

**EXPLANATORY MEMORANDUM TO  
THE RENEWABLES OBLIGATION ORDER 2009**

**2009 No. 785**

1. This explanatory memorandum has been prepared by the Department of Energy and Climate Change and is laid before Parliament by Command of Her Majesty.

This memorandum contains information for the Joint Committee on Statutory Instruments.

2. **Purpose of the instrument**

- 2.1 The Renewables Obligation (the “RO”) is the Government’s main policy measure to encourage the development of electricity generating capacity using renewable sources of energy in the UK. The Renewables Obligation Order 2009 (the “2009 Order”) revokes and replaces the Renewables Obligation Order 2006 (SI 2006/1004) (the “2006 Order”) as amended by the Renewables Obligation Order 2006 (Amendment) Order 2007 (SI 2007/1078).

- 2.2 To drive greater and more rapid deployment of renewables in the UK section 37 of the Energy Act 2008 introduces “banding” into the RO. This allows different technologies to be awarded different levels of support through banding. It also introduces sustainability reporting on biomass used as fuel for generating electricity. It further includes provisions to allow Ofgem’s costs of administering the Renewables Obligation to be recouped from the buyout fund.

3. **Matters of special interest to the Joint Committee on Statutory Instruments**

- 3.1 The Joint Committee on Statutory Instruments has previously commented on the complexity of a renewables obligation order. We have taken the opportunity in the 2009 Order to simplify not only the language but the structure of the Order. As a consequence this Order reads and looks very different to the 2006 Order.

- 3.2 The Joint Committee should note that while this instrument applies to England and Wales, there are complementary Orders in Scotland and Northern Ireland which together in effect create a UK RO. Therefore, there are a number of provisions which deal with the Renewables Obligation in a UK context.

- 3.3 It is also worth noting that the Order distinguishes between renewables obligation certificates and ROCs. The former is a collective term used to describe any of the certificates issued under any of the UK renewables obligations and the latter is a certificate issued under the renewables obligation in England & Wales i.e. under this Order. The intention being that this distinction will be mirrored in the Renewables Obligation Order (Scotland) and the Northern Ireland Renewables Order. In this Order a ROC will be issued by the Authority. In the Northern Ireland Order a ROC will be issued by the Northern Ireland Authority.

3.4 Generally, provisions to do with the production of certificates to satisfy the renewables obligation refer to renewables obligation certificates as any certificate regardless of which order it is issued under can be used to satisfy a suppliers obligation. Provisions dealing with the issuing of certificate refer to a ROC. It is possible that each renewables obligation order will make slightly different provision for issuing ROCs e.g. in Scotland they intend to offer more ROCs in respect of electricity generated from wave and tidal.

3.5 In Part 2 we refer to calculating the Obligation for the whole of the UK. Because there is a UK-wide renewable obligation certificate market any calculation of the potential amount of generation has to take into account all generation within the UK. The results of this calculation will be used to determine the Obligation for England and Wales. The devolved administrations have indicated that they will use the same calculation to determine their obligations.

3.6 In Part 4, at Article 17 we specifically exclude stations located in Scotland and Northern Ireland from claiming ROCs under this Order. This is to ensure that where the levels of support differ between jurisdictions, that generation located in one jurisdiction cannot claim under the Order applying to another to game the system.

3.7 An exception to the above is the generation in Northern Ireland of electricity from renewable sources which is then supplied by an electricity supplier to customers in Great Britain and also generation in Northern Ireland Territorial Waters supplied to customers anywhere in the UK. In these cases the generators will receive England and Wales ROCs. This exception has been included as the primary legislation in Northern Ireland does not confer competence to cover these scenarios at this time. They are not expected to lead to significant additional impact on consumers in England and Wales.

3.8 DG Comp have signalled informally that they are content to approve the Order and we are waiting for formal notification that it has been approved. The approval has been sent to Commissioner Kroess for signing and it is expected that the official letter approving the State Aid notification will issue shortly. We anticipate that we would receive this before the Order is made.

#### **4. Legislative Context**

4.1 The 2009 Order is made under sections 32 to 32M of the Electricity Act 1989. Section 37 of the Energy Act 2008 (the Act) substituted section 32 to 32C of the Electricity Act 1989 with new sections 32 to 32M. Section 110 (1)(a) commenced the Act for order making purposes only on Royal Assent (26<sup>th</sup> November 2008). The powers to allow implementation of banding were discussed at length during the passage of the Energy Act 2008 through Parliament. Details of the debates in both Houses can be found at <http://services.parliament.uk/bills/2007-08/energy.html>.

4.2 Following executive devolution of the relevant powers, Scottish Ministers make a Renewables Obligation Order for Scotland. To date this has been made in terms virtually identical to the England and Wales Order. A new Renewables Obligation Scotland (the “ROS”) Order will be made to complement the 2009 Order.

It is intended that the new ROS will come into force on the same date as the 2009 Order.

4.3 Articles 52-26(? 55) of the Energy (Northern Ireland) Energy Order 2003 (2003 No 419, NI 6) has been substituted by the Energy (Amendment) Order (Northern Ireland) 2009 (S.R. 2009 No. 35) to replicate the provisions of sections 32 to 32M of the Act. A Northern Ireland Renewables Obligation Order (the “NIRO”) will be made on the back of these powers. It is intended that this order will, come into force on the same date as the 2009 Order.

## **5. Territorial Extent and Application**

5.1 This instrument applies to England and Wales.

5.2 Similar Orders will be laid before the Scottish Parliament and the Northern Irish Assembly replicating the provisions in this Order.

## **6. European Convention on Human Rights**

6.1 Mike O’Brien MP, Minister of State for the Department of Energy and Climate Change has made the following statement regarding Human Rights:

In my view the provisions of the Renewables Obligation Order 2009 are compatible with the Convention rights.

## **7. Policy background**

- *What is being done and why*

7.1 In order to meet the Government’s existing aspiration to deliver 20% renewables generation by 2020 it is necessary to amend the RO. These reforms will also be important for our ability to meet the binding targets expected in an EU Renewable Energy Directive in 2009. The increase in renewable generation will make a major contribution to Government’s targets to drive down greenhouse gas emissions and develop a sustainable energy market.

7.2 The 2009 Order is significantly different from the 2006 Order due to the changes being introduced to allow for banding. In making these changes we have taken the opportunity to alter the structure of the Order to better reflect the process of the RO in a clear and logical structure. Consequential on these changes the text of the Order has been altered to ensure consistency.

7.3 Part 1 brings together the definitions of waste as a renewable source (Article 3) and biomass (Article 4). These have been amended to make them clearer. Article 3 has also been extended to simplify the requirements for municipal waste to be used as a fuel.

