

# Monthly Energy Bulletin

TSKB Economic Research

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## European Union's continuing to seek alternative natural gas suppliers

The President of the European Commission, Ursula von der Leyen, who held official talks with officials from Azerbaijan remarked that the agreement reached with Azerbaijan would broaden the Southern Gas Corridor. While President von der Leyen mentioned the importance of Southern Gas Corridor for Europe, she also stated that more than 8 billion cubic meters (bcm) of natural gas was currently being pumped through this line per year and this capacity would be increased to 20 bcm within the next couple of years.

Additionally, the statement also remarked the agreement included cooperation in offshore wind farms and green hydrogen. In this scope, in an announcement from France Economy Ministry, it is stated that an agreement has been signed between France and United Arab Emirates which aims to determine shared investment projects in the renewable energy and nuclear energy fields, adding that this agreement held out the prospect for the establishment of a shared fund to finance green projects.

In a meeting between leaders from Germany and Egypt, the Egyptian President Abdel Fattah El-Sisi said that his country was ready to work with Germany to step up energy supply. In a statement following the meeting, the German Chancellor, Olaf Scholz, stated that the German government would invest EUR 600 billion on climate protection and renewable energy over the next 5 years.

28.47  
TWh

July Gross  
Generation

2,330.4  
TL/MWh

Average  
MCP

1.7%

Daily average licensed electricity generation increased by 1.7% MoM with a decline of 8.3% YoY in July.

[Click](#) for details.

4.5%

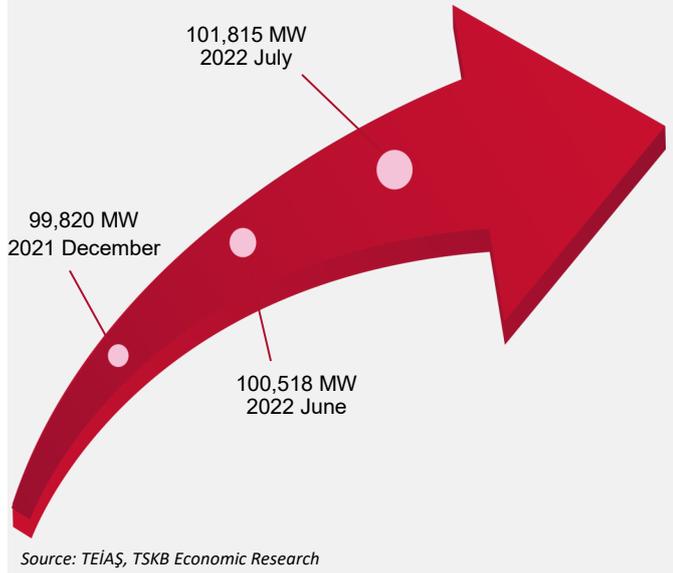
Market Clearing Price (MCP) increased by 349.6% YoY and by 4.5% MoM in July.

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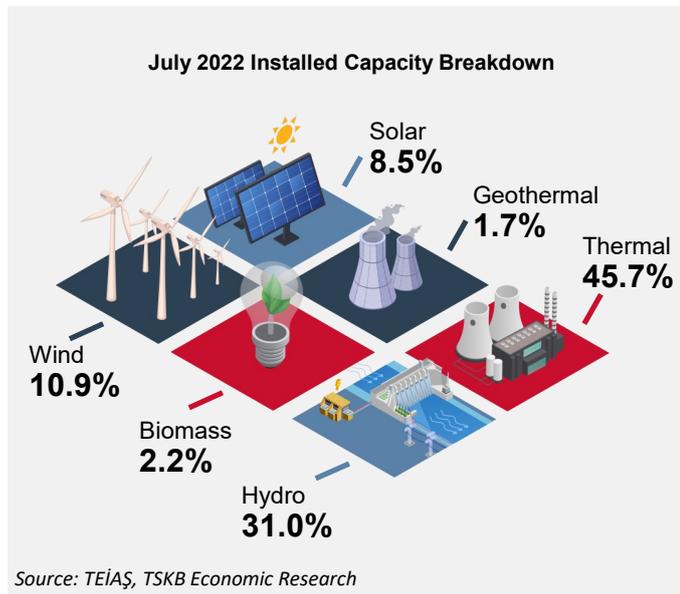


