

# Monthly Energy Bulletin

TSKB Economic Research

November 2023 #66

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26 December 2023

## 12<sup>th</sup> Türkiye Wind Energy Congress and 13<sup>th</sup> Türkiye Energy Summit held in November

In a speech at the 12<sup>th</sup> Turkish Wind Energy Congress held in Istanbul, the Minister for Energy and Natural Resources, Alparslan Bayraktar, said that according to the updated wind energy atlas data, Türkiye offered wind potential of 100 gigawatts (GW) under current technology and conditions, and that this could be increased to 150 GW with developments in wind turbine technologies. Stating that this amount corresponded to an investment of approximately USD 140 billion, Mr. Bayraktar added that the government aimed to meet 25% of the country's electricity needs from wind in 20 years' time. Speaking at the same congress, the President of the Energy Markets Regulatory Authority (EPDK) Mustafa Yılmaz stated that EMRA had received wind and solar pre-license applications storage equal to 2.5 times the installed capacity, with approximately USD 35 billion of investment expected. Stating that more than 260 GW in pre-license applications had been submitted for all of the connected capacities announced by Türkiye Electricity Transmission Inc. (TEİAŞ), Mr. Yılmaz added that EMRA had issued preliminary licenses for more than 23 GW of the allocated 33 GW in capacity, while stating that if the investments in the storage pre-licenses were not carried out or were delayed, the licenses would be annulled.

In a speech on the second day of the 13<sup>th</sup> Turkey Energy Summit held in Ankara, the Minister of Industry and Technology, Fatih Kacir, stated that the government had issued a total of 13,063 incentive certificates for energy investments within the scope of the incentive system, and that these projects would pave the way for TL 1.75 trillion in fixed investments. Stating that half of these investments consisted of investments in renewable energy and energy storage, Mr. Kacir stated that the government would establish new industrial zones that would accelerate the development of the sector and stimulate export potential. Panels on current developments in the energy sector were held for two days at the 13<sup>th</sup> Turkey Energy Summit .

26.58  
TWh

November Gross  
Generation

2,066.9  
TL/MWh

Average  
MCP

8.0%

Daily average licensed electricity generation increased by 6.0% MoM and 8.0% YoY in November.

[Click](#) for details.

-39.9%

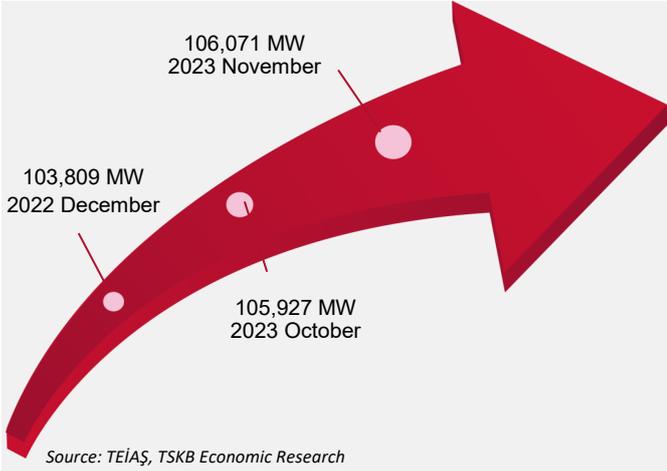
Market Clearing Price (MCP) decreased by 8.1% MoM and 39.9% YoY in November.

