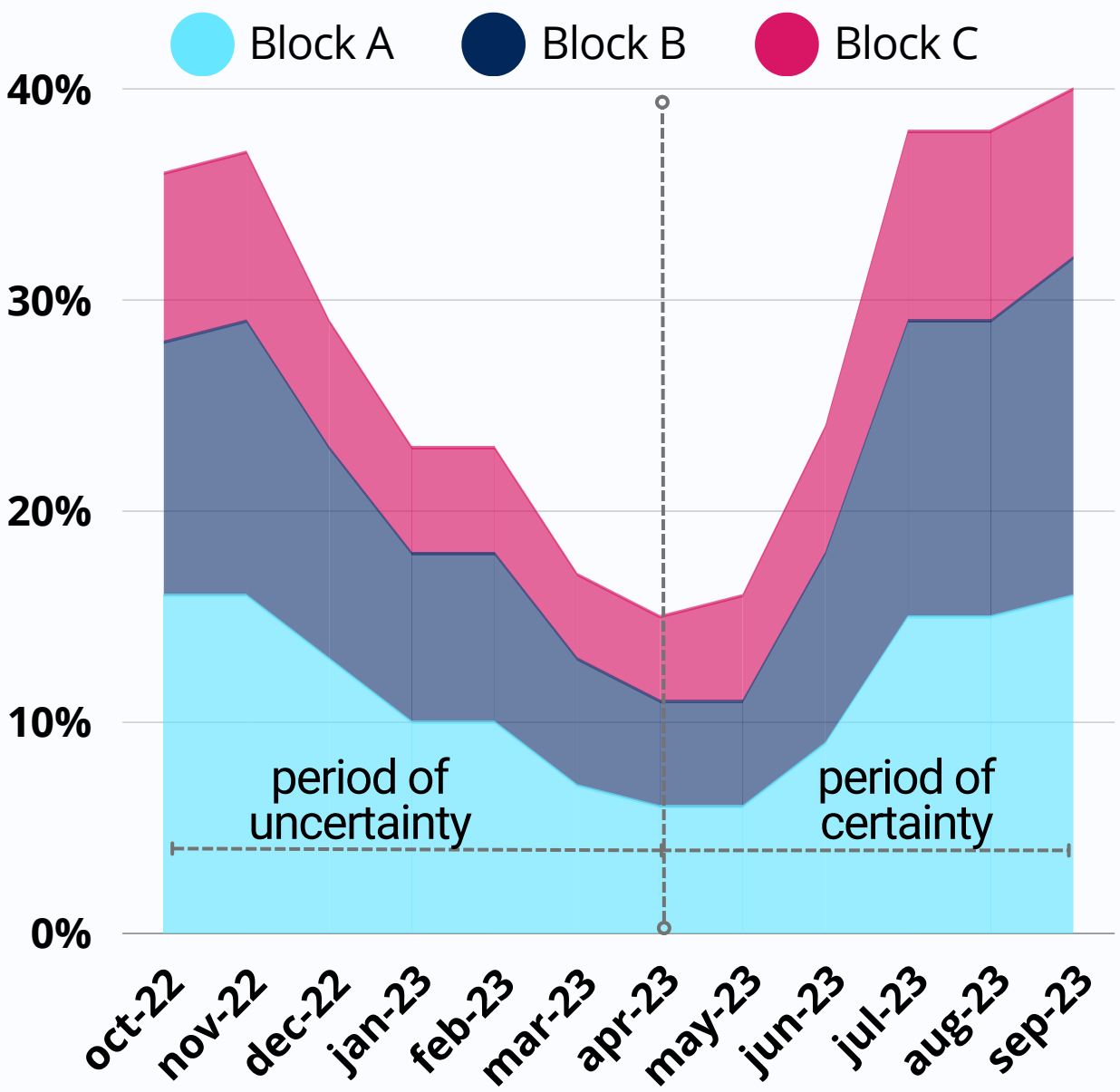
Hydroelectric participation level



Tender block A: 11:00 to 11:59 p.m. and 00:00 to 7:59 a.m.
Tender block B: 8:00 a.m. to 5:59 p.m.
Tender block C: 6:00 p.m. to 10:59 p.m.

During September 2023, hydroelectric generation reached 2,699.7 GWh, representing 39.9% of the total monthly energy produced in the National Electric System (NES), ending the period of hydrological uncertainty.