# Installed Capacity Analysis

Turkey's total installed generation capacity, which had reached 99,820 megawatts (MW) at the end of December 2021, reached 101,815 MW by the end of July 2022. A net total of 296 MW in installed capacity came onstream in July, with solar power plants accounting for 180 MW of this installed capacity. In the same period, there was an increase of 78 MW in the total net installed capacity of wind farms, while the increase was 24 MW for renewable waste energy power plants.

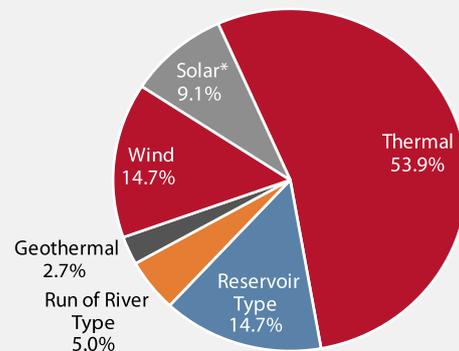
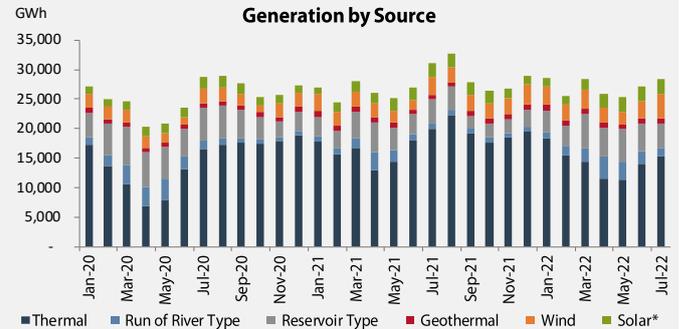


In July, 54.2% of the capacity of the power plants in operation consisted of renewable energy. Thus, the share of renewable resources remained above 54%. Hydroelectric power plants accounted for a 31% share of Turkey's total installed electricity power, followed by wind and solar power plants with a 19.4% share.



# Electricity Generation Analysis

Turkey's total electricity generation, which stood at approximately 27.09 terawatt-hours (TWh) in June, was realized at 28.47 TWh in July. There was a 1.7% increase in the daily average electricity generation in July when compared to June's daily average electricity generation. When compared with the same period of the previous year, there was a decrease of 8.3% in daily average electricity generation in July.

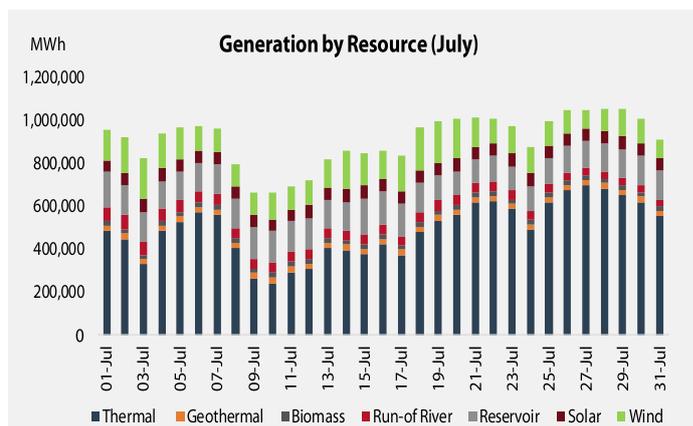


\*Since July unlicensed solar power plant generation data has not yet been released by TEİAŞ, the average daily electricity generation by unlicensed solar power plants in July 2022 was accepted as same as the average daily electricity generation of June 2022.