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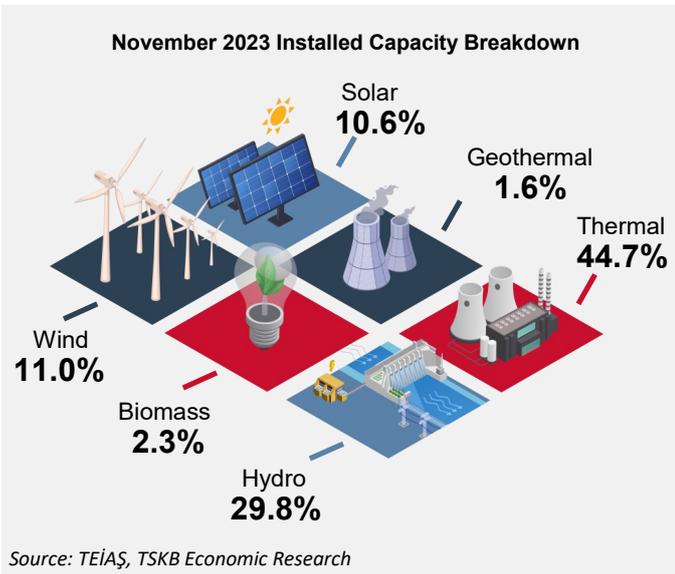


# Installed Capacity Analysis

Türkiye's total installed capacity increased from 103,809 megawatts (MW) at the end of December 2022 to 106,071 MW by the end of November 2023. A total of 143.9 MW in net installed capacity was commissioned in November; 147.7 MW of capacity provided by solar power plants came on stream while there was a 2.5 MW decrease in the total capacity of natural gas and multi-fuel power plants in the same period and a decrease of 1.2 MW in the capacity of renewable waste energy power plants, while there was no change in the capacities of other power plants.

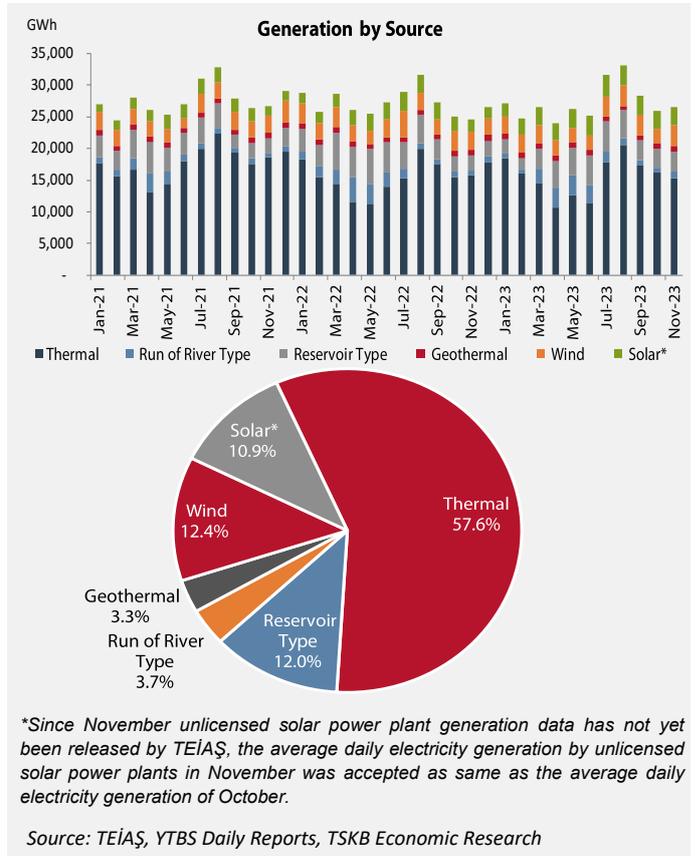


55.3% of the power plants in operation in November (in terms of capacity) were power plants generating electricity from renewable resources, marking a further increase in the proportion of renewable resources in total generation continued to increase and remain above 55%. Hydroelectric power plants constituted 29.8% of Turkey's total electricity installed power, while wind and solar power plants accounted for a total share of 21.6% in the country's total installed generation capacity.



