



**RENEWABLE ENERGY**

Reform of the Renewables  
Obligation and Statutory  
Consultation on the Renewables  
Obligation Order 2007

AN ENERGY REVIEW CONSULTATION

OCTOBER 2006

This is one of a number of consultations that were proposed in the Energy Review report: *The Energy Challenge*, published in July 2006. The measures set out in the report help to take forward our commitment to meeting the two major long-term challenges in UK energy policy:

- tackling climate change by reducing carbon dioxide emissions; and
- delivering secure, clean energy at affordable prices, as we move to increasing dependence on imported energy.

The consultations will help formulate our position on a range of energy issues to be published in the Energy White Paper in 2007.

# **RENEWABLE ENERGY**

Reform of the Renewables Obligation and  
Statutory Consultation on the Renewables  
Obligation Order 2007

October 2006

## Why is DTI conducting this consultation?

This consultation is in two parts:

**Part 1** consults on the proposals in the Government's Energy Review Report to introduce changes to the Renewables Obligation (RO) that would provide differentiated support levels to different renewable technologies ("banding") and give additional certainty on long-term Renewables Obligation Certificate (ROC) prices. These changes to the RO are subject to the passage of primary legislation and it is our intention to introduce a bill when Parliamentary time allows. This would mean the changes coming into force on 1 April 2009 at the earliest.

**Part 2** is a statutory consultation on a small number of more limited and detailed changes to the Renewables Obligation legislation that it is proposed to bring into force for 1 April 2007. These changes are in the area of the administration of the Obligation: changes to allow easier access to the Renewables Obligation for small generators; the removal of the requirement for sale and buyback agreements for certain renewable generators; a proposed limited change to the co-firing rules in the Obligation; and changes to fuel to be treated as biomass. A draft Regulatory Impact Assessment is included in this consultation document, and a draft Renewables Obligation Order 2007 will be available on the DTI website at [www.dti.gov.uk/consultations/page34162.html](http://www.dti.gov.uk/consultations/page34162.html).

**Issued on:** 9 October 2006

**Respond by:** Part 1: 5 January 2007  
Part 2: 15 December 2006

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## Foreword by Malcolm Wicks MP, Minister for Energy

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Energy is a vital part of every aspect of modern life in Britain and to our continued economic prosperity. The Government's Energy Review highlighted the challenges we face in addressing climate change and ensuring security of energy supplies. A key part of responding to this challenge is ensuring we have the right framework in place to stimulate growth in renewable energy generation. That's why in the Review we promised to consult on proposals to reform the Renewables Obligation. We will draw the results of this and other consultations together into a new Energy White Paper in Spring 2007.

The RO, which came into force in 2002, is the Government's main policy measure for supporting the development of renewable electricity in the UK. There's no doubt that the Obligation has been successful in stimulating growth in the utilisation of the UK's considerable renewable energy resources. Total generation from renewable sources eligible for the Obligation was around 4% in 2005, up from 1.8% in 2002. There are also a very significant number of projects currently in the planning pipeline across the UK.

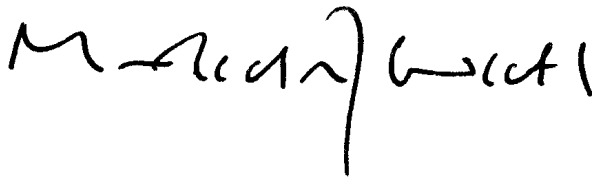
However, there are constraints on the availability and deployment of the cheaper forms of renewables which means that to meet the Government's long-term targets for renewable energy we will need a significant contribution from renewable sources that are currently more expensive. As a technology-neutral instrument, the Renewables Obligation has thus far proved less successful in bringing forward development of the more emerging renewable technologies.

That's why, during the Energy Review, the Government looked closely at a number of options for reforming the RO. Our proposals, set out in the July Energy Review report, aim to address these challenges and suggest how the RO might evolve into a system which provides more targeted levels of support for different renewable technologies over time. In doing so we have sought to build in strong protections for existing investors in

renewable energy and for projects which come on line prior to the introduction of any new regime. We've also underlined our commitment to renewable energy through our decision to extend the level of the Obligation to 20%, when justified by growth in renewable generation.

We will consult extensively on our proposals for the RO. It's vitally important that we get the details of any new approach right and this document sets out what we think are the key issues and invites views on them. We are also taking the opportunity to consult on a much smaller number of more detailed but nonetheless positive changes to the RO that we can bring into force next year.

We will consider carefully responses to the consultation and set out our final position on the proposals and next steps in the Energy White Paper, which we plan to publish next year. We look forward to an effective consultation and I would encourage you to play your full part in helping us to achieve the ambitious goals for renewable energy that we have set out in the Energy Review Report.

A handwritten signature in black ink, appearing to read 'Malcolm Wicks'.

**Malcolm Wicks MP,**  
Minister for Energy

# 1. Introduction

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1.1 The Government has four long-term goals for energy policy:

- to put the UK on the path to reducing carbon dioxide emissions by 60% by 2050;
- to maintain reliable energy supplies;
- to promote competitive markets in the UK and beyond;
- and to ensure that every home is adequately and affordably heated.

1.2 Earlier this year we undertook a major review of the country's progress towards achieving these goals and what further action may be required in light of the major long-term challenges of climate change and delivering secure, clean, affordable energy as we move towards increasing reliance on imported energy. The Government's response to the review, *The Energy Challenge*, was published in July and was a large, evidence-based package of measures and further action on both energy supply and demand side.

1.3 Actions to reduce carbon dioxide emissions include a major drive on energy efficiency. We will also promote cleaner energy and encourage all low carbon technologies. To secure energy supplies we will aim to set the right investment framework and act internationally to liberalise markets in the EU.

1.4 There are a number of public consultations, including this one, running over the next few weeks. The outcomes of these will feed in to an energy white paper in early 2007.

1.5 This consultation is in two parts. Part 1 is a consultation on the Government's proposals, as set out in "The Energy Challenge: Energy Review Report 2006"<sup>1</sup>, to reform the Renewables Obligation (RO) – introducing changes that will provide differentiated support levels to different renewable technologies ("banding") and provide additional certainty on long term Renewables Obligation Certificate (ROC) prices. Changes to the RO are subject to the passage of primary legislation and it is our intention to introduce a bill to Parliament when Parliamentary time allows. This would mean the changes not being introduced until April 2009 at the earliest.

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<sup>1</sup> <http://www.dti.gsi.gov.uk/energy/review/page31995.html>



1.6 Part 2 of the consultation seeks views on a small number of more limited changes to the RO legislation that it is proposed to bring into force on a faster timescale. These changes are in the area of the administration of the Obligation: the removal of the requirement for sale and buyback agreements for renewable generators; changes to allow agents to act on behalf of smaller generators and to amalgamate output; and a proposed change to the co-firing rules in the Obligation. This element of the consultation is a statutory consultation and subject to the outcome of the consultation the Government would intend to implement these proposals by amending the Renewables Obligation Order from 1 April 2007.

1.7 The Government will consult widely on the issues raised in this consultation document over the next twelve weeks, in accordance with Government guidance on public consultation exercises.

1.8 The Scottish Executive (SE) and the Department of Enterprise, Trade and Investment in Northern Ireland (DETINI) will not be holding a separate consultation on the long-term proposals for reform of the RO set out in the first part of this document. Interested parties in Scotland and Northern Ireland should respond directly to the DTI on the issues raised in the first part of this document, though they may also wish to discuss the issues with the relevant department.

1.9 However the SE and DETINI expect to reflect the changes proposed in the second part of this consultation document by amendments to the Renewables Obligation (Scotland) Order 2006 and the Renewables Obligation (Northern Ireland) Order 2006. Details can be found at [www.scotland.gov.uk/topics/business-industry/infrastructure/19185/rosconswavetidal06](http://www.scotland.gov.uk/topics/business-industry/infrastructure/19185/rosconswavetidal06) and [www.energy.detini.gov.uk](http://www.energy.detini.gov.uk).

1.10 The draft Renewables Obligation Order 2007 with suggested tracked changes arising from the Government's proposals is published alongside this document at [www.dti.gov.uk/consultations/page34162.html](http://www.dti.gov.uk/consultations/page34162.html).

1.11 It is envisaged that secondary legislation implementing the 2007 changes will be laid before Parliament in early 2007 and would take effect from 1 April 2007. It is our intention that these changes will be introduced in all three markets served by the Renewables Obligation, thus DTI, the Scottish Executive and DETINI will continue to work closely together, along with the Welsh Assembly Government, on all the key issues set out in the consultation document.

## How to respond

1.12 Responses to Part 1 of this consultation must be received by **5 January 2007**. Responses to Part 2 must be received by **15 December 2006**. These can be submitted by e-mail, letter or fax to:

Nicola Barber  
Renewable Energy Policy  
Department of Trade and Industry  
Bay 2106  
1 Victoria Street  
London SW1H 0ET

Tel: 020 7215 2651  
Fax: 020 7215 2890  
E-mail: [roco.info@dti.gsi.gov.uk](mailto:roco.info@dti.gsi.gov.uk)

1.13 When responding please state whether you are responding as an individual or representing the views of an organisation. If responding on behalf of an organisation, please make it clear who the organisation represents and, where applicable, how the views of members were assembled.

## Additional copies

1.14 You may make copies of this document without seeking permission. Printed copies of the consultation document can be obtained from:

DTI Publications Orderline  
ADMAIL 528  
London SW1W 8YT

Tel: 0845 015 0010  
Fax: 0845 015 0020  
Minicom: 0845 015 0030  
[www.dti.gov.uk/publications](http://www.dti.gov.uk/publications)

1.15 An electronic version can be found at [www.dti.gov.uk/consultations/page34162.html](http://www.dti.gov.uk/consultations/page34162.html)

## Confidentiality & Data Protection

1.16 Your response may be made public by the DTI. If you do not want all or part of your response or name made public, please state this clearly in the response. Any confidentiality disclaimer that may be generated by your organisations' IT system or

included as a general statement in your fax cover sheet will be taken to apply only to information in your response for which confidentiality has been specifically requested.

1.17 Information provided in response to this consultation, including personal information, may be subject to publication or disclosure in accordance with the access to information regimes (these are primarily the Freedom of Information Act 2000 (FOIA), the Data Protection Act 1998 (DPA) and the Environmental Information Regulations 2004). If you want other information that you provide to be treated as confidential, please be aware that, under the FOIA, there is a statutory Code of Practice with which public authorities must comply and which deals, amongst other things, with obligations of confidence.

1.18 In view of this, it would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on the Department.

1.19 The Department will process your personal data in accordance with the DPA and in the majority of circumstances this will mean that your personal data will not be disclosed to third parties.

## **Help with queries**

1.20 Questions about the policy issues raised in the document can be addressed to Nicola Barber at the address on page 5.

1.21 If you have comments or complaints about the way this consultation has been conducted, these should be sent to:

Mary Smeeth, Consultation Co-ordinator  
Department of Trade and Industry  
Better Regulation Team  
1 Victoria Street  
London  
SW1H 0ET

Tel: 020 7215 2146  
Fax: 020 7215 8303  
E-mail: [Mary.Smeeth@dti.gsi.gov.uk](mailto:Mary.Smeeth@dti.gsi.gov.uk)

1.22 A copy of the Code of Practice on Consultation is in Annex C.



**Part 1**

**Preliminary Consultation  
on the Reform Of  
The Renewables Obligation**

## 2. Banding the Renewables Obligation

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### Introduction

2.1 The Renewables Obligation (RO) was introduced in 2002 and represents the Government's main policy measure for stimulating the growth of electricity generation from renewable sources and for achieving the target of 10% of electricity from renewable sources by 2010 and our aspiration to double this to 20% by 2020.

2.2 The RO creates an Obligation on electricity suppliers to source a rising percentage of electricity from renewable sources. The level of the Obligation rises annually from 6.7% in 2006/07 to 15.4% in 2015/16, then currently remains flat until the end of the Obligation in 2027. Suppliers can meet their Obligation by presenting Renewables Obligation Certificates (ROCs) as evidence of renewable generation or by paying the "buyout" price, or a combination of the two. The buyout price, which rises with the Retail Price Index (RPI) each year, caps the costs of the system to suppliers and thus ultimately to electricity consumers.

2.3 The RO was devised as a technology-neutral instrument designed to bring on the most economic forms of renewable generation. Since its introduction in 2002, the Government believes that it has been broadly effective in achieving that goal. Renewable generation has grown significantly and there is a large pipeline of projects under development, particularly in the case of onshore wind. The RO has also stimulated growth in landfill gas, hydropower and the co-firing of biomass with fossil fuels, though there are major constraints on the further contribution that can be expected from landfill gas or hydropower, and the contribution from co-firing has been capped within the Obligation to date.

2.4 Total generation from RO-eligible renewable sources was around 4.0% of electricity supply in 2005, up from 1.8% in 2002.

### Future development of renewables in the UK

2.5 The Government believes that renewables have a significant role to play in the electricity generation mix and that the stimulus provided by higher electricity prices and the Renewables Obligation will lead to further growth in renewables development over the coming years. However the pace of growth towards the Government's targets (and aspirations) for renewable energy

could be constrained by a number of factors, in particular: delays in the planning and grid connection of renewable energy projects, constraints on the practical resource available for the most economic forms of renewable energy, and the higher costs of renewable energy projects in less mature or emerging technology areas, such as offshore wind and marine energy.

2.6 The Government's Energy Review Report discusses the steps the Government is taking to address barriers to renewable energy development in the areas of planning and grid.

2.7 However, there are constraints on the availability and deployment of the cheaper forms of renewables which means that, to meet the Government's long-term targets for renewable energy we will need a significant contribution from renewable sources that are currently more expensive. As a technology-neutral instrument, the Renewables Obligation has thus far proved less successful in bringing forward development of the more emerging renewable technologies.

2.8 These considerations have stimulated debate about the need for further amendments to the RO in ways that would provide additional support for longer-term, but currently more expensive, renewable technologies. As part of the Energy Review, the Government therefore conducted an analysis of options for amending the RO.

2.9 The conclusion of this analysis was that "banding" – providing differentiated levels of support for different renewable technologies – offers the most viable approach for adjusting the RO. Alternative options for amending the RO were considered in some detail. These include a suggested approach of capping ROC prices and re-distributing excess funds to emerging technology projects, and an approach involving Government-backed ROC contracts for emerging technologies.

2.10 The Government does not consider that capping ROC prices is an attractive option. Such an approach could impact negatively on the income available to those who have already invested substantial funds in renewable energy projects, undermining the Government's commitment to maintaining investor confidence in the RO. The funds available to support emerging technologies would also be unpredictable, leading to considerable uncertainty for companies about the support available for both particular technologies and specific projects.

2.11 Nor does the Government consider that an approach in which all ROC price risk was held by Government, at potential significant additional cost to the taxpayer, offers an appropriate way forward. That said, the Government understands that ROC price risks are a major issue in the developing and financing of renewable energy projects and the Government believes that the proposals discussed in Section 3 of this document add considerable certainty to long term ROC prices, without requiring any further guarantees from Government.

2.12 Moreover, the Government considers that neither the approaches of capping nor guaranteeing ROC prices offer an attractive long-term mechanism for providing appropriate support levels for the most economic forms of renewable energy.

2.13 In comparison, the Government believes that banding the Obligation has the potential to:

- Bring on emerging technologies through providing appropriate levels of additional support without placing extra costs on consumers or taxpayers.
- Protect the position of existing renewable energy projects and investors and also those projects under construction or which come into operation prior to the introduction of a new regime.
- Allow adjustments to the Obligation to avoid over-subsidisation of more economic forms of renewable energy over time.

2.14 At the same time, the Government recognises that banding the Obligation represents a significant amendment to the current system. Before making a final decision we are consulting extensively on the operation of the RO and the impact on industry decision making on moving to a banded system. The remainder of this part of the consultation discusses in more detail how a banded system might work and the key issues which would need to be resolved before its introduction.

