



2021-Q2 MIBEL POOL PRICES OUTLOOK

July 2021



This note is a summary of our 2021-Q2 release for the projections of the MIBEL wholesale price over a 25 years horizon.

G-advisory (<https://www.g-advisory.com/es/>), in cooperation with Simulyde (<https://www.simulyde.com/>), elaborates a quarterly release of MIBEL pool price projections for our subscribers. As a compliment to our clients, we publish this note summarizing our 2021-Q2 view of the MIBEL market.

1. MARKET AND REGULATORY HIGHLIGHTS

1.1 Regulatory events

Tax on the Value of Electricity Generation (IVPEE) suspension and VAT reduction

Due to the high electricity prices in recent months, and in view that the situation could last, the government has adopted two special measures to mitigate the impact of the high electricity prices in the electricity bill of consumers:

- The temporary suspension of the 7% Generation Tax (IVPEE) from July to September.
- The reduction of the applicable VAT to the end-consumer electricity invoice from 21% to 10% until the end of the year. The reduction will be applicable to electricity consumers with a contracted power below 10 kW and to all vulnerable consumers, independently of the contracted power. The reduction will be applied if the arithmetic price of the electricity wholesale price is

above EUR 45/MWh the previous month to the corresponding invoicing month.

Preliminary plan for reducing wind-fall benefits from CO₂ cost

The government has agreed to initiate the processing of a new draft with the aim of regulating the reduction applicable to the remuneration received from the spot market by power plants that do not emit CO₂ and that are in service before 2005. The reduction will be calculated based every month applying a formula (defined in the norm) that takes into account the total emission factor from the system, the total generation output and CO₂ prices.

90% of the amount collected through this remuneration reduction to non CO₂ emitting generators will be used to finance the extra-cost of renewable generation, and thus reducing the end-consumer bill, and the remaining 10% will be used to finance measures to reduce the impact of energy poverty in vulnerable consumers.

National Fund for the sustainability of the Electric Power System (FNSSE)

The government has sent to Spanish Congress for approval the law to create the National Fund for the sustainability of the Electric Power System with the objective of financing the costs of renewable, cogeneration and waste to energy assets beneficiaries of the specific remuneration (RECORE).

The fund will be financed by the energy operators: gas and electricity retailers, wholesale oil products distributors, wholesale LPG distributors and wholesale consumers. Contributions from the energy operators will be made quarterly based on their energy incomes. The FNSSE will be implemented in 5 years period.

Public consultation - Capacity Market

The draft of the regulation for the creation of the Capacity Market in Spain has been subjected to public consultation. This regulation is an important milestone to achieve the objectives stated in the storage strategy approved in Q1 2021.

The policy envisages two modalities: Principal Auctions, for 5 years products and Adjustment Auctions for one-year products. The auction product will be power in MW, bids will be made in €/MW year and the awarded power will be paid as bid.

These auctions will be designed under a neutrality scheme; so generation, demand and storage can participate on equal terms.

Prices limits – Spot and Intraday markets

Regulators have approved the adaptation of the market rules to harmonized price limits made by the market operator (OMIE). From **6th of July**, the Day-ahead and Intraday markets will have the following limits:

- -500/+3,000 €/MWh for Day-Ahead market
- -9,999/+9,999 €/MWh for Intraday markets

Other changes will entry into force such as, among others, the “Second Auction”, the limitation of negative prices in complex offers and the limitation of one programming unit for each offer unit.

The regulator, CNMC, has only suggested that future changes may consider that, due to batteries and self-consumption, retailers may have a selling position in the Day-Ahead market. The new regulation does not address this possibility yet.

Royal Decree for closed distribution grids

This law will allow the possibility that large and medium consumers aggregate their consumption in a single point connected to the transmission grid. Under this scheme the consumers will reduce the applicable tolls, getting a reduction in their electricity bill.

These closed grids must supply energy to an industrial zone whose production activity is related within 5 kilometers.

Law on Climate Change and Energy Transition

The Spanish Congress has approved the Law on Climate Change and Energy Transition with the aim of enhancing the decarbonization of the Spanish economy, ensuring the compliance of the Paris Agreement (2015) and ultimately the implementation of a model of sustainable development.

The law establishes the objective of climate neutrality by, or before, 2050, together with sectorial objectives related with renewable generation, emissions reduction and efficiency.

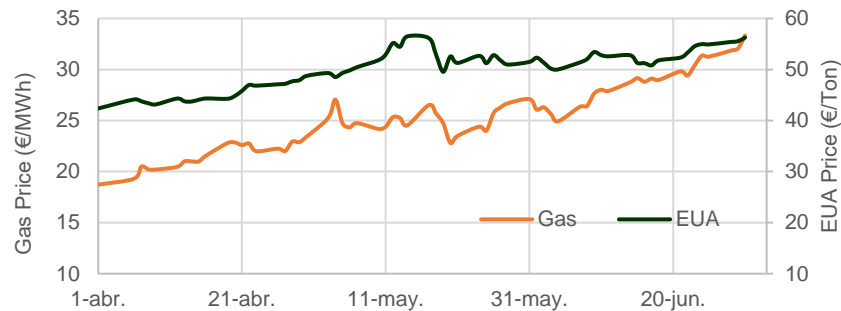
It also considers that the National Integrated Energy and Climate Plan (PNIEC) as a fundamental tool for the energy and climate national strategic planning, along with the Decarbonization Strategy Plan. Since the approval of this law, no more permits will be executed for exploration and exploitation of hydrocarbons in the Spanish’s territory.