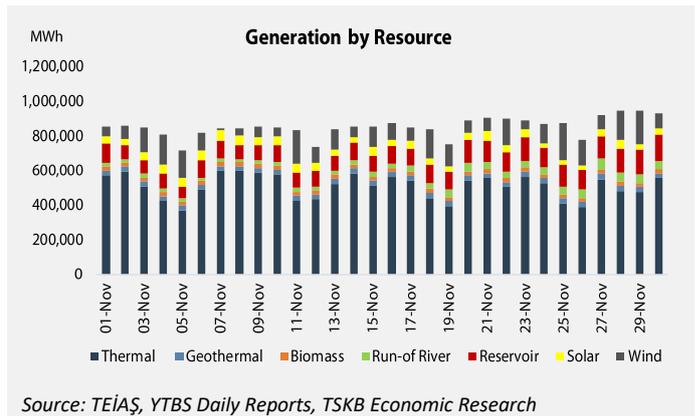
# Generation-Consumption Analysis

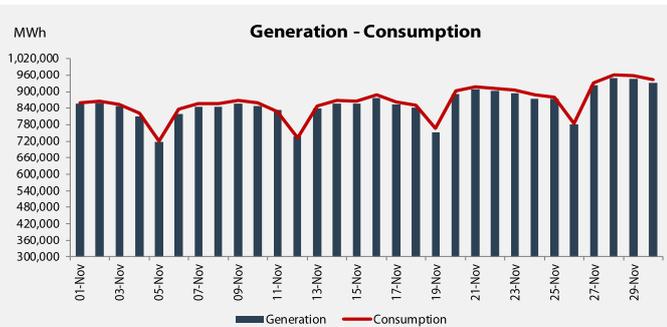
Total electricity generation increased from approximately 25.9 terawatt-hours (TWh) in October to 26.6 TWh in November, with average daily electricity generation in November up by 8.0% compared to the same period of the previous year, and up by 6.0% compared to the previous month.



Thermal power plants provided 62.2% of the electricity generated in October and 57.6% of the total electricity generated in November. Looking at the breakdown of generation by source, hydroelectric power plants generated 15.7% of the total electricity in November, compared to a 14.8% share in the previous month. In the same period, the share of electricity generated by wind increased by 3.7 percentage points compared to the previous month to reach 12.4%. Geothermal power plants generated 3.3% of the total electricity generated.

The share of renewable energy power plants in electricity generation, which averaged 42.7% in 2022, was 42.4% in November 2023. During the same period, dam-type hydroelectric power plants offered a 12.0% contribution to total generation, while run-of-river type hydroelectric power plants accounted for 3.7% of total generation. In addition, wind and solar power plants accounted for 23.3% of all electricity generated in November. Wind power accounted for the highest share of electricity generated by renewable energy, with a share of 12.4% in electricity generation.





Source: TEİAŞ, YTBS Daily Reports, TSKB Economic Research

In November, licensed power plants generated 854,174 MWh. The highest production from licensed power plants during the month was recorded on Tuesday, November 28, at 949,645 MWh while the lowest production was recorded as 716,551 MWh on Sunday, November 5.

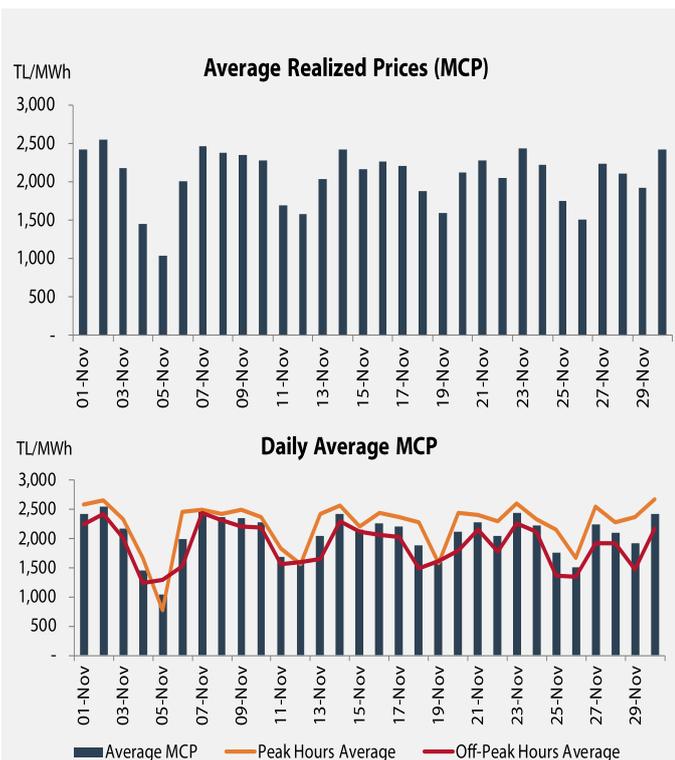
During the same period, daily electricity consumption averaged 863,295 MWh with the month's highest consumption recorded on Tuesday, November 28, at 960,424 MWh, and the lowest electricity consumption recorded on Sunday, November 5, at 721,469 MWh.

