

Electricity Market Reform Project
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Dear Electricity Market Reform Consultation Team,

I welcome the Government's decision to consider how best to respond to the huge challenges facing the supply of electricity in the coming decades. I believe that the vision of securely meeting demand through the provision of affordable low or zero carbon electricity is one that can be realised if the government makes the right choices now. Unfortunately, I consider the four principle proposals in the consultation inadequate to meet this ambition.

Carbon Price Support:

An effective carbon price mechanism has the potential to make a contribution to reducing Greenhouse Gas emissions from electricity generation, principally by increasing the carbon liability attached to energy use as a means to support energy efficiency measures. However, I share concerns that a carbon floor price may not ensure that new investments on the supply side are directed towards low-carbon technologies, for the following reasons:

- As carbon prices could still vary above a floor price, there will continue to be a certain amount of uncertainty on returns for investors;
- Market solutions to directing investment towards low carbon generation have proved weak in the past. For example, the EU Emissions Trading regime has so far failed to maintain the cost of pollution allowances at high enough levels to significantly cut emissions;
- It could be extremely difficult to judge at what level a carbon floor price should be set in order to appropriately incentivise the different types of renewable and CCS technologies.

I also share the view that a carbon floor price will only maximise its potential to further the transition towards a low-carbon economy if any additional revenues it raises are ring-fenced for use in supporting this transition. Such support could include, for example, properly capitalising the Green Investment Bank, supporting the implementation of the Green Deal, and assisting in the development of innovative new renewable energy technologies. I believe that failing to ring-fence the revenues

of a carbon floor price would mean missing a real opportunity to focus efforts on those technologies which will most quickly deliver a decarbonised electricity market.

Furthermore, I feel very strongly that a carbon floor price should not allow windfall profits to the well established nuclear industry, which has already been heavily supported over many years. Experts have estimated that the proposals in this consultation could produce windfall profits of over £3bn to nuclear power producers for simply continuing with their current practices. If the carbon floor price is introduced I believe that the Government should at least balance any gains to nuclear through a windfall tax.

Finally, I believe the Government should step-up its work at EU level to ensure that the next phase of the EU Emissions Trading Scheme (ETS) is much more effective than the current phase. The recent collapse in the cost of EU allowances under the scheme is clear evidence of their over allocation and the subsequent shortcomings of the scheme are plain to see. I believe that the government should work with European partners to ensure that, as a minimum, allowances contribute to the delivery of the 80-95% emissions reduction target that the EU and Member States have agreed to achieve by 2050, that allowances cannot be banked from the second phase of the EU ETS into the third phase, and that a reserve price is set on the auction of permits into the market. Any permits that the market does not want to buy at the reserve price or more should be retired from the scheme.

Overall, I believe that the carbon floor price will have a limited impact on efforts to transform the electricity market by encouraging low carbon investment. This policy must only be considered as additional to, and not instead of, other stronger levers such as a well managed feed-in tariff regime and a strong emissions performance standard.

Feed-in tariffs:

Whilst I wholeheartedly support the principle of a feed-in tariff for large scale energy generation, I have some reservations about the detail of these proposals. It is vital, for example, that the proposed feed-in tariff (FiT) does not provide further support to nuclear power generation and is instead targeted to assist new and emerging low and zero carbon technologies, with rates commensurate with the given technology's level of maturity. Focussing the proposed FiT in this way would, I believe, be the most environmentally sustainable, cost-efficient and economically beneficial way to decarbonise the power sector by 2030. Nuclear should not benefit from any FiTs because it is already a fully mature technology, because of the lack of benefit to UK industry from a new wave of nuclear power, and because of the environmental and economic risks inherent to this technology.

I further believe that FiTs for nuclear would represent a subsidy, in breach of the Government's pledge not to subsidise new nuclear beyond the carbon price. In order to limit the impact on consumers of supporting low-carbon policies through energy bills, support should only be given to those new and emerging technologies which require help in order to achieve wide deployment. I also believe that FiTs should be directed towards those sectors where the UK can reap the significant rewards of becoming a world leader. This is not the case in the nuclear sector. The Committee on Climate Change recently stated that the UK would "need to rely on overseas based suppliers offering standardised designs" to develop new nuclear power stations.

Furthermore, if the nuclear industry gains from this policy at the expense of renewable energy generation, the UK's electricity market is likely to decarbonise more slowly because of the long lead in times of new nuclear plant. Finally, a wave of new nuclear power stations would lock the UK into a highly centralised electricity system, which is inherently less efficient than decentralised alternatives.

I am also concerned about the Government's lead preference to set the FiT level by auction, particularly given the lack of information in the consultation document about the level of FiT that is being proposed. I share fears that this situation could bias the implementation of any FiT mechanism towards the big and existing players who will be better resourced and more capable of understanding and operating within an auction system. I would prefer the Government to give greater consideration to a fixed price FiT system, which has proved effective both in the UK sub-5MW system, as well as in the German FiT system.

I further urge the Government to be very conscious of the need for a well managed transition to any new arrangements which come out of this process. Whilst this is true for all the proposals, it is particularly the case regarding a switch from the Renewables Obligation to a large scale FiTs scheme, which could have a significant impact on commercial plans that are already in the pipeline. Given the pressing nature of climate change, it is vital that the long-term is not the enemy of the present. Clarity and certainty over the process of moving from the Renewables Obligation to the proposed FiT scheme should be achieved by finalising and publishing full details as soon as possible.