**Q1** *Is banding the Renewables Obligation the best available option for adjusting the RO to provide more targeted support for a range of renewable technologies?*

**Q2** *Before making a decision on whether and how to band we are seeking views on the impact banding the RO would have on investment decisions.*



## Possible approaches to banding

2.15 There are two potential broad approaches to banding the RO:

- a) Award more than 1 ROC per MWh (multiple ROCs) to some technologies, and less than 1 ROC per MWh (fractional ROCs) to others (this document refers to this approach as the 'multiple ROC' approach).
- b) Create separate obligations for the different technologies, with different buyout prices and targets (the 'multiple obligation' approach).

2.16 While recognising that the Scottish Executive is consulting on a separate obligation for marine support only in Scotland, following the multiple obligation model, the Government does not consider that this option offers an attractive means of banding the Obligation as a whole. This is because a multiple obligation approach would involve setting separate obligation levels for a number of different renewable technologies – effectively instructing the market which technologies to use to meet the Government's renewables targets. The multiple ROC approach has the advantage that the Government sets the level of support, but leaves it up to the market to decide what generation mix is appropriate.

2.17 Moreover, a multiple obligation approach could not easily be made compatible with the Government's commitment to protect the position of existing projects ("grandfathering") or our desire to maintain a functioning UK-wide ROC market with a single ROC price. For these reasons, the Government believes that a multiple obligation approach is unworkable for the RO as a whole, and so is ruling this option out. If banding is introduced, the Government considers that a multiple ROC approach is the most viable.

**Q3** *Do you agree that a multiple ROC approach is the most appropriate option for banding the RO on a UK-wide basis?*

## Key principles for banding

2.18 If the RO is banded, the Government believes that the following key principles are essential to ensure the success of the system:

- Grandfathering – the position of existing investors should be protected (this issue is discussed further below).
- Notification – any reduction in support for a technology should only be made after a reasonable notice period. This should be at least enough time for a typical project to go from the start of construction to operation.
- Transparency – the process for setting the bands should be open and clear and involve consultation with industry and other key stakeholders.
- Reliability – the market should have confidence that the bands will be set on the basis of an independent and objective assessment of the commercial position and prospects of different renewable technologies.

**Q4** *Do you agree with these key principles as the basis for the development of a UK-wide banded Obligation?*

**Q5** *How important are these principles for the successful operation of a banded system?*

## How would a multiple ROC Obligation work?

2.19 As it stands, the RO places an obligation on electricity suppliers to supply a certain amount of renewable electricity (evidenced by presenting ROCs), or to pay a buyout price. But with a banded RO, one ROC would not necessarily be equivalent to one MWh of renewable electricity – it could be more or less, depending on the technology. The number of ROCs presented by an electricity supplier at the end of a compliance year would no longer exactly represent the volume of renewable energy in MWh supplied by that supplier.

2.20 For this reason, the introduction of a banded multiple ROC obligation would involve converting the existing legislative obligation on suppliers to supply a specified proportion of electricity from renewable sources (or pay a buyout price) into a legislative obligation to present a specified number of ROCs (or pay a buyout price). In practice, as evidence of renewable electricity supply is demonstrated by the presentation of ROCs, electricity suppliers already operate on this basis within the current RO.

2.21 The Government proposes that this conversion to a ROC obligation would be made on the basis of the Government's announcements on Obligation levels and retaining (for the purposes of calculating the ROC obligation) the 1:1 relationship between a supplier's obligation in MWh and their obligation in ROCs.

2.22 Thus for example, the Obligation level for 2011/12 is set at 11.4%. For an electricity supplier with sales of 50 TWh, this would represent, under the current RO, an obligation to supply 5.7 TWh, or 5,700,000 MWh, of electricity from renewable sources. Under a banded obligation, this would be converted to an obligation to present 5,700,000 ROCs (or to pay a buyout price for each ROC not presented). The buyout price would remain the same in a banded Obligation as in a non-banded Obligation. In this way, the total value of the Obligation to the renewables industry and similarly the maximum cost of the Obligation to electricity consumers would be maintained at the same levels as under a non-banded Obligation.

2.23 Another implication of the change to a banded Obligation with a legislative Obligation to present ROCs is that suppliers could meet that Obligation using either more or less actual renewable energy than would be the case under the present system. Continuing the example in the paragraph above, a supplier with an obligation to present 5,700,000 ROCs could potentially meet that obligation using either mainly renewable energy sources that attracted multiple ROCs or mainly through renewable energy sources that were awarded fractional ROCs. In the former case, the supplier would supply less actual renewable electricity than under the current RO (but with higher proportions from emerging renewable technologies). In the latter case, the supplier would supply more actual renewable electricity than under the current RO.

2.24 What this example illustrates is that the creation of a banded multiple ROC obligation would break the existing direct link between the level of the Obligation expressed in percentage terms, and the actual amount of renewable energy which would be required to meet it. The Government therefore believes that, for the purposes of retaining the credibility of the Obligation as the key mechanism for achieving the Government's renewable energy targets, it will be important to aim to achieve a broad balance between the additional supply of ROCs created by "banding up" of certain technologies with the reduced supply of ROCs created by the "banding down" of others. In short, the aim will be to ensure that, for example, an Obligation level of 13.4% in 2013/14 could be satisfied by something reasonably close to 13.4% of actual renewable energy.

2.25 That said, the Government recognises that decisions on bands may have the effect of either putting more ROCs into the market than there were before (this may be referred to as “net banding up” – resulting in lower ROC prices) or could reduce the total number of ROCs in the market (“net banding down”, resulting in higher ROC prices). While some element of net banding up or down is almost inevitable in a banded obligation, the Government believes that it will be important to seek to set bands in a way which preserves the overall stability of the ROC market. It is also relevant in this context that the Government’s announcements on Obligation levels in the Energy Review Report (see Section 3 of this document for further discussion) seek to add additional long-term certainty to the minimum ROC price likely to be achieved in a banded obligation.

***Q6 Do you agree with the above discussion of how a banded Obligation might work in practice?***

***Q7 Do you agree that it will be important to maintain a broad balance between banding up and banding down?***

### **How many bands should there be?**

2.26 Government proposes that bands should be set by technology. Individual bands could be set for each main renewable technology (i.e. onshore wind, landfill gas, offshore wind, co-firing etc.). Views are invited on whether bands could also cover sub-sets of technologies – for example, separate bands for smaller and larger projects, or a band for all microgeneration projects, or a band that gave additional support for projects that also use heat. Overall, there is a trade-off between the ability to fine-tune support to projects and the complexity of the RO – the more bands there are, the more complex it will be to administer and to predict ROC values.

***Q8 Do you agree with the proposals to set bands by technology?***

***Q9 How many bands should there be in a banded Obligation?***

***Q10 Should bands also be set to cover subsets of technologies?***

## Setting the bands

2.27 The Government believes that the process of determining the bands used will be a critical factor for ensuring the success of a banded RO, so should reflect all of the key principles outlined above. We will work with stakeholders to ensure that the band system is robust and fair.

2.28 The Government considers that the following key principles should be applied in the process of setting the bands:

- a) The bands should take account of the full project costs, including the costs of scoping, planning, construction, grid connection, transmission charges etc.
- b) The bands should be set taking into account the impact on the number of ROCs likely to be in the market, and aiming to balance banding up and banding down.

2.29 The Government is also clear that bands should take into account the cost effectiveness and long-term potential of different renewable technologies in delivering the Government's renewable energy targets. It is not the Government's intention that banding would act to restrict development of the most economic forms of renewables, nor to provide permanently high levels of support for very expensive forms of renewable energy. Support for emerging technologies should take into account their potential to achieve cost reductions over time and higher multiples of ROC support could for example be capacity limited, with reductions in support as installed capacity increases. Another option could be to set out proposed reductions in support over time linked to growth in installed capacity and taking account of learning curve effects.

2.30 Other factors which need to be considered are relevant wider strategic issues, such as sustainability, carbon emission reduction and the Government strategies for waste management, biomass and microgeneration.

***Q11 Views are invited on the best approach to setting bands. Do you support the principles outlined above?***

***Q12 What should be the approach for emerging technologies? Do you support the idea of limiting higher levels of support for emerging technologies to a given level of installed capacity with reductions as capacity increases?***

## Interim process for setting bands

2.31 The Government understands that there may be a desire on the part of industry to know as soon as possible what bands are likely to apply to different renewable technologies in future – prior to the passage of legislation. The Government therefore believes it would be useful to develop indicative bands as quickly as possible after the end of this consultation, to provide greater clarity to the industry about the future levels of support. However, as the banding regime would need to be set out in legislation, any indications given would remain subject to approval of Parliament and the European Commission in relation to State Aid issues.

***Q13 Would you support a process which sought to give an early indication of likely bands – perhaps prior to the passage of legislation through Parliament?***

## Frequency of band setting

2.32 For a banded RO to be a stable and predictable system for investors and developers, it will be important to avoid the bands changing too often. At the same time, there will be a need to change support levels over time to reflect changes in the cost of renewable technologies and other market developments. The Government believes that stability in the system will be important and that bands should not change, at a minimum, more than once every three or more years, and that restrictions on the frequency with which bands could change should probably be put into any legislation creating a banded Obligation.

2.33 An alternative or addition to setting limits in terms of time could be to set limits in terms of installed capacity – saying, for example, that the next 1 GW of a particular technology would be given a particular number of ROCs.

2.34 Setting limits on how often bands can be changed does increase the potential impact of a band being set at not quite the right level to bring on a particular technology, or of not being able to respond quickly to changes in the costs of a technology in response to external factors. One possible way of addressing this risk would be to add a caveat to the above arrangements, which could be activated in extreme cases. This could then trigger an early review of one or more of the bands.

***Q14 Should there be a statutory limit on how often the bands can change? Should this be expressed in terms of time or installed capacity? What should this limit be?***

***Q15 Should there be a caveat to allow an early review in extreme cases?***

## **Grandfathering**

2.35 The Government remains committed to the principle of grandfathering, as set out in the 2005 Review of the RO – that any reduction in support will only apply to future projects with the exception of co-firing (see para 4.13). The Government confirms, subject to State Aid approval from the EU Commission, that, any projects that become operational prior to the introduction of a banded Obligation will remain entitled, at a minimum, to 1 ROC for each MWh of electricity that they generate, as stated in the Energy Review Report.

2.36 In the framework of a banded RO, the Government believes that the best way to meet the commitment to grandfathering on an ongoing basis may be to guarantee the band for each project at the point of first operation – that is, once a project has become operational (i.e. the point at which it first supplies electricity for which ROCs may be claimed<sup>2</sup>). From that point onwards the number of ROCs it receives per MWh will not be reduced. This is the latest point that the Government would consider.

2.37 The Government is prepared to consider arguments for alternative, earlier points in the development timescale – e.g. the beginning of construction or for projects with planning consent prior to a certain date – at which grandfathering provisions of this kind could be triggered, provided those points can be justified and defined in a robust and legally defensible way.

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<sup>2</sup> In the case of a windfarm, for example, this would be the first supply of ROC eligible electricity from the first wind turbine installed.



***Q16 Do you agree that projects should be guaranteed that their band would not be reduced, once operational?***

***Q17 Is the point of first supply of electricity the most appropriate for grandfathering? Is there any other legally robust point that would be better?***

***Q18 Are there any other ways in which we could protect investments?***

2.38 The one exception to this commitment will be co-firing. As co-firing requires relatively little capital investment compared to other forms of renewable projects, the Government does not believe that it would be appropriate to grandfather bands for co-fired plant. When the band containing co-firing is determined, and if it were subsequently changed, that band would apply to all co-firers, irrespective of whether they are already operational.

***Q19 Do you agree that co-fired plant should not be grandfathered?***

## **Timetable**

2.39 Banding the RO would require modifications to the primary legislation that enables the Renewables Obligation Order, as well as subsequent changes to the Order. As a result, it is likely to take a number of years before these changes could be made. If the RO is banded, the Government will seek to enact this change before the end of the decade – from 1 April 2009 at the earliest. This is contingent on obtaining State Aid approval from the European Commission and the identification and passage of a suitable legislative vehicle.

2.40 Following this preliminary consultation, the Government will take a decision on whether to band the RO, and the form that banding will take. A statutory consultation on the details of the implementation will be required.

## **Transitional arrangements**

2.41 Because introducing a banded RO will take several years, this raises the possibility that projects in emerging technologies could be delayed, as they could be better off under a banded RO than under the current structure. The Government believes it is important to minimise this potential effect as far as possible, to



avoid disrupting emerging technology industries and in order to bring forward projects as quickly as possible.

2.42 To avoid delays, the Government proposes that projects in emerging technologies that become operational after the announcement of the Government's intention to band the Obligation (i.e. after 11 July 2006) should move up to their new bands, when those bands come into force. For example, if an offshore wind farm were to begin operation in 2008, ahead of banding coming into force in 2009, they would receive 1 ROC/MWh for the 2008-09 period, then move up to the new number of ROCs per MWh when that came into effect in 2009. Projects that were already operational or under construction at the time of the Energy Review announcement would not be banded up in this fashion.

***Q20 Do you agree that projects in emerging technologies that become operational (first supply electricity) before the introduction of banding but had not yet begun construction when the Energy Review Report was announced should move up to their new bands when those come into force, to prevent delays?***

***Q21 Is there anything else we can do to prevent delays?***

2.43 The exception to this rule could be those projects in emerging technologies that have been allocated Government grants. As these grants were allocated on the basis of 1 ROC/MWh support, it would not be appropriate for them to also benefit from the higher bands. However, the Government proposes, subject to State Aid clearance from the EU Commission, to give projects in this category the option of returning the grant and becoming eligible for the higher banding.

## 3. Obligation Levels Beyond 2015/16

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### Introduction

3.1 At present, the level of the Renewables Obligation is set to rise to 15.4% by 2015/16, and remain at that level thereafter until 2027 – the current end date for the Obligation in the legislation. The Government remains committed to its existing announcements on Obligation levels up to 2015/16.

3.2 The Government recognises that the level of long-term certainty around the price of Renewables Obligation Certificates (ROCs) is a major factor in decisions relating to the development and financing of new renewable energy projects. The Government also recognises that ROC price certainty will be critical to the success of a banded Obligation – if, for example, projects in emerging technologies are developed on the basis that they would be eligible for more than 1 ROC, it is essential that investors and financiers have confidence in the underlying value of a ROC.

3.3 The Government therefore made a number of announcements on Obligation levels in the Energy Review Report that aim to provide significant additional certainty on long-term ROC prices. The announcements were as follows:

- The Government commits to maintaining Obligation levels above the level of ROC-eligible renewable generation, up to a maximum level of 20% of electricity generation from renewable sources. Any increases in Obligation levels above 15.4% will not occur at pre-determined stages, as with existing announcements, but will follow a “guaranteed headroom” model, where increases are contingent on appropriate levels of growth in renewable generation.
- The Government will remove the automatic increase of the buyout price in line with inflation from 2015/16 onwards.
- The Government will consult on measures to introduce a “ski slope” mechanism for ROC prices – i.e. to amend the RO such that any renewable generation exceeding the level of demand for ROCs created by the Obligation would not have a precipitate impact on ROC prices but would instead ensure that ROC prices tapered smoothly down in a situation of oversupply.

3.4 The proposals to increase Obligation levels to 20% do not apply to Northern Ireland, as they have a separate set of Obligation levels. However, these announcements would of course impact on ROC prices in Northern Ireland, given the UK-wide nature of ROC trading. Moreover, it is the Government's intention that the changes relating to the buyout price and the introduction of a ski slope mechanism would apply, subject to consultation, in all three jurisdictions covered by the Obligation.

3.5 The implementation of these proposals is discussed in more detail below.

### **Extending Obligation levels to 20% on a “guaranteed headroom” basis**

3.6 The Government's commitment to maintain Obligation levels above renewable generation up to a level of 20% does not represent a commitment to increase Obligation levels to 20% by 2020. Any increases in Obligation levels after 2015/16 will be contingent upon appropriate growth in renewable generation. That said, if growth in renewable generation was extremely rapid, the level of the Obligation could potentially rise to 20% before 2020 under a guaranteed headroom approach.

3.7 The Government believes that a guaranteed headroom of 1% should be sufficient to provide long-term confidence on the support provided by the Obligation, given the ability of suppliers to bank ROCs and our intention to modify the RO to remove the risk of ROC price crashes.

3.8 This guarantee of headroom could work in one of two ways: either it could be a policy commitment by Government to raise the Obligation levels when necessary, or it could be a legislative requirement on the Government.