## Electricity Price Analysis

The daily average market clearing price (MCP) varied between TL 1,025.0 and TL 2,550.0 /MWh in November. The daily MCP average in November was TL 2,066.9 /MWh. The highest daily average MCP was recorded on Thursday, November 2, at TL 2,547.0 /MWh with the lowest daily average MCP recorded on Sunday, November 5, at TL 1,034.0 /MWh.

In terms of the hourly data, the MCP was realized at its maximum limit of TL 2,700.0 /MWh for a total of 131 hours in November. The minimum hourly electricity price of TL 12.30 /MWh was recorded on Sunday, November 5, between 12PM and 1PM.

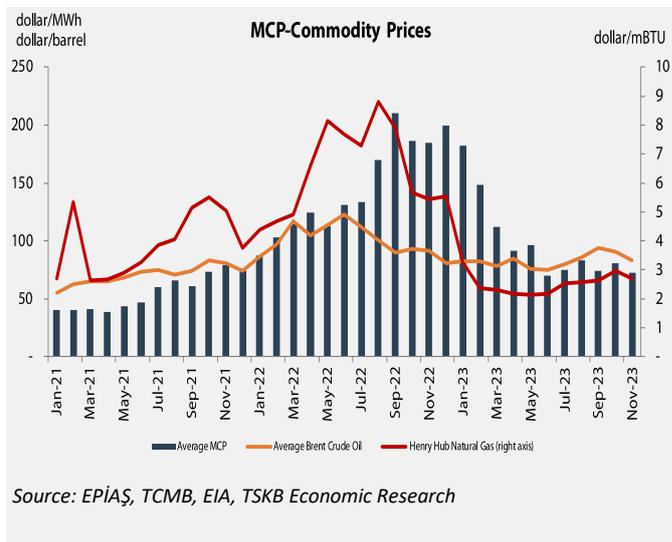
The daily MCP in peak hours (8AM to 8PM) in November was 8.7% higher than the all hours average value and recorded at TL 2,245.8 /MWh. The maximum limit price of TL 2,700.0 /MWh was recorded for 113 hours during peak hours with the lowest price of TL 12.30 /MWh recorded for just 1 hour during peak hours.



Source: EXIST, TSKB Economic Research

In the same period, the tariff in peak hours (between 8PM-8AM) averaged TL 1,888.0 /MWh with the maximum limit price of TL 2,700.0 /MWh realized for 18 hours during off-peak hours with the lowest off-peak rate of TL 347.1 /MWh recorded on Sunday, November 5, for one hour between 11PM and midnight.

While the MCP averaged USD 80.8 /MWh in October, it decreased to USD 72.2 /MWh in November, being 60.9% lower than in the same period of the previous year in dollar terms.



Source: EPIAŞ, TCMB, EIA, TSKB Economic Research

### Average Commodity Prices

The Brent crude oil price, which averaged USD 90.6/bbl (per barrel) in October, decreased by 8.5% to USD 82.9/bbl in November, also 9.3% down on the same period of the previous year.

The Henry Hub natural gas contract price, which averaged USD 2.98 /mbtu (per British thermal unit) in October, decreased by 9.1% to USD 2.71 /mbtu in November – which is 50.3% lower than in the same period of the previous year.