Capacity Payments:

Whilst I welcome the consultation's recognition of the role that demand-side management can play in responding to, and smoothing out, peaks in demand, I am concerned about the Government's continued focus on supply-side measures to deal with demand spikes. I would like to see much more specific policy on demand-side actions to address capacity problems and am concerned about the lack of detail or emphasis on such measures. This lack of detail makes it difficult to provide specific

feed-back on the Government's proposals in this area, and I hope that further consultation on capacity payments is undertaken before the policy is finalised.

Overall, I would like to see the Government consider policies which would obviate as far as possible, the need for reserve capacity to respond to demand spikes. For example, on the demand side, greater energy efficiency, both in heating, cooling and lighting, and for appliances, can reduce the size of the peaks. I would like to see the Government bring forward proposals for restricting the sale of energy-inefficient appliances in the UK.

Where supply side action is needed, I am sure you are aware of growing evidence from Europe and the USA that introducing a greater proportion of decentralised energy into the energy mix can greatly help smooth out demand. This has been described as turning demand 'spikes' into 'waves'. A stable and secure electricity supply is vital, and I would like to see detailed policies which promote decentralised energy and demand management/reduction as important ways of tackling demand spikes, as opposed to the maintenance of traditional peak demand response tools such as gas plant.

Finally, it is clear that because of their more flexible nature, fossil fuel based energy producers are likely to benefit much more than renewable power generators from the proposed capacity payments. I call on the Government to recognise this and consider offsetting some of this difference by introducing different levels of capacity payments, with more generous rewards going to renewable producers.

Emissions Performance Standard:

This is the most disappointing part of the consultation. Before the general election, the Prime Minister and the Chancellor of the Exchequer promised that they would support an Emissions Performance Standard (EPS) that would have restricted greenhouse gas emissions from coal and gas plants to the level of a modern gas fired power plant – around 300-400 grammes of CO₂ per kilowatt hour. Indeed, both coalition parties have criticised previous Government policies which aimed for a standard of 600-700 grammes of CO₂ per kilowatt hour. I was, therefore, surprised to find proposals for a standard of 600 grammes of CO₂ per kilowatt hour included in this consultation.

I would like a strong EPS applied to new coal and gas plants to be at the centre of the Government's proposals for reforming the UK electricity market, instead of playing what has been described by many as merely a 'back-stop' role. I believe that an EPS of 300gCO₂/Kwh should be applied to all new fossil fuel plant immediately, reducing to 100gCO₂/Kwh from 2025 onwards for all existing plants. The EPS proposals in this consultation are much too weak, and will, I believe, have limited impact in producing the decarbonised electricity market that the Government should be aiming for.

By failing to sufficiently limit the emissions allowed from electricity generation, the Government not only risks locking the UK into carbon intensive energy generation, it also dangerously limits the attractiveness of low and zero carbon power alternatives. It is of great concern that both EPS levels in the consultation fail to ensure that efficiencies will be maximised through the inclusion of CHP on all fossil fuel powered energy plants.

An alternative vision:

As I have made clear above, I consider the four principle proposals in the consultation inadequate to meet the ambitious but achievable vision of an electricity market which supplies secure and affordable low or zero carbon power. Much stronger action is required to truly transform the electricity market.

I hope that at the next stage of this process the Government brings forward proposals which will put the UK on a path to obtaining half of our energy from renewable sources by 2020 and ensuring that emissions from power generation are zero by 2030. The first priority must be reducing demand for energy to a sustainable minimum. The energy that is required should be produced using a twin-track approach of decentralising energy generation as far as is practical, and covering any remaining demand with large scale renewable generation, developed through a programme of direct national and local government investment. Whilst I believe that it is appropriate for some energy generation to be in private hands, I would like to see the Government make proposals for bringing the electricity network and gas mains into fully accountable public ownership, with the explicit aim of developing them for renewable energy schemes.

I do not believe that the Government should permit the development of any new coal-fuelled power stations and believe that all other new fossil fuel based power stations should be built in urban areas and subject to a waste heat levy to ensure, along with a much tighter Emissions Performance Standard, that CHP is a part of all energy generation that produces heat. I further believe that the Government should give greater consideration to the development of heat distribution networks, planned and facilitated by Local Authorities, which would provide a commercial advantage to CHP stations over 'power-only' stations.

I consider that, for consumers, one of the key failings of the electricity market is that providers charge households less per unit of electricity the more they consume. This means that the most frugal, including the fuel poor, are paying the highest rates per unit of energy they consume, while more profligate consumers have little incentive to reduce their consumption. I strongly encourage the Government to bring forward proposals to abolish standing charges and require energy providers to structure their tariffs so that energy becomes more expensive at higher levels of consumption.

Finally, in order to manage peaks in energy demand, I would like to see the Government bring forward proposals to encourage the development and use of dynamic demand and load balancing technologies, such as the charging of battery powered vehicles, the charging of large-scale flow batteries, and combined heat and power heat pumps. I would also like the Government to demonstrate support for the development and implementation of a highly efficient long-distance High Voltage DC power distribution system, which would prioritise the inter-country transfer of electricity from renewable sources in order to help smooth out the variability of renewable energy supply and meet peaks in demand without reliance on standby fossil fuel capacity.

Thank you for your consideration of this response. I look forward to the next stage of the process.

Yours sincerely,