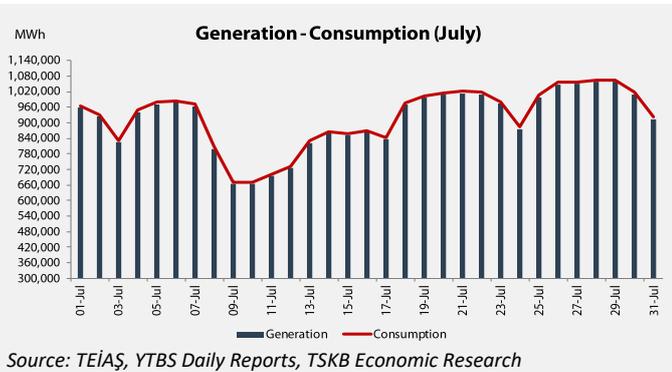
Source: TEİAŞ, YTBS Daily Reports, TSKB Economic Research

Thermal power plants, which provided 51.6% of the electricity generated in June, accounted for 53.9% of total electricity generation in July. Hydroelectric power plants, which comprised a 25.6% share of generation in the previous month, generated 19.7% of the total electricity in July. In the same period, the proportion of electricity generated by wind farms increased 4.0 percentage points in comparison with the previous year, to reach 14.7%.

The share of the renewable energy power plants in electricity generation, which averaged 36.0% in 2022, reached 46.1% in July. In the same period, dam-type hydroelectric power plants provided 14.7% of the total generation while run-of-river hydroelectric power plants accounted for 5% of the total generation.



Source: TEİAŞ, YTBS Daily Reports, TSKB Economic Research



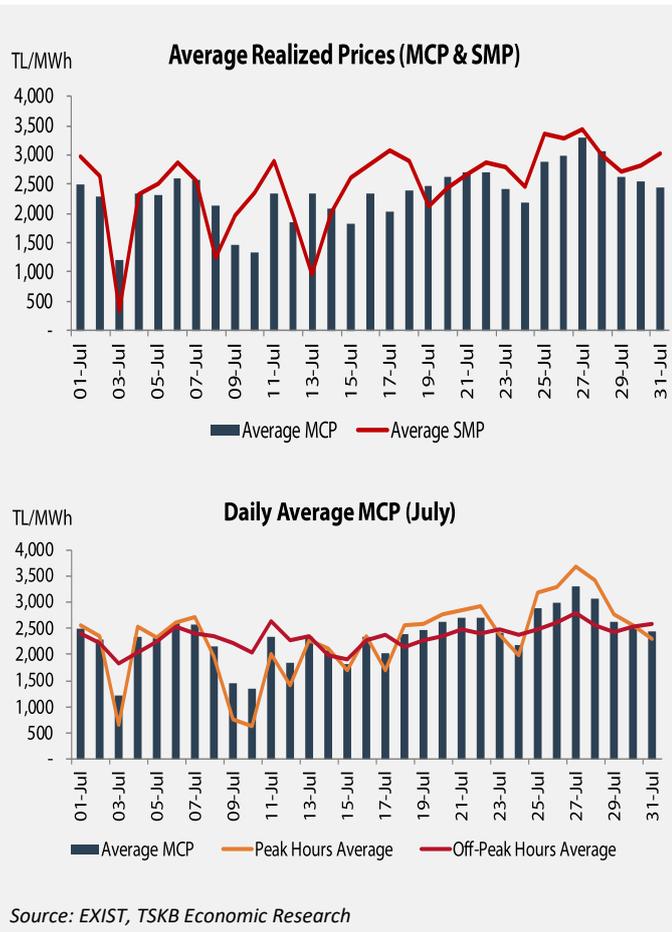
Daily average electricity generation of licensed power plants was realised at 914,011 MWh in July with the highest generation from licensed power plants in July realised on Friday, 29 July at 1,058,697 MWh. The lowest generation from licensed power plants was recorded on Sunday, 10 July.