7.4 Part 2 requires all licensed suppliers of electricity in England and Wales to provide the Gas and Electricity Markets Authority (Ofgem) with a specified number of the ROCs.(Article 5). The number of ROCs is set by a series of calculations set out

in Articles 6 to 12. Schedule 1 sets out the number of ROCs per MWh per obligation period used in the calculations. The change from an Obligation where a set number of MWh is evidenced by the production of ROCs to one where a set number of ROCs are required to be presented is due to the breaking of the 1:1 linkage of ROCs and MWh due to banding. Under banding, depending on the generation mix, one ROC may equal slightly more or less than one MWh. Modelling does not indicate that this would be a significant difference.

7.5 Part 3 sets out what has to be certified in a ROC, including what constitutes supply to a customer, or use under a permitted way. Permitted ways are set out in section 32B(10) of the Act. Article 16 sets out criteria with regard to supply over a private wire. This is a new permitted way which is aimed at removing an existing administrative burden experienced by generators supplying over an unlicensed private transmission supply network, e.g. to an industrial estate.

7.6 Part 4 sets out those situations where a ROC should not be issued. These are unchanged from the 2006 Order.

7.7 Part 5 sets out how the amount of electricity attributable to eligible renewable sources is calculated. Consequential to the changes to the biomass definition in Part 1 article 25 has been updated. Article 26 has also been changed to make it simpler to claim ROCs for qualifying combined heat and power generation.

7.8 Part 6 sets out that generators of electricity from eligible renewable sources will receive a set number of ROCs for each MWh of electricity they generate. The number of ROCs received per MWh is dependant on which technology is being used and definitions of the different technologies and the amount of support they will receive is set out in Part 6 (Articles 27 to 32) and Schedule 2. Articles 30 and 31 cover grandfathering – which protects the level of support for existing technologies which would otherwise be banded down. Article 32 ensures that where a grant has been paid out of public monies a generator will not benefit in contravention of state aid rules; this aims to ensure value for money. Article 33 implements Section 32D of the Electricity Act 1989. It provides for Reviews of the Banding levels at set dates or in the event of significant changes to the industry. A similar scheme for issuing certificates will operate in Scotland and Northern Ireland, and these certificates will be able to be used to discharge the England and Wales obligation.

7.9 Part 7 sets out Ofgem's process for issue or revocation of ROCs. The policy is unchanged, though the articles have been amended to remove duplications and ensure a logical structure.

7.10 Part 8 deals with Ofgem's stewardship of the buyout and late payments funds. This Part sets out how suppliers can pay monies into the funds (Articles 43 and 44); that these monies will be distributed to those suppliers who provided ROCs in proportion to the number of certificates they produced (Article 47), less a sum to be paid to cover Ofgem's costs of administering the RO (Articles 45 and 46). The provision to allow Ofgem's costs of administering the RO to be recovered is a new power under section 32I of the Electricity Act 1989 and addresses concerns about the unfairness of the costs of administering the RO falling on all license holders rather

than those who benefit from it. This Part also sets out the consequential changes necessary to the mutualisation process (Articles 48 to 52 and Schedule 3).

7.11 Part 9 sets out the information which is to be provided to Ofgem. Article 54 is a new provision which sets out what information is to be provided to Ofgem with regards the sustainability of the biomass used. It also sets out the functions of the Authority, including its duty to maintain a ROC Register (Article 59 and Schedule 4).

## **8. Consultation outcome**

8.1 The Electricity Act requires us to consult, before the Order is made, with certain bodies, including Ofgem, electricity suppliers and generators of electricity from renewables sources. We have carried out an extensive consultation exercise between October 2006 and January 2009 with over 300 responses received. Industry feedback has been positive and they have generally been supportive of our policy to band the Renewables Obligation. Non confidential responses and Government decision papers can be accessed on the Renewables Obligation website at <http://www.berr.gov.uk/whatwedo/energy/sources/renewables/policy/renewables-obligation/key-stages/page18361.html>.

## **9. Guidance**

9.1 We have included with the Order Explanatory Notes which provide guidance on individual clauses.

## **10. Impact**

10.1 An Impact Assessment is attached.

10.2 The Renewables Obligation applies to:

- businesses which are licensed suppliers of electricity;
- businesses which generate eligible renewable electricity;
- charities, voluntary bodies, or the public sector to the extent they act as either generators of eligible renewable electricity or as licensed suppliers

10.3 While there is some cost to individual businesses of producing their certificates to Ofgem, or of claiming their certificates we believe that it is commensurate with the reward achieved, and no more than is proportionate and appropriate.

10.4 The Renewables Obligation is administered by Ofgem, it therefore imposes a number of duties on the Authority with associated costs. There is provision in the Order to allow for these costs to be met from monies paid into the buyout fund. Where these monies are not sufficient then the Department of Energy and Climate Change, the Scottish Executive and the Northern Ireland Assembly will make up the shortfall.

10.5 The Renewables Obligation will also have an impact on consumers, as costs to licensed suppliers are expected to be passed on. Modelling indicates this should not

be a significant increase on those costs expected under the existing Renewables Obligation Order – but that the amount of renewable electricity generated should be significantly greater.

## **11. Regulating small business**

11.1 The legislation applies to small business. Most affected small businesses (including firms employing up to 20 people) and householders are likely to operate generators with a declared net capacity of less than 50 kilowatts.

11.2 To minimise the administrative burden on, small businesses and householders required to benefit from support under the Renewables Obligation, small generators are allowed to use agents to act on their behalf; allowed to opt for less frequent reporting of their meter readings, and exempted from reporting on the sustainability of their fuels. Ofgem and DECC also issue specific guidance for small generators.

11.3 The basis for the final decision on what action to take to assist small business has been consulted on. Responses have been received from a number of microgenerators as well as the Micropower Council, the Renewables Energy Association and companies acting as Agents for Microgenerators.

## **12. Monitoring & review**

12.1 The Government has undertaken to carry out reviews of the Banded RO on an agreed timetable. The Government has proposed that the first two reviews of the RO banding levels should take place in time for any changes to the banding levels to be introduced on 1<sup>st</sup> April 2013 and 1<sup>st</sup> April 2018.

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

12.3 In order to implement changes arising from the Renewables Energy Strategy – including the intention announced in the Pre-budget Report to extend the duration of the Renewables Obligation until at least 2037 – it is expected that a new Order will be introduced for 1 April 2010.

## **13. Contact**

Michael Duggan at the Department of Energy and Climate Change, Tel: 020 7215 2863 or email: [Michael.Duggan@DECC.gsi.gov.uk](mailto:Michael.Duggan@DECC.gsi.gov.uk) can answer any queries regarding the instrument.

