

| | | | |
|--|---|--|-------------------------|
| Title: Renewables Obligation Transition IA No: DECC0086 Lead department or agency: Department of Energy and Climate Change Other departments or agencies: | Impact Assessment (IA) | | |
| | Date: 08/05/2013 | | |
| | Stage: Final | | |
| | Source of intervention: Domestic | | |
| | Type of measure: Primary legislation | | |
| Contact for enquiries: Samantha.Evens@decc.gsi.gov.uk Michael.Haslam@decc.gsi.gov.uk | | | |
| Summary: Intervention and Options | | | RPC Opinion: N/A |

| Cost of Preferred (or more likely) Option | | | |
|---|----------------------------|--|---|
| Total Net Present Value | Business Net Present Value | Net cost to business per year (EANCB on 2009 prices) | In scope of One-In, Measure qualifies as One-Out? |
| N/A | N/A | N/A | No N/A |

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

The UK needs to radically increase its deployment of renewable electricity to meet the UK share of the EU 2020 renewable energy target. The Renewables Obligation is the principal mechanism to do this and rewards large scale renewable electricity by issuing Renewable Obligation Certificates (ROCs) to eligible generators. Their value is determined by the difference between where the level of the Obligation is set (based on predicted generation) and the number of ROCs presented to Ofgem. Therefore, the ability to set the value of a ROC accurately depends on the accuracy with which generation can be predicted. Owing to the uncertainty in setting the Obligation accurately, investors may heavily discount ROC income from the latter years of the subsidy regime. This makes it more difficult to secure debt financing with a longer term, and therefore deployment of these types of project may be hampered.

What are the policy objectives and the intended effects?

In the EMR White Paper, Government set out its intention to continue to calculate the Renewables Obligation on a headroom basis until 31 March 2027, whereupon it would move to a Fixed ROC system until the end of the RO in 2037. The primary policy objective is to increase the certainty investors have over the level of support they will receive and so reduce required rates of return and financing costs and therefore potentially lower the costs of large scale renewable electricity. The Obligation level is currently based on a prediction of generation up to 18 months in advance, this is subject to estimation error, and has the potential for the Obligation to be set at a level greater (or less) than the intended level of total number of ROCs plus 10% headroom. If the Obligation is set higher (or lower) than this, then the value of the ROC will be higher (or lower). Introducing a fixed ROC system will remove this uncertainty as to the ROC value. Moreover, if the Obligation level is greater than the level intended, it is also higher than the level that underpins the subsidy cost calculation, which will lead to oversubsidy of renewable generation (with a ROC price higher than intended).

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

Although the EMR White Paper indicated the Fixed ROC system would be introduced from 1 April 2027, options have been considered where the date of introduction varies, against a do-nothing option of continuing to set the Obligation on a "headroom" basis. These scenarios are illustrative, and additional options will be the subject of further analysis in the Impact Assessment accompanying secondary legislation.

Option 0 – Do Nothing i.e. continue setting the Obligation
Option 1 – Introduce Fixed ROC system from 1 April 2017
Option 2 – Introduce Fixed ROC system from 1 April 2027

| | | | | | | |
|--|--|------------------------|--------------------------|------------------------|-------------------------|---------------------------|
| Will the policy be reviewed? It will not be reviewed. If applicable, set review date: Month/Year | | | | | | |
| Does implementation go beyond minimum EU requirements? | | | | N/A | | |
| Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base. | | Micro Yes/No | < 20 Yes/No | Small Yes/No | Medium Yes/No | Large Yes/No |
| What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent) | | | | Traded: N/A | | Non-traded: N/A |

I have read the Impact Assessment and I am satisfied that, (a) it represents a fair and reasonable view of the expected costs, benefits and impact of the policy, and (b) that the benefits justify the costs.