## Sector News

### Local News

- **National Energy Balance Tables for 2022 published.** According to the tables published by the Ministry of Energy and Natural Resources (ETKB), the primary supply of energy decreased by 1.0% YoY in 2022 to 157.8 million tonnes of oil equivalent (mtoe). Total final energy consumption for 2022 came in at 120.4 mtoe, decreasing by 2.8% YoY. (November 27, 2023)

- **Iraq "ready to export oil to Türkiye".** According to a written statement issued by the Iraqi Prime Ministry Press Office, Iraqi Prime Minister Mohammed Shia al-Sudani stated that Iraq was ready to find a solution to resume exports of oil from Iraq to Türkiye in his meeting with the Minister of Energy and Natural Resources, Alparslan Bayraktar. (November 23, 2023)

- **Liquefied Natural Gas (LNG) agreement with Algeria extended.** In a statement on his social media account, the Mr. Bayraktar, stated that the duration of the LNG import agreement with Algeria, which has been ongoing since 1988, has been extended for another 3 years. According to the agreement, which is planned to run until 2027, Türkiye will continue to receive 4.4 billion cubic meters (bcm) of LNG from Algeria per year. The current agreement between Petroleum Pipeline Corporation (BOTAŞ) and Sonatrach expired in October 2024. (November 22, 2023)

- **Petrol Ofisi to purchase BP Türkiye's fuel oil unit.** According to a statement issued by Vitol, the Netherlands-based owner of Petrol Ofisi, BP and Petrol Ofisi signed a share purchase agreement to purchase BP's fuel oil operations in Türkiye. The price of the agreement, which is expected to be completed in

2024, was not disclosed. (November 17, 2023)

- **EPDK publishes draft carbon markets regulation.** The draft Regulation on the Operation of Carbon Markets will be open to feedback from the public comments and evaluations until the end of November 23, 2023. (November 14, 2023)

- **Credit Guarantee Fund (KGF) to provide credit guarantees for energy efficiency and green transformation investments.** According to the statement, the "Green Transformation and Energy Efficiency Support Package" has developed aims to finance the investment and investment-related operating expenses of businesses aiming at energy efficiency and green transformation. According to the statement, an 80% guarantee will be provided for investments of up to TL 20 million in SME businesses and a 75% guarantee will be provided for investments of up to TL 50 million in non-SME businesses. The loan amount may not exceed 70% of the investment amount planned or committed by the business. Businesses receiving the loans will provide a commitment not to reduce employment for two years. (November 14, 2023)

- **EPDK reduces active wholesale tariff for electricity sales to Commissioned Supply Companies.** According to the EPDK Board decision published in the Official Gazette, the active electricity energy wholesale tariff in sales carried out by Electricity Generation Corporation (EÜAŞ) to Commissioned Supply Companies was reduced from 110 kuruş to 48.2187 kuruş per kilowatt-hour. The new tariff will be applicable from November 11. (November 10, 2023)

- **Energy saving target for public buildings increased to 30%.** According to the decision published in the Official Gazette, the energy saving target set for some public buildings

has been increased from 15% to 30% by 2030. In addition, it is reported that a Savings Target and Implementation Guide for Public Buildings will be prepared under the coordination of the ETKB in order to ensure energy efficiency and reduce emissions. (November 6, 2023)

**- Emission Trading System (ETS) to enter operation in 2024.** Mr. Bayraktar said in his statement that ETS would be put into operation next year and that the system would be operated by Energy Exchange İstanbul (EPIAŞ). Stating that the government foresees a 1.5-fold increase in Türkiye's demand for electricity and natural gas by 2035 when compared to current levels, Mr. Bayraktar underlined that Türkiye should meet this increased need with production methods which have a lower carbon intensity, taking into account the security of supply. He noted that the government aims to increase the share of renewables in Türkiye's capacity from the current level of 55% to 65% in line with the 2053 target, adding that the government aimed to support the base load need with nuclear power that produces carbon-free energy. (November 3, 2023)

## Foreign News

**- Pace of energy efficiency improvements "needs to double".** According to the Energy Efficiency Report for 2023 published by the International Energy Agency (IEA), in order for the energy sector to reach net zero emissions in 2050, within the scope of the targets of limiting the global temperature increase to 1.5°C, the rate of improvement in energy efficiency will need to increase from 2% in 2022 to 4% by 2030. Reiterating that investments in energy efficiency have increased by 45% since 2020, the report estimates that doubling the pace of improvement in energy efficiency could create 4.5 million jobs. (November 29, 2023)

