

DECC CONSULTATION ON ELECTRICITY MARKET REFORM

EFET RESPONSE

The European Federation of Energy Traders – EFET¹ welcomes the opportunity to contribute to the consultation launched by the Department of Energy and Climate Change (DECC). In our contribution, we outline several principles and offer an assessment of the main suggested changes.

Summary

The UK Government has shown considerable global leadership in setting itself long term carbon reduction targets. EFET recognises the need to ensure that there is an appropriate policy and incentive framework in place to reflect this objective. The DECC consultation (and the associated consultation from HMT) outline various policy options.

EFET believes that an important objective of market reform should be to avoid undermining the effective operation of the wholesale market. We share the view of DECC that effective competition is an important means to protect consumers, by delivering the necessary investment for meeting the long term carbon reduction targets effectively. In this respect EFET has concerns that the package, as a whole, marks a move away from market outcomes towards government sponsored solutions. This will not create the right incentives for efficient investment.

It is important that the overall package does not undermine existing policies and that the individual elements are consistent with each other so as not to create distorted incentives. Care is needed to ensure the feed-in-tariff and the carbon price support do not undermine the EU emission trading scheme (EU ETS) and the proposals on capacity mechanisms do not damage the functioning of the electricity market.

EFET would therefore recommend a rebalancing of the package in the direction of; (a) greater focus on the carbon market in the 2020-2050 period based on quantitative restrictions harmonized at EU level, (b) continuation of certificate-based schemes rather than fixed tariffs, (c) relying on improved incentives from cash-out arrangements to deliver balance between supply and demand.

EFET also believes that investments in interconnectors would significantly improve the efficiency and flexibility of the UK market. Their contribution as part of the overall policy and incentive framework should not be overlooked.

¹ The European Federation of Energy Traders (EFET) promotes and facilitates European energy trading in open, transparent and liquid wholesale markets, unhindered by national borders or other undue obstacles. EFET currently represents more than 90 energy trading companies, active in over 27 European countries. For more information: www.efet.org.

Background: the government's objectives on climate change

EFET acknowledges the desire of the UK to show global leadership in reducing climate change. The legally binding objectives in the Climate Change Act go further than almost all other countries in setting targets to reduce carbon emissions. Significant emission reductions will certainly need to come from the electricity sector, while some electrification of heat and transport is inevitable. The question examined by DECC is whether the electricity market in its current form can support the investment needed to achieve these objectives.

The main features of the British electricity market currently are as follows:

- Full market opening without regulation of end-user prices
- Unbundled networks with non-discriminatory third party access, controlled by an independent regulator
- De-centralised contracting between market participants and self-dispatch without a compulsory exchange; gate closure close to real-time (H-1)
- A residual balancing market run by the system operator with cash-out of imbalance positions based on a dual-price method
- No ex-ante bid/price caps or limits in either traded markets or the residual balancing market
- Markets for reserve capacity operated at the discretion of the system operator subject to regulatory incentives
- Carbon reduction objectives reflected by a system of tradable permits implemented at European level (EU ETS)
- Additional incentives for renewable generators on the basis of an obligation on electricity suppliers via tradable certificates (ROCs)
- A fixed feed in tariff (fixed FIT) for renewable generators less than 5MW

The existing electricity market design has been successful so far. GB prices are low compared to the pre-liberalisation period. Companies have invested heavily in generation and energy supply infrastructure: there is, in fact, significant over-capacity at the moment. The UK will exceed the carbon reduction targets set out in the Kyoto agreement and the EU will almost certainly meet its 2020 commitment. As reported in the Redpoint impact assessment, the ROC scheme has doubled the renewable share of electricity production between 2002 and 2009.

DECC proposals

However, the government's aims for 2050 are of a different order of magnitude. Low carbon investments have very long lead times and asset lives. There are, understandably, concerns about whether companies will invest in such assets on the basis of the current market arrangements. They result from uncertainty about the commitment to carbon reduction and the costs of constructing plant, and the risks associated with the path of electricity prices, which will continue to be set by reference to fossil fuel costs.

Increased penetration of inflexible and intermittent generation may also have an impact on price volatility. So there are also questions about how the market will respond to this, particularly in terms of the ongoing balance between supply and demand. The consultation has therefore set out four areas of policy where action may be required as follows:

- Carbon price support: aimed at giving a higher and more stable price for carbon emission certificates as specified in related HMT consultation
- Feed in tariffs: long term contracts for low carbon generation with a fixed price based on a contract for difference with a central agency
- Capacity payments: targeted payments to providers of flexible peaking capacity or demand reduction
- Emission performance standard: a mandatory minimum carbon standard for all new generation

EFET assessment of the proposals

i. Support of the carbon price²

EFET fears that action to support the carbon price will distort the EU market for emission certificates. We therefore think the government should reconsider any UK-specific intervention in the carbon price. As Redpoint note in their supporting analysis 'lower emissions from the GB electricity sector in a given year would be offset elsewhere within the trading scheme'³.

