

Wholesale Electricity Price Projections for Austria

Austria is a small market with strategic location between net-exporter Germany and net-importing countries in SEE

Austria has been acting as the electricity storage of Central Europe, due to its extensive pumped storage capacities. Combined with its high cross-border transmission potential, the state can successfully balance excess or missing power from neighbouring countries.

While currently over 60% of domestic consumption is covered by renewables, the government is aiming to implement the "Erneuerbaren-Ausbau-Gesetz" in 2021 which sets the framework for the government goal to make national electricity consumption 100% renewable by 2030 as well as to achieve carbon neutrality by 2040 – a decade sooner than expected by the European Union.

This implies an additional 27TWh of renewable electricity until 2030, divided into 11TWh of solar PV, 10TWh of onshore wind, 5TWh of hydropower and 1TWh of biomass until 2030. The extent of financial support available is said to be no more

than €1 billion on a yearly basis (3-year average) and the existing Feed-in-Tariff will be replaced by a market premium.

The price zone split between Austria and Germany has also been the subject of discussion. The high growth of renewables capacity in Germany depressed the electricity price, supplying the region with large RES-E volumes. While significant wind capacity is located in Northern Germany, large demand comes from heavy industry and pumped-storage plants in southern parts of the country and Austria. Eventually, the Austrian and German regulators came to an understanding to introduce a congestion management procedure on the bidding zone border from 1st October 2018 onwards. The set net transfer capacity amounts to 4.9GW.

After the initial shock caused by the Covid-19 pandemic in March 2020, power demand recovered slightly. According to the Austrian Power Grid (APG), the average monthly demand still is 5% lower than the year before, which has also been reflected in the depressed power prices throughout the year.

aim.afry.com



Our Offering

AFRY Independent Market Report

- Presents our annual projections for wholesale electricity prices out to 2060 for our three internally consistent scenarios (High, Central and Low). These scenarios incorporate total energy system decarbonisation trajectories across the European electricity, heat and transport sectors.
- Considers the main drivers of electricity prices in each scenario, including:
 - the evolution of generation capacity mix;
 - carbon and commodity prices; and
 - developments in technology costs and electrification.
- Delivers in-depth market intelligence, including insights into:
 - government policy and regulation;
 - renewable subsidy support schemes; and
 - the EU Emissions Trading Scheme.
- Based on highly detailed modelling from our suite of worldwide commodity models, including coverage of the heat and transport sectors.

Quarterly updates

- Projections updated on a quarterly basis, ensuring all the latest regulatory and market developments are reflected.
- Quarterly projections are accompanied by a Quarterly Update Note, which summarises the major changes and drivers in prices.

Key data for AFRY projections is provided in a usable Excel format annually, with quarterly updates available.

Half-day workshop

- Provides the opportunity to discuss the market, our modelling and price developments.

Webinar

- Access to webinars held on a quarterly basis presenting the latest results of our modelling.

Subscriber support

- Prompt access to our experts who have a wealth of experience and constantly follow market developments.

Our reports and projections are:

- **Independent.** Our reputation is built on providing an impartial view.
- **Trusted.** The 'AFRY curves' are the definitive benchmark for the power sector.
- **Bankable.** Relied on by the financing community for over 25 years.



Our Austrian market experts



Philip Gueorguiev
 philip.gueorguiev@afry.com
 +43 (0)664 828 5761



Philipp Ortmann
 philipp.ortmann@afry.com
 +43 (0)664 828 6481

Table of Contents



1. Executive Summary	7	5. Modelling results	67
2. Introduction	11	5.1 Wholesale electricity price projections	
3. Market background	13	5.2 Peak and off-peak wholesale price projections	
3.1 Overview		5.3 Key drivers for our projections	
3.2 Market structure and players		5.4 Generation by technology	
3.3 Consumption and generation		5.5 Hourly price distribution	
3.4 Transmission and interconnection		5.6 Marginal plants	
3.5 Distribution and supply		5.7 Weather patterns wholesale electricity price variability	
3.6 Wholesale market and trading		5.8 Supply curves	
3.7 Regulatory arrangements		Annex A – Economic assumptions	82
3.8 Environmental policies		Annex B – Developments in EU legislation & market rules	85
3.9 Austrian gas market		49 Annex C – Oil price projections	103
4. Modelling scenarios and inputs	49	Annex D – Gas price projections	108
4.1 Scenario framework		Annex E – Coal price projections	115
4.2 Modelling approach		Annex F – Carbon price projections	123
4.3 Market design assumptions		Annex G – Weather years	136
4.4 Coal price projections		Annex H – Technology costs	137
4.5 Oil price projections		Annex I – AFRY market models	153
4.6 Gas price projections		Annex J – Additional AFRY services available	175
4.7 Carbon price projections			
4.9 Electricity demand			
4.10 Generation capacities			
4.11 Interconnection			
4.12 Technical parameters of generation			