Signed by the responsible Minister: Michael Fallon Date: 08/05/2013

Summary: Analysis & Evidence

Policy Option 1

Description: Introduce Fixed ROC system from 1 April 2017

FULL ECONOMIC ASSESSMENT

| Price Base Year N/A | PV Base Year N/A | Time Period Years N/A | Net Benefit (Present Value (PV)) (£m) | | |
|---------------------|------------------|-----------------------|---------------------------------------|-------|--------------------------|
| | | | Low: | High: | Best Estimate: approx £0 |

| COSTS (£m) | Total Transition (Constant Price) Years | | Average Annual (excl. Transition) (Constant Price) | Total Cost (Present Value) |
|---------------|---|------|--|----------------------------|
| | Low | High | | |
| Low | | | | |
| High | | | | |
| Best Estimate | | | | |

Description and scale of key monetised costs by 'main affected groups'

Other key non-monetised costs by 'main affected groups'

Potential increase in deployment of renewable technologies which are more able to secure long term debt funding, displacing cheaper conventional generation. Some generators and energy suppliers may need to renegotiate their Power Purchase Agreements (PPAs).

Potential loss of excess profit to some suppliers and generators owing to elimination of variation in the value of a ROC.

Increased costs of to the institution arising from having to levy energy suppliers to reclaim the cost of the RO.

| BENEFITS (£m) | Total Transition (Constant Price) Years | | Average Annual (excl. Transition) (Constant Price) | Total Benefit (Present Value) |
|---------------|---|------|--|-------------------------------|
| | Low | High | | |
| Low | | | | |
| High | | | | |
| Best Estimate | | | | |

Description and scale of key monetised benefits by 'main affected groups'

Other key non-monetised benefits by 'main affected groups'

Potential for reduced excess profit to RO suppliers and generators paid for by electricity consumers i.e. reduction in electricity bills.

Some renewables deployment that would have gone ahead under the Do Nothing option will do so at a lower finance cost.

Reduced costs of to the institution arising from no longer having to administer the RO buyout fund and recycling payments to eligible generators and suppliers.

| | | |
|-------------------------------------|-------------------|-----|
| Key assumptions/sensitivities/risks | Discount rate (%) | N/A |
|-------------------------------------|-------------------|-----|

BUSINESS ASSESSMENT (Option 1)

| | | | | |
|---|-----------|------|-------------------|----------------------|
| Direct impact on business (Equivalent Annual) £m: | | | In scope of OIOO? | Measure qualifies as |
| Costs: | Benefits: | Net: | No | N/A |

Summary: Analysis & Evidence

Policy Option 2

Description: Introduce Fixed ROC system from 1 April 2027

FULL ECONOMIC ASSESSMENT

| Price Base Year N/A | PV Base Year N/A | Time Period Years N/A | Net Benefit (Present Value (PV)) (£m) | | |
|---------------------|------------------|-----------------------|---------------------------------------|-------|---------------------------|
| | | | Low: | High: | Best Estimate: approx £0m |

| COSTS (£m) | Total Transition (Constant Price) Years | Average Annual (excl. Transition) (Constant Price) | Total Cost (Present Value) |
|---------------|---|--|----------------------------|
| Low | | | |
| High | | | |
| Best Estimate | | | |

Description and scale of key monetised costs by 'main affected groups'

Other key non-monetised costs by 'main affected groups'

Potential increase in deployment of renewable technologies which are more able to secure long term debt funding, displacing cheaper conventional generation.
 Potential loss of excess profit to some suppliers and generators owing to elimination of variation in the value of a ROC.
 Increased costs of to the institution arising from having to levy energy suppliers to reclaim the cost of the RO.

| BENEFITS (£m) | Total Transition (Constant Price) Years | Average Annual (excl. Transition) (Constant Price) | Total Benefit (Present Value) |
|---------------|---|--|-------------------------------|
| Low | | | |
| High | | | |
| Best Estimate | | | |

Description and scale of key monetised benefits by 'main affected groups'

Other key non-monetised benefits by 'main affected groups'

Potential for reduced excess profit to RO suppliers and generators paid for by electricity consumers i.e. reduction in electricity bills. Also removal of potential for a ROC price crash.
 Some renewables deployment that would have gone ahead under the Do Nothing option will do so at a lower finance cost.
 Reduced costs of to the institution arising from no longer having to administer the RO buyout fund and recycling payments to eligible generators and suppliers.