We do have some sympathy with DECC argument that greater long term visibility about carbon policy for the post-2020 period could help incentivise low carbon generation. However, this would be better provided by giving a quantity based signal to market players consistent with the existing ETS regime. In fact, the ETS Directive already provides for a 1.74% annual reduction in allowances post-2020 in the absence of further legislation.

The proposed UK-specific carbon price floor is less credible than a quantity based mechanism in giving additional incentives to low-carbon generation in the UK. The proposed policy is based on a carbon tax that could be easily changed each year. So it may not give any additional certainty to investors unless there is longer term political commitment to continuing with the carbon tax. By contrast, a robust European quantity-based mechanism requires agreement and coordination with all Member States and is more difficult to unwind.

Introducing an upstream carbon tax could also have serious negative side effects on price formation and the liquidity of wholesale markets. This is because forward products for spark and dark spreads are among the most liquid traded products in the GB market. The CO₂ price is obviously one component of these spread products. If the carbon tax is reset annually, it is likely that there will be little trading in forward spread products until the UK-specific CO₂ tax for the following year is established. There is a need, therefore, to ensure that if a carbon tax is introduced the method of setting and updating the tax does not undermine the ability of firms to trade forward products and the overall level of market liquidity – which is a key concern of both DECC and Ofgem.

In summary, pan-EU market-based mechanisms provide more robust and efficient incentives for low carbon investments than national tax measures. Whilst energy policy remains a responsibility of national governments, design and implementation of national measures should not undermine the EU ETS as the cornerstone of EU climate change policy⁴.
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legislation should aim at strengthening and reinforcing the existing quantity-based signal

² Starting with question 26 in the Consultation document

³ Electricity Market Reform: Analysis of Policy options; Footnote 8, Page 8. (Redpoint)

⁴ In that regard, the proposal for an Emissions Performance Standard carries the same problems as it would duplicate with the EU ETS and dilute the effect of the carbon price signal

rather than creating an alternative mechanism through the tax system. If there are to be taxation measures, these taxes should be stable over the liquid period of electricity trading; i.e. fixed for a four year period and the support price kept relatively low to diminish price distortion in the European carbon market.

ii. Feed in tariffs⁵

EFET has recently published a position paper⁶ calling for EU wide approach to support of renewable generation, based on a common certificate scheme, as a transition towards the time when the CO2 price provides the main incentive for investment renewable source generation. We believe that this is the only way to effectively deliver the 2020 targets at European level. The EFET view can be summarised by the following extract:

With European wide trading of green certificates, valued in the internal market according to harmonized renewable source quota obligations for each power supplier, the overall social cost of existing support schemes would be reduced. EFET believes that the better incentive properties of a certificate based scheme outweigh the disadvantages. In particular, the risks associated with variable energy and certificate prices can be effectively managed by investors. Using a certificate approach means that for newly built renewable plants, sites and technology will be chosen in the economic most efficient way, i.e. where the overall consideration of several factors (e.g. site, proximity to grid connections ...) offers the most generation output for the least money.

A key advantage of a certificate approach is that it provides an automatic mechanism for adjusting levels of support so that the quantitative targets are more likely to be met. It also provides incentives on investors to reduce costs and reduces the degree of price volatility resulting from variable levels of generation from renewables. Finally, EFET believes it is important to maintain volumes in wholesale markets, which contributes to liquidity and competition

The DECC arguments for removing the ROC scheme are unconvincing. Firstly it has already allowed a number of new entrants, both large and small, to the GB market. This includes many European companies such as DONG, Statkraft and Vattenfall. Secondly, the possibility of over- or under-payment is present in all support schemes. The advantage of a certificate-based scheme comes from the fact that there are incentives on market players to invest in efficient solutions. Companies that invest efficiently (including negotiating with equipment suppliers) are rewarded. This lowers the cost of achieving the low carbon objective. The DECC proposals overall would bring material changes to the nature and structure of incentive mechanisms for renewables, thereby delaying decisions on most investments in the current pipeline until the regulatory framework is clarified. Prospects of a shift to a 'fixed ROC price' system are particularly damaging in that regard.

