



EY GB Power Market Model

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The outlook for the electricity sector is increasingly uncertain, with the energy transition towards a net-zero future underway. The pace and means of change are unknown and new technologies and business models are evolving quickly. Thus, it has never been more important to be able to forecast the future of the sector and to understand the implications of different scenarios.

With the goal to improve forecasting accuracy, EY is pleased to be launching its proprietary power market model.

About the model

The model uses PLEXOS® software to simulate the dispatch decisions and market prices out to 2050. It takes a number of inputs drawn from a range of data sources (including DUKES, FES, TEC and the ITEM Club) to define the market context. It then applies linear optimisation techniques to forecast dispatch decisions and market prices over either the short term or the long term.

The model features several scenarios, including different assumptions around commodity prices, decarbonisation trajectories and the regulatory framework, to provide a central, low and high view of market power prices.

Why use the model?

- ▶ Model accuracy
- ▶ Not a 'black box'
- ▶ Team experience
- ▶ Supports project finance
- ▶ Better user experience
- ▶ Competitive fees
- ▶ An integrated one-stop shop experience

The ability to forecast and analyse how power markets may evolve is crucial to understanding risks and opportunities relating to generation assets, network investments and power use.



Factors the model considers

Macroeconomic drivers

Oil, gas, coal prices, GDP growth

Environmental drivers

Emissions (CO₂, SO_x, NO_x)

Energy transition

Net zero targets, wind and solar data

Demand forecasts

Energy efficiency, EVs, heating

Regulatory drivers

CM and CfD, Brexit, network charges

Commercial drivers

Hurdle rates, technology costs

Power prices

Time and volume-weighted prices

Dispatch decisions

Load factors and dispatch optimisation

Changing energy mix

Plant retirements and new build

Stochastic analysis

Sensitivities to climate risk

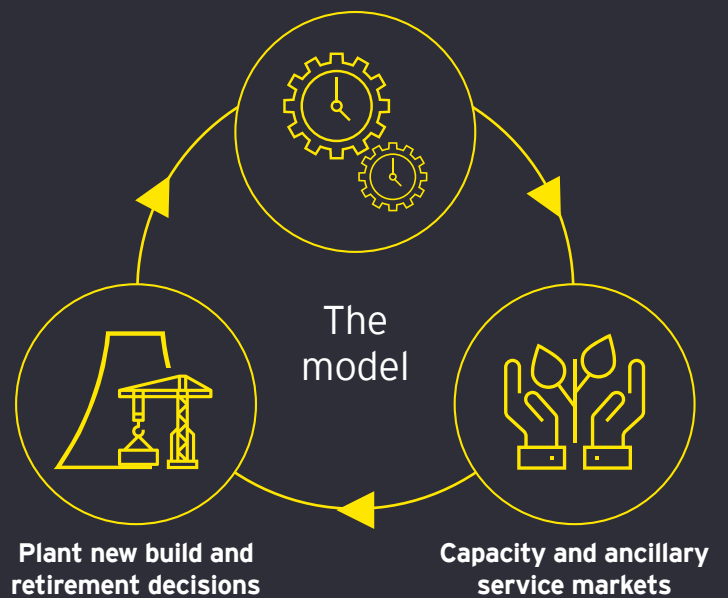
Financial analysis

Impacts on plant valuations

Policy impact assessment

Societal NPV of policy changes

Short-term plant dispatch optimisation



What can the EY GB Power Market Model be used for?

The energy sector is changing rapidly as technology improves, customer preferences change and the drive for decarbonisation accelerates. The ability to forecast and analyse how power markets may evolve is crucial to understanding risks and opportunities relating to generation assets, network investments and power use.

It is also crucial to understanding the implications of changes in government policy or economic regulation, such as changes to carbon prices, renewable subsidies, capacity markets or network charges. Power market forecasting is critical and seamlessly integrated with the services EY teams provide.

Transaction due diligence

Forecasting power and ancillary service prices, generation asset utilisation rates, revenues and profitability for conventional generators and renewables as an input to investment decisions relating to both greenfield and brownfield assets

Energy trading

Supporting decisions around hedging power price risk, such as by informing decisions on a reasonable long-term corporate PPA price for subsidy-free renewables

Government policy and economic regulation

Supporting policy development by assessing the impacts of regulatory changes on societal outcomes (e.g. consumer bills, carbon emissions)

Valuations and audit support

Supporting clients to value a portfolio of power generation assets and supporting EY audits in checking the robustness of client power market forecasts

Energy transition and strategy

Helping quantify the impact of the energy transition under a wide range of scenarios on the generation mix, price of electricity and on the economy generally



What is unique about the EY GB Power Market Model?

The model provides a market-leading capability to better support EY clients:

Model accuracy

The EY GB Power Market Model takes a robust and quality-assured approach to power price forecasting, using market-leading PLEXOS® software. The model leverages the wide breadth of knowledge and access to information from across EY to inform the model assumptions and inputs. The model also draws on macroeconomic forecasts from ITEM Club, the only macroeconomic forecasting tool that uses the same model as HM Treasury.

Not a 'black box'

EY modellers will be available to meet you and take you through the assumptions, inputs and results in detail to ensure the outputs are tailored to your requirements.

Team experience

The team is drawn from BEIS and Ofgem, bringing deep insight into power markets and the approach to power market modelling in government.

Supports project finance

EY's reputation for robust analysis and power sector knowledge means you, and providers of finance, can have greater confidence in EY forecasts.

Better user experience

EY will be offering access to the forecasts via a customised power market modelling web portal. This will help enable users to easily access our key forecasts, inputs and assumptions via a tablet or portable device.

Competitive fees

The EY power market model products and services, including a quarterly subscription based service and bespoke transaction support, will be competitively priced compared with existing providers of these services.

An integrated one-stop shop experience

Customers will benefit from the unrivalled breadth of services and detailed service capability. We will be able to seamlessly combine insights from the power modelling into wider EY services. EY teams supporting on transactions, M&A, taxation and valuations will have access to EY power market modelling capability, allowing deeper insight into market and regulatory developments. EY clients of transaction support services will have access to a broadly integrated suite of due diligence from one place.

Customers will benefit from the unrivalled breadth of EY services and detailed service capability.

The EY GB Power Market Modelling Team:



Anthony Legg
Head of Power & Utilities
Economic Advisory
alegg@uk.ey.com
+44 7753 300 520



Anthony Tricot
Assistant Director
Economic Advisory
atricot@uk.ey.com
+44 20 7951 9978



Julian Roberts
Manager
Economic Advisory
julian.roberts@uk.ey.com
+44 7824 084 806



Johannes Pelkonen
Manager
Economic Advisory
johannes.pelkonen@uk.ey.com
+44 20 7760 5783

Other key EY contacts:



Sunny Aurora
Transaction Diligence
saurora@uk.ey.com
+44 20 7951 6009



Ben Warren
Corporate Finance
bwarren@uk.ey.com
+44 20 7951 6024



Josephine Bush
Tax Leader
International Tax and Transaction Services
jbush1@uk.ey.com
+44 117 981 2071



Mike Evans
Valuations
mevans5@uk.ey.com
+44 20 7951 1346

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Ernst & Young LLP, 1 More London Place, London, SE1 2AF.

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