3.9 The Government envisages that the commitment would be implemented in the following way. Each year, the DTI would, or would be required to estimate the likely level of ROC-eligible renewable generation in the next compliance period, taking into account both already installed capacity and anticipated new projects likely to come on line during the forthcoming compliance year. If this estimate, which would be compiled in consultation with industry, were less than 1% below the existing level of the Obligation, the Obligation would be raised so that there would be a gap of at least 1% between anticipated renewable generation and the level of the Obligation for that compliance year.

3.10 The following example illustrates this approach in practice, with a guaranteed headroom of 1%. If, for the 2016/17 compliance period, DTI were to estimate that ROC-eligible renewable generation was likely to be around 13.5% of UK electricity sales, then this would be more than 1% lower than the existing Obligation level of 15.4%. The Government would not be obliged to increase Obligation levels in that circumstance.

3.11 However, were ROC eligible generation to be estimated to be 14.9% in 2016/17, then the Government would, or would have a legislative requirement to, raise the level of the Obligation to at least 15.9% for that compliance period, to maintain the 1% headroom. Once the Obligation level has been set, this would be converted into a ROC Obligation on the basis of a 1:1 relationship between a supplier's obligation level in MWh and a supplier's obligation in ROCs.

3.12 A number of comments should be made at this stage about the proposed approach:

- a) The Government's objective is that the method described above provides a minimum underpinning guarantee, for the life of the RO, about the level of the Obligation up to 20% renewables. It is not intended to rule out the possibility that the Government could, in the future, decide to set Obligation levels that were higher than the minimum level of guaranteed headroom would require, or for more than one year ahead. It may remain desirable to set Obligation levels for a number of years ahead in order to provide greater market certainty, or avoid the need for repeated legislation to make minor changes to Obligation levels.
- b) The approach does not provide an *absolute guarantee* that the demand for ROCs created by the Obligation will be greater than supply during any particular compliance year. The Obligation level would be set on the basis of an estimate and annual variations in rainfall or wind speeds or other supply factors could lead to unpredictably high levels of renewable generation and thus an excess of ROCs over demand. However, the Government considers that, with 1% guaranteed headroom, and bearing in mind the ability of suppliers to bank 25% of their ROCs for presentation in the following compliance year, an excess of ROC supply over demand arising from these kind of factors is highly unlikely.

c) It should also be borne in mind that, in a banded Obligation, the supply of ROCs would not be an exact match to the level of ROC eligible renewable generation (see earlier discussion in Section 2). “Net banding up” would put additional ROCs into the marketplace that could lead to the supply of ROCs being greater than the demand created by the Obligation level. This is another reason why banding decisions for different renewable technologies will need to seek to achieve a broad balance between banding up and banding down.

3.13 In the Government’s view, the considerations in points (b) and (c) do, along with the need to manage the RO once 20% generation has been achieved, enhance the case for developing a (“ski slope”) mechanism that allows for a gradual tapering down of ROC values in the event of an excess of ROCs over demand. This is discussed in more detail in paragraphs 3.17-3.36 below.

***Q22 Would this method of estimating generation and raising Obligation levels work in practice? Are there any alternatives? Should the requirement to raise Obligation levels be made a statutory one?***

***Q23 Is a guaranteed headroom of 1% adequate, given the ability of suppliers to bank ROCs and our intention to also remove the risk of a ROC price crash through a “ski slope”-type mechanism?***

## **Containing costs to consumers: removing the RPI link from the buyout**

3.14 Over the past year or so, there have been substantial rises in energy prices, due to a number of factors – the decline of indigenous supplies of gas from the North Sea, the increasing dependence on imported gas, and rising global oil prices. Generally, fossil fuel prices in 2010 are assumed to be higher than previously and to rise further between 2010 and 2020. This is to reflect the signs that demand for oil appears more robust to higher prices than previously assumed and supply is still expected to remain relatively tight even after expected increases in supply in the next few years.

3.15 The RO already provides substantial support for new renewables investment. It is therefore important that the Government considers carefully the impact of policy changes on energy prices and seeks to mitigate those impacts where possible. Commitments to increase Obligation levels have the potential to increase costs to electricity consumers. Therefore, the Government

has decided that, to balance the impact of higher Obligation levels, the buyout price will be frozen in nominal terms from 2015/16 onwards – i.e. the buyout price will no longer increase with RPI from that date. This should ensure that, over the remaining life of the RO, the costs to consumers of the scheme are broadly similar to the costs as determined by the Government’s existing announcements on Obligation levels.

3.16 This change to the Obligation can be implemented through secondary legislation. As the Government’s proposals on Obligation levels should be seen as a package, it is the Government’s intention to make the change at the same time as the wider legislation is introduced that delivers the commitment to extend Obligation levels to 20% on a guaranteed headroom basis.

### **Preventing ROC price crashes: the “cliff edge” issue**

3.17 The Renewables Obligation places an obligation on electricity suppliers to present ROCs, or to pay a buyout price, or a combination of the two. If a supplier has more ROCs than their obligation, these cannot be redeemed – however, they can trade those ROCs or bank them for the next compliance period.

3.18 However, if the market as a whole remains over-compliant for an extended period, then there is a risk that ROC prices could fall steeply as some ROCs could not be redeemed – the “cliff edge” problem. This risk is small but it remains.

3.19 The introduction of a guaranteed headroom approach to setting Obligation levels also reduces the risk of an oversupply of ROCs. However, as noted above, the introduction of a banded Obligation could increase the risk somewhat if there was significant net banding up.

3.20 In order to entirely remove this risk, and so boost investor and developer confidence in ROC prices over the remaining life of the RO, the Government is minded to amend the RO to allow ROC prices to taper smoothly down, rather than fall steeply, in the event of oversupply. The introduction of a “ski slope” mechanism of this kind would be likely to require primary legislation and any relevant changes would be made at the same time as other changes to the primary legislation necessary to implement the proposals in this consultation document. Going ahead with a ski slope mechanism is subject to consultation with industry to assess the viability of proposed approaches, their compatibility with existing rules in the Obligation relating to issues such as supplier compliance and mutualisation, and confirmation that any proposals would not add any significant costs to the electricity consumer.

3.21 Two mechanisms for achieving a gradual tapering down of ROC prices in the event of oversupply have so far been suggested to the Government. These are detailed below, along with a third mechanism that has been derived from the other two.

### **The Pöyry Energy (ILEX) solution**

3.22 The first solution, put forward by Pöyry Energy Consulting<sup>3</sup> works by introducing two new stages to the buyout recycling process, which would be activated only in the event that the supply of ROCs exceeded the demand created by the Obligation. These stages are:

- a) Over-compliant suppliers receive the buyout price on their excess ROCs. This would create a shortfall in the buyout fund.
- b) All redeemers of ROCs are presented with a second call to pay into the buyout fund, in proportion to the number of ROCs they have redeemed, to make up the shortfall.

3.23 This results in the effective value of ROCs (buyout price + recycle value) being able to drop below the buyout price, as the recycle value would effectively become negative because of the requirement on ROC redeemers to pay an additional amount into the buyout fund. The more ROCs are redeemed, the greater the size of the additional payments required into the buyout fund. This should mean that the drop in ROC values would take the form of a smooth curve, rather than a sudden crash.

3.24 For example, if 23% more ROCs are presented than the Obligation requires, those excess ROCs would receive a payment equal to the buyout value (for the purposes of this example, assumed to be the 2006/07 value of £33.24/MWh). That would leave a shortfall in the buyout fund (which has effectively become overdrawn). In order to make up this shortfall, a second payment would be required from all ROC redeemers (including those who have just been paid the buyout price for their excess ROCs) of £6.22 per ROC. The effective value of a ROC is therefore £27.01/MWh (buyout price – shortfall payment). This is illustrated in Table 1.

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<sup>3</sup> Formerly ILEX Energy Consulting Ltd.



**Table 1:** the Pöyry solution – with hypothetical suppliers and Obligations

Supplier	A	B	C	D	E	F
Obligation (TWh)	1.1	1.5	2.3	2.7	2.4	1.3
ROCs produced (millions)	1.2	2.5	2.4	2.8	2.6	2.4
Difference from RO (m)	+0.1	+1.0	+0.1	+0.1	+0.2	+1.1
Buyout payments (£m)	0	0	0	0	0	0
Total buyout fund (£m)	0					
Payment for excess ROCs (£m)	3.3	33.2	3.3	3.3	6.6	36.6
Buyout fund deficit (£m)	86.4					
Excess payment to fund (£m)	7.5	15.5	14.9	17.4	16.2	14.9
Payment per ROC (£)	6.22					
<b>Net payment to fund (£m)</b>	<b>4.1</b>	<b>-17.7</b>	<b>11.6</b>	<b>14.1</b>	<b>9.5</b>	<b>-21.6</b>
<b>Effective ROC value (£)</b>	<b>27.01</b>					

3.25 In the example above, the buyout fund would have to be able to go into deficit, which is both financially and legally difficult. Pöyry suggest that this could be overcome by having excess payments to the buyout fund made prior to the distribution of payments for excess ROCs.

3.26 The approach would appear to be effective in delivering a tapering down of ROC values. However, it would add to the complexity of the supplier compliance process and could extend the administration process timetable – particularly if there was a supplier default that triggered the mutualisation process. It is not entirely clear how the approach would interact with the mutualisation process – if there was a supplier default of sufficient size to trigger mutualisation, there would be a further shortfall in the buyout fund, and there could be two mechanisms operating to recover the two shortfalls.

## The Eufinium solution

3.27 The second solution, put forward by Eufinium Finance Ltd., involves replacing the existing buyout process with a different system. The change to the RO is more significant than the Pöyry approach, but the resulting mechanism is perhaps easier to understand.



3.28 The system proposed by Eufinium involves the following steps:

- a) All suppliers pay the full buyout on their obligations.
- b) This money is divided equally amongst those who present ROCs.

3.29 As with the two-stage Pöyry solution, this approach would result in the effective value of ROCs (buyout price + recycle value) being able to drop smoothly below the buyout price.

3.30 In the example situation outlined above, where there is 23% overall over-compliance, the ROC value would be the total buyout fund divided by the total number of ROCs presented, which is equivalent to the buyout price divided by the compliance fraction (123% in this case), which is £27.01/MWh – exactly the same as with the Pöyry solution. This is illustrated in Table 2.

**Table 2:** the Eufinium solution.

Supplier	A	B	C	D	E	F
Obligation (TWh)	1.1	1.5	2.3	2.7	2.4	1.3
ROCs produced (millions)	1.2	2.5	2.4	2.8	2.6	2.4
Total ROCs produced (m)	13.9					
Payment to buyout fund (£m)	36.6	49.8	76.4	89.7	79.8	43.2
Total buyout fund (£m)	375.5					
<b>ROC value (£)</b>	<b>27.01</b>					
Payment from fund (£m)	7.5	15.5	14.9	17.4	16.2	14.9
<b>Net payment to fund (£m)</b>	<b>4.1</b>	<b>-17.7</b>	<b>11.6</b>	<b>14.1</b>	<b>9.5</b>	<b>-21.6</b>

3.31 Perhaps the largest issue with this system is the very large cash payment that would be required of suppliers. This could raise the risk of supplier default, and/or present a significant cash-flow problem for suppliers. However, it is simpler than the Pöyry solution, and would not appear to require the recycling process to be delayed.

## Virtual payments

3.32 A possible adaptation to modify the above options could be to adjust the mechanisms proposed so that all but one round of payments are made virtual (i.e. on paper only), rather than real, so that each company only pays money to, or receives money from, the buyout fund once. Modifying the models in this way may actually have the effect of making them converge on a single solution.

3.33 This virtual payment solution can be based on either the Pöyry or Eufinium solution (as they result in the same actual payments to and from the fund), but is more easily understood if set out along the lines of the Eufinium solution. This involves the following steps:

- a) The total buyout value of each supplier's obligation is determined.
- b) This number is divided by the total number of ROCs to determine the ROC value – Ofgem then determines the money each supplier is due from the buyout fund (ROC value multiplied by the total number of ROCs presented by that supplier).
- c) Those companies whose buyout liability (step a) is greater than their ROC gains (step b), pay the difference to the buyout fund.
- d) Those companies whose ROC gains are greater than their buyout liability receive the recycling payment.

3.34 Using the same example as above, where 23% more ROCs are presented than the Obligation requires, with a buyout value of £33.24/MWh, the effective value of a ROC is again £27.01/MWh. This is illustrated in Table 3. As can be seen by comparing Tables 1, 2 and 3, each of these solutions gives exactly the same ROC value and the same net payment to the buyout fund.

**Table 3:** the virtual payment solution.

Supplier	A	B	C	D	E	F
Obligation (TWh)	1.1	1.5	2.3	2.7	2.4	1.3
ROCs produced (millions)	1.2	2.5	2.4	2.8	2.6	2.4
Total ROCs produced (m)	13.9					
Buyout liability (£m)	36.6	49.8	76.4	89.7	79.8	43.2
Total virtual buyout fund (£m)	375.5					
<b>Virtual payment per ROC (£)</b>	<b>27.01</b>					
Virtual payment from buyout (£m)	7.5	15.5	14.9	17.4	16.2	14.9
<b>Actual payment to buyout (£m)</b>	<b>4.1</b>	<b>-17.7</b>	<b>11.6</b>	<b>14.1</b>	<b>9.5</b>	<b>-21.6</b>

3.35 This approach may avoid some of the potential problems with the ILEX and Eufinium solutions (the buyout fund going overdrawn and the large cash payment, respectively). However, it does add some additional steps to the supplier compliance process.

## Implementation

3.36 All of these options raise implementation issues – the buyout fund being overdrawn, large cash payments, delays to the recycling process, and the interaction with mutualisation provisions which are in place to deal with a significant shortfall in the buyout fund if a supplier or number of suppliers default on their obligation. The Government will need to be satisfied that an acceptable and practical solution can be found before confirming that a specific ski slope mechanism will be adopted and introduced into legislation.

***Q24 Do you support the introduction of a ski-slope mechanism for ROC prices?***

***Q25 Are the mechanisms discussed above viable approaches?***

***Q26 Which do you think is the best approach?***

***Q27 Is there any other way to remove the risk of a steep fall in ROC prices in a situation of over-supply?***

***Q28 Is it possible to identify a mechanism that works appropriately alongside mutualisation in the event of a supplier default?***

***Q29 Do any of these mechanisms raise problems that have not been discussed here?***

***Q30 What would be the likely consequences of introducing any of these options?***

## 4. Co-firing

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### Background

4.1 When the Renewables Obligation was first introduced, there was a debate as to whether co-firing – the burning of biomass alongside fossil fuels – should be included as an eligible technology. It was eventually decided that it should be included for the purposes of setting up biomass (especially energy crop) supply chains, with certain restrictions on the amount and timeframe of co-firing.

4.2 The co-firing rules were revisited in 2004 as a result of concerns about whether the energy crop requirement could realistically be met. As a result, the length of time co-firing would be eligible for the RO was extended, the energy crop requirements were delayed, and the cap reduced from 25% to 10% to compensate. The current co-firing restrictions are summarised in Table 4.

**Table 4:** current 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
2016-27	0	–

4.3 The drop in the cap from 25% to 10% in April 2006 raised concerns about reducing the contribution of co-firing to the abatement of CO<sub>2</sub> emissions from fossil fuel plant, and so the Government decided to take another look at this area as part of the Energy Review.

### The long-term role of co-firing

4.4 In looking again at co-firing, the Government highlighted three key issues that need to be considered in determining whether co-firing should continue to be seen as a transitional technology, or should be a longer-term part of our renewable energy mix and carbon abatement strategy:

- Whether co-firing has a net environmental benefit – in particular, whether there is a positive net carbon balance for importing biomass
- The costs of co-firing and the support levels required to incentivise it
- The impact of further co-firing on other renewables, dedicated biomass generators, and other biomass-using industries.

4.5 The Government considers that electricity generation from coal is likely to remain part of our generating mix for the foreseeable future. Decisions as to whether to run coal plant for longer will be dominated by factors other than co-firing – the wholesale price of electricity, the EU Large Combustion Plant Directive, the comparative cost of coal and gas generation, and the price of carbon. In this market scenario, where coal continues to play a role in electricity generation, it makes sense to abate the carbon emissions from coal plant as much as possible, and the Government believes that co-firing potentially has a long-term role to play in this context, as part of a wider carbon abatement strategy for fossil fuels.

