Terms of Reference for a Review of Co-firing

Introduction

This document sets out the Government's proposals for a review of the co-firing rules within the Renewables Obligation (RO).

This review will have the following objective:

- To assess the scope for co-firing to provide a greater contribution to the Government's renewable energy, carbon reduction and wider energy policy objectives, while maintaining investor confidence in the RO.

As part of this, we will:

- Assess evidence in relation to the carbon balance and other sustainability issues surrounding co-firing, and the scope for incentivising the most sustainable forms of co-firing, particularly locally-sourced energy crops and biomass.

- Assess the economic viability of co-firing and the interaction with other sources of support, such as emissions trading.

We recognise that the existence of this review may raise concern and we will work closely with stakeholders to maintain investor confidence in the RO.

Background

When the RO was introduced in 2002, co-firing was included as an eligible technology, but with certain limits: from 2006, at least 75% of the biomass would be energy crops, and co-firing would cease to be eligible from 2011 and there was a cap of 25% on the amount of a supplier's obligation that could be met from co-fired ROCs in any obligation period. These rules were reviewed in 2004 in light of an increasingly apparent insufficient supply of energy crops, and a number of changes were made: the date for co-firing to be phased out of the RO was postponed until 2016; the energy crop requirements were relaxed (25% requirement in 2009, 50% in 2010, and 75% in 2011); while the overall cap was reduced (to 10% from 2006 and 5% from 2011). These are summarised in the table below.

Table: Co-firing restrictions

Year(s)	Max. % of Obligation	Min. % of energy crops
2005/6	25	0
2006-08/9	10	0
2009/10	10	25
2010/11	10	50
2011-15/16	5	75

We now have several years' operational experience of the RO and co-firing, and a number of conclusions can be drawn from that experience:

- Co-firing is clearly both technically feasible – a number of power stations have now been co-firing for several years – and economically viable for generators benefiting from the support of the RO.

- Both the potential for and the interest in co-firing is significantly higher than the current caps within the RO. It is likely that co-firing could use a significantly greater amount of biomass in the fuel mix than is currently being used in the UK, and most coal plants are probably capable of co-firing. Co-firers use a wide range of biomass fuels, and there is a considerable resource potential.

- There is a growing interest in the case for a long-term future for coal-based generation. 'Clean coal' and carbon capture and storage technologies could form a significant part of our energy generation mix in the future and co-firing could also play a part in reducing the net carbon emissions from coal plant. The currently ongoing Energy Review is looking at how low-carbon generation can be encouraged, and co-firing may need to be considered in the context of any forthcoming policy changes in this area.

- The energy crop market has been slow to develop, although there are signs of a pick up. It is still unclear as to whether there are sufficient energy crops to meet the existing RO co-firing requirements.

- Many biomass fuels used in co-firing are imported, which continues to raise some sustainability and carbon balance issues. Other biomass-using industries have raised concerns over the impact of the RO on their industries.

The Government believes these considerations mean that there would be merit in having a further look at the co-firing rules in the RO.

Investor confidence in the RO and ROC market

The Government understands the crucial importance of maintaining confidence in the RO and the ROC market in meeting its renewables objectives, and recognises that this review may raise concerns in some quarters. We believe that our commitment to maintaining the stability of the RO was demonstrated during the recent Renewables Obligation Review, and through our commitment to grandfathering rights for projects and reasonable notice periods for any changes to the RO.

The Government is very aware of the potential for changes to the co-firing rules to impact on the ROC market, and of the possible negative impact of continually reviewing the operation of the RO. These considerations will be a major factor in assessing the case for any changes to current rules.

We are likewise fully aware that farmers have planted and are planting energy crops on the basis that the RO will provide a clear market for their product. We remain absolutely committed to that principle, and we recognise the commitment and investment which some generators have made to encourage co-firing with energy crops. We are clear that the RO should continue to incentivise locally-grown energy crops, and this will be another major factor in assessing the case for change. One of the key issues for this review will be how quickly energy crops can come on stream and whether we can do more to encourage their development.

Options for change to be considered

We expect that this review will consider, amongst other matters, the following issues and options:

- The impact of the change in the co-firing cap from 25% to 10% taking place in 2006, and if there is a case for a limited adjustment to the current caps in the RO, while minimising the impact on the wider ROC market.

