

WCA submission to the Electricity Market Reform consultation by the UK Department of Energy and Climate Change

The World Coal Association (WCA) is a global industry association comprising the major international coal producers and stakeholders. WCA Members account for approximately 25% of global coal production and 35% of coal exports. As a non-profit, non-governmental industry association working internationally on behalf of the world's major coal producers and stakeholders, WCA closely follows global and national policy developments within the area of environment and energy and welcomes the opportunity to provide its comments on the Electricity Market Reform package presented in the consultation document of the Department of Energy and Climate Change.

In this response, WCA assesses the Electricity Market Reform (EMR) package in terms of its capacity to deliver the desired goals of a more certain investment context and better economics for low-carbon energy technologies. WCA also comments on the four pillars of the EMR package, pointing to the limits and possible unintended consequences resulting from the introduction of a carbon price floor (CPF) and an emissions performance standard (EPS).

Key messages

(I) Given that the Climate Change Levy (CCL) is unlikely to deliver a targeted carbon price in the future and taking into account the fact that both the Emissions Performance Standard and the Climate Change Levy increase business risk associated with investment in Carbon Capture and Storage (CCS) demonstration, WCA believes that the Electricity Market Reform package will not lead to a more certain regulatory context for private investment within the energy sector in the UK.

(II.A) In the context of the ongoing regulatory changes to the European Union Emissions Trading Scheme and taking into account the proposal included in the EMR package to introduce tailored Feed-in Tariffs, the Carbon Price Floor proposal seems premature and redundant. More importantly, there is a possibility that the Carbon Price Floor might produce unintended consequences – acting against CCS demonstration and energy storing in coal stock piles.

(II.B) As far as the Emissions Performance Standard is concerned, WCA believes that such measure will not incentivise the deployment of CCS and, at its current level, will lead to a switch from coal to unabated natural gas. Furthermore an EPS would make it impossible to

stimulate efficiency improvements at coal-fired power plants in the UK—a technology progress which is necessary for an effective deployment of CCS.

I. Reform objectives and the EMR package

Investment certainty

Improving investment certainty is one of the key objectives of the EMR package. This objective is expected to be delivered mainly through the combination of various policy measures, among which the carbon price floor (CPF) is a key component.

The carbon price floor mechanism is only likely to increase long term investment certainty if a specific carbon price is targeted. However, as the consultation document rightly points out, because the suggested carbon price floor support mechanism does not interfere directly with the EU ETS and is based on the carbon content of fossil fuels instead, it would be impossible for the regulator to achieve a specific overall carbon price, encompassing both the EU ETS carbon price and the one set up through CCL. This means that the CPF might in fact increase carbon price levels in the UK but does not guarantee a specific carbon price in the longer term.

As far as investments in carbon capture and storage (CCS) technology are concerned, the CPF creates additional doubts over private funding available for the ongoing demonstration programme (This potential negative side effect of CPF is further explained under II.A).

The economics for investment in low-carbon technologies

The EMR package was designed to improve the economics for investment in low-carbon technologies via the feed-in tariffs, the carbon price floor and the emissions performance standard (EPS). However, as much as feed-in tariffs have already proved to be an efficient policy tool for stimulating investment in low-carbon energy technologies, the same cannot be said about the other proposed measures. In fact, instead of encouraging investment in crucial low carbon technologies such as CCS, a CPF and EPS are likely to result in a switch from coal to unabated gas-fired power plants (The potential consequences from the introduction of an EPS and a CPF are further explained under II.A and II.B)

II. The four pillars of the EMR package

(II.A) Carbon price support

The carbon price support measure is based on the presupposition that the European Union Emissions Trading Scheme (EU ETS) is ineffective. However, in the light of important forthcoming reforms and changes to the EU ETS, this seems to be a premature conclusion and a weak argument in favour of a carbon price support measure.

Carbon price support also seems to be a redundant measure. Investment in low-carbon energy technologies – the objective carbon price support is expected to achieve – has so far been achieved in the UK and other European countries through the introduction of feed-in tariffs. The EMR package includes both carbon price support and feed-in tariffs – a duplication which seems unnecessary.

On the other hand, carbon price support could produce a number of adverse effects and unintended consequences, including a disincentive for companies to participate in the CCS demonstration, lower competitiveness of energy intense UK-based businesses and a less secure energy supply.