4.6 The Government commissioned Themba Technology and The Edinburgh Centre for Carbon Management (ECCM) to conduct an analysis of the carbon balance for co-firing and to investigate other sustainability issues around co-firing. Their report has been published alongside this preliminary consultation document and can be found at [www.dti.gov.uk/consultations/page34162.html](http://www.dti.gov.uk/consultations/page34162.html)

4.7 The main findings of this work relevant here are that the greenhouse gas emissions reduction benefits from co-firing are substantial for a very wide range of biomass fuels, whether UK based or imported, and including both biomass residues and energy crop feedstocks.

4.8 As a result of this analysis, and our consultations with stakeholders through the review process, the Government announced in the Energy Review Report that co-firing should be encouraged to play a long-term role in reducing the carbon emissions from fossil fuel plants.

## Co-firing within the RO

4.9 However, questions remain as to the support levels required for co-firing and its potential impact on other renewable technologies and industries. To address the first of these questions, the Government commissioned IPA Energy Consulting to conduct an analysis of the economics of co-firing. Their report is also published alongside this preliminary consultation document and can be found at [www.dti.gov.uk/consultations/page34162.html](http://www.dti.gov.uk/consultations/page34162.html).

4.10 The main findings of this work relevant here are:

- A wide variety of forms of co-firing, with a wide variety of different biomass fuels, would be likely to remain economic at support levels below the current ROC price.
- Differing levels of support could deliver different volumes of co-firing. At least £11/MWh is likely to be required to incentivise the cheapest forms.

4.11 As a result of this work, it is clear that co-firing is one of the most economic technologies eligible for ROCs, and does not generally need the full support of the RO. Because of this, removing all the restrictions on co-firing within the current RO would potentially have a very significant negative effect on other renewables by driving down ROC prices, as well as on the dedicated biomass sector and other biomass-using industries because of the higher capability to pay for biomass. The Government has therefore ruled out this option.

4.12 However, if the RO were to be banded, then this presents an alternative long-term approach for co-firing – removing the cap restrictions on co-firing, but banding it down, so it receives considerably fewer ROCs per MWh of electricity generated. The Government considers that this is a potentially more attractive approach to co-firing than the status quo, involving less regulatory intervention but could potentially allow more co-firing, with a positive impact on renewable generation and carbon emissions, while minimising the impact on other renewable technologies and other biomass-using industries. The Government also considers that, depending on developments within the carbon market, it may in the future be possible to entirely remove co-firing from the RO and support it entirely through the carbon price alone.

4.13 It is the Government's intention that, should banding be introduced, co-firing, unlike other technologies, would not be grandfathered – that is, a change to the co-firing band would affect existing co-firers. This reflects the significantly lower capital investment for co-firing, compared to other forms of renewables.

4.14 It is not the Government's intention that co-firing under a banded RO should have a significant negative impact on the development of other renewable technologies. We believe that this is unlikely, given that a significant banding down of co-firing would limit the volume of co-fired ROCs in circulation. There are also likely to be limitations imposed by the number of suitable fossil fuel plants and the biomass fraction that can be viably burned. However, should evidence emerge that co-firing was having a significant negative impact on the economics of other renewables, the Government would consult on actions to limit this effect.

4.15 The Government is also keen to remove, as far as is practical, any remaining barriers in the Obligation to the burning of wastes. One option considered in the 2005 Review of the Obligation was "making the RO neutral to waste" but this approach was ultimately considered to be impractical to implement as it could have incentivised the un-necessary separation of wastes into their component biomass and fossil fuel streams. Views are invited on any remaining options in this area.

***Q31 Do you agree that co-firing should be considered a long-term part of our renewable energy and carbon abatement strategies?***

***Q32 Do you agree with this approach of uncapping co-firing and reducing its support through banding?***

***Q33 Are there likely to be any significant negative consequences?***

***Q34 Views are invited on the reports on the sustainability and economics of co-firing that are being published alongside this consultation document.***

***Q35 Views are invited on options for addressing any remaining barriers in the Obligation to the burning of wastes.***

## **Incentivising energy crops**

4.16 The Government remains committed to promoting energy crops because of the need to increase the total biomass resource that is available for energy use and minimise the impacts on other biomass using industries, the security of supply benefits of having indigenous biomass sources, and the new opportunities they

present for farmers. We are 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 committed to that principle, and we recognise the commitment and investment that some generators have made to encourage co-firing with energy crops.

4.17 Under these proposals for co-firing, a different way of ensuring a market for energy crops would need to be found, as there would be no automatic requirement for co-firers to use them. The Government therefore believes that it may be appropriate to provide an additional incentive for energy crop co-firing by supporting that at a higher band than non-energy crop co-firing, given that they are generally more expensive than other forms of biomass.

4.18 As with the co-firing of non-energy crops, it is not the Government's intention or expectation that co-firing of energy crops should have a significant negative impact on other forms of renewable generation. If evidence were to emerge that this was happening then we would consult further on the case for actions to reduce this impact.

***Q36 Do you agree with the approach of putting the co-firing of energy crops in a higher band than other forms of co-firing? Is there an alternative way to continue to support energy crops?***

## **Sustainability issues**

4.19 The Government believes that it is important to ensure that the most sustainable forms of co-firing are incentivised. The Themba Technology report on this issue found that most current forms of co-firing using wastes that would otherwise have gone to landfill or other fuels from sustainable sources have strong sustainability benefits but suggested that it would be important to continue to monitor this position. It also suggests that there were a number of accreditation approaches already in place or under development, such as the UK Woodland Assurance Standard, the Roundtable on Sustainable Palm Oil, and the Assured Combinable Crop Scheme, which could be applied to co-firing of certain materials. They suggest that these existing codes of practice may be capable of adaptation, avoiding the need for the development of an entirely new accreditation scheme. Such a scheme would need to take account of any EU developments on sustainability criteria for biomass.



4.20 The Government believes that it will be important to ensure that co-firing is sustainable over the long term and invites views on how this may be best achieved while minimising burdens on industry. In addition to the accreditation approaches mentioned above, another option could be to require any co-firers who claim ROCs to provide an annual report to Ofgem on the biomass they have used for co-firing, its origins and how they have addressed any relevant sustainability issues. Ofgem might then publish this information as an Appendix to its annual report. This approach would be broadly analogous to that proposed for the Renewable Transport Fuel Obligation. Arguably any such arrangements should also apply to dedicated biomass power stations.

***Q37 Views are invited on how to ensure the sustainability of co-firing over the long term.***

***Q38 Would you support the development of an accreditation-based approach to sustainability issues for biomass use?***

***Q39 Would you support a requirement on generators claiming biomass or co-fired ROCs to publish information on the sources of biomass used in their power stations and any relevant sustainability information?***

***Q40 Are there any alternative approaches for ensuring sustainability in the biomass sector?***

## **Interim options for co-firing**

4.21 The changes discussed in this chapter are conditional upon the introduction of banding, which will not be introduced before 2009/10. In order to ensure there is continued impetus for the development of energy crops in the time between this consultation and then, the Government has proposed an interim option of un-capping the co-firing of energy crops.

4.22 This is considered in more detail in Section 9 of this document.

## 5. Future Funding of the Administration of the RO

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5.1 Since Ofgem started administering the RO, there has been a significant increase in the volume of activity under the scheme. This is illustrated in Table 5.

**Table 5.** Growth in activity under the RO.

Number of Accredited Generators		Number of ROCs Issued	
1 April 2003	505	2002-03	5,583,560
1 April 2004	616	2003-04	7,480,924
1 April 2005	765	2004-05	10,910,620
1 April 2006	960	2005-06	13,685,286

5.2 There has been a corresponding increase in Ofgem's administration costs. While increasing volumes have been and are likely to continue to be the main factor driving these cost increases, the policy changes proposed in this consultation paper may also result in some additional administration costs. For example, the move to a banded Obligation would require changes to Ofgem's IT systems.

5.3 It is a considerable challenge to deal with these rising volumes and to provide a high level of service in an environment in which the Government is committed to significant reductions in administrative costs across the public sector.

5.4 The Government is therefore consulting on a proposal to use the buyout fund to meet Ofgem's costs of administering the RO.

5.5 This proposal would ensure that those who benefited from the RO paid for the costs of its administration. It could also allow Ofgem a greater level of flexibility in applying resources to key areas of administration of the RO, or to tackle any particular areas that emerge and require additional resource.

5.6 Currently, Ofgem's costs associated with administering the RO are met from licence fees paid to Ofgem by gas and electricity network businesses.

5.7 If the approach proposed here was adopted, it would be important to ensure that there was a transparent process for determining the costs and a process that allowed the renewable energy industry, DTI and Ofgem to input into the level at which those costs were set. For example one possible approach would be for Ofgem to consult on its costs of administering the RO as part of the wider consultation on its corporate strategy and plan. This document sets out Ofgem's work programme and budget for the period ahead.

5.8 The Government appreciates that the effect of this proposal would be to remove a small sum of money from the RO that would otherwise support renewable energy developments. However, this sum would be small relative to the support provided by the Obligation and would have only a negligible effect on ROC prices – Ofgem has estimated that if its administration costs were met from the buyout fund this would reduce ROC values by approximately £0.09/MWh or 0.18%.

5.9 Amending the way the costs of administering the RO are met in this manner would require new primary legislation, which could be adopted at the same time as any changes introducing a banded Obligation. The Government considers that there are attractions in this option. However, if this approach were to be taken forward, further work would need to be done to identify how resources would be allocated and controlled and what the appropriate level of input from the renewables industry would be. We would also need to look at what would happen in the event of there being no funds in the buyout fund as a result of all suppliers meeting their Obligation in full through the presentation of ROCs.

***Q41 Views are invited on this approach for meeting the costs of administering the RO.***

***Q42 Are there any alternative approaches for funding these administration costs?***



## **Part 2**

# **Statutory Consultation on The Renewables Obligation Order 2007**

## 6. Introduction to Statutory Consultation

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6.1 This section of the consultation document is a statutory consultation on a limited number of proposed changes to the Renewables Obligation Order. These changes would also apply to the Renewables Obligation (Scotland) and the Northern Ireland Renewables Obligation. Part 2 of this consultation will run in a reduced 10 week timeframe. This will ensure the proposed changes which are relatively limited and technical in nature will come into force on 1 April 2007.

6.2 The changes in question are:

- Allowing agents to act for smaller generators and to amalgamate output.
- Removing the necessity for a sale and buy-back agreement.
- Allowing unlimited co-firing of energy crops outside of the caps on co-firing and a minor amendment to the definition of an energy crop.
- A small change to fuel to be treated as biomass.

6.3 Subsequent sections of this part of the consultation document discuss these changes in more detail.

## 7. Agents and Smaller Generators

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### Introduction

7.1 As part of the 2005 Review of the RO, the Government consulted on proposals to allow agents to act on behalf of small generators and to amalgamate output. The intention of these proposals is to remove some of the administrative barriers to small generators accessing the benefits of the RO.

### Background

7.2 In 2005, renewable generation from RO eligible sources stood at around 4.0% and the large majority of this generation was from large-scale generation plants. However, the Government recognises the contribution that small generators can make and also the different barriers they face when trying to access the benefits of the RO. Since its introduction in 2002, the Government has already amended the RO to allow small generators to choose between making monthly or annual claims for ROCs. This has meant that, where previously a small generator was not generating enough output to make a monthly claim, they are now able to accumulate generation over a year. Not only does this mean that generators can claim ROCs where previously they did not meet the required generation threshold, it is also administratively less complex as data is required on an annual basis rather than a monthly one.

7.3 In March, the Government published its microgeneration strategy. This strategy aims to remove the barriers currently preventing widespread take-up of microgeneration. In addition, the recent Energy Review commissioned two pieces of work that considered microgeneration. As a result, the Review recommended a major investigation into the economic, social and environmental costs and benefits of decentralised generation. It is envisaged that microgeneration would form a key part of that study.

7.4 In the 2005 Review of the RO, the Government consulted on further proposals to make it easier for small generators to benefit from the RO. In particular, allowing agents to act on their behalf and allowing agents to amalgamate output from more than one small generating station. These proposals were strongly supported by those who responded both to the preliminary and statutory consultations that were held as part of the RO Review. As a result, the Government committed to taking these proposals forward with

a view to their implementation in legislation from 1 April 2007. Both these proposals required new primary legislation and so this commitment was subject to the Government being able to secure the appropriate primary legislation that would then enable the secondary legislation – the Renewables Obligation Order – to be amended.

7.5 The primary legislation needed to take these proposals forward has now been secured through the Climate Change and Sustainable Energy Act, which received Royal Assent on 21 June 2006. We are therefore consulting on the proposals as set out below with a view to amending the Renewables Obligation Order, to come into force, subject to Parliamentary approval, from 1 April 2007.

## **Allowing agents to act on behalf of small generators**

### **Existing arrangements**

7.6 Where a small generator wishes to be issued with ROCs for their electricity generation, they must first be accredited by Ofgem. This is achieved by completing an accreditation form that is submitted to Ofgem. If a generating station is already generating electricity it can also submit data to Ofgem. Once accredited, Ofgem will issue ROCs for any claims made from the point at which they receive the accreditation form provided that all relevant criteria have been met. Under current legislation, agents can act on behalf of a small generator to a limited extent. However, agents cannot sign declarations or similar paperwork that is submitted to Ofgem. Neither can ROCs be issued by Ofgem direct to agents.

7.7 For generating stations whose daily business is not that of an electricity generator, as is the case for microgenerators, completing the process of accreditation and claiming ROCs can be an administrative burden. In addition, small generators may also experience difficulty selling on their ROCs.

### **Proposal**

7.8 To reduce the administrative burden experienced by some small generators, the Government proposes to allow agents to act on behalf of small generators. The effect of this would be that all parts of the process normally undertaken by an individual generator could now be undertaken by an agent, where this was the wish of the generator. This means that the agent would be the named contact for all correspondence with Ofgem and ROCs would be issued direct to the agent. Where an agent has been



engaged we do not propose that ROCs could also be issued to the generator. As ROCs will be issued direct to agents, the responsibility of selling the ROCs would be passed to the agent.

## **Benefits**

7.9 Allowing agents to act on behalf of small generators has the potential to reduce the administrative burden experienced by some small generators under the current rules. It would also mean that ROCs would be issued direct to agents and so arrangements for trading of ROCs would pass to the agent rather than lying with the generator.

7.10 The following points attempt to answer all the key questions for this proposal.

### **Who does this proposal apply to?**

7.11 All small generators – that is those generators of up to and including 50 kW DNC.

### **Will all small generators have to use agents?**

7.12 No. There will be no requirement for a generator to use an agent. Where a generator wanted to complete the accreditation and claiming of ROCs process themselves they would still be able to do so. If a generator simply wanted an agent to help with the completion of their accreditation form they would be able to do this, as is currently the case.

### **How will an agent be appointed?**

7.13 The appointment of an agent would be a matter for the generator concerned. Once the generator and agent have agreed the terms of their arrangement the small generator will need to sign a standard form which will notify Ofgem that they will be using an agent. This form can be sent to Ofgem via the agent.

7.14 The form will confirm that the generator agrees that the agent can act on their behalf; that generation from the station will be amalgamated with that of other generators being represented by the same agent; that ROCs will be issued to the agent; and that the agent will represent the generator until Ofgem is notified otherwise but, except for in exceptional circumstances, for a minimum period of the obligation period in which representation by the agent begins.

7.15 When notification is received by Ofgem that an agent will be acting on behalf of a generator, Ofgem will write back to the agent confirming the arrangement. A copy of this letter will also be sent to the generator. From this point on all correspondence will be between the agent and Ofgem except in exceptional circumstances.

### **What happens if an agent or generator wishes to terminate the contract?**

7.16 An agent can be appointed at any time during the lifetime of a generating station. However, except for certain circumstances, explained in paragraph 7.19 below, a generator can only use one agent per obligation period.