Daily electricity consumption in the same period was realised at 921,845 MWh. The highest consumption in July was recorded on Friday, 29 July at 1,066,531 MWh, with the lowest on Sunday, 10 July (671,057 MWh).

## Electricity Price Analysis

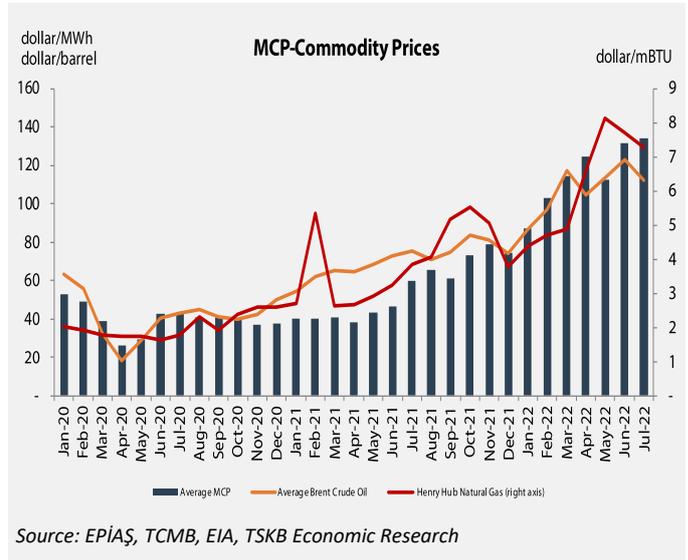
In July, daily average market clearing price (MCP) and system marginal price (SMP) actualized between TL 325 per megawatthour (/MWh) and TL 3,450 /MWh. The MCP averaged TL 2,330.40 /MWh in July, while the average SMP in the same period was TL 2,379.10/MWh. The lowest daily average MCP was realised on Sunday, July 3 at TL 1,202.50 /MWh; the minimum daily average SMP was realised on the same day at TL 326.70 /MWh.

According to the hourly data, the MCP in July stood at determined maximum price limit of TL 3,750 /MWh for 35 hours, and with the SMP at the limit for 52 hours.



The average daily MCP in July in peak hours (between 8AM-8PM) decreased 1.3% compared to the daily average value to TL 2,318.40 / MWh. The maximum price limit of TL 3,750 /MWh was recorded for 24 hours in peak hours, while the minimum peak hours price of TL 100 /MWh was recorded on Sunday, 10 July.

In the same period, the average off-peak price (between 8PM-8AM) was TL 2,342.40 /MWh. The maximum price limit of TL 3,750 /MWh was recorded for 11 hours in off-peak hours, while the minimum price for off-peak hours of TL 250/MWh was recorded on Sunday, 10 July.