This participation is distributed as follows: block A with 15.8%, 15.7% block B with 15.7%, and block C with 8.4%.

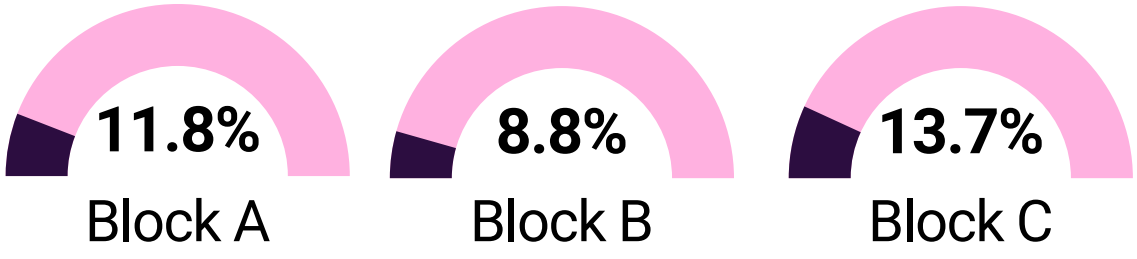
On the other hand, during April 2023, at the end of the hydrological year, the lowest hydroelectric participation was 14.1% of the electricity generated by the NES's energy matrix.

Author: Market Monitoring and Regulation Unit, Electric Markets Division.
Ministry of Energy, Government of Chile.

Wind energy production during September 2023 reached its highest point in the last 12 months, generating a total of 908.3 GWh.

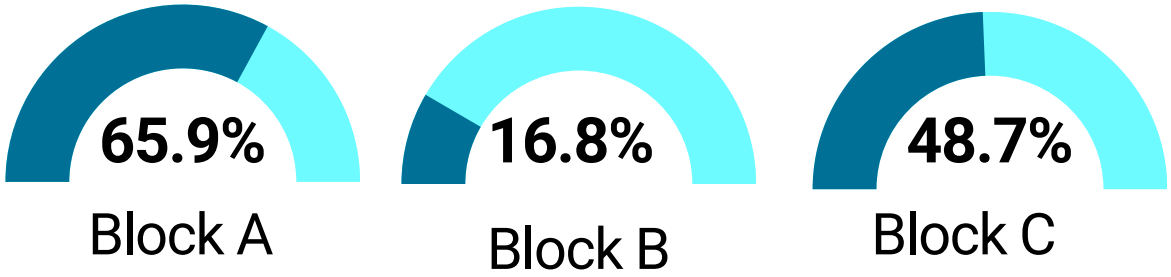
Between October 2022 and September 2023 9,224.4 GWh of wind energy was generated.

Simple average of monthly participation in the National Electric System



Considering the distribution by blocks, the average participation was 13.9%, which is 2.4 percentage points above the average of the last 12 months.

Simple average of monthly participation regarding NCRE in the National Electric System

