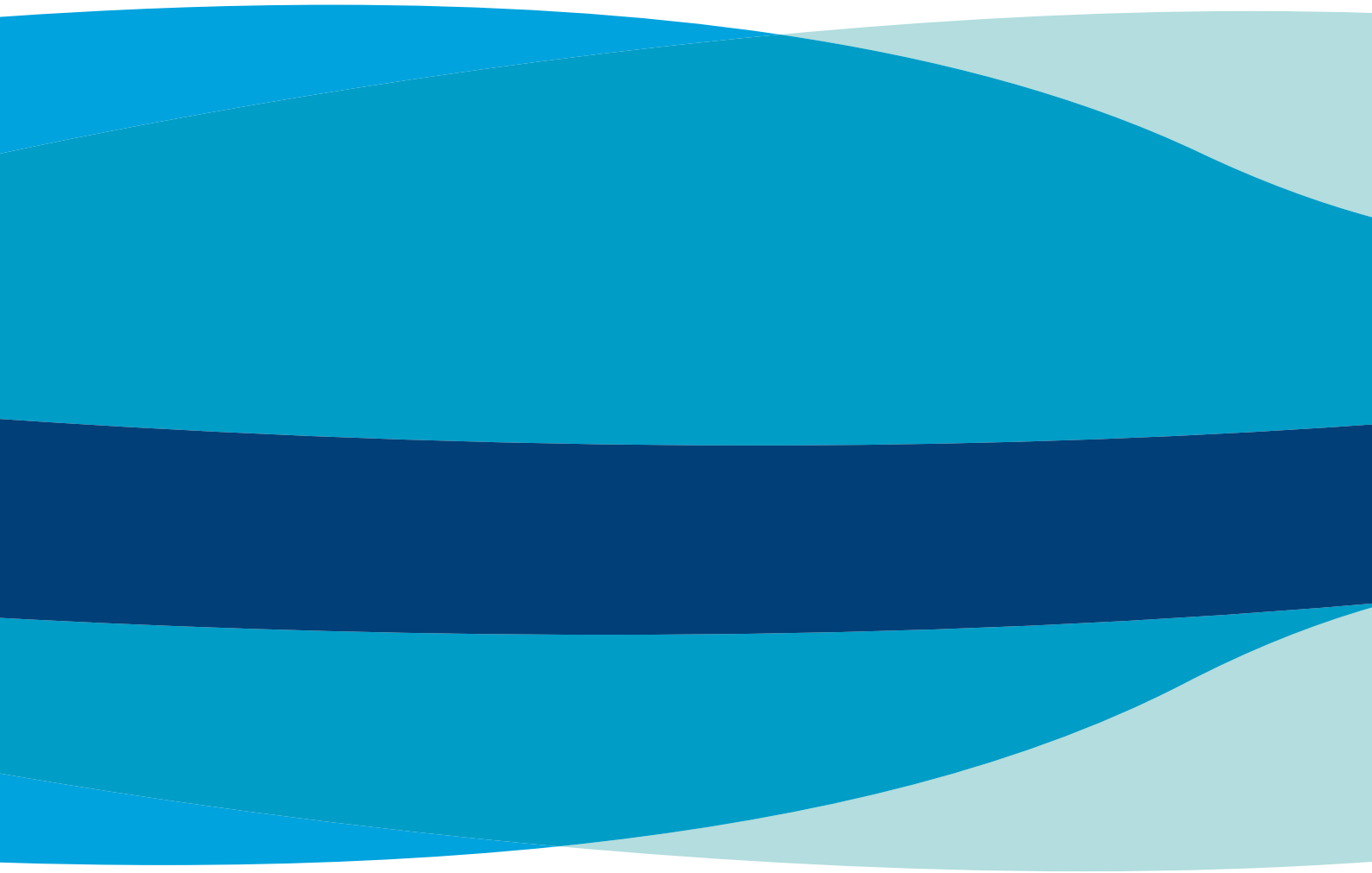
DEPARTMENT OF ENERGY & CLIMATE CHANGE

Government Response to the 2009 Consultation on the Renewables Obligation



Building Britain's Future

ACT ON CO2

Contents

Foreword

In order to address the twin challenges of tackling climate change and ensuring energy security, we need to dramatically increase our energy generation from low-carbon sources and make the UK attractive to low-carbon businesses.

This Government has already achieved a lot, but we recognise we have a responsibility to do more to support growth in this area.

Increasing the amount of electricity we generate from renewable sources will be central to our efforts in moving to a low-carbon economy, and it is important that we build on the good work already underway. The Renewable Energy Strategy published this summer set out the UK's plans for achieving our share of the ambitious EU 2020 renewable energy target, including how we will deliver around 30% of electricity from renewables.

The Renewables Obligation (RO) is our main mechanism for supporting large-scale renewable electricity and has enabled a trebling in eligible renewable generation since its introduction in 2002. The changes we are introducing will build on this success and help deliver the required level of generation necessary to meet our 2020 targets.

To do this we need a stable environment to reduce perceived investor risk and encourage rapid deployment of renewables on a large scale.

The UK is already a world leader in offshore wind deployment and I am pleased to announce £2.6 billion additional support for offshore wind projects, helping to bring forward up to 3 GW. That is enough to power the equivalent of up to 2 million homes.