7.17 Termination of a contract is a matter between the agent and generator. However, where an agent is no longer acting on behalf of a generator the generator or agent will need to complete a standard form and return this to Ofgem. An acknowledgement of this change will be sent by Ofgem to both the generator and agent.

7.18 We propose that notification that an agent will no longer represent a generator can be sent at any time during an obligation period, using the standard form, however, (subject to what is said in paragraph 7.19) it will only be effective from midnight on 31st March, that is at the end of an obligation period. This is to prevent Ofgem spending a disproportionate amount of resource dealing with the administration of changes to the arrangements between small generators and their agents including proportioning ROCs between different agents where a generator has changed agent during an obligation period.

7.19 We propose that the legislation allows that where exceptional circumstances exist, contracts between agents and generators can be terminated earlier. This may cover for example circumstances such as an agent dying, becoming bankrupt or an agent which is a business going into liquidation. In these limited cases, it is proposed that a generator may switch agent or stop using an agent altogether during an obligation period. In such cases the generator and/or agent would need to present Ofgem with evidence that there is an exceptional circumstance for terminating the agreement within an obligation period. This would not cover cases where a generator decided they did not want to use an agent, for example, because they could get a better deal elsewhere.

## **What will happen to the ROCs?**

7.20 Where an agent is acting on behalf of a generator, ROCs will be issued to the agent. It is then a matter for the agent and the generator as to what happens to the ROCs. For example, the agent may also have installed the generating equipment for the generator and the installation costs could have been calculated on the basis of any ROCs issued going to the agent. If an agent is operating on behalf of many small generators they may have in place a contract with a supplier for the sale of the ROCs. Alternatively, an agent could also be a supplier and so may use any ROCs received to meet their renewable obligation.

## **Will there be an accreditation scheme for agents?**

7.21 We do not propose to establish an accreditation scheme for agents. We consider that this would add another layer of bureaucracy and limit who could act as agents. For example, where two neighbours had installed microgenerating equipment and one wanted to act on behalf of the other, we would not want to add a barrier by requiring agents to be accredited. However, where consumers who have installed renewable generating equipment wish to engage an agent to act on their behalf in dealing with Ofgem they may (assuming they constitute a consumer within the relevant legislation) be able to benefit from the legislative protections available to consumers who enter into contracts with suppliers.

7.22 In addition, industry organisations may wish to hold a list of their members who act as agents.

## **Summary of proposal**

- Agents will be allowed to act on behalf of small generators (up to and including 50 kW DNC).
- Small generators can only use one agent during an obligation period except where they can demonstrate an exceptional circumstance.
- Small generators will not be required to use an agent.
- A standard form will need to be sent to Ofgem, either by the generator or the agent, notifying Ofgem that the generator will be using an agent.
- Once appointed Ofgem will only correspond with the agent except in exceptional circumstances.

- ROCs will be issued direct to the agent.
- We do not propose to introduce an accreditation scheme for agents.

***Q43 Do you agree that agents should be allowed to act on behalf of small generators?***

***Q44 Is there any reason why there should be an option for ROCs to be issued to an agent or the generator rather than just to the agent as proposed?***

***Q45 Do you agree that, to reduce administrative burdens, a generator should be limited to using just one agent for an obligation period?***

***Q46 Do you agree that the legislation should provide for a contract between a generator and an agent to be terminated during the course of an obligation period where there are exceptional circumstances?***

***Q47 Should there be an accreditation scheme for agents?***

***Q48 Are there any other issues that have not been considered above?***

## **Allowing agents to amalgamate generation from small generators**

### **Existing arrangements**

7.23 A small generator must currently generate 0.5 MWh to be able to claim a ROC. This can be generated either on a monthly basis or an annual basis. Under current rules, a small generator cannot amalgamate their output with another generator.

### **Proposal**

7.24 We propose that by using an agent two or more generators can amalgamate their output for the purpose of claiming ROCs. To secure the administrative benefits of using agents, and to prevent generators and agents advantageously using the rules of rounding up generation for the purposes of claiming ROCs, we propose that any agent who is representing two or more generators will have to amalgamate the output from these stations before any rounding up can take place.

7.25 We propose that ROC claims can be made on a monthly or annual basis, as is the case for small generators under the existing rules.

7.26 Under existing rules, generators are accredited either under the RO, ROS or NIRO. This would not change under these proposals, and so would mean that amalgamation across different obligations could not take place. However, there would be no other geographical restrictions. For example, the output of a small generator in Brighton could be amalgamated with a group of generators in Newcastle.

7.27 For administrative and statistical purposes we propose to restrict generators in an amalgamated group to being made up from the same technology since ROCs are currently issued according to the technology of the generating station. If the banding of different technologies were introduced (as proposed in the Energy Review, and set out earlier in the consultation) this could add complexity to the amalgamation process for generators, agents and Ofgem and is a further possible reason for requiring amalgamated groups to be of the same technology. Views are invited on whether there are any reasons not to restrict amalgamated groups from being made up of the same technology.

7.28 Individual generators will still need to have their own meter for the purposes of measurement which complies with Schedule 7 of the Electricity Act and any other requirements set out in the RO Order.

## **Benefits**

7.29 Where a small generator is only generating very small amounts of electricity, under the current rules they may not even reach the threshold required to claim one ROC. Alternatively, although they are generating enough to be able to claim a small number of ROCs, the numbers involved do not make it worthwhile going through the processes required. Amalgamating generation will allow economies of scale in the administrative processes for both small generators and Ofgem. It will also allow small generators who may not otherwise be generating enough to claim ROCs to combine their output with that of others and so access the financial benefits of the RO.

### **Who does this proposal apply to?**

7.30 We propose that all generating stations of up to and including 50 kW DNC should be eligible to amalgamate their output. And that by agreeing to be represented by an agent a generator is also agreeing that where the agent represents two or more generators the output from these generators will be amalgamated for the purposes of claiming ROCs.

### **What happens if a small generator no longer wishes an agent to act on their behalf?**

7.31 As each generating station is accredited individually, this means that where they no longer wish an agent to act for them they will still be able to claim ROCs for their generation in their own right as an individual generating station. However, as set out in paragraphs 7.16- 7.19 above, termination of an agreement between a generator and agent will usually only take place at the end of an obligation period. Where generators cease to be represented by an agent, it will be a matter for the agent and the generator to allocate ROCs issued or financial benefits resulting from the ROCs issued.

### **What will an agent have to do in order to get ROCs?**

7.32 The generator will take a meter reading at the usual time (either on a monthly basis or annual depending on which option they have chosen). The generator will then send this reading to the agent.

7.33 The agent will collect all meter reads and send them to Ofgem within the specified deadline. Ofgem will require a list of individual meter reads as well as a total figure for the amount amalgamated by the generator.

7.34 ROCs will be issued to agents based on the total figure for generation, e.g. there will be no rounding up or down of the individual data submissions although rounding up or down, to the nearest 0.5MWh of the total figure will take place.

### **What will happen to their ROCs?**

7.35 Where an agent is acting on behalf of a number of generators, the ROCs will be issued direct to the agent. It is then a matter for the agent and the generators as to what happens to the ROCs.

## Summary of proposal

- Where an agent is representing two or more generators they will be required to amalgamate output for the purpose of claiming ROCs.
- The proposal will apply to generating stations of up to and including 50 kW DNC.
- Each individual generating station will need to be accredited.
- ROC claims based on output amalgamated from a number of generating stations can be made on a monthly or annual basis as per existing rules for small generators.
- Amalgamation cannot take place across the three different obligations, but with this exception there will be no geographical restrictions.
- It is proposed that amalgamated groups should be made up of the same technology.
- Individual generators will still need to have their own meter which complies with Schedule 7 of the Electricity Act and any other requirements set out in the RO Order.

***Q49 Do you agree that agents acting on behalf of small generators should be allowed to amalgamate their output in order to claim ROCs?***

***Q50 Should agents who are amalgamating output of the generators for whom they are acting have the option of making claims on a monthly or annual basis?***

***Q51 Do you agree that, within obligations e.g. RO, ROS or NIRO, there should be no geographical restrictions of amalgamation?***

***Q52 Views are invited on whether there are any reasons not to restrict amalgamated groups from being made up of the same technology.***



## Longer-term issues on small generators and the RO

### Type approval and deeming of output from small generators

7.36 Type approval is where microgenerating equipment meeting certain standards is deemed, for the purposes of claiming ROCs, to have generated a certain amount of renewable electricity. For example, a micro wind turbine could be deemed to generate enough to be issued with 1 ROC each year, without presentation of metering data or any other evidence of generation.

7.37 Reports published by the Distributed Generation Co-ordinating Group, suggest a series of options for simplifying access to ROCs for smaller generators including the introduction of a type approval system.

7.38 The introduction of such a scheme would require primary legislation and then an amendment to secondary legislation. The Renewables Obligation is based on generators demonstrating that renewable electricity has been generated. The introduction of such a change would mean that small generators who have installed qualifying generating equipment would be issued with ROCs without having to submit evidence that renewable electricity has actually been generated. This would have the effect of reducing the administrative burden of a small generator having to take meter readings and, by increasing the certainty of ROC income, improve the incentives for microgeneration.

7.39 While there are obvious potential advantages of such a scheme, there are also some potential disadvantages. The introduction of such a scheme could be considered to undermine one of the key principles of the RO – that of demonstrating generation of renewables electricity. A deeming approach does not offer a guarantee that generating equipment which is awarded ROCs will be properly installed or that where it breaks it will be fixed. Neither does such a scheme take into account the siting of the equipment with the result that there could be less incentive on the owner to install their equipment in the best location. In addition, proponents of such a scheme tend to propose that ROCs would be issued up front e.g. ROCs deemed for a 5 year period would all be issued in year 1. This breaks the link between the issue of ROCs and the period in which the renewable energy was generated. It would also mean that the RO was no longer a mechanism for measuring and recording actual output from small generators.

7.40 Small generators can already access ROCs; they can also apply for grants to help with installation costs. It could be argued that a deeming approach represents a second subsidy for installation of renewable energy equipment, as opposed to actual



generation. Since its introduction in 2002, the Government has taken measures to provide better access to the benefits of the RO, including an amendment to the legislation that allows small generators the choice of making either monthly or annual claims for ROCs. For those opting for annual claims, they simply have to provide Ofgem with a reading at the start and finish of an obligation period.

7.41 The Government is not taking forward such a system as part of the current changes to the Renewables Obligation but invites views on this proposal and how the concerns outlined above could be addressed. The issue of support under the Energy Efficiency Commitment (EEC) is also relevant to this proposal and this is addressed in the section below.

***Q53 You are invited to submit views on the proposal for a type approval system for the claiming of ROCs by small generators.***

### **Support for microgenerators through Energy Efficiency Commitment**

7.42 On 31 July 2006 Defra launched the EEC3 Consultation Document. This includes consultation on the option of supporting various forms of microgeneration through the EEC. In assessing microgeneration activity under EEC3, the Government will consider the likely overlap with other Government policies and support.

7.43 Overall, microgeneration technologies are unlikely to reach the level of market maturity by 2011 that would be needed to play a major role in delivering ambitious EEC3 targets. However, alongside the other support for this sector, the EEC mechanism may help to promote microgeneration by offering energy suppliers wider flexibility and more options for innovative approaches in working in the household sector. This approach will also allow the EEC mechanism to evolve towards more flexible approaches for the period beyond 2011.

7.44 The EEC3 consultation document can be found at [www.defra.gov.uk](http://www.defra.gov.uk) As part of this consultation Defra are seeking early views from stakeholders on the inclusion in EEC3 of microgeneration measures, to help inform the development of the 2007 consultation.

***Q54 Views are invited on the interaction of EEC with the RO.***

## 8. Removal of Sale and Buyback Agreements

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### Introduction

8.1 As part of the 2005 Review of the Renewables Obligation, the Government consulted on the removal of the necessity for a sale and buyback agreement for generators. The intention of this proposal is to reduce administrative burdens on generators and suppliers.

### Background

8.2 The Renewables Obligation Order 2006 defines the Obligation in terms of the supply of electricity to customers in Great Britain. Article 10 of the Order enables generators who wish to consume their own electricity to obtain ROCs where they enter into a sale and buyback agreement with an electricity supplier. That is they must first sell the electricity to a supplier and then purchase it back for their own consumption (In these circumstances Article 10 provides that the electricity is regarded as having been supplied to customers).

8.3 In the 2005 Review of the RO, the Government consulted on proposals to make it easier for small generators to benefit from the RO, including the removal of the necessity to enter into a sale and buyback agreement in respect of electricity which they have generated and wish to consume. The Government presented two options: applying this to only small generators, or to all generators. The proposal to remove sale and buyback for small generators was strongly supported, with more mixed support for its removal for all generators. The implementation of such a proposal required new primary legislation and the Government committed to securing the appropriate primary legislation and then consulting further on the implementation of the proposal in secondary legislation.

8.4 The primary legislation needed to take these proposals forward has now been secured through the Climate Change and Sustainable Energy Act, which received Royal Assent on 21 June 2006. We are therefore consulting on the proposal as set out below with a view to amending the Renewables Obligation Order to come into force, subject to parliamentary approval, from 1 April 2007.

## Proposal to remove sale and buyback agreements

8.5 We propose to remove the need for all generators who consume the electricity which they generate to enter into sale and buyback agreements before this electricity becomes eligible for ROCs. During previous consultations on this issue, it has been argued that it is not just small generators who experience administrative burdens and difficulty in obtaining sale and buyback contracts with suppliers but that it is a problem that extends to larger generators as well. We are keen to encourage deregulatory measures within the RO where possible and view sale and buyback agreements as an unnecessary administrative burden.

8.6 The primary legislation has been amended so that generators who generate and consume their own electricity will no longer have to demonstrate supply through a sale and buyback agreement. ROCs will be able to be issued where the electricity generated has been consumed by the generating station. This will not alter the ability of suppliers and generators to enter into contracts for the sale of renewable electricity generated, as this is a contractual matter between the companies concerned.

8.7 The removal of the necessity for sale and buyback agreements for generators who generate and consume their own electricity means that electricity generated and sold and purchased in this way will no longer form part of any supplier's obligation. We are aware of some concerns regarding this and the impact it could have on ROC prices. However, analysis suggests that the impact will be very small and should get even smaller as the levels of the RO increase.

8.8 Table 6 below sets out data on electricity generation covered by sale and buyback agreements, termed 'non-billed supply', in absolute and relative terms, for both England & Wales and Scotland, for 2003/04 and 2004/05. This is taken from the information suppliers submitted to Ofgem for compliance purposes. Non-billed supply also includes supply made through an exempt distribution network (i.e. non-article 10 supply, representing supply made to customers independent from the operator of the generating station but through a licence exempt network). Ofgem does not require suppliers to disaggregate non-billed supply into article 10 sales and non-article 10 sales for compliance purposes.

**Table 6:** Sale and buyback data

	Total non-billed electricity supply (MWh)	Proportion of total electricity supply
2003/04 (Eng & Wales)	1,768,470	0.61%
2003/04 (Scotland)	23,823	0.08%
2004/05 (Eng & Wales)	618,663	0.21%
2004/05 (Scotland)	12,760	0.04%

8.9 The table shows that during this period, there was a decrease in the proportion of sales through this type of contract. On this basis if the necessity to enter into sale and buyback agreements was removed it should not have a meaningful impact on ROC prices.

8.10 It is important to note that the removal of the necessity for a sale and buyback agreement does not remove the requirement for generators to provide meter readings to Ofgem as the basis for ROC claims. Off-grid generating stations will also have to satisfy Ofgem that renewable electricity for which ROCs are being claimed is being put to a valid use and not simply being dumped. We propose that off-grid generation stations be required to provide Ofgem with an annual declaration in relation to their use of renewable electricity. Such stations may also be subject to audit.

***Q55 Do you agree with the proposal to remove the need for a sale and buyback agreement for all generators?***

***Q56 Are there any other issues that have not been raised but should be considered?***

## 9. Co-firing Interim Changes

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### Promoting energy crops

9.1 The changes to co-firing discussed in Chapter 4 are conditional upon the introduction of banding, which is unlikely to occur before 2009/10. In order to ensure there is continued impetus for the development of energy crops in the time between this consultation and then, the Government has considered a number of interim solutions.

