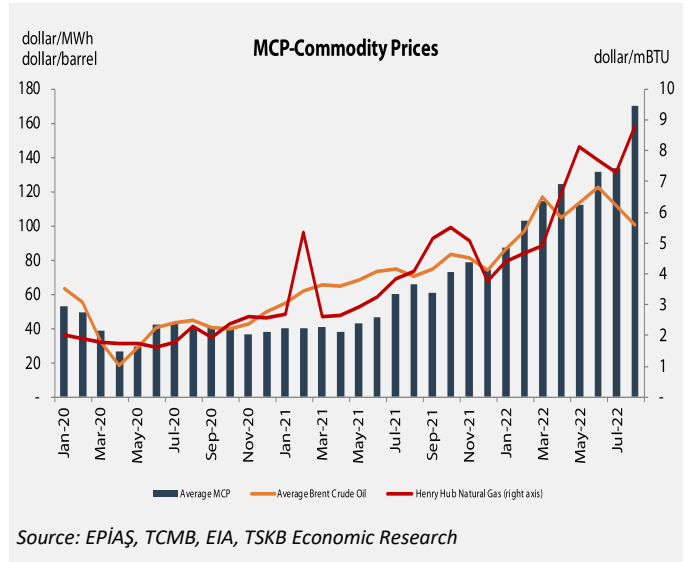
The daily average market clearing price (MCP) and system marginal price (SMP) varied between TL 1,900 and TL 3,650/MWh in August. The average MCP stood at TL 3,066.50 /MWh in August while the SMP averaged TL 3,160.90 /MWh in the same period. The lowest daily average MCP of TL 2,417.10 /MWh was recorded on Sunday, 7 August while the lowest average SMP of TL 1,919.70 /MWh was recorded on the same day.

An analysis of the hourly data finds that the MCP was realized at the determined maximum price limit of TL 4,000 TL /MWh for a total of 146 hours, with the SMP reaching its maximum for a total of 185 hours in August.



In August, the average peak hours MCP (between 8AM-8PM) reached TL 3,230.60 /MWh, an increase of 5.3% compared to the daily average value. The maximum limit price of TL 4,000 /MWh was recorded during the peak hours for 103 hours, while the lowest price of TL 1,500 /MWh in peak hours was realized on Sunday, August 7th.

In the same period, the average of off-peak hours (between 8PM-8AM) was TL 2,902.50 /MWh. While the maximum limit price of TL 4,000 /MWh was only realized for one hour during off-peak hours, with the lowest off-peak hours price recorded on Sunday, August 7, at TL 1,250 /MWh.



The MCP, which averaged USD 133.80 /MWh in July, increased to an average of USD 170.10 /MWh in August. The MCP was 159.1% higher in USD terms when compared to the same period of the previous year.

Average Commodity Prices

The price per barrel of Brent crude, which averaged USD 111.90 in July, decreased to USD 100.50 in August, marking a monthly decrease of 10.3%. This actualized average price was 42.0% higher than in the same period of the previous year.

The contract price of Henry Hub natural gas, which averaged USD 7.30/mbtu in July, increased by 21.0% on a monthly basis to reach USD 8.80 /mbtu on average in August. When compared to the same period of the previous year, there was a 116.5% increase in August 2022.





Sector News

Local News

- **The Electricity Distribution Services Association (ELDER) published its “ELDER Sector Report 2021” study.** In the report, it was stated that total investments realized by electricity distribution companies throughout Turkey in 2021 had increased by 56.7% in comparison with the previous year to reach TL 14.7 billion. The total number of subscribers receiving services from the system in 2021 exceeded 47.31 million, while electricity consumption increased by 8.4% YoY to reach 253 terawatt-hours. (24 August 2022)

- **Enerjisa Üretim extended USD 102 million of credit to be used in renewable energy investments.** According to press reports, the credit will be used to finance the 65 MW capacity Erciyes Wind Farm and the 35 MW capacity hybrid solar farm, which Enerjisi Üretim plans to open for operation by the end of this year. The credit will be provided by HSBC and its subsidiaries. (17 August 2022)

- **Fatih Dönmez stated that there would be no natural gas problems if natural gas suppliers follow the delivery plan.** In his announcement, the Minister for Energy and Natural Resources, Fatih Dönmez, stated that the government had reached an agreement to trade in ruble terms for natural gas payments, with the TL also being discussed in transactions. Minister Dönmez remarked that work on the natural gas discovered in the Black Sea was continuing and that progress was on track for completion in 2023. In addition, Mr. Dönmez said the Renewable Energy Resource Fields Solar Power Plants- 5 (YEKA GES-5) contest would be held within the next 1-2 months with 1,200 MW in capacity to be provided for the contest. (12 August 2022)