## Summary: Intervention & Options

<b>Department /Agency:</b> <b>Department of Business, Enterprise and Regulatory Reform</b>	<b>Title:</b> <b>Impact Assessment of Increasing renewables deployment in the UK and Banding of the Renewables Obligation (RO)</b>
---	---

<b>Stage:</b> Final	<b>Version:</b> Final	<b>Date:</b> 9 <sup>th</sup> January 2008
---------------------	-----------------------	---

**Related Publications:** (1) Banding of the Renewables Consultation, (2) Reform of the Renewables Consultation (May 2007) (3) Oxera Report

### Available to view or download at:

- (1) <http://www.dti.gov.uk/energy/whitepaper/consultations/renewables-organisation/page39555.html>
- (2) [www.berr.gov.uk/files/file39497.pdf](http://www.berr.gov.uk/files/file39497.pdf)
- (3) [www.dti.gov.uk/energy/sources/renewables/policy/renewables-obligation/key-stages/banding-ro/page42154.html](http://www.dti.gov.uk/energy/sources/renewables/policy/renewables-obligation/key-stages/banding-ro/page42154.html)

**Contact for enquiries:** Stephen Clark

**Telephone:** 020 7215 5014

What is the problem under consideration? Why is government intervention necessary?

This policy addresses two problems. The first is how to increase renewables deployment in the UK, and the second is how to increase the efficiency of the Renewables Obligation (RO).

Government intervention is necessary to support certain emerging renewable technologies further from commercialisation, to help establish a broad range of potential renewable technologies in the UK.

What are the policy objectives and the intended effects? The intended effects are to:

- Bring on emerging technologies through providing appropriate levels of support.
- Protect the position of most existing renewable energy projects and investors and also those projects under construction or active development.
- Allow adjustments to the Renewables Obligation to seek to minimise over-subsidisation of more economic forms of renewable energy, to increase value for money for consumers within the proposed 20% renewables obligation cap.

What policy options have been considered? Please justify any preferred option.

During policy development alternative options considered were: banding the RO to provide further support to new and emerging technologies; capping Renewables Obligation Certificates (ROC) prices and re-distributing excess funds to emerging technology projects; Government backed ROC contracts for emerging technologies and leaving the existing policy unchanged.

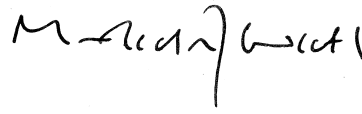
The Government's preferred option is to band the RO. Using a market mechanism means Government sets levels of support but leaves it up to the market to decide on the appropriate generation mix.

When will the policy be reviewed to establish the actual costs and benefits and the achievement of the desired effects?

The Government has proposed that the first two reviews of the RO banding levels should take place in time for any changes to the banding levels to be introduced on 1<sup>st</sup> April 2013 and 1<sup>st</sup> April 2018. This presumes there are no delays to timetable and introducing the secondary legislation.

**Ministerial Sign-off** For final proposal/implementation stage Impact Assessments:

***I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.***

A handwritten signature in black ink, appearing to read "M. Reid". The signature is written in a cursive style with a large initial "M" and a long horizontal stroke.

Signed by the responsible Minister:

Date: 10 January 2008



## Summary: Analysis & Evidence

Policy Renewables	Option:	Description: THE ADDITIONAL RESOURCE COSTS TO THE ECONOMY OF GENERATING ADDITIONAL ELECTRICITY FROM RENEWABLES RELATIVE TO GAS-FIRED CCGT FOR A GIVEN MIX
----------------------	---------	---

<b>COSTS</b>	<b>ANNUAL COSTS</b>	<p>Description and scale of <b>key monetised costs</b> by 'main affected groups' Electricity generated from renewable sources is generally more expensive than conventional forms of generation. Moreover, with limited scope to increase the lowest cost forms of renewable generation (e.g. landfill gas), the UK also needs to provide incentives for higher cost forms of renewable generation (e.g. offshore wind) in order to bring on a sustained increase in electricity generated from renewables. The actual additional costs to the economy of increasing renewables deployment will depend on the mix of renewables that investors bring forward.</p> <p>Based on our modelling, the additional resource costs to the economy of generating <b>130TWh</b> of renewable electricity over the lifetime of the technologies (in the mix set out in our central scenario for the RO) are <b>£3.6bn</b> when compared to the costs of generating an equivalent amount from a gas-fired CCGT station. Estimated system balancing costs of <b>£330-530m</b> over the lifetime of the technologies. <b>It is important to note that this is the cost to the economy of bringing forward this mix of renewables generation, not the cost of the market mechanism that delivers it.</b> The numbers do <b>not</b> reflect the cost effectiveness of the RO itself. Measures of the cost effectiveness of the proposed improvements to the RO through banding are set out on the following page.</p>		
	<b>One-off (Transition)</b> Yrs			
	£			
	<b>Average Annual Cost</b> (excluding one-off)			
	£ <b>105-110m</b>	38	<b>Total Cost (PV)</b>	<b>£ 3.9bn – 4.1bn</b>

<b>BENEFITS</b>	<b>Other key non-monetised costs by 'main affected groups'</b>			
	<b>ANNUAL BENEFITS</b>	<p>Description and scale of <b>key monetised benefits</b> by 'main affected groups' For every 1TWh of fossil fuel fired electricity displaced by an equivalent amount of renewable electricity, carbon emissions are assumed to be around 0.1MtC lower. The monetised value of the saving in CO<sub>2</sub> from the increase in renewable generation is estimated to be £1bn. In addition, renewables can also make a contribution to security of supply, by diversifying the electricity mix and reducing the need for energy imports. These security of supply benefits are not straightforward to monetise</p>		
	<b>One-off</b> Yrs	£ ---		
	<b>Average Annual Benefit</b> (excluding one-off)	£ <b>26m</b>		
	£ <b>26m</b>	38	<b>Total Benefit (PV)</b>	<b>£ 1bn</b>

**Other key non-monetised benefits by 'main affected groups'** There are many benefits to increasing our deployment of renewables including: diversifying the electricity mix, reducing dependency on fossil fuels, and a reduction in carbon emissions.

**Key Assumptions/Sensitivities/Risks** Estimates are based on independent modelling of the Renewable Obligation. Estimates are sensitive to the projected costs of the technologies, which are uncertain, and the lifetimes of the technology which is 38 years – so whilst the RO runs to 2027 the benefits extend beyond this.

