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## PARLIAMENTARY BRIEFING

# The Energy Bill: Will the Capacity Market be fit for purpose?

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17 July 2013 (update)

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### Summary

- The Bill gives powers to introduce a Capacity Market, but the detailed secondary legislation is not yet available for scrutiny and DECC is still finalising key details of the design.
- The Capacity Market has been designed to ensure security of supply by prolonging the life of existing power plants and incentivising the building of new plant, mainly gas. However, procuring too much gas capacity risks locking in too much high carbon infrastructure, which will add costs for consumers and threaten our carbon targets.
- Generators with fossil fuel assets will benefit from the Capacity Market, which will cover most of their fixed costs and reduce risk. This may mean that some existing generators, in particular nuclear and coal, receive windfalls.
- The Capacity Market will fail to encourage substantive growth of non-generation forms of flexible capacity such as storage and demand-side response, which would reduce the total amount of new generation capacity required by allowing more efficient use of existing assets.
- The Capacity Market will exclude interconnected capacity. This is bad for consumers and for security of supply.
- The Government has recently proposed to deliver energy savings through the Capacity Market. Please see our separate briefing for details.

### Introduction

In recent years, UK capacity margins have been relatively large<sup>1</sup> but they are expected to become significantly tighter over the next two years as a number of old coal and oil plants close. While these margins will become tighter from 2015 onwards, National Grid will be able to manage any shortfalls with the probability of any interruptions to supply remaining extremely small<sup>i</sup>.

At present, power plants are paid only for producing and selling electricity but the Capacity Market will run auctions for capacity (new and existing plant), based on an estimate of the volume needed four years ahead. All successful bidders will receive the same annual payment

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<sup>1</sup> The capacity margin is the amount of total reliable generation capacity available relative to peak demand. Normally demand is significantly below peak demand, which mainly occurs on particularly cold weekday evenings in winter.

for providing capacity, as well as revenues they receive for selling electricity. In return for the capacity payment, providers must deliver electricity at times of scarcity or pay a penalty. This market will be open to all generating plant including coal, nuclear and non-generation options such as demand-side response and electricity storage. Interconnection and plants receiving payments under the Renewables Obligation or Contracts for Difference cannot participate.

### **Problems with the Capacity Market design**

**A dash for gas:** Ministers will decide how much capacity to procure using analysis from National Grid. Understandably, they are likely to be risk-averse as no politician wants to be blamed for the lights going out, so the Capacity Market may result in auctioning too much capacity. This would lock in large volumes of new unabated gas generation capacity with a lifetime of 25-35 years. Owners of these plants will want to operate as often as possible in the future rather than act as a back-up to low carbon generation and will lobby accordingly. This could lead to pressure to scale back investment in low carbon generation. Building excess capacity also comes at a cost with the consumer footing the bill.

**Levy Control Framework:** After the introduction of the capacity market, it is expected that wholesale electricity prices will fall because generators will now be earning some of their revenue through their capacity payment. This will increase the gap between the price paid to low carbon generators and the wholesale price with the unintended consequence of reducing the amount of new low carbon capacity which can be funded within the Levy Control Framework.

**Inhibiting the growth of storage and demand-side response:** The capacity market was designed primarily to bring forward investment in new generation. Its current design will fail to enable substantive growth of demand side response or storage. Storage in particular may be unable to secure contracts and will therefore be one of the only participants in the energy market to depend on revenues from the energy market alone despite its obvious benefits. It will therefore be worse off than it was before, given that the introduction of the Capacity Market will reduce both the level and the volatility of the wholesale market price.

**Inhibiting cross-border trading:** By only providing payments for capacity to UK-based generation, the Capacity Market will distort the electricity market to the detriment of overseas generation capacity which might otherwise be able to provide electricity at a lower price.

**Flexibility:** The proposed Capacity Market fails to prioritise plant with beneficial attributes such as low carbon emissions or an ability to provide flexibility services to the grid. It also risks delaying the retirement of high carbon capacity such as coal which will become a liability given the need to rapidly decarbonise the electricity supply.

### **Priorities for improving the Capacity Market**

WWF recommends that in order to avoid the Capacity Market funding a dash for gas, the government must:

1. Ensure the rapid growth of non-generation, interconnected capacity and demand reduction by improving the capacity market design or bringing forward other complementary policies to ensure rapid deployment of these technologies.
2. Avoid setting a security of supply standard which is excessively high and results in a dash for gas.

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<sup>i</sup> <http://www.ofgem.gov.uk/Markets/WhlMkts/monitoring-energy-security/elec-capacity-assessment/Documents1/Electricity%20Capacity%20Assessment%20Report%202013.pdf>