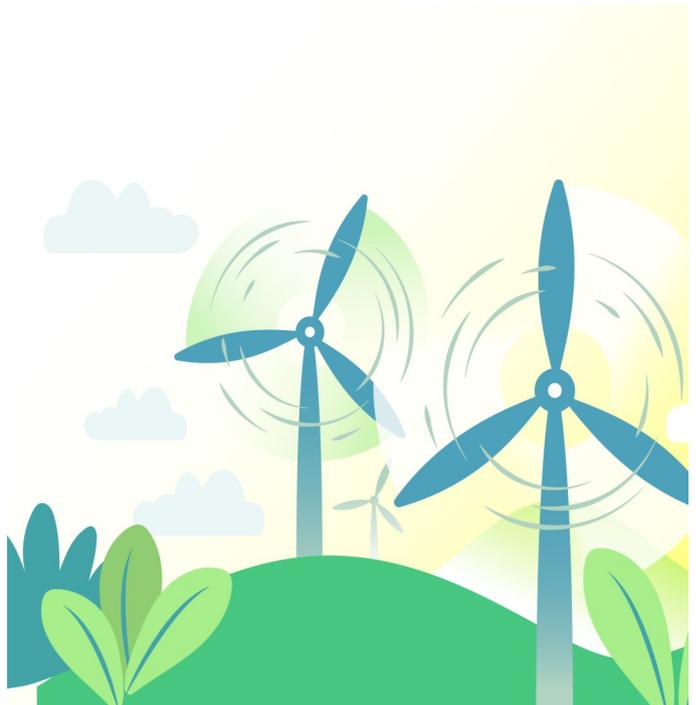


The average MCP, which was USD 131.30 /MWh in June, reached USD 133.80 /MWh on average in July – an increase of 122.7% when compared with the same period of the previous year.

### Average Commodity Prices

The average price per barrel Brent crude oil, realised at USD 122.7 in June, decreased by 8.8% on a monthly-basis to USD 111.9 in July - 48.9% higher when compared to the same period of the previous year.

The average contract price for Henry Hub natural gas decreased by 5.5% from USD 7.70/mbtu in June to USD 7.30 /mbtu in July, marking an 89.6% increase when compared with the same period of the previous year.





## Sector News

### Local News

- **Energy Market Regulation Authority (EMRA) updates last resource supply tariff limit.** According to EMRA's decision published in the Official Gazette, within the scope of the last resource supply tariff for the residential and agricultural activity subscriber groups, the consumption limit will be set at 100 million kilowatthours (kWh) per year, with effect from August. (29 July 2022)

- **EMRA raises day-ahead market maximum price limit.** According to the decision which enters effect after its publication in the Official Gazette, the maximum price limit, which will be applied to the day-ahead and balancing power markets, has been determined as TL 4,000 /MWh. The determined maximum price limit will enter effect as of 1 August 2022. The current maximum price limit in place is TL 3,750 /MWh. (29 July 2022)

- **Expired natural gas contracts to be renewed with Russia, Azerbaijan and Iran.** In a statement the Minister for Energy and Natural Resources, Fatih Dönmez, warned that Europe was experiencing problems with natural gas supply and within this scope Turkey would renew its contracts that have expired with Russia, Azerbaijan and Iran. Mr. Dönmez pointed out that the Tuz Gölü Underground Natural Gas Storage Facility was now completely full and that the Silivri Underground Natural Gas Storage Facility was at 82% capacity. He provided information about the Silivri Underground Natural Gas Storage Facility's capacity, stating that the capacity of the facility would increase to 4.6 bcm, and that this facility would be the biggest facility in Europe once the work was completed. (27 July 2022)

- **Tuz Gölü and Silivri natural gas storage facilities filled.** According to a report in the Dünya newspaper, a proportion of the natural gas storage in Tuz Gölü and Silivri has been filled.

The rest of the capacity will reportedly be filled in the coming months and kept ready for winter-use. In addition, construction work on the Saros Liquefied Natural Gas Terminal has been stepped up with the aim of completion in the winter months. The Saros Terminal will supply natural gas to the Marmara Region. (26 July 2022)

- **Change made to energy efficiency regulations.** According to the "Regulation on Amending the Regulation on Increasing Efficiency in The Use of Energy Resources and Energy", which was enacted with its publication in the Official Gazette, feasibility studies will be carried out for the application of cogeneration systems in industrial enterprises with an installed capacity of 20 MW or more which will either be established or undergo a major overhaul. Heating or cooling network centres which distribute heating to multiple buildings and which generate heating in one and multiple centers, and which have yearly total energy consumption of 500 tonnes of oil equivalent (toe), will serve a legal notice to the Ministry of Energy and Natural Resources (MENR) by the end of March each year. (7 July 2022)

- **Türkiye Elektrik İletim A.Ş. (TEİAŞ) to pay TL 284.7 million to power plants which benefit capacity mechanism for the month of May.** According to the May list concerning payment to power plants which benefit from the capacity mechanism published by TEİAŞ, the highest payment will be made to İzmir Elektrik Üretim Ltd. Şti. (TL 18.3 million), followed by Çelikler Seyitömer Elektrik Üretim A.Ş. (TL 15 million). A total of 43 power plants will benefit from the capacity mechanism for the month of May. (5 July 2022)