9.2 One option would be to raise the cap on co-firing in the period before the introduction of banding which would allow a greater amount of co-firing and could potentially benefit the energy crop market. However, the amount of co-firing permitted under the RO already stands to increase by around 40% by 2009/10 because of the rising level of the Obligation and increases in electricity sales, and changing the cap could have some negative effects, e.g.:

- A significant loss of investor confidence and financial damage to other renewables projects and technologies.
- A significant increase in support for the cheapest technology in the RO, in direct contrast to the Government's policy of reducing any over-subsidisation over time.
- Potential damage to other biomass-using industries.

9.3 The Government has therefore decided to rule out raising the 10% cap on co-firing before the introduction of banding.

9.4 An alternative option would be to allow co-firing of energy crops outside the cap. This would allow co-firers to progress contracts with energy crop planters without concerns about restrictions on co-firing arising from the cap. The Government believes that the impact of this change on other renewables should be small, in the light of the likely volume of energy crop co-firing in the interim period prior to the introduction of banding, and there should be no impact on other biomass-using industries.

## The proposal

9.5 The Government's proposal is, from 1 April 2007 onwards, to allow co-firing of energy crops outside the cap. That is, the co-firing of energy crops would be awarded 'normal ROCs', rather than 'co-fired ROCs'. The requirements of minimum energy crop percentages would all be removed from the Order. Prior to the introduction of a banded Obligation, the current caps on non-energy crop co-firing would remain in place as would the end date for non-energy crop co-firing of 2016 for the interim period. The Government recognises that, if a banded Obligation was not ultimately introduced, further consultation would be required on the long-term cap level in the Obligation and the case for removing the 2016 end date for receiving ROCs for co-firing.

9.6 It is not our expectation that the co-firing of energy crops outside the co-firing cap should have a significant impact on ROC prices in the interim period. Current levels of planting and contracting for energy crops suggest that any impacts will be very limited. Nonetheless, we will monitor this, and if evidence were to emerge energy crop co-firing was impacting negatively on the wider market then we would consult further on the case for any additional actions to reduce this impact.

***Q57 Do you agree that unlimited co-firing of energy crops should be allowed, as an interim measure before the introduction of banding?***

***Q58 Do you agree that, if energy crop co-firing were removed from the caps, it would no longer be appropriate to retain the minimum energy crop requirements?***

## Definition of an energy crop

9.7 The definition of "energy crop" in the Renewables Obligation Order 2006 is, "a plant crop planted after 31st December 1989 and grown primarily for the purpose of being used as a fuel". Because of this wording, it is necessary to provide some form of evidence to Ofgem that the crop was intended for fuel use at the point of planting.

9.8 In order to reduce the administrative paperwork, a suggestion put forward during the co-firing review was that this definition be amended so that the most common forms of energy crop, Short Rotation Coppice (SRC) and miscanthus, would not need proof of intention at point of planting. The proposed new definition could therefore be:

“energy crops” means a plant crop planted after 31st December 1989 which is grown primarily for the purpose of being used as a fuel, or which is one of the following:

- a) miscanthus giganteus;
- b) salix (also known as short rotation coppice willow);
- c) populus (also known as short rotation coppice poplar).

9.9 This proposed change in definition is not intended to push energy crop developers towards using SRC or miscanthus rather than other forms of energy crop – it is purely a proposal to reduce the paperwork requirement for the most commonly used forms of energy crop.

***Q59 Do you support the suggestion that the definition of an energy crop should be amended to specify SRC, miscanthus, or any other crop grown for the purposes of being used as a biomass fuel?***

***Q60 Is there any risk that harvesting of miscanthus, or SRC not grown for energy purposes could occur under this definition?***

## 10. Fuel to be Treated as Biomass

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10.1 In regard to biomass fuel used in power stations, we propose to ensure that where a power station burns more than one fuel (which do not constitute fossil fuels as defined in Article 8 of the ROO), then as long as 90% of the average energy content of those fuels is derived from biomass both fuels will be treated as biomass fuels for the purposes of establishing ROC eligibility. Views are invited on this proposal.

10.2 This proposal will remove a difficulty under the current rules, whereby if a power station, for example, burns two fuels, one where 94% of the energy content derives from biomass and the other where 88% of the energy content derives from biomass the power station is unlikely to be eligible for ROCs, (except for, example, where the generating station is a combined heat and power generating station as defined in the RO Order) even though the average energy content of those fuels when burned together is over 90%. The proposal provides that, for example if you have two fuel streams the first one where 94% of the energy content derives from biomass and the second one where 88% of the energy content is derived from biomass then the second fuel will be treated as biomass if at least 90% of the average energy content of the two fuels is derived from biomass.

10.3 By allowing the average energy content of both fuels to be considered ROCs could be claimed based on the average energy content of the two fuels as long as 90% of the average energy content of those fuels is derived from biomass. In the example given ROCs could be issued on that basis (if an equal tonnage of each fuel was used and each fuel had the same biomass and fossil fuel energy contents) as the average energy content of the two fuel streams would be 91%. This approach will allow burning of a wider range of biomass fuels by these generators, that for example might have otherwise gone to landfill.

***Q61 Do you agree with the proposal that where more than one non-fossil fuels are used in power stations that these fuels can be treated as biomass fuels as long as 90% of the average energy content of the sum of the fuels is derived from biomass.***



# Annex A: List of Questions

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## Banding the Renewables Obligation

- Q1** *Is banding the Renewables Obligation the best available option for adjusting the RO to provide more targeted support for a range of renewable technologies?*
- Q2** *Before making a decision on whether and how to band we are seeking views on the impact banding the RO would have on investment decisions.*
- Q3** *Do you agree that a multiple ROC approach is the most appropriate option for banding the RO on a UK-wide basis?*
- Q4** *Do you agree with these key principles as the basis for the development of a UK-wide banded Obligation?*
- Q5** *How important are these principles for the successful operation of a banded system?*
- Q6** *Do you agree with the discussion in paragraphs 2.19 to 2.25 of how a banded Obligation might work in practice?*
- Q7** *Do you agree that it will be important to maintain a broad balance between banding up and banding down?*
- Q8** *Do you agree with the proposals to set bands by technology?*
- Q9** *How many bands there should be in a banded Obligation?*
- Q10** *Should bands also be set to cover subsets of technologies?*
- Q11** *Views are invited on the best approach to setting bands. Do you support the principles outlined in paragraph 2.28?*
- Q12** *What should be the approach for emerging technologies? Do you support the idea of limiting higher levels of support for emerging technologies to a given level of installed capacity with reductions as capacity increases?*
- Q13** *Would you support a process which sought to give an early indication of likely bands – perhaps prior to the passage of legislation through Parliament?*

- Q14** *Should there be a statutory limit on how often the bands can change? Should this be expressed in terms of time or installed capacity? What should this limit be?*
- Q15** *Should there be a caveat to allow an early review in extreme cases?*
- Q16** *Do you agree that projects should be guaranteed that their band would not be reduced, once operational?*
- Q17** *Is the point of first supply of electricity the most appropriate for grandfathering? Is there any other legally robust point that would be better?*
- Q18** *Are there any other ways in which we could protect investments?*
- Q19** *Do you agree that co-fired plant should not be grandfathered?*
- Q20** *Do you agree that projects in emerging technologies that become operational (first supply electricity) before the introduction of banding, but had not yet begun construction when the Energy Review Report was announced should move up to their new bands when those come into force, to prevent delays?*
- Q21** *Is there anything else we can do to prevent delays?*

## Obligation Levels Beyond 2015/16

- Q22** *Would the method of estimating generation and raising Obligation levels work in practice? Are there any alternatives? Should the requirement to raise Obligation levels be made a statutory one?*
- Q23** *Is a guaranteed headroom of 1% adequate, given the ability of suppliers to bank ROCs and our intention to also remove the risk of a ROC price crash through a “ski slope”-type mechanism?*
- Q24** *Do you support the introduction of a ski-slope mechanism for ROC prices?*
- Q25** *Are the mechanisms discussed in Section 3 viable approaches?*
- Q26** *Which do you think is the best approach?*
- Q27** *Is there any other way to remove the risk of a steep fall in ROC prices in a situation of over-supply?*
- Q28** *Is it possible to identify a mechanism that works appropriately alongside mutualisation in the event of a supplier default?*
- Q29** *Do any of these mechanisms raise problems that have not been discussed here?*
- Q30** *What would be the likely consequences of introducing any of these options?*

## Co-firing

- Q31** *Do you agree that co-firing should be considered a long-term part of our renewable energy and carbon abatement strategies?*
- Q32** *Do you agree with this approach of uncapping co-firing and reducing its support through banding?*
- Q33** *Are there likely to be any significant negative consequences?*
- Q34** *Views are invited on the reports on the sustainability and economics of co-firing that are being published alongside this consultation document.*
- Q35** *Views are invited on options for addressing any remaining barriers in the Obligation to the burning of wastes.*
- Q36** *Do you agree with the approach of putting the co-firing of energy crops in a higher band than other forms of co-firing? Is there an alternative way to continue to support energy crops?*
- Q37** *Views are invited on how to ensure the sustainability of co-firing over the long term.*
- Q38** *Would you support the development of an accreditation-based approach to sustainability issues for biomass use?*
- Q39** *Would you support a requirement on generators claiming biomass or co-fired ROCs to publish information on the sources of biomass used in their power stations and any relevant sustainability information?*
- Q40** *Are there any alternative approaches for ensuring sustainability in the biomass sector?*

## Future Funding of the Administration of the RO

- Q41** *Views are invited on the approach outlined in Section 5 for meeting the costs of administering the RO.*
- Q42** *Are there any alternative approaches for funding these administration costs?*

## Agents and Smaller Generators

- Q43** *Do you agree that agents should be allowed to act on behalf of small generators?*
- Q44** *Is there any reason why there should be an option for ROCs to be issued to an agent or the generator rather than just to the generator as proposed?*
- Q45** *Do you agree that, to reduce administrative burdens, a generator should be limited to using just one agent for an obligation period?*
- Q46** *Do you agree that the legislation should provide for a contract between a generator and an agent to be terminated during the course of an obligation period where there are exceptional circumstances?*
- Q47** *Should there be an accreditation scheme for agents?*
- Q48** *Are there any other issues that have not been considered in Section 7?*
- Q49** *Do you agree that agents acting on behalf of small generators should be allowed to amalgamate their output in order to claim ROCs?*
- Q50** *Should agents who are amalgamating output of the generators for whom they are acting have the option of making claims on a monthly or annual basis?*
- Q51** *Do you agree that, within obligations e.g. RO, ROS or NIRO, there should be no geographical restrictions of amalgamation?*
- Q52** *Views are invited on whether there are any reasons not to restrict amalgamated groups from being made up of the same technology.*
- Q53** *You are invited to submit views on the proposal for a type approval system for the claiming of ROCs by small generators.*
- Q54** *Views are invited on the interaction of EEC with the RO.*

## Removal of Sale and Buyback Agreements

**Q55** *Do you agree with the proposal to remove the need for a sale and buyback agreement for all generators?*

**Q56** *Are there any other issues that have not been raised but should be considered?*

## Co-firing Interim Changes

**Q57** *Do you agree that unlimited co-firing of energy crops should be allowed, as an interim measure before the introduction of banding?*

**Q58** *Do you agree that, if energy crop co-firing were removed from the caps, it would no longer be appropriate to retain the minimum energy crop requirements?*

**Q59** *Do you support the suggestion that the definition of an energy crop should be amended to specify SRC, miscanthus, or any other crop grown for the purposes of being used as a biomass fuel?*

**Q60** *Is there any risk that harvesting of miscanthus, or SRC not grown for energy purposes could occur under this definition?*

## Fuel to be Treated as Biomass

**Q61** *Do you agree with the proposal that where more than one non-fossil fuels are used in power stations that these fuels can be treated as biomass fuels as long as 90% of the average energy content of the sum of the fuels is derived from biomass.*

## **Partial Regulatory Impact Assessment for Reform of the Renewables Obligation and the Renewables Obligation Order 2007**

### **Part 1 – Summary of the Renewables Obligation and General Issues**

#### **1. Introduction**

1.1 This RIA is in three parts.

- a) A summary providing general information on the Renewables Obligation (RO) and issues relating to its regulatory impact.
- b) Proposals to introduce changes to the support levels provided for different renewable technologies (“banding”) and give additional certainty on long-term Renewables Obligation Certificates (ROC) prices.
- c) Limited and detailed changes to the RO legislation that it is proposed to bring into force for 1 April 2007. These changes are in the area of the administration of the RO: the removal of sale and buyback agreements for all generators; changes to allow easier access to the Renewables Obligation for small generators; and a proposed limited change to the co-firing rules in the Obligation.

1.2 This is a partial RIA that forms part of the consultation document on these issues. The main section of the consultation document provides further detail on many of the proposals discussed here and asks questions of consultees. Points raised during the consultation will be incorporated into final versions of the RIA.

## 2. Background

2.1 The Renewables Obligation is the Government's main policy measure to encourage the development of electricity generation capacity using renewable energy sources in the UK. It is underpinned by a substantial package of financial and non-financial supporting mechanisms and active assistance to the industry to develop its competitive potential. The Obligation has already provided, and will continue to provide, an impetus for the new renewable generating capacity that will be needed to meet the UK's current 10% target for electricity produced from renewable energy sources and as a basis for further reductions in carbon dioxide emissions.

2.2 The Renewables Obligation was introduced in 2002. The details of the Obligation are contained in the Renewables Obligation Order 2006 in England and Wales, the Renewables Obligation (Scotland) Order 2006 in Scotland, and the Northern Ireland Renewables Obligation Order 2006. RIAs were produced for the implementation of the Obligation in England & Wales and Scotland in 2002; the amendments to the Obligation in 2004; the new powers set out in the Energy Act 2004; the Consolidated Orders in 2005 and 2006; and the new powers in the Climate Change and Sustainable Energy Act 2006.

2.3 The Renewables Obligation is a key part of the Government's policies to reduce CO<sub>2</sub> emissions and tackle climate change. The Obligation requires licensed electricity suppliers to ensure that specified and increasing amounts of the electricity they supply are from renewable sources. For 2006/07, this level is 6.7% and under current legislation rises to 15.4% in 2015/16. Without the financial support provided by the Obligation, most forms of renewable electricity would not be economic and the Government would not achieve its targets for increasing the supply of electricity from renewable sources. The Government believes that, through the support of the Obligation, renewable sources of electricity will play an increasing part in the Government's efforts to reduce carbon emissions and address climate change.



### **3. Regulatory Burdens & Compensatory Simplification**

3.1 The details of the Renewables Obligation are already set out in secondary legislation, which was introduced in 2002, with subsequent amendments in 2004, 2005 and 2006. The major regulatory burden imposed by the Renewables Obligation is that, in order to provide additional support for the generation of electricity from renewable sources, costs to all electricity consumers are increased. These costs are capped by the level of the Renewables Obligation and the level of the “buyout” price in the RO. The previous RIAs referred to in paragraph 2.2 above considered the costs and benefits of the introduction and subsequent extension of the Renewables Obligation at the time that those measures were introduced.

3.2 Aside from issues of costs to consumers, the Renewables Obligation imposes some regulatory burdens on renewable generators and the electricity supply industry in relation to the administration that is required to benefit from and comply with the scheme. The amendments to the ROO 2007 will include a small number of detailed changes that will make it easier for renewable generators to benefit from the Obligation and electricity suppliers to comply with it. This will reduce the regulatory burdens on business. Equally, the measures outlined for the longer-term reform of the RO aim to improve the performance of the RO and make it easier for the renewables sector as a whole to benefit from the RO. Removing the current regulations around co-firing will also reduce the complexity of compliance with the RO.

3.3 The full list of proposed changes to the RO are detailed briefly below:

#### **Long Term Reform**

- Banding of the RO
- Raising the level of the Obligation to 20%
- Freezing the buyout price in the RO from 2015/16 onwards
- Measures to ensure a gradual fall in ROC prices in a situation of over-supply
- Removing the restrictions on co-firing, but reducing its support
- Changes to the buyout fund to allow funding of administrative costs

## ROO 2007

- Allowing agents to act on behalf of small generators (up to 50kW DNC)
- Allowing agents, for the purposes of claiming ROCs, to amalgamate the electricity generated by two or more small generators (up to 50kW DNC)
- Removal of the requirement for a sale and buyback agreement for all generators
- Changing the rules on co-firing to allow un-limited co-firing of energy crops, and a minor amendment to the definition of an energy crop.
- Where more than one fuel which are not fossil fuels (as defined in Article 8 of the ROO) is used in a power station, as long as over 90% of the average energy content of those fuels is derived from biomass materials then those fuels will be treated as biomass fuels for the purpose of establishing ROC eligibility.