Price Base	Time Period	<b>Net Benefit Range</b> (NPV)	<b>NET BENEFIT</b> (NPV Best estimate)
Year 2007	Years 38	£ -3bn to - 3.2 bn	£ -3.1bn

What is the geographic coverage of the policy/option?	UK
On what date will the policy be implemented?	1 April 2009
Which organisation(s) will enforce the policy?	Ofgem
What is the total annual cost of enforcement for these organisations?	£1.3m
Does enforcement comply with Hampton principles?	Yes
Will implementation go beyond minimum EU requirements?	N/A
What is the value of the proposed offsetting measure per year?	£ N/A

What is the value of changes in greenhouse gas emissions?					£ 1bn
Will the proposal have a significant impact on competition?					No
Annual cost (£-£) per organisation (excluding one-		Micro	Small	Medium	Large
Are any of these organisations exempt?		No	No	No	No
<b>Impact on Admin Burdens Baseline</b> (2005 Prices)					(Increase - Decrease)
Increase of £ 0.00		Decrease of £ 0.00		<b>Net Impact</b>	£ 0.00

Key: Annual costs and benefits: (Net) Present Value

## Summary: Analysis & Evidence

Policy Option: Banding The Renewables Obligation	Description: <b>IMPROVEMENTS IN THE COST EFFECTIVENESS OF THE RO FROM OUR PROPOSALS</b>
---	---

<b>COSTS</b>	<b>ANNUAL COSTS</b>	Description and scale of <b>key monetised costs</b> by 'main affected groups' Under our central scenario, the changes to strengthen and modify the Renewables Obligation will lead to an increase in consumer subsidy of <b>£1.7bn</b> over the lifetime of RO relative to the existing regime – around <b>£85m</b> annual average. This will result in a <b>£3.6bn</b> increase in renewables investment. Estimated system balancing costs of <b>£330-530m</b> over the lifetime of the RO.	
	<b>One-off</b> (Transition) <b>Yrs</b>	£ --	
	<b>Average Annual Cost</b> (excluding one-off)	£ ---	
	<b>Total Cost</b> (PV)	£	(as per resource cost for this level of deployment and this mix under any policy, page 26)
Other <b>key non-monetised costs</b> by 'main affected groups'			

<b>BENEFITS</b>	<b>ANNUAL BENEFITS</b>	Description and scale of <b>key monetised benefits</b> by 'main affected groups' Banded RO targets incentives more efficiently - Subsidy cost per unit (TWh) of renewable generation reduces from <b>£24.5/TWh</b> to <b>£23/TWh</b> as a result of the changes. New measure increased the efficiency of the RO by <b>£1.9bn</b> (by reducing the amount of subsidy in excess of the resource cost). Our modelling suggests the banded RO proposal will lead to around a 30% increase in new renewables electricity generation deployed between 2010 and 2015 compared to the existing regime (by 2015 this is equivalent to an additional 15.0TWh over those 5 years, compared to 11.4TWh in the existing regime).	
	<b>One-off</b> <b>Yrs</b>	£ ---	
	<b>Average Annual Benefit</b> (excluding one-off)	£ ---	
	<b>Total Benefit</b> (PV)	£	(as per resource cost for this level of deployment and this mix under any policy, page 26)
Other <b>key non-monetised benefits</b> by 'main affected groups' There will also be economic benefits to UK associated with the reduced dependency on fossil fuels and from the innovation stimulated in the renewables sector (to be offset against the costs of higher intermittency costed above). As deployment of renewable technologies increases, is expected that costs of technologies will reduce over time. The increased investment in newer technologies should produce spillover effects in the rest of the economy in terms of improving the skill base, and international trade potential.			

Key Assumptions/Sensitivities/Risks as before

Price Base Year 2007	Time Period Years 38	<b>Net Benefit Range</b> £	<b>NET BENEFIT</b> (NPV Best estimate) £ (as per resource cost for this level of deployment and this mix under any policy, page 26)
-------------------------	-------------------------	-------------------------------	--

What is the geographic coverage of the policy/option?	UK
On what date will the policy be implemented?	1 April 2009
Which organisation(s) will enforce the policy?	Ofgem
What is the total annual cost of enforcement for these organisations?	£ N/A
Does enforcement comply with Hampton principles?	Yes

Will implementation go beyond minimum EU requirements?	N/A			
What is the value of the proposed offsetting measure per year?	£ N/A			
What is the value of changes in greenhouse gas emissions?	£ 1bn			
Will the proposal have a significant impact on competition?	No			
Annual cost (£-£) per organisation (excluding one-	Micro	Small	Medium	Large
Are any of these organisations exempt?	No	No	No	No

<b>Impact on Admin Burdens Baseline (2005 Prices)</b>				
Key: Annual costs and benefits: Constant Prices or (Net) Present Value				
Increase of	£ 0.00	Decrease	£ 0.00	<b>Net impact</b> £ 0.00

## Evidence Base (for summary sheets)

### A. Strategic Overview

1. Alongside the Energy White Paper, *Meeting the Energy Challenge*, published on 23 May 2007 a consultation document was published which sets out our plans to reform the Renewables Obligation (RO) (which closed 6<sup>th</sup> September) following an earlier Government consultation, "Reform of the Renewables Obligation and Statutory Consultation on the Renewables Obligation Order 2007".

2. The recent renewables consultation set out, and sought views on, the detailed implementation of the changes which will need to be implemented through secondary legislation. Responses to this consultation have been analysed and conclusions will be published in a Government response outlining the further development of the policy.

### CONSULTATION

3. The proposals outlined in this impact assessment will be subject to the normal processes and Parliamentary scrutiny for bringing forward primary legislation. There will then be a statutory consultation on the secondary legislation needed to implement the proposals. A further more detailed IA on the proposed changes will be developed for this statutory consultation.

### B. The Issue

4. The existing RO, introduced in 2002, is the Government's main policy mechanism to encourage the deployment 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 RO 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% by 2010 target for electricity produced from renewable energy sources and as a basis for further reductions in carbon dioxide emissions.

5. The RO requires licensed electricity suppliers to ensure specified amounts of the electricity they supply are from renewable sources. For 2007/08, this level is 7.9% and rises to 15.4% in 2015/16. Without the financial support provided by the RO, most forms of renewable electricity would not be economic.

6. The RO does not operate in a vacuum. Movement in a number of external factors affect the effectiveness of the RO in supporting renewables technologies. An example of this is the cost of wind generation which has risen by some 25% over the past two years due in large part to the increased prices of wind turbines driven by international increases in demand, as well as underlying rises in costs of raw materials.

### REGULATORY BURDENS AND COMPENSATORY SIMPLIFICATION

7. The details of the RO are set out in secondary legislation, introduced in 2002, with subsequent amendments in 2004, 2005, 2006 and 2007. The major regulatory burden imposed by the RO 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 levels of the RO and the “buy-out” price in the RO. Previous Impact Assessments considered the costs and benefits of the introduction and subsequent extension of the RO at the time that those measures were introduced.

8. The RO also imposes some regulatory burdens on renewable generators and the electricity supply industry in relation to the administration required to benefit from and comply with the scheme. The measures to introduce banding 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.

## **BUSINESS SECTORS AFFECTED BY THE RO**

### **GENERAL**

9. The main business sectors affected by the RO are:

- companies involved in the supply of electricity to all electricity consumers;
- companies involved in the generation of renewable electricity;
- large consumers of electricity who may be particularly affected, given that the RO increases the cost of electricity; and
- other users of biomass feedstock. Biomass users within the electricity generation industry are being banded up, this would increase the level of subsidy they ostensibly receive allowing them to potentially pay more for biomass compared with those industries not getting an additional subsidy under the RO (e.g. oleochemical users of tallow, wood panel industry for waste and new wood, paper industry for wood, animal feed, etc). These users of biomass materials for purposes other than electricity generation may be affected through the increased competition for these materials.