| | | |
|-------------------------------------|-------------------|-----|
| Key assumptions/sensitivities/risks | Discount rate (%) | N/A |
|-------------------------------------|-------------------|-----|

BUSINESS ASSESSMENT (Option 2)

| | | |
|---|-------------------|----------------------|
| Direct impact on business (Equivalent Annual) £m: | In scope of OIOO? | Measure qualifies as |
| Costs: | No | N/A |
| Benefits: | | |
| Net: | | |

Evidence Base (for summary sheets)

A) Policy Background

1. The EU Renewable Energy Directive commits the UK to meeting 15% of its energy needs from renewable sources by 2020, compared with 3.8% in 2011. To achieve this, renewable electricity supply from large scale generation will need to increase from around 9.5% today to around 30% (under the central renewables deployment scenario) by 2020. Further deployment of renewable electricity will need to come from smaller scale generation (<5MW), including micro generation.
2. The Renewables Obligation (RO), introduced in 2002, has been the Government's main financial policy mechanism for incentivising the deployment of renewable electricity generation in the UK. It has also played an important part in our programme for securing reductions in carbon dioxide emissions, alongside other policy measures such as the Climate Change Act 2008. Since the introduction of the RO in 2002, there has been a more than quadrupling in the UK's renewable generation, reaching 9.7% in 2011.¹ The provisional figure for 2012 is 11.3%; the final figure will be available at the end of June 2013
3. From the RO's introduction in 2002 until 2008/09, all technologies received the same banding of 1 Renewables Obligation Certificate (ROC) per MWh of renewable electricity. New bands were then set for new stations in the four years from 2009/10 to 2012/13. The bands were introduced to remove overcompensation of lower cost technologies and provide incentive for more expensive technologies which had significant deployment potential.
4. Bands are reviewed periodically to ensure that subsidy levels are set as cost-effectively as possible. They are designed to bring forward renewable technologies at the capacity needed to achieve the UK's renewable energy target, and to deliver value for money for electricity consumers who pay the costs of the RO. The Government response to the Consultation on the Renewables Obligation Banding Review, published on 25th July 2012, set RO bands for new installations of various renewable technologies for the period 1st April 2013 to 31st March 2017².

B) Problem under consideration

5. Currently, the level of the Renewables Obligation is set as the number of ROCs (which is determined through estimating the level of generation in the obligation period up to 18 months in advance), multiplied by the 'headroom' percentage of 10%. Under current arrangements, the Obligation is set for the forthcoming financial year on this basis, with electricity suppliers bound to submit ROCs up to their obligation level. Ofgem issues renewable generators with ROCs, which are then purchased by energy suppliers at the buyout price, or some agreed value according to the PPA contract terms.
6. When energy suppliers have submitted their ROCs for the year to meet their Obligation, they then have to pay the buyout price on any shortfall. This money is then transferred into the buyout fund, which is distributed amongst energy suppliers and then transferred to renewable generators according to their PPA with the energy suppliers. Therefore, the value of a ROC to a generator is equal to the buyout price, plus the recycle value. If ROCs generation is at the forecasted level, the recycling payments will be worth 10% of the buyout

¹ RO-eligible electricity generation as a proportion of UK electricity sales

² <http://www.decc.gov.uk/assets/decc/11/consultation/ro-banding/5936-renewables-obligation-consultation-the-government.pdf>