3.4 In total, these changes aim to improve the operation of the scheme and its effectiveness in meeting the Government's renewable energy targets. Some of the changes are deregulatory in nature and seek to reduce administrative costs for the administrator of the RO, Ofgem, renewable energy generators and electricity suppliers.

## 4. Business Sectors Affected By The Renewables Obligation

### General

4.1 The main business sectors affected by the Renewables Obligation are companies involved in the generation of renewable electricity and companies involved in the supply of electricity to all electricity consumers. Users of biomass materials for non-energy generation purposes may be affected through increased competition for these materials. Large consumers of electricity may be particularly affected, given that the Renewables Obligation increases the cost of electricity.

4.2 The Government's proposals on Obligation levels are designed to be cost neutral to the electricity consumer. However, the precise outcome will depend on the impact of the changes on renewables generation, which in turn relies on a number of uncertainties, such as future generation costs and electricity prices. Some of the proposed changes will ease the administrative

burden on companies who benefit from or must comply with the Renewables Obligation.

4.3 The Renewables Obligation is a market-based mechanism whose rules apply in a non-discriminatory way to its participants. The Government's intention is that this will remain the case with all the proposed changes.

### **Small Business**

4.4 The major regulatory impact on the large majority of small businesses arising from the Renewables Obligation comes from the increased costs of electricity that affect all electricity consumers. The Government's proposals on Obligation levels are designed to be cost neutral to the electricity consumer. Nor are there other changes contained in these proposals that should give rise to further increases in electricity costs, for small businesses or any other consumers of electricity.

4.5 A much smaller subset of small businesses active in the generation of renewable energy and/or the supply of electricity to customers in the UK are likely to be more affected by the changes to the RO. Prior to the publication of the consultation the DTI has held meetings with many relevant stakeholders, companies and trade associations in the renewable energy sector. Proposals to band the RO to provide additional support for emerging renewable energy technologies are likely to enjoy the support of smaller companies actively developing projects or supplying technologies in these areas.

4.6 The range of administrative simplifications have also been welcomed by smaller generators of renewable electricity – which in many cases will also be small businesses. Allowing agents to act on behalf of small generators and to amalgamate generation will achieve economies of scale in the administrative processes involved as well as allowing small generators who may not have previously felt it worth their while to participate in the RO to now benefit. The removal of sale and buyback agreements removes a further administrative complication and, again, allows easier access to the benefits of the RO.

## **5. Competition Assessment**

5.1 The Renewables Obligation is a market-based instrument that operates in a competitive market for electricity. The rules of the RO apply in a non-discriminatory way to all participants in the renewables industry and electricity sector. The Government's intention is that this will remain the case with all the amendments to the ROO and there are no changes that will be likely to have any material impact on competition in the electricity market.

## **6. Enforcement And Sanctions, Compliance & Monitoring**

6.1 The Renewables Obligation Orders are administered and enforced by Ofgem. Non-compliance with the Obligation is considered as a breach of a 'relevant requirement' of a supplier's licence and Ofgem may impose appropriate sanctions. Ofgem reports annually on its administration of the Obligation and conducts regular audits in relation to compliance with the Obligation. The DTI is responsible for monitoring the impact of the Obligation on the development of renewable energy and collects detailed information on growth in renewable energy generation and projects under development.

6.2 There are no changes to the RO that will increase the burdens on business through imposition of additional enforcement or inspection measures. Nor are there any new powers of sanction proposed. A number of proposals are being brought forward to ease the process of benefiting from or complying with the Renewables Obligation.

## **7. Post-Implementation Review**

7.1 The Government will continue to monitor the performance of the Renewables Obligation and liaise closely with Ofgem on issues relating to the administration of the Obligation and compliance with it.

## **8. Consultation**

8.1 The changes affecting small generators and proposing the removal of sale and buyback agreements for all generators have already been the subject of two consultations as part of the RO Review which was carried out in 2005. Although there was support for these changes, they required new primary legislation to enable the secondary legislation to be changed. The Government has now secured the necessary legislation and a further statutory consultation is now taking place on the implementation of these proposals.

8.2 The longer-term changes for the RO have been proposed following the Energy Review. The Government is now holding a preliminary consultation on these proposals and will hold a large number of meetings with a wide range of stakeholders to discuss these issues as well as receiving written responses to the consultation.

## **Part 2 – Partial RIA for Longer Term Reform of the Renewables Obligation**

### **9. Title Of Proposal**

9.1 Reform of the Renewables Obligation.

### **10. Purpose And Intended Effect Of Measure**

10.1 To encourage further development of renewable technologies the Government has proposed the following long term measures for reform of the RO:

- Banding of the RO
- Raising the level of the Obligation to 20%
- Freezing the buyout price to make it cost neutral to consumers
- Measures to ensure ROC prices do not crash
- Un-capping co-firing within a banded RO
- Changes to allow RO administration costs to be met from the buyout fund

### **11. Banding The RO**

#### ***What is the proposal?***

11.1 That the RO is amended so that renewable energy projects in more emerging technologies are awarded more than 1 ROC per MWh of electricity generation (multiple ROCs) while projects in more economic technologies are awarded less than 1 ROC per MWh (fractional ROCs). With the exception of co-firing, existing projects and those operational prior to the introduction of banding would remain on 1 ROC per MWh.

#### ***Why is this change being made proposed and what are the benefits?***

11.2 The RO was devised as a technology-neutral instrument designed to bring on the most economic forms of renewable generation. Since its introduction in 2002, the Government believes that it has been broadly effective in achieving that goal. Renewable generation has grown significantly and there is a large pipeline of projects under development. Total generation from RO eligible renewable sources was 4% for electricity supply in 2005, up from 1.8% in 2002.

11.3 The Government has a target that 10% of electricity supply will come from renewable sources by 2010 and an aspiration to double this to 20% by 2020. However, the pace of growth towards the Government's target for renewable energy could be constrained by a number of factors, in particular, delays in the planning and grid connection of renewable energy projects, constraints on the practical resource available for the most economic forms of renewable energy, and the higher costs of renewable energy projects in emerging technology areas such as offshore wind and marine energy.

11.4 As part of the Energy Review, the Government conducted an analysis of options for amending the RO. The conclusion of this analysis was that banding offers the most viable approach for adjusting the RO. The Government believes that banding the Obligation has the potential to:

- Bring on emerging technologies through providing appropriate levels of additional support without adding additional costs to consumers or taxpayers.
- Protect the position of existing renewable energy projects and investors and also those projects under construction or active development.
- Allow adjustments to the RO to avoid over-subsidisation of more economic forms of renewable energy over time.

11.5 Using the multiple ROC approach has the advantage that the Government sets the level of support, but leaves it up to the market to decide what generation mix is appropriate.

### ***What are the costs?***<sup>1</sup>

11.6 Introducing a banded obligation on its own will not increase the total amount of cost subsidy in the RO, which is determined by the level of the obligation, and the buyout price, and will not therefore increase costs to consumers. The change may result in additional investment in renewables generation, in particular in higher cost technologies which would result in an increased resource cost. This resource cost is the cost to the economy of producing renewable energy as opposed to conventional generation. However, the ability to target support in a banded RO, combined with no change in the level of overall subsidy means that banding has the potential to significantly increase the efficiency of the Renewables Obligation (reducing the 'deadweight' element of the subsidy) through providing support levels more closely linked to the needs of different technologies.

<sup>1</sup> As part of the Energy Review a cost benefit analysis of the changes to the RO was published at: [www.dti.gov.uk/files/file.31928.pdf](http://www.dti.gov.uk/files/file.31928.pdf)

### ***What are the alternative options?***

#### **11.7 Create separate obligations for the different technologies.**

This is an alternative form of banding where there would also be different buyout prices and targets for different renewable technologies. This multiple obligation approach would involve setting separate obligation levels for a number of different renewable technologies – effectively instructing the market as to which technologies to use to meet the Government’s renewables targets. In addition this approach could not easily be made compatible with the Government’s commitment to protect the position of existing projects (“grandfathering”) or our desire to maintain a functioning UK wide ROC market with a single ROC price. For these reasons the Government believes this version of banding would be too complex and is unattractive relative to a multiple/fractional ROC approach.

**11.8 Cap ROC prices and re-distribute excess funds to emerging technology projects.** This option would see the amount recycled from the buyout fund to ROC holders capped, with the remainder of the buyout fund being distributed to offshore wind and other emerging technologies as capital grants. The Government does not consider that capping ROC prices is an attractive option. Such an approach could impact negatively on the income available to those who have already invested substantial funds in renewable energy projects, undermining the Government’s commitment to maintaining investor confidence in the RO. The funds available to support emerging technologies would also be unpredictable, leading to considerable uncertainty for companies about the support available for both particular technologies and specific projects. In addition, this approach does not offer an attractive long-term mechanism for providing appropriate support levels for the most economic forms of renewable energy, such as onshore wind, landfill gas and co-firing.

**11.9 Government backed ROC contracts for emerging technologies.** This option would involve the Government providing fixed-price, long-term contracts for the purchase of ROCs (and potentially electricity) from the first few gigawatts of offshore wind, which would be auctioned in the same manner as for NFFO contracts. This approach could also be applied to other more expensive technologies such as marine or dedicated biomass. The Government does not consider that an approach in which all ROC price risk was held by Government, at potential significant additional cost to consumers, offers an appropriate way forward.



11.10 **No change.** The Government could leave the RO unchanged and continue to address barriers to the development of the more economic renewable technologies as a means of meeting renewable energy targets. However, this option would not provide additional financial support for emerging technologies and would risk under-performance against the Governments longer-term aspirations for renewable energy. There are also constraints on the amount of funding likely to be available for emerging technologies outside of the RO.

## 12. Obligation Levels Beyond 2015/16

### *What is the proposal?*

12.1 These proposals are three fold.

12.2 Firstly, to commit to maintaining Obligation levels above the level of ROC-eligible renewable generation, up to a maximum level of 20% of electricity generation from renewable sources. Any increases in Obligation levels above 15.4% will not occur at pre-determined stages, as with existing announcements, but will follow a “guaranteed headroom” model, where increases are contingent on appropriate levels of growth in renewable generation.

12.3 Secondly, the Government will remove the automatic increase of the buyout price in line with inflation from 2015/16 onwards.

12.4 Thirdly, the introduction of a “ski slope” mechanism to allow ROC prices to fall gradually in a situation of over-supply.

### *Why is this change being made proposed and what are the benefits?*

12.5 The level of long-term certainty around the price of ROCs is a major factor in decisions relating to the development and financing of new renewable energy projects. ROC price confidence will also be critical to the success of a banded Obligation. If emerging technologies are developed on the basis that they would be eligible for more than 1 ROC, it is essential that investors and financiers have confidence in the underlying value of a ROC. The proposals set out above aim to provide significant additional certainty on long-term ROC prices.

12.6 Ensuring obligation levels have a guaranteed headroom above renewable generation up to 20% seeks to ensure that ROC price values are maintained over a long term time horizon up to



20% renewables. The introduction of a “ski slope” mechanism for ROC prices would mean that the RO is amended such that any renewable generation exceeding the level of demand for ROCs created by the Obligation would not have a precipitate impact on ROC prices, but would instead ensure that ROC prices tapered smoothly down in a situation of oversupply. Detailed information and the different options available are set out in the consultation document which this RIA forms part of.

12.7 The proposal to remove the link between the buyout price and inflation aims to ensure that the cost to consumers of raising obligation levels above 15.4% is no higher than under the current RO.

### ***What are the costs?<sup>2</sup>***

12.8 The Government’s proposals on Obligation levels are designed to be cost-neutral to the electricity consumer while delivering additional renewables generation over the long term. Modelling work conducted for us by Oxera, suggests that, in a range of central scenarios, the proposals should deliver additional renewable generation while retaining costs to consumers which are closely in line with costs as determined by existing announcements in obligation levels.

12.9 The costs to consumers of the Obligation are set by a combination of the buyout price and the level of the Obligation. Raising obligation levels have the potential to place additional costs on consumers, in terms of higher energy prices. Higher prices have a negative impact on fuel poverty and on the competitiveness of UK businesses. The Government has therefore sought to develop proposals which are cost-neutral to the consumer. By freezing the buyout price in nominal terms from 2015/16 onwards the value of the buyout price will fall in real terms from that point onwards. The ultimate cost to the consumer of the proposals therefore depends on the relative balance of the higher cost of the increased obligation, and the reduction in cost due to the level of the buyout price. The net impact of these changes is sensitive to a range of assumptions, and the changes could lead to a relatively modest net increase or decrease in the total costs of the obligation to the consumer compared to existing announcements. However, calculations based on a range of central electricity price assumptions suggest that freezing the buyout price would at least balance any potential costs to consumers arising from higher Obligation levels, in which case there would be no overall increase in costs to the consumer.

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<sup>2</sup> As part of the Energy Review a cost benefit analysis of the changes to the RO was published at: [www.dti.gov.uk/files/file.31928.pdf](http://www.dti.gov.uk/files/file.31928.pdf)

12.10 Changes to the Obligation level will also have an impact on investment in renewables technologies. To the extent that the headroom options incentivise investment in emerging technologies, there will be an increase in resource cost – ie the cost of investing in the technologies. Changes to ROC prices, resulting from changes to the buyout price could have an impact in dampening investment. Again, the combined impact is very dependent on the underlying assumptions, and results range from a reduction in costs to an increase (under high electricity price assumptions).

12.11 The Government is aware of the potential for much higher levels of penetration of intermittent forms of renewable generation such as wind power to add to system costs associated with the management of electricity networks. This is an area of ongoing work and much would depend on the location of generation, the proportion of generation from different renewable technologies and the extent to which the electricity network evolves to accommodate higher levels of distributed and intermittent forms of generation. The Government will continue to monitor and commission research in this area though it is recognised that much higher levels of intermittent generation than currently exist can be accommodated without any significant additional system costs. The Government's proposals aim to deliver a broad range of renewable technology developments including a range of non-intermittent forms of generation from biomasses and wastes.

12.12 In relation to the "ski slope" mechanisms proposed for securing a gradual fall in ROC prices, a number of different approaches have been proposed – each of which aim to be cost neutral to the electricity consumer relative to the existing Obligation. Consultation on the different options will confirm this question in more detail but the Government does not propose to bring forward an approach that would entail any significant additional costs for consumers.

### ***What are the alternative options?***

#### **Extend the level of the obligation to 20% renewables by 2020.**

12.13 The Government considers that any further rises in the level of the Obligation after 2015/16 should not be tied to a specific date but rather linked to growth in the level of renewable generation. The Government does not wish to see growth in renewable generation constrained by the level of the Obligation. Nor do we wish to see a very large gap between the level of the Obligation and actual renewable generation.

## **Continue to increase the Buy-Out Price in line with inflation after 2015/16**

12.14 Allowing headroom in the obligation, but allowing the buyout price to rise with inflation has the result that increases in the level of the Obligation after 2015/16 would add significant additional costs to electricity consumers. The Government does not consider this to be necessary or desirable, particularly bearing in mind recent rises in energy prices.

## **Not introduce a ski-slope mechanism for ROC prices**

12.15 The benefits of additional certainty about ROC values in a situation of over-supply would not be obtained.

## **No change**

12.16 Uncertainties around long-term ROC values within the RO would remain, reducing the effectiveness of the system in bringing forward more marginal projects or those in emerging technologies. Moreover, in a banded RO system confidence in the underlying value of a ROC is even more important for the effective operation of the system.

## **13. Uncapping Co-firing**

### ***What is the proposal?***

13.1 To remove the current restrictions on co-firing to allow unlimited co-firing within a banded RO, but at a reduced level of support.

