Implementing the European Electricity Target Model in GB

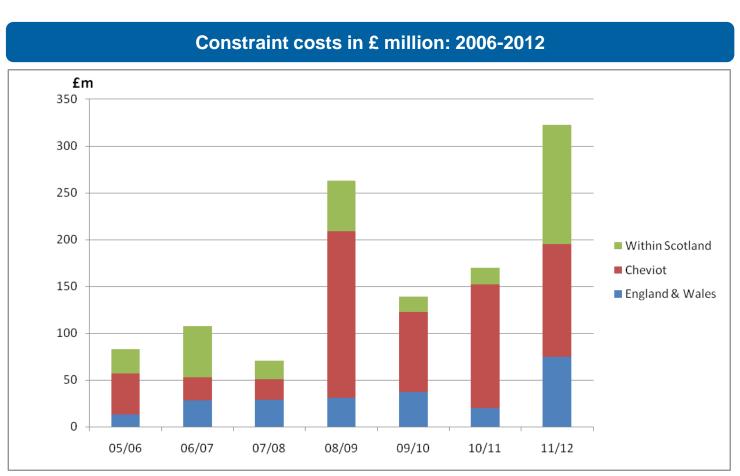
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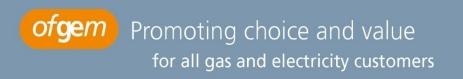
The GB market is changing, driven by major reforms internally and in Europe

- Binding legislation will require GB to integrate with other European electricity markets
 - Member States committed to completing the single market for electricity by 2014.
 - The Third Package creates a new regulatory framework to enable this. A legally binding framework called the European Target Model will come into force by 2014.
 - The completion of the single market requires removing barriers to trade and aligning markets.
- The GB market was not designed with high levels of renewables in mind
 - The Electricity Market Reform will facilitate a paradigm shift in the generation mix from controllable large-scale generation to intermittent renewables farther from demand.
 - The physical system and wholesale market arrangements (BETTA) were designed for controllable, predictable generation.
 - Changes in the system is likely to result in rising constraint costs and challenges in balancing the system.

There is already evidence of change

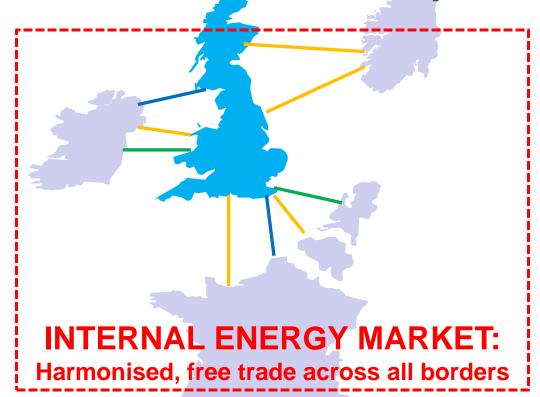


Source: National Grid





GB Market and power system increasingly less isolated from rest of Europe



ExistingConstructionPlanned

Possible Interconnection

2.5GW in 2010 \rightarrow 4GW by 2013 \rightarrow 5GW by 2016 \rightarrow 9 GW by 2020

The European Electricity Target Model is the main regulatory vehicle to the single market

- Wholesale markets will be integrated at day ahead stage as capacity on interconnections between markets will be implicitly allocated (market coupling)
- Intraday markets will also progressively be integrated to provide renewable generation the opportunity to adjust their positions close to real time
- Consumers benefit from lower prices as a buyer will be automatically matched with the cheapest generation in Europe as long as there is sufficient transmission capacity
- Balancing markets will be integrated so that consumers benefit from lower balancing costs and improved security of supply across the EU

Efficient implementation would require some changes in the GB market

- Concentration of liquidity at the day-ahead stage.
 - Industry is already moving in that direction. N2EX has significantly increased its liquidity with recent commitments from SSE, E.ON and RWE
- Development of a robust and trusted reference price for GB.
 - National Grid has procured a 'GB Hub' to pool liquidity in the two GB power exchanges. N2EX has been selected
- Consideration of appropriate price zones to manage internal constraints more efficiently and to ensure we import energy when we have a security of supply issues/export when we have excess wind

The Target Model has considerable interactions with GB reforms

- **Liquidity**: Market coupling and the creation of a GB Hub supports improvement in the liquidity of the GB market
- Reform of wholesale energy price (cash-out): share objectives of efficient system balancing (reducing costs) and robust price formation to signal investment decisions
- EMR (CfDs and capacity mechanisms): Both schemes appear broadly compatible with the EU Target Model
 - Impact of detail design on cross border flows and, potentially, of price zones to be considered

What should our response be?

- We have published an open letter on 28 March 2012.
- Your views will help informing our next steps.
 - Should we try and minimise changes or look holistically at GB/EU requirements?
 - How can we deliver the best outcomes for GB consumers?
 - What process should we use to take this forward?



Promoting choice and value for all gas and electricity customers



Timing for implementation and legislation