- price for each ROC. The total value of a ROC is therefore the avoided buyout price plus 10% recycling payment. This is the target value of ROCs when setting the Obligation.
7. If the level of ROCs submitted to Ofgem is below the predicted level of generation (i.e. more than 10% below the Obligation level), then the recycling fund will be bigger, and the value of each ROC higher; if it is higher than the predicted level of generation, the value of each ROC will be lower. Over several years, if there is no systematic bias to the error in forecasting ROCs generation, the ROC value should average out at the target value of the buyout price plus 10%.
 8. There are two key risks to the ROC price inherent in the current system:
 - a. If ROCs generation is more than 10% higher than forecast and therefore exceeds the Obligation level, there may be a collapse in the value of ROCs due to supply of ROCs exceeding demand, undermining investor confidence in the system.³
 - b. If ROCs generation is overestimated (for example, it was overestimated in both 2010/11 and 2011/12), then electricity suppliers and generators will be overcompensated as the recycle fund would be larger than intended (with the sharing of this surplus dependent on the terms of their contracts) at the expense of electricity consumers. These are essentially unanticipated excess profits.
 9. These risks arise from several factors which make it difficult to predict the level of ROCs generation in advance, including:
 - a. Uncertainty over wind speeds and rainfall levels affecting wind and hydro output.
 - b. Uncertainty over relative coal and biomass prices affecting the level of co-firing, enhanced-co-firing and biomass conversions renewable output.
 - c. Uncertainty over when new renewables plant will begin operating and the form of ramp-up to full operation over time.
 - d. Uncertainty over the conversion of very large coal plants to biomass – when they might occur – and given the ability to switch fuels how much biomass will be burnt once converted;
 - e. Uncertainty over decommissioning dates: given the RO is paid for 20 years, RO eligible generation will start to reduce from around 2022.
 10. All these risks are liable to increase over time. Wind is set to become a larger proportion of the overall Obligation. Biomass conversions and enhanced co-firing are individual investment decisions giving rise to very large amounts of generation relative to that from individual investment decisions in other technologies, where plant size tends to be much smaller. If and when plants choose to convert during a given year will make a big difference to the setting of the Obligation, as will the level of biomass burn relative to coal burn when converted. Finally, levels of decommissioning will increase in the 2020s and 2030s and represent another difficult parameter to predict.
 11. Setting a fixed ROC system will give certainty as to the value of the ROC into the future. It will also remove the potential for over/under subsidy of renewable generation.

³ However, this is unlikely to happen if ROCs generation only just exceeds the Obligation level, as suppliers and generators have the ability to 'bank' ROCs from one year to be used towards the following year's Obligation. There is a restriction on 'banking' – banked ROCs have to be used in the following year and they can only be used to meet up to 25% of a supplier's Obligation. If ROCs generation was high enough relative to the Obligation level, at some point, (depending on the growth in the Obligation level from year to year), ROCs generation could be high enough to cause a ROCs price crash.

C) Rationale for intervention.

12. The risks which apply to the value of the ROC set out in the previous section may cause investors to heavily discount, or disregard, ROC income from the latter years of the subsidy regime. In particular, investors have suggested that as generation comes out of the RO, and the obligation level shrinks, they are concerned that there will be a decreasing market for ROCs, and this leads them to discount the value of later ROCs more heavily. This makes it more difficult to secure debt financing with a longer term, and therefore deployment of these types of project may be hampered.
13. Investors which financing renewables projects usually offer debt terms of up to 15 years. In the EMR white paper, the Government set out its intention to move to the Fixed ROC system in 2027. This means that, from last year (2012), projects whose income streams will include the proposed Fixed ROC are seeking debt finance arrangements which cover that period. Following the publication of the EMR white paper, investors and developers stated that finance agreements would be affected, and shorter debt terms would be offered (i.e. ending before 2027), unless further detail of the 'Fixed ROC' scheme were set out and implemented. Shorter debt terms mean projects cannot afford to take on as much debt, and projects become more difficult to finance. This could reduce deployment.
14. Therefore, Government published further details of the Fixed ROC proposals in the Technical Update to the EMR White Paper in December 2011. It also committed to legislating for the policy as soon as possible to provide certainty for investors. This involves taking powers in the Energy Bill, and thereafter introducing secondary legislation to implement the measures.
15. Moving to a fixed ROC system may unlock financing for these types of projects, potentially lowering the cost of large scale renewable electricity, and therefore also reducing the cost to the UK of meeting the renewables target. The magnitude of this cost reduction is uncertain as it will depend on the number of projects for which this is an issue and the potential reduction in the cost of capital for investors. These cost reductions have not been quantified in this Impact Assessment because of lack of sound information, but could be significant. They will be explored in subsequent Impact Assessments, after gathering further information from industry and other key stakeholders.
16. The Obligation level is currently based on a prediction of generation up to 18 months in advance, this is subject to estimation error, and has the potential for the Obligation to be set at a level greater (or less) than the intended level of total number of ROCs plus 10% headroom. If the Obligation is set higher (or lower) than this, then the value of the ROC will be higher (or lower). Introducing a fixed ROC system will remove this uncertainty as to the ROC value. Moreover, if the Obligation level is greater than the level intended, it is also higher than the level that underpins the subsidy cost calculation, which will lead to oversubsidy of renewable generation (with a ROC price higher than intended). Introducing a fixed ROC system eliminates the potential for this over-subsidy and thereby could reduce consumer costs. The estimates of the Obligation so far, compared with the actual, are set out in section E.

