

UK electricity market reform - update

Energy experts' meeting, Brussels

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Tim Abraham, DECC (UK)

Why we consider change is necessary

Current UK arrangements are unlikely to meet the challenges



Decarbonisation

- Electricity sector is key to meeting the EU's 2050 roadmap goals
 - EU electricity demand will significantly increase in order to decarbonise transport and heat
 - We need to largely decarbonise by 2030s
 - UK approach: Incentivise nuclear, renewables and CCS to make this transition.

Security of supply

- Significant market failures under GB arrangements
- About 20GW (quarter) of existing plant to close over next decade in the UK
- Capacity margins expected to be uncomfortably tight (close to 5% from about 20%) in late 2010s due to closures and increased use of intermittent generation, despite increased interconnection. This gives rise to risk of blackouts.

Affordability

- **The UK has a huge investment challenge:** **£200bn for energy infrastructure of which £110bn for electricity generation and transmission**
- **We need to deliver the changes at least cost to consumers**

By 2020 the UK needs over double the investment that has come forward in the last decade. To achieve this, we need a framework that maintains market signals, but allows high capital/ low marginal cost plant to compete on fairer terms with existing thermal generation.

EMR policy package

Together with existing measures, it should help meet ambitions for energy markets



1. Feed In Tariffs with Contracts for Difference (CfD) for low carbon generation – they will provide more long-term certainty over revenues:
 - lowering the cost of capital (and costs to consumers); and
 - enabling investment by a wider group of investors.
2. Capacity Mechanism – to give greater confidence on security of supply.
3. Carbon Price Support – In order to strengthen the carbon price signal.
4. Emissions Performance Standard – to provide a very clear and unambiguous signal to the market about new coal without CCS.

We are seeking to ensure that the EMR proposals are complementary to our European and other domestic energy policies.

EMR Package: FIT CfD



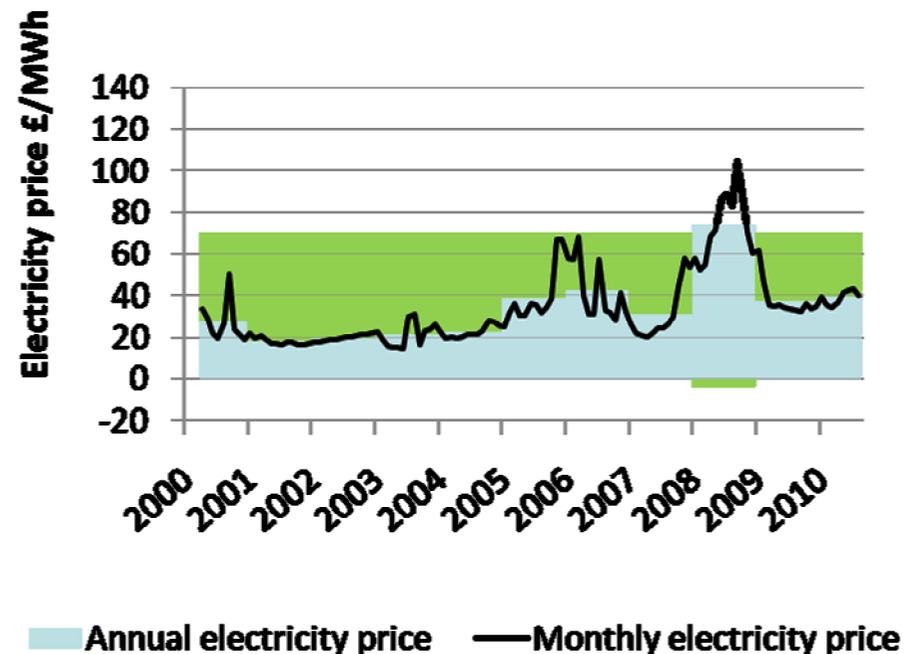
Together with existing measures, it should help ensure decarbonisation

How it works

- A variable payment which generators receive in addition to the market price of electricity to make it up to the value of their long-term contract.
- When the market price is higher than the contract value, generators can be required to pay back the difference.

Key features

- Lower costs for consumers. Provides minimum necessary support to meet financing requirements, but allows claw-back during high wholesale price.
- Generators continues to compete in the market, keeping the risk they can best manage. Liquidity should improve as contracts will be based against range of markets.
- Separately, we are exploring possibility of renewables trading and how to encourage this.



