

HM Treasury consultation: Carbon Price Support

Submission by the Energy Institute

February 2011

Introduction

The Energy Institute (EI) is pleased to make the following submission to the HM Treasury Carbon Price Support consultation. This document is a synthesis of the views of EI members collected through a call for contributions and various stakeholder workshops and briefings.

The EI is the professional body for the international energy industry. It has a membership of over 14,000 individuals and 250 organisations and provides an independent focal point for the energy community, bringing together industry, academia and Government. The EI's purpose is to develop and disseminate knowledge, skills and good practice towards a safer, more secure and sustainable energy system. In fulfilling its purpose, the EI can address a wide range of topics in detail, from upstream and downstream hydrocarbons and other primary fuels and renewables, through to power generation, transmission and distribution to sustainable development, demand side management and energy efficiency.

As a charity, incorporated by Royal Charter, with membership across the full range of the energy sectors, it is not appropriate for the EI to promote specific technologies or options. Instead it seeks to assist the policy process by helping to clarify the key issues and by improving the evidence base on which decisions will be made.

The EI response attempts to bring into focus the differing views of a range of stakeholders, from suppliers, producers and consumers. It reflects the views of a cross-section of EI members; it makes observations about the implications of a carbon floor price and the uncertainties that persist.

Key points

1. EI members agree that change is needed to deliver the required investment to provide the UK's energy security and meet targets for the decarbonisation of power, whilst simultaneously coping with increased electricity demand.
2. There is also agreement that the introduction of a carbon price floor is reasonable and robust, providing long-term support, stability and certainty for investors. However, this must be seen by the investment community to be bankable for it to be a useful mechanism and provide the signals needed by investors.
3. The issue of bankability is of critical importance to investors, incumbents and new entrants alike. Without greater stability and predictability for investors, the value of a carbon price floor would be much reduced and could even be counter-productive.
4. At present, further clarity is needed with regard to the details and practicalities of implementing the proposals.

3.A1: What are your expectations about the carbon price in 2020 and 2030? And how important a factor will it be when considering investment in low-carbon generation?

3.A1.1. The EI would expect to see the carbon price rise between 2020 and 2030 as is suggested by the consultation document.

3.A1.2. In terms of the importance of a carbon price floor, compared to other areas of the overall reform package, EI members see a low-carbon incentive mechanism, in the form of a Feed-in Tariff (FIT), as able to deliver the greatest level of new investment. Certainty in the long-term price of carbon plays an important supporting role to the FIT mechanism, enabling a lower cost of capital for developers whilst reducing the burden on the consumer.

3.A2: If investors have greater certainty in the long-term price of carbon, would this increase investment in low-carbon electricity generation in the UK? If so, please explain why.

3.A2.1. Electricity generators are reliant on a robust investment framework being in place to secure the levels of capital investment needed to deliver economic, large scale, low-carbon projects. Due to the lead times involved between the decision to invest and the plant generating electricity, the ability to factor in the long-term price of carbon significantly increases the likelihood of greater investor confidence in low-carbon technologies.

3.A2.2. As is proposed, the strengthening of the carbon price will increase the cost of fossil fuel electricity generation and make lower-carbon power more attractive. Concerns have been raised by EI members as to the possibility of windfalls for existing renewable energy systems, nuclear plants and, to a certain extent gas, at least while unabated coal is part of the energy mix. It will ultimately be the consumer who will pay for this.

3.A3: How much certainty would investors attribute to a carbon price support mechanism if it were delivered through the tax system?

3.A3.1. EI members see there being a potential issue in the pricing differences of a UK carbon price with the EU ETS. The EU ETS is priced in Euros, whereas the carbon price floor will be priced in pounds Sterling. It may therefore be difficult to gauge accurately the true carbon price and administer the scheme in practice.

3.A3.2. EI members are concerned that in making the carbon price predictable it may become detached from the traded price of carbon under the EU-ETS, thus putting investment at risk.

3.A3.3. There is also the practical difficulty of emitters (i.e. utilities) purchasing EU ETS allowances, whereas it will be the fuel suppliers paying the carbon floor tax. Given the difficulties associated with implementation of a carbon price in conjunction with the EU-ETS, EI members are concerned the carbon price floor could become detached from the EU-ETS, putting the UK at a disadvantage compared to the rest of the EU.

3.A4: In addition to carbon price support, is further reform of the electricity market necessary to decarbonise the power sector in the UK?

3.A4.1. Under the current proposals from HM Treasury and DECC, EI members are unanimous in their support for a FIT, whichever option is chosen between CfD, Fixed FIT or Premium FIT, seeing this as central to the necessary electricity market reforms and being the most likely of the four proposals (FITs, Carbon Price Support, EPS or capacity mechanism) to leverage new investment in low-carbon generation.

3.A4.2. EI members believe that, while a low-carbon support mechanism is the most important to industry and investors, the price of carbon has an important role to play in the reform package proposed. A carbon price floor drives reductions in emissions through differentiating the costs of high- versus low-carbon generation, thus providing an incentive to reduce emissions, whilst simultaneously encouraging market participants to identify the lowest-cost ways of doing so.