10. The Government’s proposals to band the Renewables Obligation are designed to bring forward more renewables generation by increasing the effectiveness of the RO. The proposals increase support to some forms of renewable generation, while reducing subsidy to others. It increases support and incentivises additional generation where there will be a cost to firms related to the technology costs over and above the costs of conventional technology. These costs include the cost of the technology, net of electricity revenues. Associated revenues such as payments from the buy-out fund recycling, being regarded as being internalised among firms.

11. The precise outcome of the proposed changes will depend on the impact of the changes on renewables generation, which in turn rely on a number of external market forces. Among those factors external to the RO are future electricity prices, future carbon prices, and future capital and operating costs for renewables. Sensitivity analysis<sup>1</sup> carried out indicates that, under the current RO structure, a 10% reduction in future generation costs could increase the level of ROC eligible renewable electricity generation by 15–20% in 2015. Improvements in grid and planning will provide an additional boost.

---

<sup>1</sup> Results are based on modelling by Oxera independent consultants, based on their economic model of the renewable electricity market.

## **SMALL BUSINESS**

12. The major impact of the RO on the large majority of small businesses is likely to come from increased costs of electricity which, while affecting all electricity consumers will represent a larger proportion of income for smaller companies.

13. The majority of small businesses involved in renewables generation are likely to be operating technologies which are further from deployment, as such they will benefit from banding up of their technologies. Those small businesses involved in supply who are unlicensed will benefit from changes to legislation proposed to ensure they can claim ROCs without having to enter into sale and buyback arrangements. Small businesses involved in licensed electricity supply should not experience any additional burdens from the introduction of banding. BERR has held meetings with many relevant interested parties, companies and trade associations in the renewable energy sector and the proposals to band the RO have received support from a number of smaller companies actively developing projects or supplying technologies in these areas.

14. Measures introduced as part of the Renewables Obligation Order 2006 (Amendment Order) 2007<sup>2</sup> are aimed at making it easier for smaller generators of renewable electricity – in many cases small businesses – to participate in the RO. These changes have been generally welcomed. We are currently working with Ofgem to identify what other administrative simplifications can be brought forward in the proposed 2009 Order (the Order that will implement banding following the proposed RO legislation in the Energy Bill).

## **Objectives**

15. The objectives of the enabling proposals in the Energy Bill are to:

- Amend the RO so more expensive renewable energy generation technologies, especially those at an earlier point in their development are awarded more than 1 Renewables Obligation Certificate (ROC)/MWh of electricity generation (multiple ROCs) while projects in more economic technologies are awarded less than 1 ROC/MWh (fractional ROCs);
- Increase the level of the Obligation above the level previously announced if actual generation requires it (known as 'headroom'), to a maximum level equivalent to 20%<sup>3</sup>;
- Subject to the outcome of the cross-industry working group, introduce a mechanism to mitigate the risk of a collapse in the price of a ROC in the event of full compliance with the Obligation;
- The Government also wishes to increase investor confidence in the predictability of the value of RO. Existing projects and those operational prior to the introduction of banding, with the exception of co-firing (which requires comparatively low levels of capital investment), will be grandfathered at 1 ROC/MWh until 2027.
- Amend legislation on Permitted Ways which covers uses of electricity which can be awarded ROCs (other than the generation and subsequent supply of electricity by licensed electricity suppliers to customers) to include electricity supplied to customers by unlicensed suppliers through a private wire network;

---

<sup>2</sup> "The Renewables Obligation Order 2006" was amended in 2007 by "The Renewables Obligation Order 2006 (Amendment Order) 2007".

<sup>3</sup> The aim of having a maximum level for headroom is to ensure that costs to consumers are constrained.



- Introduce a power to allow funding of Ofgem Administrative Costs; and
- Allowing a threshold to be introduced for payments out of the Late Payments Fund.

## **WAY FORWARD?**

16. The RO was devised as a technology-neutral instrument designed to bring forward the most economic forms of renewable generation. The Government believes it has been broadly effective in achieving this goal; renewable generation has grown significantly and there is a large pipeline of projects under development. Total generation from RO eligible renewable sources was 4.4% of electricity sales in 2006, up from 1.8% in 2002.

17. However, due to, among other factors, increased costs for renewables generation the RO, in its current form, seems unlikely to achieve Government targets. Government work on how to bring forward additional renewables generation, without prejudicing the investment that has already been undertaken on the basis of an unreformed RO, has led to the proposal to band the RO.

18. In order to develop the work on a “banded” RO, the Government commissioned Ernst & Young to research the costs of different renewable generation technologies, and to provide levelised costs of technologies under the RO, taking into account their capital and operational costs. This data was then provided to Oxera and formed the basis of their modelling work of changes to the RO, including the introduction of banding, the ski-slope and headroom mechanisms, and changes to the planning regime. Reports from both of these consultants were published alongside the 2007 RO consultation document<sup>4</sup>. The cost assumptions for certain technologies have been amended following a consultation process during 2007.

19. Oxera used their model of the renewable generation market, which simulates the future pattern of renewables investment, based on assumptions as to the future revenue stream and costs of various renewable generation technologies (based on the Ernst & Young report and subsequent changes). They analysed a number of scenarios of RO reform, examining the impact on the renewables generation market. The scenarios included: leaving the RO unchanged; giving each technology a separate band dependent on need; and various ways of grouping technologies in different bands with differing levels of support. Other elements such as the implementation of a headroom mechanism to mitigate the risk of ROC price crashes were also modelled.

20. This work allowed the Government to identify a short list of scenarios which begin to deliver on our policy goals of increasing renewables generation against the 10% target and aspiration of 20% by 2020, through incentivising new renewables technologies and increasing carbon emissions savings, whilst increasing value for money for the consumer and increasing the efficiency of the RO. Oxera ran a number of sensitivity tests on the electricity price, the carbon price and technology costs, as well as some assumptions about the impact of reduced capital costs due to reform of planning and grid connection.

## **Options Identified**

21. Results were modelled by Oxera independent consultants, based on their model of the renewable electricity market. Model assumptions and methodology are presented in the

---

<sup>4</sup> Reform of the Renewables Obligation (2007) - [www.berr.gov.uk/files/file39497.pdf](http://www.berr.gov.uk/files/file39497.pdf)



Oxera Report<sup>5</sup>, published alongside the 2007 Energy White Paper. The model has been updated since the publication of that report, taking into account updated estimates of electricity sales, and technology costs. Results presented here are on the basis of this updated model. The options selected highlight particular effects of banding at specific levels. All of the scenarios quoted use the central case and are discounted over the lifetime of the RO, in line with HMT Green Book methodology and discount rates<sup>6</sup>.