Additional Services

Transaction support services

M&A advisory including commercial, market, regulatory and technical due diligence

Bespoke scenarios and sensitivities

Customisation for client-led assumptions e.g. fuel prices, decarbonisation goals,...

Climate change modelling

Bespoke simulations of physical and transitional risk for assets and/or portfolios for 2, 4 and 6 degree pathways

Model offerings

BID3 and Pegasus models and datasets are available for purchase

Other AFRY Independent Market Reports available

Our expansion is client-led: if you're interested in any other market, please contact us for options

Capture prices

Available for all markets and technologies

AIM Analytics Capture

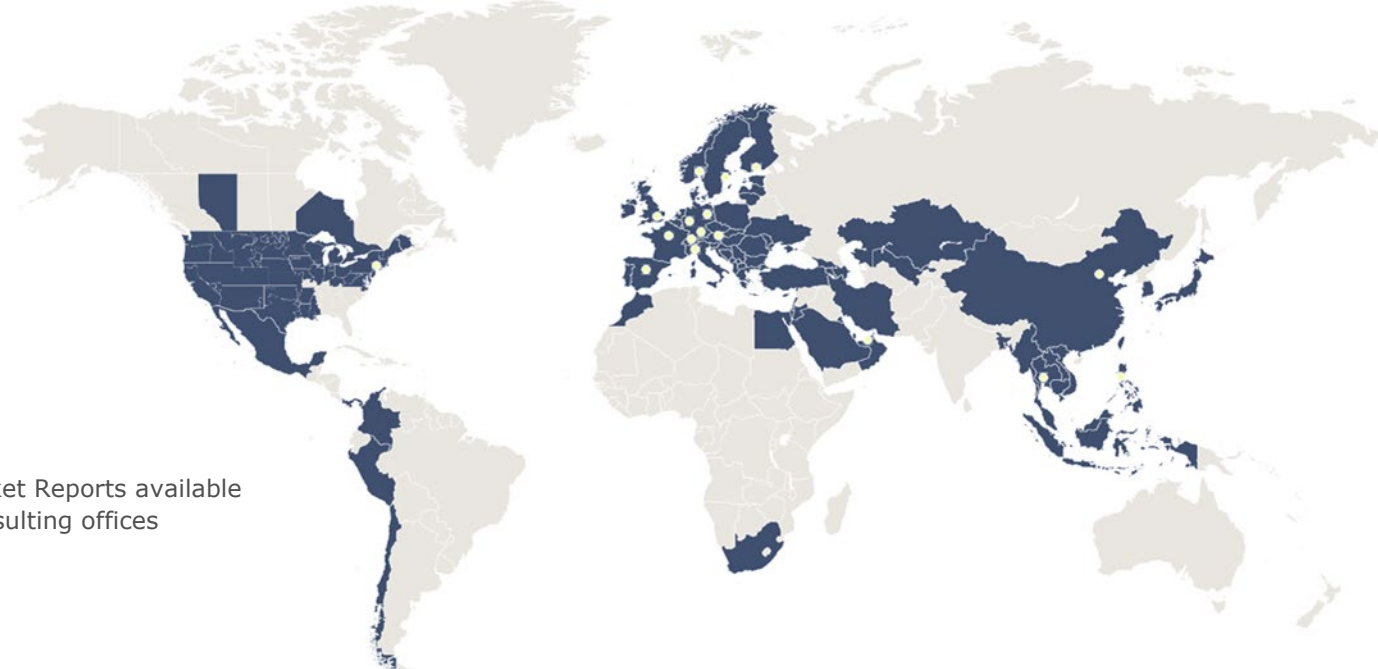
A cloud-based digital tool to calculate asset-specific capture price projections

Imbalance projections

Projections of the costs of imbalance for wind and solar farms

Ancillary service projections

Reserve product value projections for flexible generation and storage



■ AFRY Independent Market Reports available

● AFRY Management Consulting offices