

Wholesale Electricity Price Projections for China

China's electricity sector is undergoing a wide ranging set of transformations

China's electricity system has fuelled the largest single economic expansion the world has seen. In doing so it has grown to be the world's largest electricity sector and one characterised by a heavily coal-dominated supply structure, meeting primarily baseload industrial demand.

This traditional structure is undergoing significant change as dispatchable generation and baseload demand are facing replacement by intermittency and non-industrial electricity consumption, and outlook complicated by economic reorientation, decarbonisation and the rollout of electricity market reforms.

As regulators seek to adapt to the new physical realities and environmental constraints faced by the sector a host of reforms aim to promote both competition and decarbonisation across the sector, giving rise to the world's largest renewable energy market, topping 400GW in just under a decade.

As planning gets underway to set the tone for the next half decade under the milestone 14th Five Year Plan, market participants across the sector are facing a set of new realities. Securing revenues in China's 30-odd diverse and distinct provincial electricity markets will increasingly be driven by supply-demand dynamics and characterised by falling or no subsidies.

In our latest Chinese report we explore:

- How will the government planning and policy environment shape the Chinese electricity system and markets in the coming years?
- How will competitive markets affect the electricity price and system operation?
- What revenue streams are available to renewable developers, how are they accessed, and how could they change under the market reform?
- How will the range of transformations underway impact on market participants?

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Our Offering

AFRY Independent Market Report

- Presents our annual projections for wholesale electricity prices out to 2050 for our three internally consistent scenarios (High, Central and Low). These scenarios incorporate electricity system decarbonisation trajectory in China.
- 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, including the Five-Year Plan;
 - renewable subsidy support schemes; and
 - the national carbon market.
- Based on highly detailed modelling from our suite of worldwide commodity models.

Key data for AFRY projections is provided in a usable Excel format.

Half-day workshop

- Provides the opportunity to discuss the key market issues, as well as our analysis and modelling outputs.

Webinar

- Access to webinars presenting the latest results of our modelling.

Invitation to our Power Market Conference

- Hear the latest developments in our modelling global modelling, insights into new topics and areas of research every year (held in the United Kingdom).

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.



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Our standard China AIMR includes a national report section, and selected provincial sections as outlined in this example table of contents. Wholesale market price projections are provided for selected provinces as markets are provincial.

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Additional Services

Bespoke scenarios

Define specific sensitivities or scenarios

- Customisation for bespoke assumptions, e.g. fuel prices or decarbonisation goals.
- Sensitivities to examine impact on power price of changing gas or carbon prices.

Transaction support services

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

- Buy and sell-side support for the investment in, or disposal of, generation assets.
- Lenders' Market Advisor services to support debt financings.

BID3, Pegasus and BID3live

Models and datasets available for purchase

- For clients needing full flexibility to do own model runs.
- Live short-term forecasts available with BID3live.

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

- Pre- and post- economic curtailment.
- Market-wide, asset-specific or for portfolio of assets.

Imbalance projections

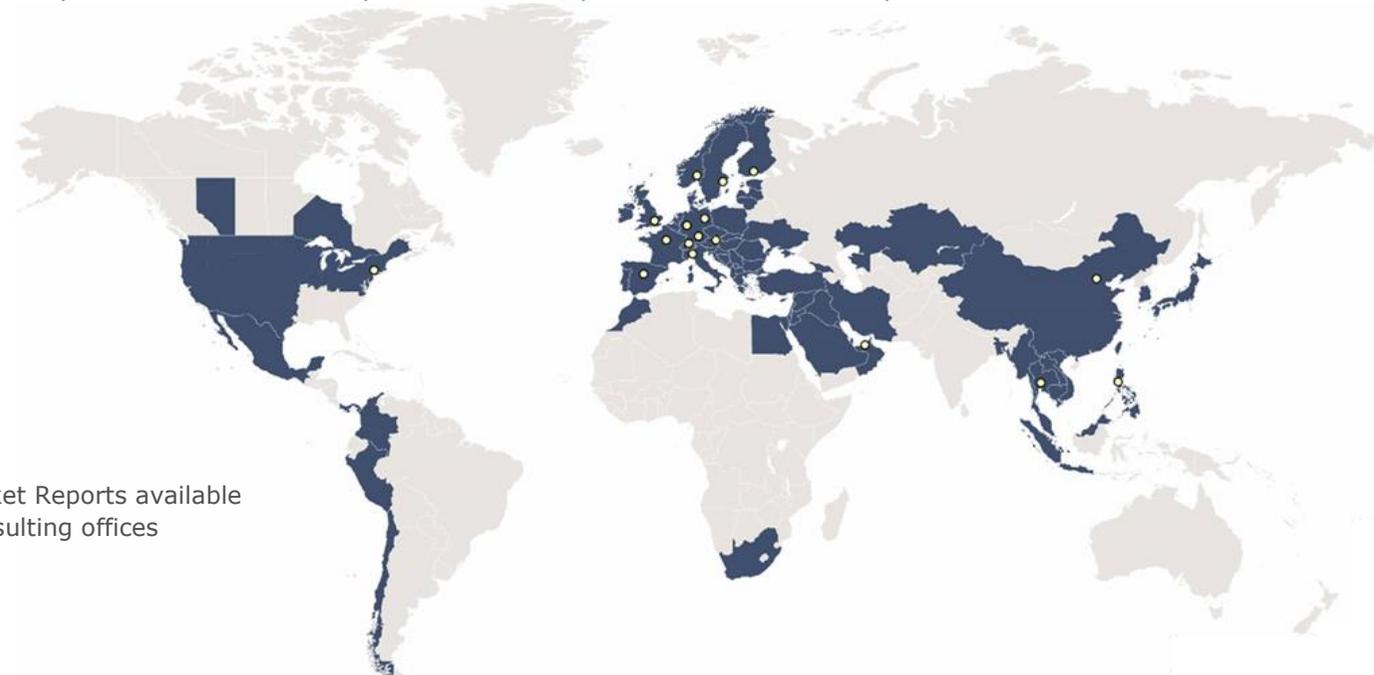
Projections of the costs of imbalance for wind and solar farms

- Accounts for future growth of renewables, different trading strategies and improvements in forecasting.

Ancillary service projections

Reserve product value projections for flexible generation and storage

- Fundamental projections using BID3 to account for changing capacity mix.
- Covers both holding and activation fees for FCR, aFRR, mFRR, RR, and equivalent.



- AFRY Independent Market Reports available
- AFRY Management Consulting offices