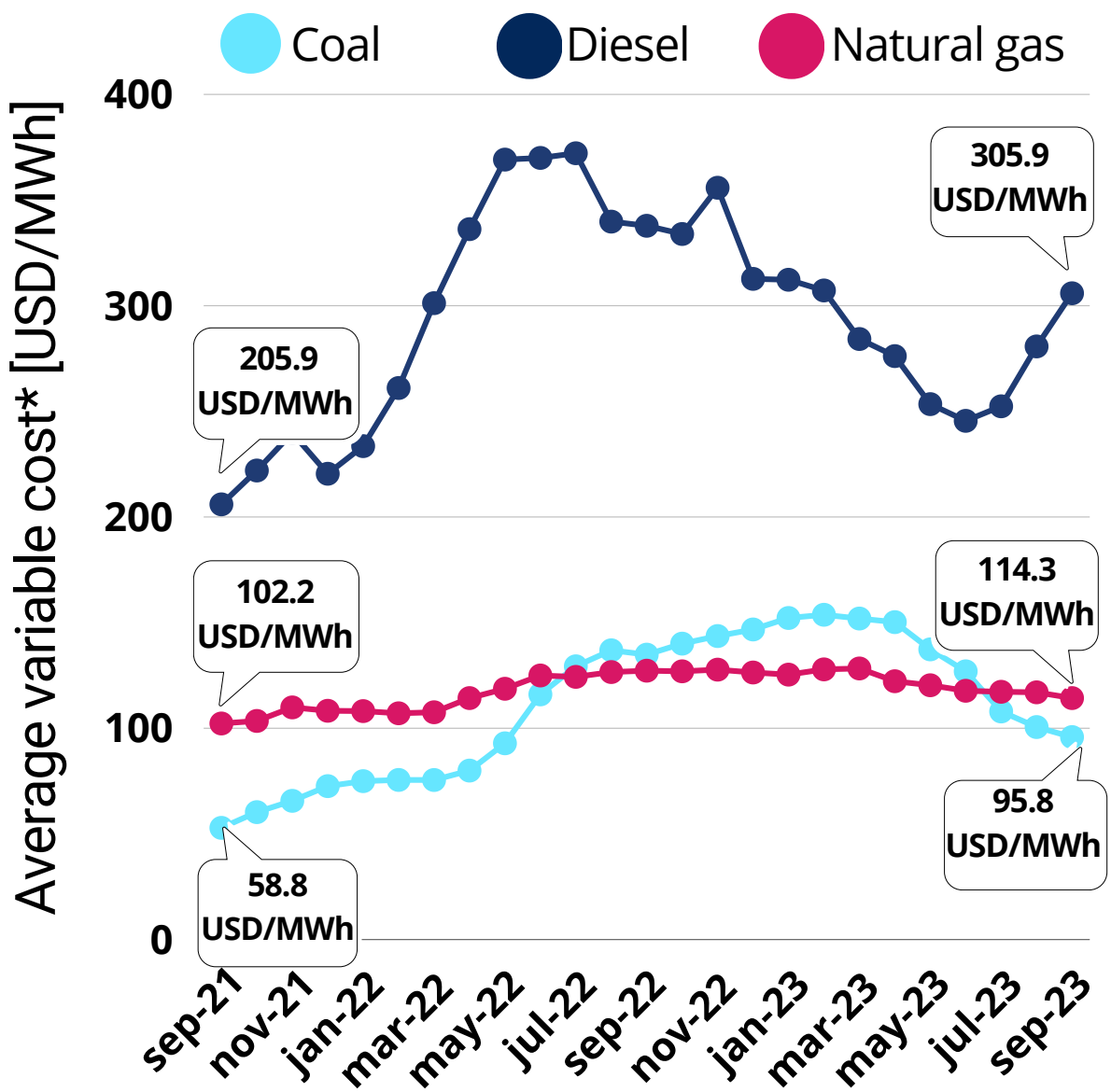


Tender block A: 11:00 to 11:59 p.m. and 00:00 to 7:59 a.m.
Tender block B: 8:00 a.m. to 5:59 p.m.
Tender block C: 6:00 p.m. to 10:59 p.m.

**NCRE: biomass, biogas, CSP, wind, geothermal, photovoltaic solar, and run-of-river hydropower up to 20 MW.*

Author: Market Monitoring and Regulation Unit, Electric Markets Division.
Ministry of Energy, Government of Chile.

Variable costs evolution for power plants by their fuel type



**Simple average of monthly variable costs for power plants operating at full capacity.*

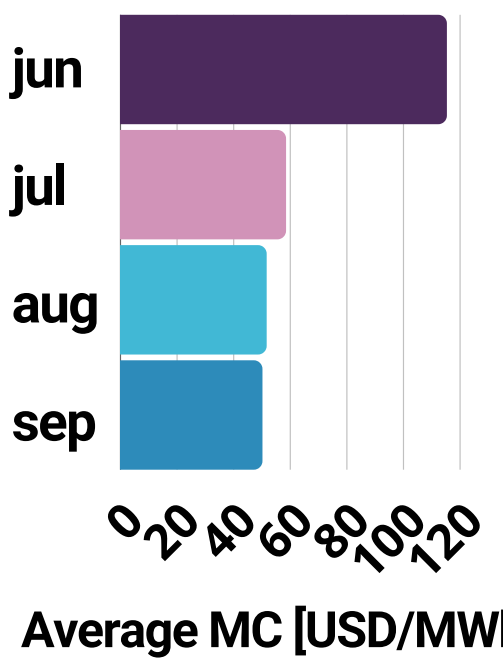
Throughout September 2023, the monthly average variable cost for coal-fired power plants was $95.8 USD/MWh, which was 37.6% lower than the highest cost recorded during the last 24 months, in February 2023.