22. There are three options set out in this paper:

1. Do Nothing
2. Banding Package with Many Bands
3. Banding Package with Five Bands

## Analyse the Options

### OPTION ONE – DO NOTHING

23. The assumptions made about the current Obligation scenario (the base case) are:

- each MWh generated earns one ROC (i.e. no banding);
- it is based on the current trajectory to an obligation of 15.4% by 2015/16;
- it includes RPI-indexation of the buy-out price for the lifetime of the RO (until 2027);
- that the energy crop co-firing remains uncapped from 1<sup>st</sup> April 2007, and existing caps on non-energy crop co-firing are maintained – implying a cap of 10% until 2010/11, 5% until 2015/16 and nothing thereafter

24. The modelling indicates that unchanged (the “do-nothing” scenario), the RO will deliver 7.9% electricity from ROC eligible renewables generation by 2010 against a target of 10% and 11.4% by 2015 and 12.0% by 2020. Under this option the level of generation does not come near to the maximum obligation level of 15.4%.

25. This level of generation<sup>7</sup> is achieved at a total subsidy cost of £21.5 billion over the lifetime of the policy. This cost is assumed to equate to the cost to consumers, the figures in the table assume 100% cost pass-through (this represents an upper limit and the true cost is likely to be somewhat less than this). Over the lifetime of the technologies supported through the RO, this option saves 83.8 million tonnes of carbon (MtC).

26. The lifetime resource cost<sup>8</sup> (i.e. the cost of the renewable technologies) is estimated at £13.1 billion. Assuming costs are passed through to electricity, we estimate that the RO under this option leads to increased electricity prices of around 4%. The difference between the subsidy cost and the resource cost is therefore estimated at £8.4 billion over the lifetime of the renewable technologies. This represents the maximum ‘deadweight’ cost of the RO – a measure of the efficiency of the instrument. As electricity demand is relatively inelastic to price, we have not assumed any reduction in demand as a result of increase in electricity prices.

---

<sup>5</sup> Oxera report - [www.dti.gov.uk/energy/sources/renewables/policy/renewables-obligation/key-stages/banding-ro/page42154.html](http://www.dti.gov.uk/energy/sources/renewables/policy/renewables-obligation/key-stages/banding-ro/page42154.html)

<sup>6</sup> The Green Book: Appraisal and Evaluation in Central Government - [www.hm-treasury.gov.uk/media/9/C/Green\\_Book\\_03.pdf](http://www.hm-treasury.gov.uk/media/9/C/Green_Book_03.pdf)

<sup>7</sup> under central electricity price/central technology cost assumptions.

<sup>8</sup> under central electricity price/central technology cost assumptions.

27. The deadweight cost is due in part to the amount by which technologies receive subsidy under the RO which is greater than the level needed for them to be economic. For example co-firing and landfill gas technologies which have very low capital costs, are over-subsidised by the current model. Delivering higher levels of deployment in an unbanded RO would lead to higher proportionate deadweight. **It is in part this deadweight element that the RO reforms are aiming to address.**

Option One: Do Nothing	2015 <sup>1</sup>			Lifetime		
	Low	Central	High	Low	Central	High
Resource Cost £bn	0.7	0.7	0.8	13.1	13.1	14.6
Carbon Saved MtC	3.1	3.5	4.2	73.9	83.8	102.8
NPV Cost-Benefit £bn (cost+/-benefit-)	0.5	0.4	0.4	7.5	6.7	6.8
Cost-Effectiveness £/tC				177	156	142
RO Deadweight Cost £bn	0.5	0.5	0.5	8.4	8.4	7.1
<b>Distributional Analysis</b>						
Exchequer Cost £bn	0.1	0.1	0.1	1.5	1.7	2.1
Firms Cost £bn	0.7	0.7	0.7	12.5	12.4	13.8
Consumer Cost £bn	1.2	1.2	1.2	21.5	21.5	21.7

Notes:

1. All costs are at 2007 real prices, discounted. The low scenario is modelled assuming technology costs are 10% higher in the central case, with a lower level of renewable generation. High costs assume technology costs are 10% lower than in the central case, with a higher level of generation, and therefore costs.

## OPTION TWO – BANDING PACKAGE WITH MANY BANDS (SCENARIO ONE)

28. This scenario assumes a separate band for each technology, with bands set to make the central step of each individual technology supply curve economic. Co-firing is uncapped.

29. A headroom mechanism is included, which increases the level of the obligation when the headroom threshold is breached, ensuring that the actual number of ROCs is 6% higher than generated volumes from 2009/10 with a ski-slope mechanism included to prevent the 'cliff-edge' problem when ROC volumes exceed the obligation size.

30. The modelling<sup>9</sup> indicates that this scenario would deliver 9.6% generation from ROC eligible renewables generation by 2010, 13.6% by 2015 and 13.8% by 2020. This option brings forward significant increases in the amount of generation from co-firing (due to the removal of the cap on co-firing), offshore wind, and to a lesser extent wave and tidal (due to the banding up of these technologies). The higher banding levels increase both the actual deployment for renewable electricity as well as leading to more ROCs being issued than the level of generation in MWh. If ROCs are converted on a one for one basis, the level of ROCs in 2027/28 is 65 TWh compared to a volume of generation of 45 TWh. Combined with the increase in absolute deployment, this has the impact of reducing the ROC price, and therefore expected revenues, which in turn is predicted to decrease investment in onshore wind, despite onshore wind continuing to receive one ROC.

31. This level of generation is achieved at a lifetime cost to consumers of £27 billion over the lifetime of projects supported by the RO technologies, saving 96 MtC emissions. Overall therefore, this option increases the level of renewables generation but at considerable cost to the consumer. Over the lifetime of the RO, the cost to the consumer increases by £5.5 billion compared to option 1.

<sup>9</sup> under central electricity price/central technology cost assumptions.

32. This option increases the overall resource cost incurred through the RO, and increases the cost/tonne of carbon, and the Net Present Value (NPV) cost, compared to option one. This is because the banding regime brings forward more expensive technologies (i.e. offshore wind and wave and tidal). The fact that the resource cost increases less than the consumer subsidy results in a reduction in the lifetime deadweight of £2.3 billion compared to option one – representing increased efficiency of the subsidy. The higher level of resource cost results in a higher estimated impact on electricity prices, of around 6%, compared to around 4% in option one. This option delivers higher intermittent generation than option one (wind and wave and tidal power) which means that this option will incur higher system balancing costs than under option one, at an estimated cost of between £50 to £100m over the lifetime of the technologies.

33. However, this scenario is complex, and is more precise than it is really possible to be when predicting future costs. This banding regime is likely to require banding levels to be reset on a more frequent basis than one with fewer bands, introducing increased uncertainty for investors, and leading to Government trying to predict the market and pick winners, something consultation responses have strongly advised against.