The Spanish National Climate Change Adaptation Plan (PNACC) pretends to encourage the adaptation to the effects of climate change in Spain.

1.2 Market Outlook

Fundamentals (Gas, EUAs)

Gas and EUA prices have continued their upward trend with high rises on prices as a consequence of high gas demand combined with low storage level, and bullish sentiment in EUA's market.



The Spain's **PVB gas hub** has finished the quarter with an average price of 25.25 €/MWh, 5 €/MWh above the price of Q1 (20.53 €/MWh), closing June at 33.33 EUR/MWh. Forward products indicate that the upward trend may continue with Q4-2021 at 37 €/MWh and Yr-2022 at 27 €/MWh.

Gas demand from China has continued, being one of the main drivers for price fluctuations. In Europe, gas storage levels are 41% lower than last year, which may continue to push prices upwards in the coming months.

CO₂ prices, as gas and coal, have continued its upward trend. Bullish sentiment due to high gas prices, speculative positions, and new

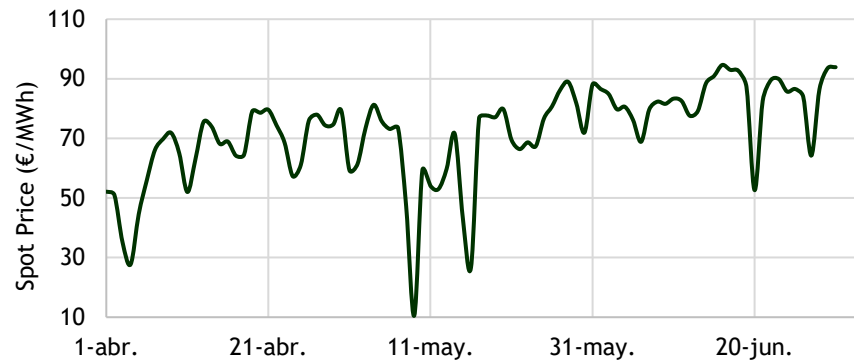
emissions reduction policies have driven prices up to 56.25 €/Ton. CO₂ started the year at 33 €/Ton, meaning a 23 €/Ton climb during first semester.

On 19 May 2021, the first auction for UK Allowances (UKAs) took place, opening at 45.25 £/Ton, causing a 10% drop in EUA prices.

Spot-Market price

The rise of gas and CO₂ prices have also impacted in the spot-market price.

The second quarter has finished with an average price of 71.81 €/MWh, a rise of 26.57 €/MWh with respect to Q1. In June, the Spot-price reached 94.63€/MWh, the second highest price registered.



The rise on spot prices have forced the government to temporarily reduce the VAT and suspend the IVPEE (7% Tax).

1.1 Other highlights

Capacity Nodes Publication July 2021

On 1st of July, the TSO (REE) and the Spanish distribution companies published the capacity availability in the transport and distribution nodes, which is available through different procedures such as through auctions. The Ministry for the ecological transition and the demographic challenge (MITECO), will auction the connection capacity of 174 nodes from the transmission grid.

In total, the capacity of 174 nodes will be auctioned:

	Nodes
Andalucía	34
Castilla y León	29
Comunidad Valenciana	25
Madrid	17
Cataluña	13
Castilla-La Mancha	14
Aragón	11
Galicia	7
Murcia	7
Extremadura	5
País Vasco	3
Navarra	3
Cantabria	3
La Rioja	2
Asturias	1
Total	174

2. 2021-Q2 MIBEL POOL PRICE PROJECTION

The model *xPryce* used to simulate the MIBEL electricity market in the analysis for this report was developed by Simulyde. This kind of models has been extensively used by energy sector players to forecast and analyse the electricity market during the last decades, and has been dealt with in academia, covered in a large number of journal publications and discussed at numerous top international conferences. The model simulates the operation of the electricity system, optimising timing decisions taken by market agents to ensure that the total expense of covering demand is minimised.

The model calculates the economic dispatch of MIBEL's electricity generation assets in conditions of perfect competition, considering the output of nuclear, thermal and hydroelectric plants, renewable energy facilities and interconnections.

The following figure shows the output of the *xPryce*, considering our updated assumptions as per 2021-Q2, for the MIBEL pool prices under the three different scenarios considered in our 2021-Q2 release:

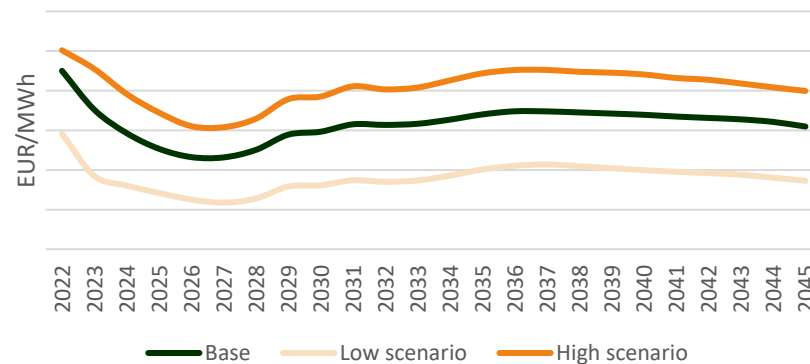


Figure 2.1: Pool prices projections (Base, Low and High scenario)

Capture prices for wind and solar technologies in the three scenarios are also available for our clients.

For getting more information about our quarterly pool price projections service and the conditions to subscribe to it, please get in contact with:



Antonio Baena
Partner

antonio.baena@g-advisory.com



Juan Cruzate
Principal

juan.cruzate@g-advisory.com