### ***Why is this change being proposed and what are the benefits?***

13.2 When the RO was introduced, co-firing (the burning of biomass alongside fossil fuels) was included as an eligible technology, but subject to certain restrictions: there was a cap on the total percentage of a supplier's obligation that could be met through co-firing, and from a certain date, co-firers would need to use a minimum percentage of energy crops (crops grown specifically to be used as a fuel).

13.3 The Government looked again at the issue of co-firing as part of the Energy Review, investigating whether co-firing has a net environmental benefit, whether it is over-subsidised, and the potential impact on other biomass-using industries. This review concluded that co-firing could contribute more to the Government's carbon abatement and renewable energy targets, but was significantly over-subsidised under the current RO, which has a potentially distorting effect on other biomass-using industries.

13.4 The Government is therefore proposing that, if the RO is banded, the restrictions on co-firing be removed, but the level of support be reduced. This should also have the added benefit of removing the current complex regulations regarding co-firing within the RO. The Government will continue to monitor the impact of its co-firing policies on the development of other renewable energy technologies and other biomass-using industries.

#### ***What are the costs?***

13.5 Uncapping co-firing would not add extra costs for consumers or taxpayers, as it involves a redistribution of funds within the RO. Uncapping co-firing without reducing its support would have impacted negatively on the support available for other renewables, but with a reduced level of support, the impact, if there is any, should be limited.

#### ***What are the alternative options?***

##### **Increase the current cap on co-firing, with the same level of support**

13.6 This would allow co-firing to make a greater contribution to abating carbon emissions, but would incentivise co-firing while reducing support available to other more expensive renewable technologies. Since co-firing currently attracts a level of support more than it needs, this would increase the amount of 'deadweight' subsidy in the RO, reducing its efficiency. This would be in contrast to the Government's policy of aiming to improve the overall efficiency and cost-effectiveness of the RO. Additionally, there could be a significant negative impact on other industries that use biomass.

## **No Change – Support co-firing through the carbon price alone**

13.7 Some of the cheapest forms of co-firing are near to economic without the support of the RO, due to the value associated with the reduction in carbon emissions through the EU Emissions Trading Scheme. In the long-term, it may be possible to phase co-firing out of the RO entirely, and support it only through the carbon price. However, given the current uncertainties about the long-term carbon price and its variability, this would not currently be enough of an incentive to ensure continued co-firing.

13.8 Leaving the co-firing rules unchanged would mean that the potential contribution of co-firing to the Government's aspirations for carbon abatement and renewable energy would not be maximised. There are also concerns that the current energy crop requirements could actually act as a barrier to co-firing, rather than an incentive to plant energy crops.

## **14. Changes to Funding Administrative Costs of the RO**

### ***What is the proposal?***

14.1 To use the buyout fund to meet Ofgem's administrative costs arising from the Renewables Obligation.

### ***Why is this change being proposed and what are the benefits?***

14.2 The growth in the level of the Obligation is increasing the costs of its administration over time due to the increase in the numbers of accredited stations and the increase in the numbers of ROCs issued. Changes to the level of the Obligation, and banding ROCs aims to increase the level of renewables generation, and so may increase these costs.

14.3 The Government is therefore consulting on a proposal to use the buyout fund to meet Ofgem's costs. In addition, further benefits could be that it could allow Ofgem a greater level of flexibility in applying resources to key areas of administration of the RO, or to tackle any particular areas that emerge and require additional resource.

### ***What are the costs?***

14.4 The proposal does not involve any new costs, but it would involve a shift in the allocation of the costs of administering the RO from gas and electricity network businesses, who currently meet these costs through Ofgem's licence fees, to renewable energy generators.

14.5 The Government appreciates that the effect of this proposal would be to remove a small sum of money from the RO that would otherwise support renewable energy developments. However, this sum would be extremely small relative to the support provided by the Obligation and would have only a negligible effect on ROC prices – Ofgem has estimated that if its administration costs were met from the buyout fund this would reduce ROC values by approximately 9 pence or 0.18 per cent. This should not have any measurable impact on the development of renewable energy in the UK.

### ***What are the alternative options?***

**Do nothing – Increase charges through the existing approach.**

14.6 The Government believes that this is not a viable option, as it is not appropriate for gas and electricity businesses to pick up these costs, and because Ofgem are committed to achieving significant real term reductions in administrative costs over the next few years.

14.7 This would mean that those who benefit from the RO would not pay for the costs of its administration. As the administrative burdens increase over time, not addressing the funding of Ofgem’s costs could result in a reduction in the service Ofgem can offer in terms of the administration of the RO.

## **15. Summary And Conclusion For Part 2**

15.1 The proposals for the reform of the RO will be subject to wide consultation. There will first be a preliminary consultation, followed by an Energy White Paper, then primary legislation where the proposals will be subject to parliamentary scrutiny. There will then be further consultation before the secondary legislation can be amended to implement the proposals. Further more detailed RIAs on the proposed changes will be developed in the light of issues raised during consultation and the further development of the proposals.

15.2 The major regulatory impact of the Renewables Obligation arises from the increased costs it imposes on electricity consumers – in return for stimulation of the development of renewable energy sources for power generation. Although extending the RO to 20% could potentially have increased costs to the consumer, the Government has sought to remove this risk through the decision to remove the RPI link from the buyout price from 2015/16 onwards.

## **Part 3 – Partial RIA for Renewables Obligation Order 2007**

### **16. Title Of Proposal**

16.1 The Renewables Obligation Order 2007.

### **17. Purpose And Intended Effect Of Measure**

17.1 The purpose of the Renewables Obligation Order 2007 is to implement some limited changes to the existing Renewables Obligation Order. It is proposed to make amendments to the ROO in the following areas:

- Allowing agents to act on behalf of small generators (50kW DNC or less)
- Allowing agents, for the purposes of claiming ROCs, to amalgamate the electricity generated by two or more small generators (50kW DNC or less)
- Removal of the requirement for a sale and buyback agreement for all generators
- Changing the rules on co-firing to remove the cap on co-firing of energy crops and a minor amendment to the definition of an energy crop.
- Where more than one fuel which are not fossil fuels (as defined in Article 8 of the ROO) are used in a power station, as long as 90% of the average energy content of those fuels is derived from biomass than those fuels will be treated as biomass fuels for the purposes of establishing ROC eligibility.

### **18. Administrative arrangements for smaller generators**

#### ***What are the proposals?***

18.1 The Government proposes to introduce measures that will make it easier for small generators to benefit from the Obligation (in this context small generators are those with a declared net capacity of 50 kW or less).

18.2 Two changes are proposed:

- a) allowing agents to act on behalf of smaller generators in seeking accreditation and claiming of ROCs and that these ROCs are then issued to the agent; and



- b) allowing ROCs to be issued to agents; and allowing agents to amalgamate the output of smaller generators for the purposes of claiming ROCs.

***Why is it being proposed and what are the benefits?***

18.3 In 2005, as part of the RO Review, the Government held two consultations – a preliminary consultation and a statutory consultation. In both these consultations, the Government included the proposals to allow agents to act on behalf of small generators and to also allow agents to amalgamate the output of small generators. These proposals received strong support from those who responded to the consultations on these issues. Although many of the proposals in the RO Review were implemented from 1 April 2006 in the Renewables Obligation Order 2006, this was not possible for the small generator changes, as they required primary legislation. The Government has now secured the primary legislation needed through the Climate Change and Sustainable Energy Act 2006 and now intends to implement the proposals in the secondary legislation from 1 April 2007.

18.4 The changes that allow agents to act on behalf of generators should reduce administrative burdens on small and micro-generators – and provide them with the option of an easier route to obtaining the benefits of ROC eligibility. The proposals also have the potential to reduce administrative burdens on Ofgem over time. It would also mean that ROCs could be issued direct to agents and so arrangements for trading of ROCs would pass to the agent rather than lying with the generator.

18.5 In terms of amalgamating generation, there are additional benefits. Under current rules, where a small generator is only generating very small amounts of electricity they may not even reach the threshold required to claim one ROC. Alternatively, although they are generating enough to be able to claim a small number of ROCs, the numbers involved do not make it worthwhile going through the processes required. Amalgamating generation will allow economies of scale in the administrative processes for both small generators and Ofgem. It will also allow small generators who may not otherwise be generating enough to claim ROCs to combine their output with that of others and so access the financial benefits of the RO.

***What are the costs?***

18.6 The consultations that took place in 2005 prior to obtaining the primary legislation to allow these proposals did not indicate that there are any costs associated with the introduction of this proposal. Moreover, trade associations and smaller generators



consider that the proposals have the potential to reduce costs and administrative burdens for smaller generators.

***What are the alternative options?***

**Do nothing.**

18.7 This would go against previous Government announcements to take forward this policy. In addition, the benefits in terms of reduced administrative burdens and encouraging small generators will not be achieved with this option.

## **19. Removal Of Sale And Buyback Agreements**

***What is the proposal?***

19.1 That the necessity for generators to have a sale and buyback agreement to enable the electricity which they generate and consume to be eligible for ROCs is removed.

***Why is it being proposed and what are the benefits?***

19.2 In 2005, as part of the RO Review, the Government held two consultations – a preliminary consultation and a statutory consultation. As part of these consultations, the Government included a proposal to remove the necessity to enter into sale and buyback agreements for small generators who consume the electricity which they generate and also asked whether it would be appropriate to extend this proposal to all generators. The proposal to remove sale and buyback for small generators was strongly supported, with more mixed support for its removal for all generators.

19.3 Although many of the proposals in the RO Review were implemented from 1 April 2006 in the Renewables Obligation Order 2006, it was not possible to do this for the removal of sale and buyback agreements, as this required primary legislation. The Government has now secured the primary legislation needed through the Climate Change and Sustainable Energy Act 2006 and intends to implement this proposal in the secondary legislation from 1 April 2007.

19.4 During previous consultations on this issue, it has been argued that it is not just small generators who experience administrative burdens and difficulty in obtaining sale and buyback contracts with suppliers, but that it is a problem that extends to larger generators as well. We are keen to encourage deregulatory measures within the RO where possible, and view sale and buyback agreements as an unnecessary administrative burden.

### ***What are the costs?***

19.5 The purpose of sale and buyback agreements is to allow generators to claim ROCs for electricity they consume themselves. The primary legislation has been amended so that generators, who have generated their own electricity will, when claiming ROCs, no longer have to demonstrate supply by entering into a sale and buyback agreement. ROCs will be able to be issued; (i) if the electricity generated has been consumed by the generating station or; (ii) that it has been provided to the distribution or transmission system in circumstances in which its supply to customers cannot be demonstrated. The removal of a requirement for sale and buyback agreements means that electricity generated and sold and purchased back in this way will no longer form part of any supplier's obligation. Analysis suggests that this could have a very small impact on ROC prices. However, this will be minimal and get even smaller as the levels of the RO increase.

### ***What are the alternative options?***

**Do nothing.**

19.6 This would go against previous Government announcements to take forward this proposal. In addition the deregulatory benefits would not be gained.

## **20. Co-Firing Interim Changes**

### ***What is the proposal?***

20.1 To allow co-firing of energy crops outside the current cap on co-firing in the Obligation and to make a minor amendment to the definition of an energy crop

### ***Why is it being proposed and what are the benefits?***

20.2 Section 16 of this RIA sets out the Government's proposed long-term approach to co-firing. This is to allow un-limited co-firing within a banded RO but at a reduced support level.

20.3 This approach is contingent on the introduction of a banded Obligation. However, allowing co-firing of energy crops outside the cap in the interim would allow co-firers to progress contracts with energy crop planters without concerns about restrictions on co-firing arising from the cap. The Government believes that the impact of this change on other renewables should be small, as there are unlikely to be significant volumes of energy crop co-firing in the interim period prior to the introduction of banding, and there should be no impact on other biomass-using industries.

20.4 As energy crop co-firing will be allowed outside the caps, we propose to remove the minimum requirements on energy crop co-firing that currently apply from 2009 onwards. The Government believes this is a lighter touch regulatory approach, incentivising companies to use energy crops but not requiring them to do so.

#### ***What are the costs?***

20.5 The Government does not consider there are any significant costs associated with this proposal. It is not our expectation that the co-firing of energy crops outside the co-firing cap should have a significant impact on ROC prices in the interim period. Current levels of planting and contracting for energy crops suggest that any impacts will be very limited. Nonetheless, we will monitor this, and if evidence were to emerge energy crop co-firing was impacting negatively on the wider market then we would consult further on the case for any additional actions to reduce this impact.

#### ***What are the alternative options?***

##### **Raise the cap on co-firing.**

20.6 This would allow a greater amount of co-firing and could potentially benefit the energy crop market. However, the amount of co-firing permitted under the RO already stands to increase by around 40% by 2009/10, because of the rising level of the Obligation, and changing the cap could have some negative effects. These could be:

- A significant loss of investor confidence and financial damage to other renewable projects and technologies.
- A significant increase in support for the cheapest technology in the RO, in direct contrast to the Government's policy of reducing any over-subsidisation over time.
- Potential damage to other biomass-using industries.

##### **Do nothing.**

20.7 This would reduce the incentives on co-firers to progress contracts with energy crop planters prior to the introduction of banding.

## 21. Fuel to be Treated as Biomass

### *What is the proposal?*

21.1 Where more than one fuel that are not fossil fuels (as defined in Article 8 of the ROO) are used in a power station, as long as over 90% of the average energy content of those fuels is derived from biomass then those fuels will be treated as biomass fuels for the purpose of establishing ROC eligibility.

### *Why is it being proposed and what are the benefits?*

21.2 Currently, if a power station burns two fuels for example, one where 94% of the energy content derives from biomass and the other where 88% of the energy content derives from biomass the station is unlikely to be eligible for ROCs (except, for example, where the generating station was a qualifying combined heat and power generating station as defined in the ROO). By allowing the average energy content of both fuels to be considered, ROCs could be claimed based on the average energy content of the two fuels as long as over 90% of the average energy content of those fuels is derived from biomass. In the example given above ROCs could be issued on that basis (if an equal tonnage of each fuel was used and each fuel had the same biomass and fossil fuel energy contents) as the average energy content of the two fuel streams would be 91%. This approach will allow burning of a wider range of biomass fuels by these generators, that for example might have otherwise gone to landfill.

### *What are the costs?*

21.3 There are no additional costs to Government or industry associated with this change. Companies affected by the change may benefit financially as they could be able to claim more ROCs than is the case under the current legislation

### *What are the alternative options?*

#### **Do nothing.**

21.4 Power stations could continue to have single fuel streams measured for ROC eligibility purposes, however, this approach discourages generators from using more diverse biomass fuel streams and therefore does not maximise electricity generation from biomass fuel.

## **22. Summary And Conclusion For Part 3**

22.1 The changes contained in the ROO 2007 represent relatively limited amendments to the Renewables Obligation and are deregulatory in their content.

22.2 The major regulatory impact of the Renewables Obligation arises from the increased costs it imposes on electricity consumers – in return for stimulation of the development of renewable energy sources for power generation. The Government considers that these relatively limited changes will have benefits in terms of increasing renewable generation from co-firing and simplify some of the administrative processes relating to the Obligation. The ROO 2007 does not contain any increases in Obligation levels or any changes to the buy-out price, and there are no other changes proposed for the ROO 2007 that will, or have the potential to, create additional costs for electricity consumers.

## Annex C: Consultation Criteria

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NB: Part 1 of this consultation will run for a full 12 weeks. Part 2 of this consultation which deals with changes to the Renewables Obligation Order will be subject to a reduced 10 week consultation. This will ensure that the changes proposed in Part 2 of the consultation document, which are relatively limited and deregulatory in nature, will come into force on 1 April 2007.

1. Consult widely throughout the process, allowing a minimum of 12 weeks for written consultation at least once during the development of the policy.
2. Be clear about what your proposals are, who may be affected, what questions are being asked and the timescale for responses.
3. Ensure that your consultation is clear, concise and widely accessible.
4. Give feedback regarding the responses received and how the consultation process influenced the policy.
5. Monitor your department's effectiveness at consultation, including through the use of a designated consultation coordinator.
6. Ensure your consultation follows better regulation best practice, including carrying out a Regulatory Impact Assessment if appropriate.

The complete code is available on the Cabinet Office's website, address:

<http://www.cabinet-office.gov.uk/servicefirst/index/consultation.htm>



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