- **TL 1 billion to be invested in charging stations.** According to a statement issued by the Ministry of Industry and Technology, the Ministry launched the "Charging Stations Support Program for Electric Vehicles". Within the scope of the program, a total of 355 project applications were made to 46 investment areas determined by the Ministry. As a result of the evaluation,

20 companies were entitled to benefit from the support. These investments, which will provide approximately TL 150 million in support, are planned to trigger approximately TL 1 billion in private sector investment. (4 July 2022)

- **Storage wind and/or solar power plant investments to benefit from licenses without competition.** The draft law was submitted to the Presidency of the Turkish Grand National Assembly on 28 June in order to provide wind and/or solar power plant pre-license without competition to the companies that guarantee to establish electricity storage facilities. According to the proposal, these power plants will also be able to benefit from the Renewable Energy Resources Support Mechanism (YEKDEM). In addition, if storage investments are added to the power plants that are partially or fully active, a capacity increase may be permitted of an amount up to the power of the storage facility they will establish in these power plants. (1 July 2022)

## News From Abroad

- **International Energy Agency (IEA) projects global coal demand of 8 billion tonnes in 2022.** According to the "Coal Market Update" report for July published by the IEA, global coal consumption will increase by 0.7% and reach 8 billion tonnes in 2022 - equal to the record level seen of 2013, with coal consumption expected to increase even further next year to an all-time high. (29 July 2022)

- **Germany considering additional tax on natural gas usage.** According to the draft law prepared in Germany, in order to protect natural gas supply companies, the additional cost of rising natural gas prices will be reflected to the end user. Germany's Economy Minister, Robert Habeck, announced that the additional tax would be between 1.5 and 5 euro cents /kWh, and applied to all companies that are eligible to substitute Russian natural gas. The additional tax is planned to be implemented from 1 October 2022. (29 July 2022)

- **USA decides to carry out additional sale from strategic oil reserve.** In a statement, the White House announced that the US would sell an additional 20 million barrels of oil from its strategic oil reserve to help lower gas prices across the country. (27 July 2022)

- **Gazprom to lower gas shipments in Nord Stream.** Gazprom announced that a turbine engine used for the Nord Stream pipeline had been stopped for more technical reasons, and that the volume of natural gas pumped through the line would therefore be reduced. In the statement, it is reported that as of 27 July, a maximum of 33 million cubic meters of natural gas could be shipped daily through the Portovaya compressor station. (26 July 2022)

- **Germany announces bailout package for Uniper Se company.** According to the statement issued by Uniper, the state will retain a veto right in strategic decisions by holding approximately 30% of the company, which is now on the verge of bankruptcy due to the problems in the Russian natural gas supply. The package will include EUR 9 billion in credit lines from KfW, a public bank, and EUR 7.7 billion worth of mandatory convertible securities. In addition, a "re-nationalization" decision was taken last week for a 15.9% stake in the France-based power generation and distribution company, EDF, for an amount of approximately EUR 9.7 billion. (25 July 2022)

- **European Commission seeking to increase natural gas imports from Nigeria.** Matthew Baldwin, the Deputy General

Manager of the Energy Department of the European Commission, stated that he wanted to increase imports of liquefied natural gas (LNG) from Nigeria to above the current level of 14%. With proven oil reserves of approximately 37 billion barrels, Nigeria holds 3.1% of the world's reserves. (25 July 2022)

- **Belgium decides to prolong operation of nuclear power plants.** Belgium's Prime Minister Alexander De Croo said in the statement he made via his social media account that he agreed with the French energy company Engie to extend the operating period of the two nuclear power plants, which had been planned to be shut down in 2025, by 10 years. Within the scope of the agreement, the operating periods of the Doel 4 and Tihange 3 reactors, which were built in Belgium in 1985, will be extended for another 10 years. The total capacity of the plants whose operation will be extended is around 2 gigawatts. (25 July 2022)