Option Two: Scenario 1	2015 <sup>1</sup>			Lifetime		
	Low	Central	High	Low	Central	High
Resource Cost £bn	1.1	1.2	1.5	18.9	20.9	23.8
Carbon Saved MtC	3.4	4.3	5.5	75.3	95.5	116.6
NPV Cost-Benefit £bn (cost+/benefit-)	0.8	0.9	1.0	13.0	13.6	14.8
Cost-Effectiveness £/tC				250	219	205
RO Deadweight Cost £bn	0.2	0.4	0.1	4.0	6.1	3.0
<b>Distributional Analysis</b>						
Exchequer Cost £bn	0.1	0.1	0.1	1.7	2.0	2.5
Firms Cost £bn	1.1	1.2	1.4	18.2	20.1	22.9
Consumer Cost £bn	1.3	1.6	1.4	22.8	27.0	26.8

Notes:

1. All costs are at 2007 real prices, discounted. The low scenario is modelled assuming technology costs are 10% higher in the central case, with a lower level of renewable generation. High costs assume technology costs are 10% lower than in the central case, with a higher level of generation, and therefore costs.

### OPTION THREE – BANDING PACKAGE WITH FIVE BANDS

34. This scenario is the same as option two, though it simplifies the number of bands to be introduced, with each technology being assigned to one of five banding levels:

- Landfill Gas will receive 0.25 ROCs/MWh
- Sewage gas, and co-firing non energy crop (regular) biomass will receive 0.5 ROCs/MWh from 2009. The level of ROC multiplier for co-firing is assumed to reduce over time.
- Technologies in the Reference Band will receive 1 ROC/MWh
- Technologies in the Post-Demonstration Band will receive 1.5 ROCs/MWh
- Technologies in the Emerging Technologies Band will receive 2 ROCs/MWh.

35. One of the most important features of this option is that it reduces the level of subsidy to the most expensive technologies compared to option two. This in turn reduces the divergence between the number of ROCs and the level of generation, which was found under option two. Under this option ROC prices remain at a level which allows an increase in the level of onshore wind generation over option two, while retaining the level of support necessary to bring forward increases in generation from biomass and offshore wind. The smaller number of bands also allows greater flexibility, and reduces the need for frequent reviews of the banding structure and levels.

36. The modelling indicates that<sup>10</sup> this scenario would deliver 8.8% ROC eligible renewables generation by 2010, 13.4% by 2015 and 13.9% by 2020. Actual deployment will depend on the validity of the modelling assumptions. Additional policy measures proposed by Government including reforms to the planning and grid access regimes are intended to remove regulatory barriers to the deployment of renewable electricity generation. These policies are still in development and it has not been possible to assess the impact of these changes in the assumptions in this modelling work.

37. Under the assumptions for option three<sup>11</sup>, the total subsidy is estimated at £23.2 billion (an increase in total subsidy of £1.7 billion compared to option one) over the lifetime of the RO. This option saves 96.5 MtC of Carbon over the lifetime of the technologies, an increase of 12.7 MtC over option one.

38. This option is predicted to bring forward higher levels of new renewables generation to option two and does so for a much lower increase in the cost to consumers of roughly £1.7 billion compared to option two - £5.5bn.

39. Resource costs under this option are estimated at £16.7 billion over the lifetime, an increase of £3.6 billion over option one. Cost/tonne of carbon as outlined in cost effectiveness in table below is £173, higher than option one, but lower than option two. The estimated lifetime deadweight cost of this option is £6.5 billion. This is a reduced deadweight cost of £1.9 billion compared to option one. The higher resource cost implies higher electricity prices than under option one (an estimated 5% increase in 2015) but lower than under option two. This option leads to a higher level of intermittent generation than under option one, which will incur some additional system balancing costs. Using UK Energy Research Centre (UKERC) estimates of the costs of intermittent generation, this leads to an additional cost of approximately £330 to 530 million over the lifetime of the RO.

40. This is the Government's favoured Option.

Option Three: Five Bands	2015 <sup>1</sup>			Lifetime		
	Low	Central	High	Low	Central	High
Resource Cost £bn	1.0	1.0	1.0	16.8	16.7	17.6
Carbon Saved MtC	3.6	4.2	4.9	82.3	96.5	118.1
NPV Cost-Benefit £bn (cost+/benefit-)	0.7	0.6	0.6	10.5	9.3	8.7
Cost-Effectiveness £/tC				204	173	149
RO Deadweight Cost £bn	0.3	0.4	0.6	4.7	6.5	8.7
<b>Distributional Analysis</b>						
Exchequer Cost £bn	0.1	0.1	0.1	1.7	2.0	2.4
Firms Cost £bn	0.9	0.9	0.9	16.1	15.9	16.7
Consumer Cost £bn	1.2	1.3	1.6	21.5	23.2	26.3

Notes:

1. All costs are at 2007 real prices, discounted. Low scenario is modelled assuming technology costs are 10% higher in the central case, with a lower level of renewable generation. High costs assume technology costs are 10% lower than in the central case, with a higher level of generation, and therefore costs.

<sup>10</sup> under central electricity price/central technology cost assumptions.

<sup>11</sup> The modelling does not include the expected effects of the additional gasification band where less efficient gasification has been banded down to 1 ROC/MWh. The effect is expected to be small as the potential for this is one plant of between 5-10MW currently in planning. It also does not take account of the potential of converting industrial plant to co-firing with CHP as the net effect is not expected to be significant.

## WHAT ARE THE COSTS?

41. Introducing a banded obligation on its own will not increase the total amount of cost subsidy in the RO, and therefore the costs to consumers. The out-turn costs to the consumers will vary with the actual level of deployment – increased deployment will be accompanied by increased costs to consumers. Under the central assumptions option three is predicted to cost consumers an additional £1.7 billion, compared to option one, over the lifetime of the RO.

42. The change will result in additional investment in renewables generation, in particular in higher cost technologies and will result in an increased resource cost of £3.6 billion. This resource cost is the cost to the economy of producing renewable energy as opposed to conventional generation. However, the ability to target support more effectively in a banded RO, means that banding has the potential to significantly increase the efficiency of the RO (reducing the 'deadweight' element of the subsidy) through providing support levels more closely linked to the needs of different technologies.

43. Increased activity under the Renewables Obligation (RO), and the introduction of banding, will lead to increased administrative costs for Ofgem. In addition Ofgem have argued that there should be a change to the way their overall costs for administering the RO are funded so that those who participate in the RO should also pay for it. We are therefore introducing a mechanism whereby Ofgem's costs for the administration of the RO are defrayed by a call on the buyout fund. Ofgem have provided estimated costs based on BERR's current proposals being implemented in legislation from 1<sup>st</sup> April 2009:

	05/06 (£000s)	06/07 (£000s)	07/08 (£000s)	08/09 (£000s)	09/10 (£000s)	10/11 (£000s)
Base Cost	585	910	1125	965	1,010	1,040
<b>Additional costs</b>						
2007 reforms – set up costs	0	90	0	0	0	0
2007 reforms – ongoing costs	0	0	140	140	145	145
Long term reforms – set up costs	0	0	325	125	0	0
Long term reforms – ongoing costs	0	0	0	0	150	155
<b>Total Costs</b>	<b>585</b>	<b>1,000</b>	<b>1,590</b>	<b>1,230</b>	<b>1,305</b>	<b>1,340</b>

Work carried out by BERR and Ofgem suggests if all costs were met from the buyout fund the impact would be a reduction of approximately £0.05/MWh or 0.15%.