D) Policy objective

17. The policy objective is to give generators much greater certainty over the future value of a ROC and simultaneously eliminate the excess profits which generators/suppliers receive when outturn generation is lower than predicted when setting the Obligation.
18. It is therefore proposed that ROCs presented by generators will be bought by a central institution at a predetermined price. It is the policy intent that the price will be set in line with the current target ROC price, which is described as the 'long-term value' of the ROC, i.e. the buyout price plus 10%. The options set out below investigate the impact of introducing the Fixed ROC system at different points in time. The institution purchasing allowances from generators recovers costs from electricity suppliers in the same proportion as their share of the electricity supply market.
19. The primary legislation does not specify when the move to a Fixed ROC system will occur, so two illustrative options are assessed in this IA, in addition to that of doing nothing. Option 1 was chosen for assessment as it will commence immediately after the RO closes to new generation, and for the reasons set out in paragraph 12. Option 2 was chosen for assessment to reflect the policy intent set out in the Electricity Market Reform white paper.

E) Description of options considered

Option 0 – Do nothing

20. Under this option, the Renewables Obligation continues to be set on the current headroom basis for the forthcoming financial year until 31 March 2037, when the RO closes.

Option 1 – Fixed ROC system introduced in 2017

21. Under this option, the Renewables Obligation is set on a headroom basis until 31 March 2017, whereupon it would move to a Fixed ROC system until the end of the RO in 2037. The rationale for this date is that the RO will close to new generation from 31 March 2017. Currently, Ofgem administer the Renewables Obligation, including administration of the buyout fund.
22. Currently, Ofgem administer the Renewables Obligation, including administration of the buyout fund. They estimate the costs of administering the RO in 2011/12 to be £3,529,853⁴. This includes Ofgem costs of administering the RO in England & Wales, Scotland and Northern Ireland, but not the costs Northern Ireland incurs for administering the Northern Ireland Renewables Obligation. Ofgem RO administration costs have been paid for from the RO buyout fund since 1 April 2009.
23. Although there may be some upfront administration costs incurred to set up the new system, costs are expected to remain the same under the Fixed ROC system as although there would be no buyout fund to recycle to energy suppliers, the Institution would have to incur additional costs in levying energy suppliers to recover the cost of paying ROCs to generators. There is not enough information to calculate exactly how much admin costs

⁴ <http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=286&refer=Sustainability/Environment/RenewablObl>

would change under the current option. Further evidence will be gathered to produce a more robust estimate for subsequent Impact Assessments.

