

Spanish wholesale, PV and wind capture price projections (2024 – 2050)

Increased natural gas and CO2 prices led to record power prices in Spain post-COVID19. The Spanish government reverting to its interventionist past with a barrage of regulatory measures which helped control end-user price of electricity whilst at the same time pushing for renewable auctions that could potentially end up over-delivering on Spain's NECP target.

- Will these measures impact the rate of deployment and viability of investments in renewables?
- How do high commodity prices impact on the ability of the market to absorb more renewables?
- How long will the pool prices stay high and to what degree will cannibalization of renewables come into play?
- Will prices in the pool drop below the LCOE of PV and Wind?

In this 200-page report, EKON provides a one-stop shop for investors looking to understand the risks and opportunities of investing, operating or developing wind and PV assets in Spain. The report contains our independent price forecasts (wholesale price and wind / PV captured price forecasts under 3 scenarios), as well as our expert opinion on the Spanish energy market (regulatory and market risk analysis) and its likely future developments.

Our bankable reports and price projections have been used by leading utilities, infrastructure funds, lenders and independent promoters in investment decision processes, negotiating debt or re-financing as well as in commercial and investor/state arbitrations.

Key Report take-aways

- Spanish pool price projections / wind and PV captured prices.
- Analysis of key drivers (market / regulatory).
- Regulatory and Market risk analysis (economic & energy sector indicators).
- Risk & Revenue analysis by asset type: operational or developing.

From government interventions to zero prices? When day-ahead prices reached record levels, the government implemented several regulatory measures (e.g. RDL 6/2022 and RDL 10/2022) which helped lower the electricity end-user prices. But more recent experience shows that 2022 and 2023 were exceptional. With the gas and CO2 prices dropping, renewables deployment continuing apace, hydro reserves rising and demand failing to recover, there is real threat of low prices. Whilst regulatory interventions generally turned out to be more benign than initially feared, the focus will return to the fundamentals and a more negative outlook than foreseen by many.

The generation tax (IVPEE) is back This has been reintroduced in 2024 as part of a return to pre-energy crisis normality but the Tariff Deficit is under control and expected to be fully paid off in a few years suggesting that the generation tax can be removed sooner rather than later.

Importance of flexible hydro Spain's hydroelectric generation has proven to be very flexible thereby reducing the spread of peak and off-peak prices. Whilst hydros do set prices in the day-ahead market quite often, they cannot set prices independently

of the costs of thermal plants which they simply shadow price. But an aggressive reduction in the thermal gap means prices levels could drop suddenly, a feature which will be more likely in Q2 hereon in.

Will new additions lead to pool prices eventually falling below renewables' LCOEs? The report sheds light on the cannibalization effect (an increase in negative capture price spread) and explains why this will be contained by the LCOE of PV and wind.

Interconnection difficulties and red-tape likely to determine rate of deployment The report looks at the impact of the expiry of large amounts of access rights during the next six months, as well as the upcoming procedures to allocate access rights based on new (yet to be tested) socio-economic criteria.

What is the role for BESS? Intra-day price spreads and ancillary service income drive the viability of batteries. Falling BESS costs should make this a more attractive option. But will investors need to wait for a capacity market?

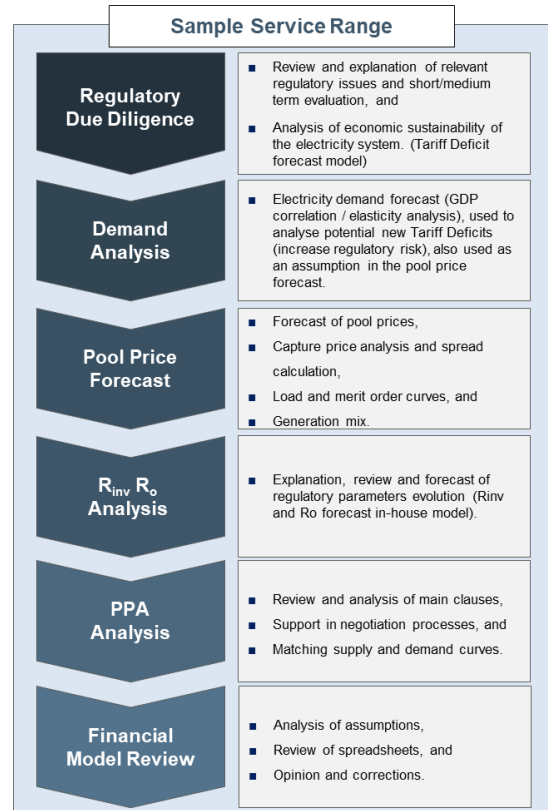
Bespoke services We deliver bankable reports and models including bespoke services (Tailored price sensitivities using the client's assumptions / portfolio and plant-specific assessments to determine capture prices / Lenders' base case.

PMM Power Market Model: Our pool price / capture price model is based on a deterministic dynamic linear programming approach with the objective of minimizing the present value of fuel, CO2, maintenance, and capital investment costs across the whole forecast horizon. Resulting prices, dispatch, fuel use, and capacity expansion are optimal for each set of input parameters.



Our Philosophy

- Work on complex and large transactions, offering a full range of services from a high-level red-flag report, all the way through to complete advisory services to buyers and sellers of assets or energy related businesses.
- Leverage on our experience in both conventional (coal, CCGT, cogeneration and nuclear) and RES (hydro, wind, solar) generation, electricity and gas infrastructure (electricity distribution, gas pipelines and regasification terminals), PPAs (power purchase agreements) and GSAs (gas supply agreements).
- Offer in-house models, internally developed, for long term (>25 years) pool price projections in order to be able to provide a full scope of services on an asset by asset or a portfolio basis, or an entire business.
- Provide robust and traceable financial models that can be easily audited but also allow for complex valuations.
- Work closely with the client and their financial, legal and technical advisors in preparing the deal or assisting in the negotiation phase.



Selected References

Selected clients



Sample of recent transactions



Sell-side advisor, 899 MW wind and PV portfolio sold to ENGIE SA and Crédit Agricole Assurances (November 2021).

[Press release](#)



Sell-side advisor, 473 MW PV portfolio in central and southern Spain sold to Glennmont Partners (August 2021).

[Press release](#)



Sell-side advisor, 500 MW PV portfolio sold to China Three Gorges Europe (August 2020).

[Press release](#)



Sell-side advisor, 800 MW CCGT in Spain to Castleton Commodities and White Summit Capital (November 2019).

[Press release](#)

EKON Strategy Consulting is a brand of K4K Training & Advisory S.L., a company registered in Spain. EKON, based in Madrid, brings together key experts in the fields of gas and power and provides a broad range of strategic and operational services for our clients (banks, utilities, IPPs and governmental agencies and authorities) with a strong focus on providing the highest level of quality service. EKON assists clients in complex commercial transactions (M&A), providing litigation support for arbitration in both the gas and electricity sectors, and providing strategic and PPA services.

Ave de Machupichu 39B,
Apto. 4-19
28043 Madrid
SPAIN

Tel.: +34 606235149
info@ekonsc.com
www.ekonsc.com

EKON strategy consulting