We therefore do not agree with the DECC analysis that the introduction of a feed-in-tariff based on a contract for difference will be cost effective. This approach does not have the same attractive incentive properties as a certificates market and will result in higher, rather than lower costs. In particular we are not convinced that the government will be able to establish effective mechanisms for setting contract price levels that accurately reflect costs

⁵ Questions 1 and 3-11 of the Consultation

⁶ "Effective integration of renewable energy in the European power market", EFET Position Paper, December 2010, available on www.efet.org

of different technologies. Likewise, the analysis of the expected impact on cost of capital is not convincing and does not fully reflect established corporate finance principles.

The risk is that the CfD approach will establish a set of complex PFI-type relationships between government, developers, project financiers and equipment manufacturers that will be very difficult to manage effectively. This process will be susceptible to rent-seeking behaviour from both potential investors and from equipment providers in terms of the cost of capital or the price to be paid for the assets. Introducing an auction will not resolve these issues.⁷

Ideally, all investment in low carbon generation should be driven by the carbon price which should take over eventually any other support scheme. However any additional support should be through **existing certificate-based support schemes** to avoid distorting market prices and to give incentives for efficient investment.

iii. Capacity Payments⁸

We strongly support the DECC conclusion that a reform of cash out arrangements in the GB market towards more marginal based cash out prices would be beneficial. In addition, a single price model is more appropriate to encourage investment. Market participants which are long when the system is short should be paid the SBP rather than a day-ahead reference price. This would have the effect of encouraging both investment in peaking plant / demand side management and greater market liquidity.

Capacity measures are currently not needed in the GB market. They may have a role to play in jurisdictions with other regulatory distortions such as price\bid caps or operational restrictions. However these problems do not exist in the GB market.

There are already strong incentives on companies with supply businesses to invest in, maintain or contract for peaking capacity. This permits them to hedge the risks associated with being exposed to more volatile day-ahead markets or imbalance cash-out. Such peaking capability may either come from bespoke investments or be provided by running mid-merit plant below full load allowing ramping up and down where needed. The extension of smart metering will further improve the normal incentives to balance supply and demand and this would be undermined by any intervention.

The DECC argument that more volatile prices will deter investment in flexible plant is not accurate. On the contrary, the option value of flexible plant increases as prices become more volatile.⁹ The Redpoint modelling is not sophisticated enough to capture the value of flexible generation and hence under-estimates the amount of investment that will take place. In this context, it is important to note that more volatile prices and occasional price spikes are the inevitable consequence of a low carbon policy. Such developments must be regarded as a desirable effect to attract investments in the right technologies to complement low carbon generation. They should not be countered in the future with the introduction of price caps.

⁷ Indeed there is considerable academic literature on auctions which suggest there is always likely to be an element of economic rent gained by the successful bidder. Specifically, the Revenue Equivalence Theorem notes that bidders will only reveal their true costs in a "Vickrey auction" in which they are paid the amount bid by the second least expensive bidder. However in other auctions, bidders will modify their bids such that the same result is produced.

⁸ Question 2 and 19-25 of the Consultation

⁹ Option valuation according to the Black-Scholes formula.

A capacity payment therefore causes market distortion as it will mean a shift from investments in low capital cost plant and/or demand side response (which changes in MWh prices will provoke) towards investments with higher capital costs. We also have some doubts about the compatibility of capacity mechanisms with European Directives. Directive 2009/72 sets out strict conditions for intervention in generation markets, whereas Directive 2005/89 requires Member States to establish liquid wholesale markets to deliver balance between supply and demand.

EFET therefore believes that the obligations on NGC should continue to be based on maintaining a certain standard of continuity. This will maintain its freedom to develop existing reserve markets such as STOR or develop new reserve markets if that is thought necessary to adapt to the increased penetration of intermittent generation. Such developments will entail proper investment signals for flexible plants and demand side response. Any revision to licence obligations relating to capacity margin needs to be carefully constructed to avoid undermining market-driven investment decisions.

Finally, investments in interconnectors would increase the efficiency and flexibility of the GB market and would be a better response to the perceived need to increase flexibility.

Conclusions

Some reform of electricity market arrangements is required to deliver low carbon investment. We believe intervention should focus on increasing certainty about the implementation of carbon reduction targets in the 2020-2050 period. Quantitative measures, harmonized in all EU Member States, are to be preferred to national interventions in the carbon price.

EFET disagrees with the idea of an additional CfD scheme to replace ROCs. We are sceptical about the reductions in the cost of capital projected by DECC in justifying this change.

Capacity mechanisms are not required in mature electricity markets without price caps and where the role of real-time metering will grow. However it is to be expected that system operators will need to review their reserve requirements as the share of renewable energy grows. The existing licence obligations on National Grid are sufficient for this to be developed.

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