24. There are also a number of additional impacts, set out below, which may arise following the move to a Fixed ROC system. These impacts have not been quantified here, but are likely to be significant. They will be investigated further in future Impact Assessments, after gathering additional evidence from industry and other key stakeholders.
25. The principle impact is to provide increased certainty to investors that the value of a ROC will be maintained throughout the operational life of the generation asset. Government sets the Obligation based on a forecast of predicted generation plus 10% for the immediate future, thereby aiming to maintain the value of a ROC over time. However, owing to the risks in setting accurately the obligation, set out in section A, firms may discount the value of future ROC revenue.
26. By guaranteeing the long term value of a ROC under a Fixed ROC mechanism, investors may have lower required rates of return on investment and be more able to secure long term debt financing for projects. Reducing policy associated risks for these investment could potentially lower the cost of large scale renewable electricity and thereby the cost of a given share of renewables in the energy mix. If the share were to increase owing to renewable electricity becoming more economic under a fixed set of RO bands, then the overall cost to the UK of supporting renewable electricity may increase, as more renewable generation is incentivised.
27. In addition, moving to a Fixed ROC system will eliminate price fluctuations arising from outturn generation being different to what was predicted when the Obligation was set. It is difficult to determine what investors view the long term price of a ROC to be; but given it is the Government's intention to set the Obligation 10% above the level of predicted generation, then it is reasonable to assume the long run price will be the buyout price plus 10%. If generation is lower than what was predicted, then electricity suppliers must pay more into the buyout fund, and therefore more money is recycled to renewable generators and the value of a ROC increases beyond the buyout price plus 10%. As the ROC price exceeds that which was expected when the generation asset reached final investment decision, then the generators/suppliers earn excess profit at the expense of electricity consumers. Moving to a fixed ROC system will eliminate the potential for these types of profits.
28. Table 1 below shows that the ROC price was significantly higher than 10% above the buyout price in 2010/11, the first year in which the Obligation was set by the headroom calculation. In this year, RO suppliers and generators shared more ROC income than expected. In 2011/12, the buyout price plus 10% and the realised value were very similar.

Table 1

| £, nominal | 2010/11 | 2011/12 |
|-------------------------|----------------|----------------|
| Buyout price plus 10% | £40.69 | £42.56 |
| Realised value of a ROC | £51.48 | £42.27 |

Source: DECC analysis based on information supplied by Ofgem

29. This is an illustration from the first two years only, which may not be representative of future values. Furthermore, there is also potential for the Obligation to be set too low as well as too high. If the outturn generation turns out to be higher than anticipated when setting the Obligation level, this would result in a fall in the ROC value from the target level of buyout

price plus 10%, leading to lower than anticipated revenues for the year in question for generators and suppliers. The introduction of a fixed ROC system, i.e. fixing the ROC price in advance, would remove the risk of a ROC price crash as well as potential overcompensation of suppliers and generators. A price crash would severely undermine investor confidence, delaying, or reducing deployment, which would risk the achievement of the renewable energy target.

30. The proportion of the RO which is unpredictable is set to increase. Generation from wind, for example, is typically less predictable than other renewable sources. Biomass conversions also increase uncertainty, as they generate significant amounts of renewable electricity. . Both of these factors will serve to increase the potential variability in calculating the level of the obligation. In addition, generation which has either reached the end of its operational life, or received RO support for 20 years, will no longer be included in the Obligation, and therefore there would be downward pressure on the overall size of the Obligation, further increasing the uncertainty.
31. However there are other impacts that we need to consider in deciding when to introduce this change. In particular, we received evidence in response to the EMR consultation that moving to the Fixed ROC in 2017 would amount to a change in payment flows that would trigger 'change in law' clauses in PPAs and debt finance agreements. Developers were concerned that for projects financed before the recession in particular, banks would welcome the opportunity to cite change in law (even if the effect were positive), because it would enable them to renegotiate finance arrangements onto more favourable terms (for the banks). Therefore moving to the Fixed ROC in 2017 was likely to trigger a wave of re-financing which would destabilise the sector and create uncertainty, which was opposite to our policy intent.
32. The RO banding Review Government response Impact Assessment⁵ estimated there would be around 16GW of large scale renewable electricity built by 2012/13. Whilst not all this capacity will be eligible to claim ROCs, or have buyout revenue sharing agreements, it gives an indication of the amount of generating assets which could be affected by the change.