3.A4.3. There are a variety of views from EI members on both the necessity and effectiveness of capacity payments and little support from EI members for an Emissions Performance Standard (EPS). However, members recognise that Government has attempted to put forward a balanced package and that there is a risk of losing that balance if one or more legs were to be taken away, given the complexities of the package. Members simply recognise the EPS as being the least valuable element in the package to stimulate low carbon investment.

3.A4.4. The EI will address in greater detail the views of its members with regards to the full package of electricity market reform proposals in its response to the DECC EMR consultation.

4.C1: Do you agree that all types of electricity generators should be treated equally under the proposed changes? If not, please explain why.

4.C1.1. The EI membership agrees that all types of electricity generators should be treated equally. Investment is needed in all forms of energy technology in order to meet the energy challenge, particularly from a security of supply perspective.

4.C1.2. The reality is that different generating technologies are at different stages of development. Treating all equally gives an immediate advantage to mature technologies, even when they do not fulfil the requirements of society and government policy. There is recognition by EI members that, even between new technologies, there will be a degree of bias in order to fulfil these requirements.

4.C1.3. There must be recognition of the fact that we are not starting with a clean sheet. There are many existing players in the electricity market and the interests of these incumbents must be considered in addition to inviting and supporting new entrants to the market. This will therefore require a transitional period and appropriate grandfathering arrangements.

4.C1.4. The inherent difficulty with the reform is that, in order to achieve the long-term market certainty needed to ensure investment today, there must be a clear outline from Government of the transitional period. Lack of clarity, certainty and any destabilisation during this transition may lead to a hiatus in investment. Every effort should be made to avoid a period of stop-start investment.

4.C1.5. There are also concerns from EI members that grandfathering of the Renewables Obligation and other existing arrangements could err on the side of caution, leading to potential windfalls for existing electricity generators and Power Purchase Agreements. Further clarity is needed as to how such transitional arrangements will be implemented.

4.C2: Is there a case for providing additional or more preferential treatment for CHP? If so, what is the best way of achieving this?

4.C2.1. At a practical level, it is unrealistic to assume that all technologies will benefit equally from the proposed legislation, as discussed in the response to 4.C1. It should be emphasised there is a range of fuels which can be used to supply CHP plant, both fossil and bio-based fuels.

4.C2.2. Whilst the EI supports investment in all energy technologies, the example of CHP does raise questions regarding the interaction of carbon price and EMR with other policies. CHP is an area in which policy uncertainty has, to date, stifled investment and targets have not been met.

4.C3: Do you agree that tax relief should be considered for power stations with CCS? If so, what are the practical issues in designing a relief; what operational standards should a CCS plant meet in order to be eligible; and how might these issues differ for demonstration projects?

4.C3.1. The introduction of a carbon price floor will remove mid-merit coal from the electricity generation mix. As there is currently a lot of mid-merit coal, with no plans for derogation from the carbon price the risk that this could lead to a security of supply issue needs to be considered. This is an area in which EI members wish to see further clarification of the interaction between reform proposals.

4.C3.2. With the addition of CCS to large coal-fired plants, there will still be, in large part, unabated coal plant. This begs the question of whether the carbon price floor be applied to the non-CCS enabled part of the plant and whether this also present a risk to supply security. When considering new fossil fuel plant that will be built with CCS, at some point this will also be run 'mid-merit'. Again, this is a big challenge for generators as even with a capacity payment there is still a lot of market risk.

4.C3.3. EI members see an opportunity to provide double credit for the combining of low-carbon technologies – for example a biomass CHP plant combined with CCS. This would be providing a negative net carbon emission. Consideration should be given to the extent that CCS should receive additional favourable treatment if there is already support provided to CHP.

5.B.1: What impact would you expect the carbon price support mechanism to have on investment in low-carbon electricity generation?

5.B1.1. Again the question is one of bankability and certainty. If the carbon price support mechanism is bankable and adds a level of certainty and predictability for investors, this will help encourage investment in low-carbon electricity generation.

5.B1.2. It is prudent to ensure a variety generation technologies are developed, at scale, in order to secure supply. A gradually rising carbon price floor will help to encourage the migration of investment from fossil fuels to low carbon generation, whilst ensuring the lights stay on.

5.B2: What other impacts would you expect carbon price support to have on investment decisions in the electricity market?

5.B2.1. Because it aims to achieve a low-carbon, secure and affordable UK electricity system, the reform proposals deal exclusively with that sector. The carbon price support has also been considered in relation to electricity. EI members feel there could be missed opportunities from not expanding its scope and remit to identify related issues, particularly to highlight areas of interaction with other Government policies, e.g. Green Deal, Renewable Heat Incentive, etc.

5.B2.2. EI members believe consideration needs to be given to the possible implications for grid interconnection with Europe, following the introduction of a carbon price floor.

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This submission was prepared by Gareth Parkes GradEI, Knowledge Manager, Energy Institute with contributions from EI members through various stakeholder events and briefings and a call for contributions. It was peer reviewed by Jo Evans, Lecturer in Economics, University of Surrey; Walt Patterson FEI, Independent Consultant; Paul Cuttill OBE FEI, Independent Consultant and Jeff Scott CEng FEI, Independent Consultant as well as members of the EI staff team.

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