The Energy Bill

Matching supply to demand

December 2012

The Bill must also ensure electricity supply is secure – both in terms of being able to meet day to day fluctuations in demand, and in ensuring the UK is not tied into long-term supplies of energy which may be subject to price fluctuations or even supply problems.

Ensuring security of supply

In order to move to the higher levels of renewable generation that are essential to decarbonise the electricity system by 2030 and meet carbon budgets, it will be necessary to increase the flexibility of the electricity system.

There are a number of ways of doing this including interconnection with other countries, power storage, and temporarily reducing or shifting demand for power (known as demand-side response)[i] which could reduce investment needed in back up power by 35%.[ii] Any policy on system reliability should emphasise demand side response, interconnection and storage as well as energy efficiency, ahead of new generation capacity.

The Government proposal is for a Capacity Market which pays all capacity simply for being there in case it is needed. The challenges of security of supply are complex, but we do not believe that the case for the Capacity Mechanism for supply options is proven and DECC's evidence is not strong. If a flexibility mechanism is required for generation capacity, a government owned strategic reserve of rarely-used old plant might be better value for money. Major energy companies like RWE do not believe it is necessary[iii] as it undermines the development of the other, better, options.

If Government is intent on taking forward a Capacity Mechanism, it needs to prioritise the low carbon forms of flexibility, demand side response and storage options, in keeping with a decarbonisation target. Otherwise it risks creating large incentives for unnecessary new fossil fuel plants, windfalls for existing plant and holding back development of innovative, potentially cheaper alternatives.

There is a danger that plans for a Capacity Mechanism are already driving the conditions where it has to be used, and thus risks providing a windfall to generation capacity that would exist anyway if the Capacity Mechanism had not been planned.

Prioritising reducing demand

The Energy Bill must allow separate auctions to take place for demand side response and storage, without having to auction for generation capacity.

The year ahead auction for Demand Side Response and Storage should then go ahead in 2014 after which time government should reassess whether auctions for supply side measures are needed (and indeed whether the Capacity Market is the best policy to provide generation capacity to aid system flexibility).

Legislation should also support a merit order for the dispatch of capacity when it is needed so that high carbon supply is used last and National grid should be given a remit to maximise the contribution demand side response and storage make to system security.

New interconnection routes to other countries are a vital part of the UK's future electricity infra-structure but the current proposals do not ensure these will be developed. There needs to be a separate strand of policy specifically looking at how best to put in place a wide and strategic deployment of new interconnection routes to help reduce the cost of maintaining security of supply, and to open up opportunities to export renewable power at times of surplus. Sharing back-up resources with other Member States could reduce costs significantly.

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[i] Demand side response is the ability of demand to be turned down when there is a supply shortfall or, more usually, when power prices are high. Examples include appliances like fridges or washing machines being temporarily switched off, people voluntarily deciding to use less power when the incentives are right.
[ii] European Climate Foundation, Power Perspectives 2030 Report, November 2011
[iii] RWE, Summary of RWE UK EMR consultation response, June 2012