### Enforcement

44. The Renewables Obligation Order (ROO) is administered and enforced by Ofgem. Non-compliance is considered a breach of a 'relevant requirement' of the Electricity Act and Ofgem may impose appropriate sanctions. Ofgem reports annually on its administration of the RO and conducts regular audits in relation to compliance with the RO.

### Monitoring & Evaluation

45. BERR is responsible for monitoring the impact of the RO on the development of renewable energy and collects detailed information on growth in renewable energy generation and projects under development.

46. The changes proposed do not introduce any new powers of sanction. There is an expectation that changes to the way the RO is administered will ease the administrative burden on business by reducing the need for Ofgem to audit returns. However, detail of this is currently being worked through as part of the work on the secondary legislation that will flow from the proposals in the Energy Bill.

## **POST-IMPLEMENTATION REVIEW**

47. The Government has undertaken to carry out reviews of the Banded RO on an agreed timetable. The Government has proposed that the first two reviews of the RO banding levels should take place in time for any changes to the banding levels to be introduced on 1<sup>st</sup> April 2013 and 1<sup>st</sup> April 2018.

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

## **Specific Impact Tests**

### **COMPETITION ASSESSMENT**

49. The RO 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<sup>12</sup> in the renewables industry and electricity sector. The Government's intention is that this will remain the case. Due to the way in which the RO recycles money from the buyout fund it should act as a positive incentive to competition between suppliers.

### **SMALL FIRMS IMPACT TEST**

50. Please find in paragraphs 12 – 14.

### **SUSTAINABLE DEVELOPMENT**

51. We are currently consulting on sustainability measures for biomass and energy crops as part of the consultation. The Government response will outline conclusions.

### **CARBON ASSESSMENT**

52. The carbon assessment can be found in the tables analysing the options above.

### **RURAL PROOFING**

53. A large proportion of renewable energy is produced in rural areas, particularly for certain forms of renewables such as onshore wind and biomass. The Obligation seeks to increase the proportion of energy from renewable sources, and a significant proportion of new energy developments will occur in rural areas. The Obligation affects businesses involved in the generation of renewable energy, including farmers who produce energy crops. It also affects rural communities living in the vicinity of new developments (e.g. windfarms and biomass generators).

---

<sup>12</sup> Some technologies are excluded from the benefits of the RO: coal methane; CCS



54. The Obligation also raises energy prices and this affects rural consumers (as well as urban consumers). However, it is likely that the impacts of this will be greater in urban than in rural areas, as this is where most energy intensive industries are located.

55. There has been no separate or explicit assessment of the needs of rural areas.

56. Certain forms of renewable development impact disproportionately on rural areas, and there is often resistance to new developments from rural communities. Any resistance to new renewables projects needs to be viewed in the light of Government's commitment to source an increasing proportion of energy from renewable sources, in order to combat climate change. The planning system also has a role in ensuring that new developments are sited in suitable locations.

57. The reform of the RO is set within this wider policy context and aims to ensure that renewables are promoted efficiently, that emerging sources of renewable energy are encouraged, and that the impact on consumer prices is reasonable. The focus has been more on the economically efficient promotion of the renewables sector than on addressing environmental or social impacts. For example, the reforms have proposed banding different forms of renewable generation methods to provide added incentives to some and less support to others. This has been based on the need for efficient cost incentives to encourage expansion of capacity, rather than on any assessment of social or environmental impact.

58. Some particular issues affecting rural businesses have been identified. For example:

- Until recently the RO has discriminated against businesses that are off the grid, since it requires businesses to sell and buy back energy in order to gain Renewable Obligation Certificates. Most businesses off the grid are in rural areas. The reforms have addressed this by removing the need for sale and buyback for eligibility for ROCs.
- The RO has also been burdensome and difficult to access for microgenerators, a large proportion of which are likely to be in rural areas (though this has not been quantified). Recent reforms have sought to reduce this burden and make the RO more accessible.

59. The policy has been subject to extensive consultation at different stages. This has included business interests within the renewables sector, and consumer interests. It has included relevant rural business groups (including NFU and CLA as well as wind sector) but has not sought to engage rural community groups in particular.

60. Policy is informed by advisory boards including a Renewables Advisory Board and a Biomass Implementation Advisory Group (BIAG). These are primarily industry groups and include rural business interests as appropriate (e.g. the NFU and CLA are represented on BIAG).

## Specific Impact Tests: Checklist

Type of testing undertaken	Results in Evidence Base?	Results annexed?
Competition Assessment	Yes	No
Small Firms Impact Test	Yes	No
Legal Aid	No	No
Sustainable Development	No	No
Carbon Assessment	Yes	No
Other Environment	No	No
Health Impact Assessment	No	No
Race Equality	No	Annex A
Disability Equality	No	Annex A
Gender Equality	No	Annex A
Human Rights	No	No
Rural Proofing	Yes	No

### Annex A Equality Impact Tests

#### Race Equality

This policy area does not impact on race equality as it applies to businesses supplying electricity and not individuals.

#### Disability Equality

This policy area does not impact on disability equality as it applies to businesses supplying electricity and not individuals.

#### Gender Equality

This policy area does not impact on gender equality as it applies to businesses supplying electricity and not individuals.



## **TRANSPOSITION NOTE**

### THE RENEWABLES OBLIGATION ORDER 2002 (“The Order”)

1. This transposition note addresses the elements of European Directive (2001/77/EC) (OJL 283/33) on the promotion of electricity produced from renewable energy sources in the internal electricity market transposed by the Order.

2. The purpose of the Directive is:

*‘to promote an increase in the contribution of renewable energy sources to electricity production in the internal market for electricity and to create a basis for a future Community framework thereof.’*

The main elements of the Directive, in doing so, set out national indicative targets for renewable energy consumption and requires Member States to address administrative and grid system issues to facilitate the achievement of those targets. It also requires Member States to ensure that the origin of electricity generated from renewable sources can be guaranteed as such through a system of certification.

3. The Order places an obligation on electricity suppliers to source a certain proportion of their total sales from eligible renewable sources. As such, it is one of a number of measures being undertaken by the UK Government to comply with the purpose and objective of the Directive.

4. The Order specifically addresses Article 3(1) of the Directive:

*‘Member States shall take appropriate steps to encourage greater consumption of electricity produced from renewable energy sources in conformity with the national indicative targets referred to in paragraph 2. These steps must be in proportion to the objective to be attained’*

5. Further legislation will be brought forward in due course to transpose other specific provisions within the Directive.