The diesel cost associated to September experienced a 17.8% decrease compared to the peak reached in July 2022. Regarding natural gas, the cost was 10.9% lower than the maximum cost recorded, during March 2023.

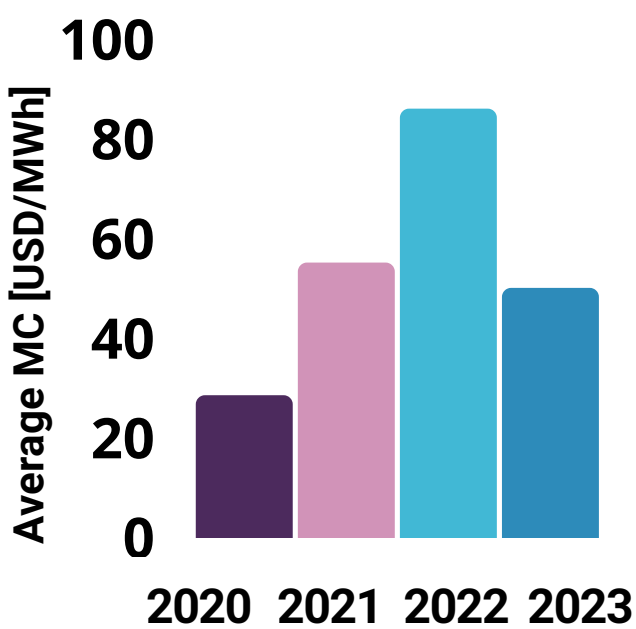
Author: Market Monitoring and Regulation Unit, Electric Markets Division.
Ministry of Energy, Government of Chile.

Trends in Marginal Cost (MC) of the National Electric System

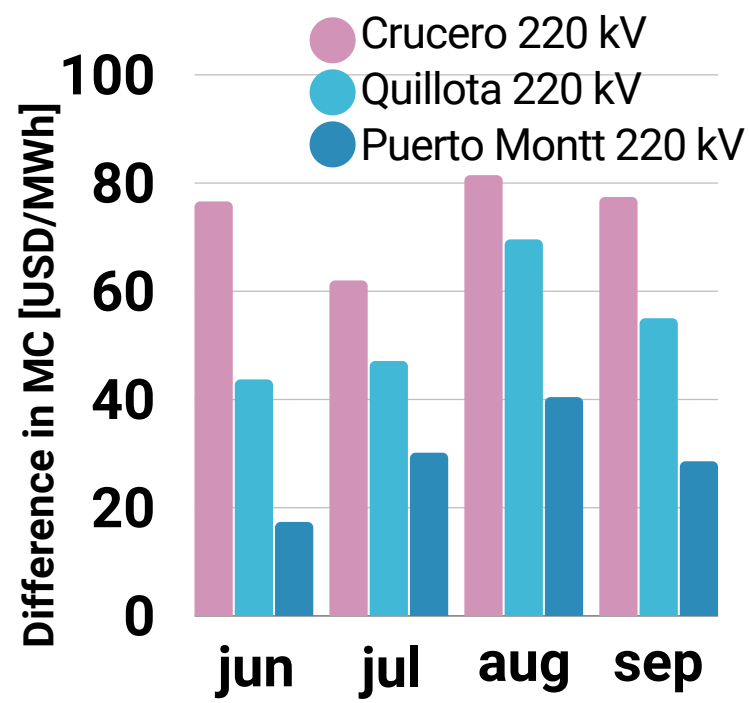
Quillota 220 kV in recent months



Quillota 220 kV in September of the last years



Difference* in MC during non-solar and solar hours**



In September 2023, the Quillota 220 kV busbar had an average marginal cost of $50.17 [USD/MWh], reaching a minimum of $0 [USD/MWh] during 34% of the month's hours. Considering the system's reference busbars, the largest difference between the average marginal costs during non-solar hours and solar hours** in September was $77.43 [USD/MWh], observed at the Crucero 220 kV busbar.

*Consider the difference between the monthly average marginal costs during non-solar hours and solar
**"Solar hours" refer to the period between 8 a.m. and 6:59 p.m., while "non-solar hours" cover the remaining part of the day.

Author: Market Monitoring and Regulation Unit, Electric Markets Division.
Ministry of Energy, Government of Chile.