- Recent rises in the underlying electricity price may have made co-firing more economically attractive, and other factors may influence this over the next few years: the benefits from emissions trading, exemption from the Climate Change Levy, and other potential changes to the UK energy market. The review will consider the implications of energy market development on the support needed to encourage co-firing and whether it will continue to require the support of the RO over the long term.

- The energy crop requirements are intended to spur the development of energy crops, not act as a barrier to co-firing, and we will consider whether the current requirements meet this purpose, looking at the current availability rates of planting and gestation periods.

- We will consider the ‘ski slope’ proposal put forward by ILEX Energy Consulting Ltd. and Drax Power Ltd.. This details a mechanism whereby co-fired ROCs in excess of the cap can be redeemed without impacting on the value of non-co-fired ROCs.

- Taking energy crop co-firing outside the caps. Promoting the development of energy crops has been and remains a main factor in the inclusion of co-firing within the RO. The review will consider whether it would be possible to further incentivise energy crop development by exempting co-firing of energy crops from the general co-firing caps, or by introducing a separate cap on this, while minimising the impact on the wider ROC market.

- We will look at a number of more detailed issues surrounding the current legislation. This will include whether there is any need to clarify or amend the definition of an energy crop.

- In addition, the current legislation requires that the minimum energy crop requirement be met by co-firers during each month of operation. This provides an incentive to burn imported, rather than domestic, energy crops, as domestic energy crops would need to be stored for much of the year, which imposes an additional cost. This review will consider the case for moving to an annual requirement, or providing some additional flexibilities within a monthly regime.

- We will also consider the impact that any changes might have on dedicated biomass projects. This will be contrasted against the initial rationale of using co-firing as a measure to stimulate biomass supply chains.

Sustainability issues

The Government acknowledges that there are a number of concerns about the sustainability of co-firing, especially over the carbon balance and land management practices in areas from which biomass originates. Current co-firing makes use of a significant quantity of imported biomass – this is not necessarily a negative thing, but it does raise some issues that need to be considered. We also need to be careful to minimise the potential for negative impacts of co-firing on other industries that use biomass as a feedstock.

Although we do not believe these concerns currently constitute a significant objection to the continued co-firing of biomass, it is possible that they could become more substantial if levels of co-firing were to increase in the future. This review will therefore consider the sustainability issues around co-firing and the scope for incentivising the most sustainable forms – in particular, further use of energy crops and/or other locally-sourced forms of biomass.

Economic viability issues

It has become increasingly clear that co-firing is a low-cost form of renewable generation – potentially the lowest-cost form currently eligible for the RO. As stated in the 2005/06 Review of the RO, the Government has recognised that some renewable projects may not need the full support of the RO to be economically viable, that we have a duty to ensure that costs to the electricity consumer are constrained, and that we should continue to monitor the position of the lowest cost technologies.

As part of this review, we will therefore assess in detail the economics of co-firing under a range of scenarios, considering the wide variety of fuels used, and consider the implications of this assessment. This assessment will take account of wider developments in the energy market, such as changes in the underlying electricity price, the cost of fossil fuels, emissions trading, and any emerging conclusions of the Energy Review.

Devolved Administrations

There are separate Renewables Obligation Orders for England and Wales, Scotland, and Northern Ireland. DTI, the Scottish Executive and the Northern Ireland Department of Enterprise Trade and Investment (DETINI) will continue to work closely together on all the key issues.

State Aids

Any proposed changes to the RO are subject to state aid approval. The European Commission will be notified of this review and any changes proposed will need the Commission's approval.

Consultation

This review will involve wide consultation, inviting the view of all relevant stakeholders, and conducting meetings where appropriate. It will be led by DTI, with strong involvement from Defra, the Scottish Executive and DETINI, and will also take account of the recommendations of Sir Ben Gill's Biomass Task Force.

Timing

This review will be conducted during 2006 within the context of the wider Energy Review. If any changes to the current rules are proposed these would be subject to a statutory consultation and may be introduced to come into force for 1 April

2007 or later than this if there is a policy need to do so, or if they would require primary legislation.

Department of Trade & Industry
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