European Union Emissions Trading Scheme (EU ETS)

One of the key motives behind the carbon price floor proposal is the alleged incapacity of the EU ETS to provide a sufficient incentive for a low-carbon transition. However, it should be remembered that the EU ETS is still a policy in the making and that it is expected to undergo a number of important changes within the coming years. In fact, in 2013 full auctioning will become the rule for all electricity generators and greenhouse gas emissions from the aviation sector will be included under the scheme. Other sectors, which today benefit from free allowances will progressively be covered by full auctioning rule through to 2027. These reforms, which are outlined in the revised EU ETS directive, will deliver a fully functioning European carbon market, resulting in higher carbon prices and making some aspects of the EMR package, such as the carbon price floor, redundant.

The issue of CCS demonstration

One of the consequences of the carbon price floor could be to discourage investment in CCS demonstration plants – a possibility that the Treasury did not investigate in the impact assessment accompanying the policy proposal. In fact, because the first demonstration plants planned by the UK Government are expected to be only partially abated, fossil fuels supplied to the unabated part of power plants will be subject to a CCL. This will raise the operating costs incurred by investors and put investment in CCS demonstration plants in the UK at risk. The possibility of such a disincentive taking place should be carefully assessed by the relevant sections of the UK's Department of Energy and Climate Change (DECC).

Given the international importance of CCS as a key energy technology within the global low-carbon portfolio and the UK's ambition to become an international climate change leader, the new regulatory framework should encourage CCS demonstration and deployment, rather than cast doubts over the economic feasibility of demonstrating CCS.

The issue of competitiveness

Since the climate change levy (CCL) will not apply to electricity imports, imported electricity can be expected to be less costly than electricity produced in the UK. This would have two effects:

First, businesses based in the UK which have high electricity consumption, will be disadvantaged in comparison to those operating in other EU countries where the carbon price floor has not been introduced.

Second, unilateral introduction of a CPF by the UK could make electricity imports less expensive than generating electricity in the UK and lead to a crowding out of investments in local generation capacities by imported electricity. Although the current capacity of interconnections for the UK grid is only 3% and the potential for substitution is low, this proportion will likely increase with the planned tripling of interconnection capacity over the next 10 years. On the European scale, the increase in interconnection capacity is a positive evolution as it will make the European energy market more competitive and more resistant to energy supply and demand variability. However, because interconnectors are used at peak periods, when coal-fired power plants typically provide marginal supply, there is a potential that imports of fossil-based electricity would be subsidised by the taxpayers in the UK.

The issue of accounting for CCL

The EMR package suggests that CCL should be accounted for by coal suppliers, rather than electricity generators. However, this could act against the UK's security of supply interests. Companies generating electricity from coal typically hold high stock levels of coal which they use in times when the demand for coal-based electricity is highest – usually during cold winter days. If CCL has to be accounted for at the time of purchase, instead of the time of use, it will make it excessively costly for generators to hold such stocks. As a result, the security of electricity supply in the UK at times of high energy demand might suffer.

(II.B) Emissions performance standard

The WCA believes that the EPS will not incentivise the construction of CCS power plants. Instead it will result in a switch from coal to unabated gas-fired electricity generation, reducing diversity and security of energy supply. However, when CCS technology is commercially available, both natural gas and coal power plants should be encouraged to capture and store their CO₂ emissions. For this reason, the EMR package should give a clear signal that CO₂ emissions from natural gas, just as much as those from coal-fired power plants, will need to be abated in the future.

At the level proposed in the EMR package, EPS would also stop the necessary efficiency improvement at coal-fired power plants. Since CCS technology is currently associated with high energy penalties, it is vital that coal-fired power plants reach the highest efficiency level possible. This is important not only from the point of view of improving the economics of CCS and bringing down the costs of mitigating climate change, but it is also in line with the overarching prerogative of the European governments of resource efficient development. Efficiency improvements at coal-fired power plants could potentially also be supported

through an EPS reflecting Best Available Technology. In the case of coal-fired power plants this would mean an EPS of 743g CO₂/kWh requiring all new coal-fired power plants to reach the level of 45% efficiency.

(II.C) Feed-in tariffs

The WCA welcomes the proposal to introduce special feed-in tariffs for CCS. In fact, it is necessary that the UK government provides support to all low carbon energy technologies which have a high mitigation potential and in cases where markets are not sufficient to drive private financing.

(II.D) Capacity payments

Given the that the generation capacity of intermittent renewable energies in the UK's electricity mix is expected to increase, the availability of back-up generation capacities is of paramount importance. Capacity payments, such as proposed in the EMR package, could enhance the security of electricity supply.