**- Oil and gas companies carrying out only 1% of global clean energy investments.** According to the "Oil and Gas Industry in the Transition to Net Zero" report published by IEA, while oil and gas producing companies constitute only 1% of the total global energy investment, with just 4 companies accounting for more than 60% of this amount. The report points out that emissions from the oil and gas industry would need to be cut by 60% by 2030 in the scenario that aims to limit global warming to 1.5°C, adding that the emission intensity of global oil and gas operations should approach zero by the early 2040s. The report states that investments in the oil and gas industry should continue, with the annual investment amount currently at USD 800 billion - twice as much as that required in 2030 to meet the decreasing demand in the 1.5°C scenario. (November 24, 2023)

**- US Energy Information Administration (EIA) lowers Brent oil price forecast for 2023.** In its Short-Term Energy Outlook report for November, the EIA lowered its Brent oil price forecast for 2023 from USD 84.09 /bbl in its October report to USD 83.99 /bbl. The EIA also projected a Brent oil price of USD 93.24 /bbl for 2024. Meanwhile, the EIA set out its forecasts for global consumption of oil and other liquid fuels 101.04 million barrels per day for 2023 and 102.44 million barrels per day for 2024. (November 17, 2023)

**- EU to impose methane emission limits on energy imports.** The European Council and European Parliament have reached broad agreement on a regulation to limit methane emissions associated with the production and supply of coal, oil and natural gas. The restrictions will enter force in 2030 and will also apply to long-term supply contracts concluded from

January 2027. In addition, the decision will also impose monitoring, reporting and verification obligations on EU producers and importers of coal, oil and natural gas in EU countries. (November 16, 2023)

**- Global energy employment reaches 67 million in 2022.** According to the "Global Energy Employment Report" for 2023 published by the IEA, employment in the global energy sector increased by 3.5 million compared to pre-Covid-19 levels in 2022, reaching 67 million. Emphasizing that more than half of the increase in employment occurred in the fields of solar energy, wind, electric vehicles and batteries, heat pumps and critical mineral mining, the report found that solar energy was by far the largest employment providing sector with 4 million jobs. (November 16, 2023)

**- IEA raises its global oil demand growth forecast.** In its November Oil Market Report, the IEA raised its global oil demand growth forecast for 2023 from 2.3 million barrels per day to 2.4 million barrels per day, with global oil demand projected at 102 million barrels per day for 2023. It raised its growth forecast for 2024 from 880,000 barrels in per day in its previous forecast to 930,000 thousand barrels per day in its current forecast. (November 15, 2023)

**- Organization of Petroleum Exporting Countries (OPEC) raises its global oil demand forecast for 2023.** According to OPEC's monthly oil market report, global oil demand is expected to have increased by 2.5 million barrels per day in 2023 compared to the previous year to reach 102.1 million barrels, with global oil demand predicted to be 104.4 million barrels in 2024. Last month, demand for 2023 had been estimated at 102.06 million barrels per day, with demand for 2024 forecasted to stand at 104.3 million barrels per day. (November 14, 2023)

**- WindEurope states that Türkiye could be an alternative to China in wind turbine production.** The CEO of WindEurope, Giles Dickson, stated that Türkiye possessed rare elements used in wind turbine production, and that if these are extracted, Türkiye could be an alternative to China for wind turbine production. (November 13, 2023)

**- German government announces energy support package.** Within the scope of the support package announced by German Chancellor Olaf Scholz, electricity bills of manufacturing companies will be cut. The measures include a reduction in electricity taxes for manufacturers from EUR 15.37 to EUR 0.50 /MWh in 2024 and 2025, with the option of extending the discount to the 2026-2028 period. Chancellor Scholz stated that the support package would provide a contribution of EUR 12 billion to companies in 2024. (November 10, 2023)





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