- **50% stake in Kalyon Energy sold to International Energy Holding.** According to press reports, the United Arab Emirates

based International Energy Holding bought a 50% stake in Kalyon Energy for USD 490 million. (11 August 2022)

- **Ministry for Energy and Natural Resources (MENR) aiming to bring first reactor of Akkuyu Nuclear Power Plant onstream in accordance with project schedule.** In the announcement made by the MENR, it was stated that the Ministry aimed bring the first reactor onstream in 2023, in accordance with the project timetable by taking international standards as reference, under the control and approval of the Nuclear Regulatory Authority. Within this scope, it was added that necessary steps had been taken to resolve the conflict between the Akkuyu Nuclear Power Plant and the contractor Titan 2-İC İtış consortium. (03 August 2022)

- **Tariff for natural gas used by natural gas power plants raised by 10%.** According to the tariff table published by Boru Hatları ile Petrol Taşıma A.Ş. (BOTAŞ) for August, the sales price which BOTAŞ will apply to natural gas distribution companies for residential consumers has remained unchanged at TL 3,264 per 1,000 cubic meters of natural gas, and at TL 10,416 per 1,000 cubic meters of natural gas for industrial subscribers. The price for power plants using natural gas to generate electricity, however, was raised by 10% to TL 13,750 per 1,000 cubic meters. (1 August 2022)

News From Abroad

- **Natural gas delivery to be suspended for 3 days through Nord Stream.** According to data published by Nord Stream AG, no natural gas delivery is planned to be actualized through the pipeline between 31 August-2 September. Gazprom had announced that the flow of natural gas would be suspended for 3 days starting from 31 August due to the maintenance in the only working compressor unit on the Nord Stream pipeline. In the statement, Dmitry Peskov, a Russian government spokes-

man, announced that the natural gas delivery from Nord Stream was stopped due to sanctions. Agnes Pannier-Runacher, France's Energy Transformation Minister, said that it preparations should be made for when Russia cuts off its natural gas supply completely. In addition, Belgium's Energy Minister, Tinne Van der Straeten, warned that the next 5 to 10 winters would be "terrible" in Europe unless a ceiling price was applied to the high natural gas prices in the European Union (EU). (31 August 2022)

- Europe preparing for an emergency response for the electricity market. The President of the European Commission, Ursula Von Der Leyen, said that the era of importing fossil fuels from Russia was over in Europe. While President Von Der Leyen reiterated that the electricity market had been developed for different conditions and purposes, she added that the EU was preparing for an emergency response for the European electricity market, adding that there was a need for a new market model. After this statement, energy ministers of European countries agreed to gather on September 9th. In the meeting, the energy ministers of European Union member countries will discuss the rapid increase in natural gas and electricity prices in this extraordinary meeting. (31 August 2022)

- Switzerland and Spain taking measures to save energy. The Swiss government set out a goal to reduce natural gas consumption by 15% in the winter to stave off the negative effects of an energy crisis. In Spain, on the other hand, the energy saving plan which entered force with the decree issued at the beginning of August was approved in parliament. It highlighted that reducing heat settings by one notch in heaters, such as radiators or boilers could achieve savings of 5-6%, and this rate could reach 20% if the dual-fuel systems in apartment buildings and commercial buildings was transformed to liquid fuel from natural gas voluntarily. In Spain, the government has decreed that the use of air conditioning should be limited to 27°C in government buildings, commercial areas, large shops, airports, transportation infrastructure such as train and bus stations, cultural areas and hotels, and that lighting of display windows in government buildings, shops and malls would be turned-off after 10pm. (26 August 2022)

- Green hydrogen agreement signed between Germany and Canada. According to the agreement, the green hydrogen produced by Canada using wind energy will begin to be delivered to Germany by 2025. While Canada aims to be an important producer and exporter of green hydrogen, Germany aims to reduce its dependence on Russian gas on one hand while also decarbonizing its industry in line with its goal of becoming climate neutral by 2045 by importing this type of clean energy. (25 August 2022)

- German energy firm Uniper to activate coal-fired power plant to cover output gap in wake of Russian gas supply problems. In a statement, the Company announced that the Heyden-4 energy facility would generate electricity from 29 August to 30 April 2023. (25 August 2022)