Option 2 – Fixed ROC system introduced in 2027

33. Under this option, the Renewables Obligation is set on a headroom basis until 31 March 2027, whereupon it would move to a Fixed ROC system until the end of the RO in 2037. The RO will close to new generation from 31 March 2017. Currently, Ofgem administer the Renewables Obligation, including administration of the buy-out fund.
34. The option to introduce the Fixed ROC in 2027 is driven by three reasons. First, we are not aware of any existing PPAs or finance arrangements which extend beyond that date (see para 31 above). Second, given that 2007 was the date when a significant amount of generation first entered the RO, 2027 is the first year when a large amount of generation will exit the RO, and it will therefore be the first year when the level of the Obligation would significantly decrease. Calculating the level of a decreasing Obligation is a higher admin burden, therefore moving to the fixed ROC in 2027 will avoid that increased cost. Finally, a shrinking Obligation is perceived as being less stable by investors. Fixing the price of the ROC before the mechanism begins to decrease will give more confidence in ROCs holding their value until the end of the obligation in 2037.

⁵ http://www.decc.gov.uk/en/content/cms/consultations/cons_ro_review/cons_ro_review.aspx

35. The impacts of this option are very similar to those presented in Option 1, except that impacts occur further into the future.
36. This option is not expected to have a significant impact on PPAs as nearly all current PPAs would be expected to have expired by 2027.

F) Wider Impacts

Equality

37. This policy has no significant bearing on protected characteristics, including age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex and sexual orientation.

Environmental Impacts

38. Any additional traded carbon savings which could result from an increase in renewables deployment would be offset by increases in emissions elsewhere within the capped EU-ETS traded emissions sector. There will therefore be no net impact on greenhouse gas emissions.

Wider environmental issues

39. The RO provides the Government's support scheme for renewables electricity generation. It incentivises investment in renewables projects which help to move the UK away from fossil fuel dependency towards a low carbon economy with consequential carbon savings from displaced fossil fuel generation.
40. Individual projects supported under the RO that are deemed to have the potential to cause significant adverse impacts are required to undertake an Environmental Impact Assessment (Directive 85/337/EEC) as part of the planning process.

Social Impacts – only relevant impact here is rural proofing

41. A large proportion of renewable energy is produced in rural areas and affects businesses involved in the growth (of biomass) and generation of renewable energy and rural communities living in the vicinity of new developments. If the move to a Fixed ROC system increases the proportion of energy from renewable sources, there may be more renewable energy developments in rural areas.
42. Certain forms of renewable development impact disproportionately on rural areas and there can be resistance to new developments. However, any resistance needs to be viewed in the light of Government's commitment to increasing renewable energy to meet its longer term goals and in order to tackle climate change. In addition, a significant proportion of the new renewable generation needed between now and 2020 is likely to take the form of offshore wind generation, some of which will be built some distance from shore.
43. Separate legislation exists with a focus on ensuring that the environmental and social impacts of development are fully taken into account, outside the scope of the RO.
44. Development of RO policy has been subject to extensive consultation. This has previously included business interests within the renewables sector and consumer interests. It has also

included relevant rural business groups (including NFU and CLA as well as the wind sector) but has not sought to engage rural community groups in particular.

Sustainable Development

45. The RO is aimed at increasing the deployment of renewable electricity generation in order to move the UK away from fossil fuel dependency towards a low carbon economy in preparation for a future when supplies of gas and oil will become tighter and more expensive.
46. The RO includes sustainability reporting requirements for the use of biomass in electricity generation. This will be reported annually and will help inform Government policy on sustainable use of biomass for electricity generation.

G) Economic Impacts

Competition

47. The RO is a market-based instrument that operates in a competitive market for electricity. It is open to all participants in renewable generation.

Small Firms

48. Other things being equal, if the move to a Fixed ROC system results in lower excess profits to generators and suppliers, then the retail price of electricity is likely to decrease. This impact, while affecting all electricity consumers, is likely to represent a larger proportion of income for smaller companies, as they are less likely to have their own generation compared to – particularly - larger industrial users with heavy electricity requirements.
49. The majority of smaller businesses involved in renewables generation are likely to be supported under FITs, as the simplicity and income-certainty of FITs makes them better suited to small business needs. Small businesses involved in licensed electricity supply should not experience any additional burdens from the proposals.