- **Demand for electricity on course to decline in 2022.** According to IEA's Electricity Market Report for July, the growth in electricity consumption, which was 6% in 2021, will slow to 2.4% in 2022 as a result of higher natural gas and coal costs. The paper also states that as electricity generation outpaces demand, it will continue to displace fossil fuels in the generation of electricity. In addition, it is anticipated that carbon emissions from the electricity sector will decrease by 1% due to an increase in output from low-carbon resources and a reduction in demand. (21 July 2022)

- **European Commission announces plans to cut natural gas use.** In order to prepare for a complete cut-off of natural gas from Russia to the member states, the European Commission has proposed a law to restrict the usage of natural gas by 15% between 1 August 2022 and 31 March 2023. According to the Commission's statement, taking action now could lower the risks and expenses for Europe if the natural gas supply from Russia is cut off completely. According to the European Commission President Ursula von der Leyen, unless member states act together, everyone will suffer. The Spanish Environment Minister responded by saying that they would not cut off use of natural gas and electricity for Spanish families and that they did not agree with the Commission. (21 July 2022)

- **IEA warns that Europe needs to reduce its natural gas consumption.** In his speech, IEA President Fatih Birol recommended that Europe should dramatically cut its natural gas use



over the coming months in order to prepare for the possibility of a long and severe winter. Birol warned that if Russia completely halted exports, there was still a possibility of severe supply shortages even if Europe is able to fill up to 90% of its storage capacity. The statement also set out an emergency plan on how to reduce the use of natural gas by increasing the use of nuclear, coal and oil power to survive a long and harsh winter, to coordinate power plants to operate more efficiently, to reduce electricity demand by determining cooling standards and controls, and helping countries to overcome the crisis. However, according to a report in the Financial Times, the European Union (EU) is preparing to advise its members to "immediately" reduce their natural gas consumption while warning that the continent could run out of fuel in the winter if additional resource savings aren't made. In addition, the International Monetary Fund (IMF) announced in a statement that Russia cutting off natural gas supplies would risk a 6% hit to the economies of some countries in Central and Eastern Europe. (20 July, 2022)

**- Iran and Gazprom sign USD 40 billion deal.** According to the agreement signed between the Iranian National Oil Company and Gazprom, Gazprom will invest in the development of Iran's natural gas fields located nearby Kish Island in the Persian Gulf and North Pars, and in the completion of Iran's liquified natural gas projects. (20 July 2022)

**- Japan planning to increase its use of nuclear energy.** Prime Minister Kishida Fumio said in a statement he on 14 July that Japan was aiming to increase the number of the active reactors to 9, and to meet 10% of the country's electricity needs from nuclear energy. While pointing out that there may be difficulties in energy supply and demand in the winter months when consumption of electricity peaks, Prime Minister Fumio added that they were planning to bring the nuclear power plants on stream as soon as possible. There are 33 workable reactors in Japan, although only four of these are in operation. (18 July 2022)

**- European Parliament supports regulation defining natural gas and nuclear energy as sustainable.** While the objections made to the proposed regulation in the European Parliament in January were rejected by a majority of votes, if the European Parliament and member states do not object to the proposal by 11 July, the regulation will enter force and be in place by 2023. (7 July 2022)

**- IEA revises its global natural gas demand projection downwards.** The "Natural Gas Market Report" for the third quarter of 2022, published by the IEA, sets out that demand for natural gas may decline over the next three years as rising prices and the threat of natural gas cuts from Russia reduce consumption appetite. The report foresees a 5% decline in natural gas use as the economic slowdown in Asia overshadows buoyancy in North American markets. The IEA revised its projection for the rise in global natural gas demand for the 2021-2025 period from 170 bcm to 140 bcm while also lowering its global demand growth projection by 60% for 2024 when compared to its previous estimation. (6 July 2022)





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