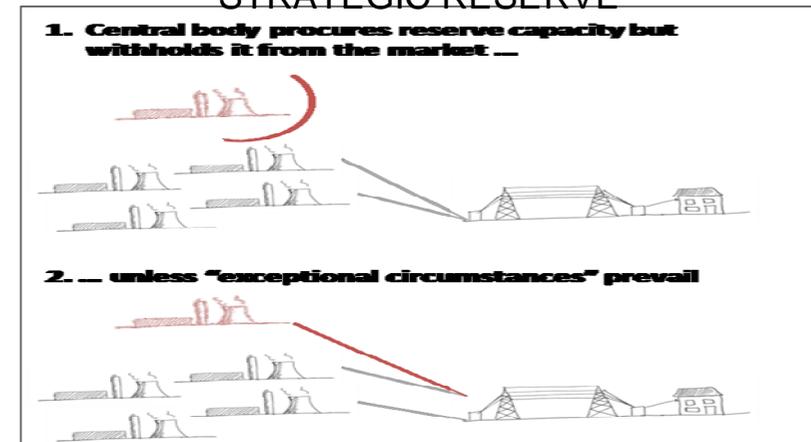
EMR Package: Capacity Mechanism

We need to ensure security of supply – other markets will play key role here

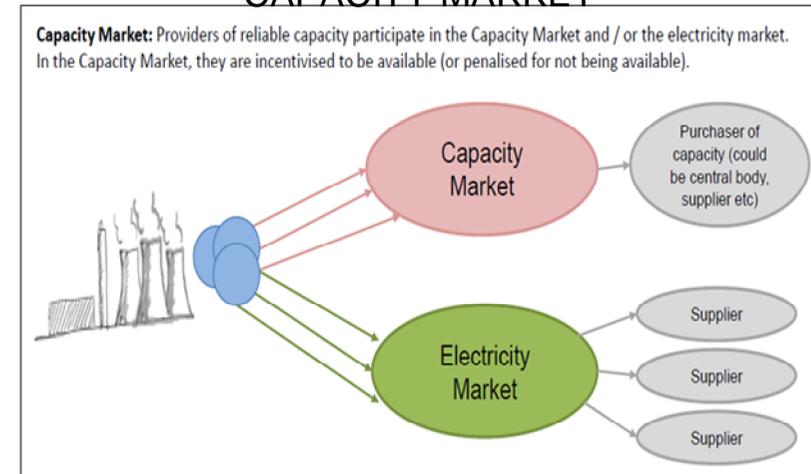
Role of a Capacity Mechanism

- Needed to ensure security of supply around end of this decade – despite increased energy efficiency and interconnection, margins will be tight.
- We are consulting on the model for a Capacity Mechanism:
 - Targeted mechanism – Strategic Reserve
 - Market-wide mechanism – options for Capacity Market, with detail on Reliability Market.
- We are supportive of allowing generation based outside GB – certain technical issues need further consideration.

STRATEGIC RESERVE



CAPACITY MARKET



EMR Package: Carbon Price Support



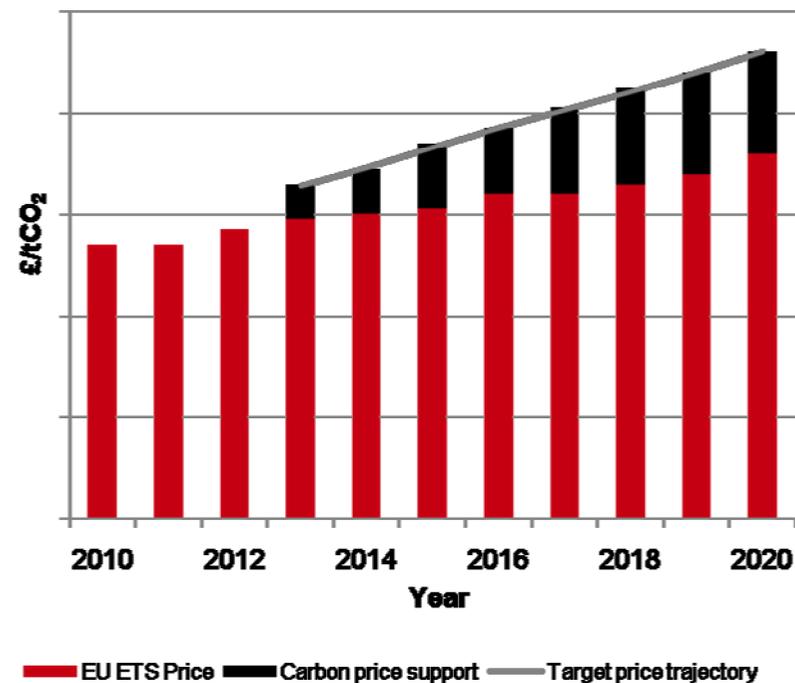
Strengthening of the EU ETS – ensure we meet decarbonisation target

Carbon price floor will strengthen EU ETS price

- We are not confident that the EU ETS will alone meet the 2050 targets
- Carbon price will provide increased and long-term certainty to carbon price.

Interaction with the EU ETS

- Carbon price support will be set at low level initially, and allowed to rise gradually in line with EU ETS projections.
- Where EUA rises above UK target trajectory, carbon price floor could be set to zero.



EMR Package: Emissions Performance Standard (EPS)

Help ensure no further unabated coal stations



Ensures no new unabated coal stations are built

- Provides regulatory back-stop on the amount of emissions a new power station can emit
- Technology neutral EPS set an annual level equal to 450g/kWh
- Applies only to new plant
- Anticipate exemptions for plant in the EK CCS demonstration programme
- Grandfathering, with regular review.

EPS set at a level equivalent to 450g CO₂/kWh with specific exemptions for plant forming part of UK's CCS Demo programme

EMR Package

Next steps and implementation



Transition

- We need to ensure a smooth transition from the Renewables Obligation
- Offer choice of RO or CfD from 2013-17- principle of grandfathering.

White Paper

- Published on Tuesday 12th July. Available at: www.decc.gov.uk.

Next steps

- Technical update – to be published at turn of the year
- Legislation – Spring 2012
- Implementation – 2014.