

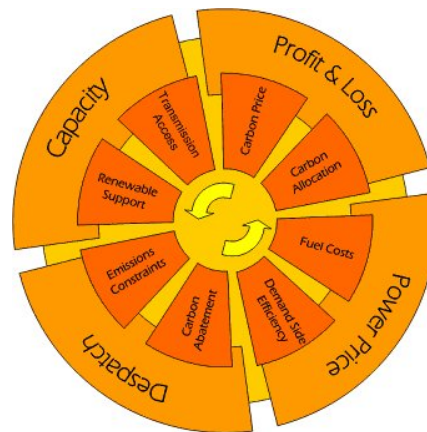
POWERVIEW
IPA'S WHOLESALE ELECTRICITY MARKET FORECAST FOR GREAT BRITAIN
APRIL 2009

PowerView is IPA's quarterly view of the potential development of the Great Britain wholesale electricity market, including **long-term forecasts of electricity, gas, CO₂, and Renewable Obligation Certificate (ROC) prices.**

The report investigates the **key drivers** which will impact on the electricity market over the next 25 years:

- movements of other energy **commodity markets** (including oil, gas, and coal);
- **regulatory developments** at both the UK and EU level, including the EU Emissions Trading Scheme (ETS) for CO₂, the Large Combustion Plants Directive (LCPD), the climate change package, renewables targets and changes to the Renewable Obligation (RO) support mechanism;
- **security of supply** concerns as generation capacity is closed and demand for electricity grows; and
- the rate of development and cost of **new technology**, such as carbon capture and storage (CCS), third-generation nuclear, and large-scale offshore renewables, and the resultant deployment by market participants.

Our proprietary model **ECLIPSE** (*Emissions Constraints and Policy Interactions in Power System Economics*) is able to capture the complex interactions between these various economic and non-economic drivers to help quantify their impact on the industry:

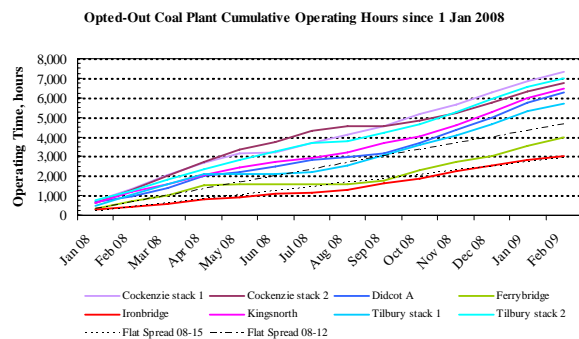


We explore a credible range of outcomes for all of the drivers in the form of three scenarios under which power and ROC prices are forecast against self-consistent assumptions for fuel and CO₂ prices and economically rational plant closure and build decisions.

April 2009: Recessionary Effects Likely to Exert Medium-Term Pressure on GB Electricity Sector

The key issue over the first quarter of 2009 has been the global economic crisis and resultant recession. Demand for energy has been reduced on a worldwide basis, largely as a result of curtailed industrial output, which in turn has kept commodity prices near the low levels reached at the end of last year. This bleak outlook combined with financing difficulties appears in turn to have impacted on investment in new power stations, particularly in the renewables sector.

A further issue which seems likely to affect the medium-term development of the generation sector has been the rate at which the opted-out coal plants have been using their limited operating hours since the start of the LCPD period on 1 January 2008. Analysis of station running data from ELEXON shows that four stations in particular had by the end of February used between 5,700 and 7,300 of their 20,000 operating hours allowance – a rate which if continued could see 6.7 GW of the total 8.8 GW of



A majority of the opted-out coal stations have been running much more during 2008 than perhaps anticipated, suggesting they will have used their 20,000 hours by 2012 rather than 2015.

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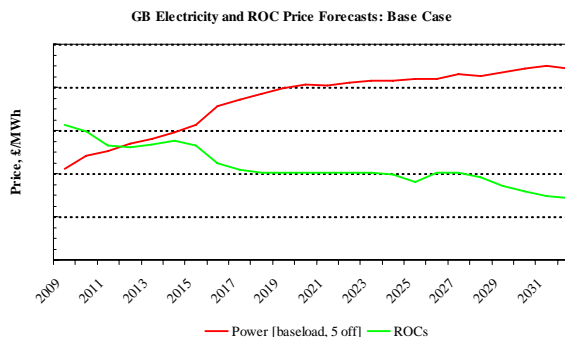
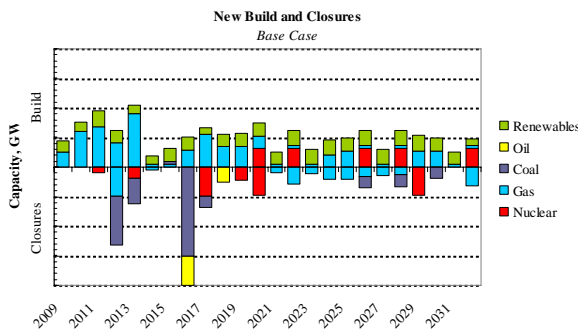
opted-out coal plant closed down by 2011/12, a good three years earlier than the deadline of December 2015. It is perhaps fortuitous therefore that demand appears likely to be suppressed over the next few years, as the resultant capacity gap may not be too significant in terms of security of supply, especially with a number of CCGTs currently under construction.

We have reflected these depressed conditions in the early years of our forecast through a downward revision to our electricity demand forecasts from our previous assumptions as well as initially lower growth. In our **low case** scenario, which represents a persistent depressed economic environment, we assume the recent downward trend persists until 2011 after which demand remain flat. This is a fossil-fuel world with coal generation advantaged by a low CO₂ price and low power prices deterring nuclear and renewables build.

We do however recognise the great volatility seen in energy markets over the past eighteen months by considering alternative possibilities. Our **high case** is characterised by high energy prices (a

\$100/bbl long-term oil price) and strong environmental concerns reflecting the buoyant economic environment of early 2008. The trend is towards a low-carbon world, with nuclear and renewables highly profitable and hence dominating the new build, and gas preferred to coal.

Our **base case** outlook is between these two extremes, as over the long-term it would be expected that the overall development will be a balance between the objectives of security of supply, environmental protection, and affordability. Prices are expected to remain quite low in the early years until global economic conditions recover.



Potential capacity squeeze from 2016 through LCPD closures ... would require an increase in power prices to incentivise the new build required to maintain security of supply

The lower demand growth also means that the capacity squeeze between 2016, when a lot of coal and oil plant is expected to close, and 2020 when new nuclear and renewables can start to make a significant contribution, may not be as severe as previously anticipated. A sharp rise in power prices would still be expected though, which would incentivise renewables build hence depressing ROC prices.

To purchase the **full April 2009 PowerView** report, or for more information including how we could develop bespoke forecasts to meet your specific requirements, please contact us at:

IPA Energy + Water Economics
55 Melville Street
Edinburgh EH3 7HL
Tel: +44 (0)131 240 0840
Fax: +44 (0)131 220 6440
Email: contact@ipaeconomics.com
Web: www.ipaeconomics.com

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