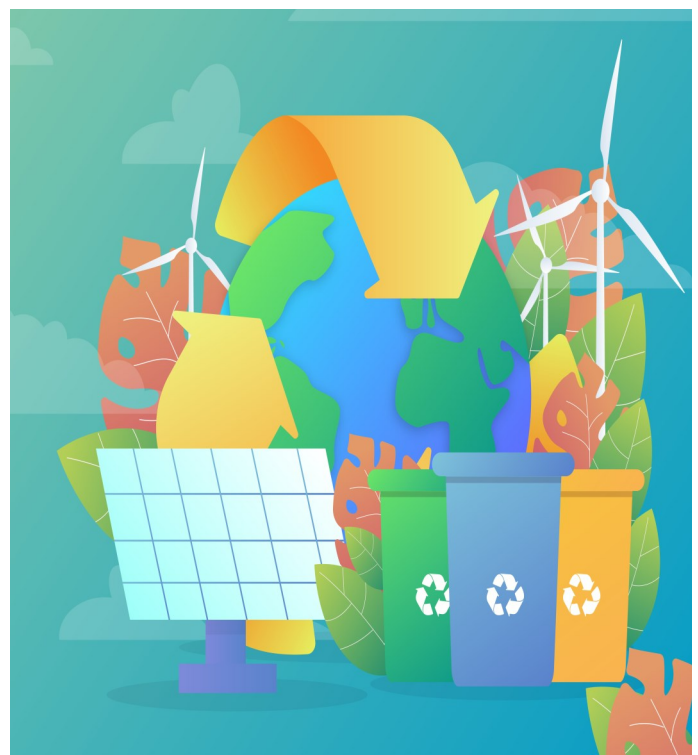
- Japan's Prime Minister, Fumio Kishida, to issue call for development of new generation nuclear energy power plants and reactivation of deactivated reactors. According to a report published in the Nikkei newspaper, Prime Minister Kishida will bring the policy change to the agenda in the Green Transformation meeting. (25 August 2022)

- Germany aims to enter November with a 95% capacity rate for natural gas inventories. Klaus Mueller, President of the Federal Network Agency, stated that Germany aims to have natural gas inventories of at 95% capacity by November. Cautioning that this may be difficult to achieve, President Mueller remarked that in case Russia were to completely cut off natural gas flows, these stocks would only be sufficient for 2 to 2 ½ months. Germany's natural gas storage stood at 77.3% capacity as of mid-August. (18 August 2022)

- Sweden preparing package to lower potentially high winter electricity prices. The government has planned a budget of 30 billion kroner (approximately USD 2.9 billion), according to Swedish Prime Minister, Magdalena Andersson, to balance the country's growing electricity rates throughout the winter. According to Prime Minister Andersson, this budget will be transferred to the Swedish Public Electricity Service. (18 August 2022)

- New energy-saving measures to be implemented in Germany. According to Germany's Energy and Climate Protection Minister, Robert Habeck, hospitals and other social institutions will be excluded from the rule that requires public buildings to be heated to a maximum of 19°C during the winter. He added that billboards, government buildings, monuments and other landmarks will not be illuminated. In July, Germany announced its initial set of austerity packages. The first package announced included the re-starting of coal power plants and increasing the use of renewable energy sources in order to save natural gas. (15 August 2022)

- US Energy Information Agency (EIA) revises its price projection for Brent crude oil. In its "August 2022 Short Term Energy Outlook Report", the EIA set out its projection that Brent crude oil would average USD 104.78 /bbl (per barrel) in 2022, which compares to the projection of USD 104.05 /bbl set out in June's report. The report estimates that West Texas (WTI) type crude oil will trade at USD 98.71 /bbl this year (the estimate was USD 98.79 /bbl in July). The price of Brent crude oil is projected at USD 95.13 /bbl in 2023 with WTI type crude oil expected to average USD 89.13 /bbl in 2023. (15 August 2022)



- **European Union's (EU) plans to reduce natural gas demand enter force.** In a statement published on social media, the President of the EU Commission, Ursula von der Leyen, remarked that the emergency plan to reduce natural gas demand had entered force across the EU. The emergency plan, prepared by the EU for the possibility of interruption of the natural gas flow from Russia, envisages that the member countries will reduce their natural gas demand by 15% below their past 5-year average between the dates of 1 August 2022 and 31 March 2023. This emergency plan, which requires the majority approval of 15 countries, envisages natural gas savings of 45 billion cubic meters. In addition, according to a statement from the International Energy Agency's (IEA), the export of natural gas to the EU and the UK through the Russian pipeline decreased by 40% in the first 7 months of this year in comparison with the same period of the previous year, declining to the lowest rate seen in 40 years. (10 August 2022)

- **France announces measures to decrease natural gas consumption.** In a statement, Agnes Pannier-Runacher, France's Ecological Transformation Minister, issued a call to the country's natural gas users to lower their consumption. Agnes Pannier-Runacher also said in her statement that France's strategic natural gas storage would be at 80% capacity, with the aim of filling them to 100% by November 1st. (4 August 2022)

- **Spain approves draft law to target energy saving.** In her statement about the draft law, Spain's Environment Minister, Teresa Ribera, pledged that with the new regulation, cooling systems used in the offices and stores would not lower temperatures to below 27°C in summer and heating systems would not raise temperatures above 19°C in winter, in order to save energy. The draft law aims to reduce natural gas consumption by 7% through the measures to be taken. (2 August 2022)





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