We committed to extending the RO to 2037, and I am delighted that we will be giving new projects a full 20 years of support. This should increase investor confidence, particularly in Round 3 offshore projects, and ensure long term stability for developers.

We are very conscious of the need to balance this increased support with maintaining value to consumers, to protect them from overpaying for renewables deployment. The introduction of banding earlier this year, as well as the move to headroom, help to make the RO more effective, and we will continue to look for ways to achieve further efficiencies.

This package of increased certainty and support for investors, combined with ensuring value for money for consumers, will help us continue to drive forward deployment of renewable electricity generation to meet our 2020 targets.

The Rt Hon Lord Hunt of Kings Heath OBE
Minister of State for the Department of Energy and Climate Change

Chapter 1

Introduction

The Renewable Energy Strategy (RES) published this summer set out the UK's action plan for achieving our target of sourcing 15% of our total energy from renewables by 2020. The central scenario for the breakdown of this target between the heat, electricity and transport sectors proposes that over 30% of our electricity may need to come from renewables, of which 29% could be from large-scale electricity generation and 2% from small-scale.

The Renewables Obligation (RO) has been successful in tripling the level of eligible renewable generation since its introduction in 2002 (from 1.8% of total supply to 5.4% in 2008), and the RES reaffirmed our commitment to retaining it as our main support scheme for large-scale renewable electricity projects. After 1 April 2010, it will work alongside a new system of Feed-In Tariffs (FITs) designed to incentivise small-scale low-carbon electricity generation, including by householders and communities. In conjunction with the Renewable Heat Incentive (RHI) to be introduced in April 2011, these three incentives will form a comprehensive financial support framework to provide long-term, targeted support to renewables.

On 1 April 2009 we introduced banding to the RO to provide different levels of support to different technologies. This was to make the RO a more efficient and effective mechanism, able to deliver a higher level of renewable generation from a wider range of sources. Following the successful introduction of this fundamental change we are now looking at further measures to drive deployment of new renewable generation to allow us to meet our stretching 2020 targets. The Renewable Electricity Financial Incentives (REFI) consultation, published alongside the RES on 15 July 2009, included proposals both for changes to the RO, and for the design of the new FITs scheme. This Response sets out our decisions in relation to the Renewables Obligation; a second Response will be published early in the New Year detailing decisions for the FITs.

We sought views in the REFI consultation on a number of structural changes to the RO to be implemented by way of amendments to the Renewables Obligation Order 2009 (ROO 2009), intended to come into effect on 1 April 2010. Following analysis of the responses we received, the changes we intend to implement include:

- Extending the RO to 2037;
- Ensuring that generating stations receiving full accreditation on or after 26 June 2008 receive 20-years support from the date they are first accredited, subject to the 2037 end date;
- Ensuring that additional capacity receiving full accreditation on or after 26 June 2008 will benefit from 20 years support from the date it is first accredited, subject to the 2037 end date;
- Removing the 20 ROCS/100MWh renewable electricity cap on the Obligation level;
- Increasing headroom to 10% with effect from 1 April 2011;

- Increasing the level of support for offshore wind projects that are granted full accreditation between 1 April 2010 and 31 March 2014 up to 2 ROCs per MWh;
- Clarifying that measurement of Anaerobic Digestion (AD) feedstock is allowed to be carried out over a three-month period;
- Offsetting presented ROCs from generators future output;
- Exclude electricity produced from landfill gas and sewage gas from the Sustainability Reporting requirements from 1 April 2010; and
- Continuing support for eligible microgeneration technologies through the Feed in Tariff scheme when it is introduced.

We also sought views on additional changes to the RO to be implemented over the longer term. These included the possible introduction of a revenue stabilisation mechanism; the option of extending the RO to include generating stations located outside the UK; changes to the sustainability requirements for biomass fuels; and amendments to the co-firing cap.

The responses we received in relation to these issues have confirmed that there is more work to be done on these proposals. We will therefore look further at the costs and benefits of introducing a price stabilisation mechanism to increase the efficiency of the RO and continue to work with the European Commission and other Member States on a framework for trading which will inform further policy development in this area. As announced we will also start our Banding Review in October 2010. As part of this work we will look at whether we need to change the co-firing cap.

Responses to the statutory consultation

The REFI Consultation closed on 15 October 2009. In total we received 733 responses. 53% were from individuals; 23% were from organisations, including development agencies, generators, suppliers, manufacturers, installers and supply chain companies; 11% were from Trade Associations, Government bodies, statutory agencies and academia. The remainder were made up of representations from the finance industry, consultancies and technology developers.

A summary of the responses to the RO section of the Consultation can be found at Annex A. We would like to thank all those who responded to the Consultation.

Devolution

Whilst we refer in this document to the 'Renewables Obligation', in practice the system works on the basis of three complementary Obligations: one covering England and Wales, and one each for Scotland and Northern Ireland. Decisions regarding the operation of the Obligations in Scotland and Northern Ireland are for the Scottish Government and the Northern Ireland Executive respectively. However, the

UK Government and the Devolved Administrations understand the benefits of a consistent approach and the importance of this to many within the industry.

Both the Scottish Executive and Northern Ireland Assembly are currently in the process of carrying out their own respective consultations with stakeholders before finalising their policy. Scotland's consultation has closed and they are considering their response. Northern Ireland's consultation closes on 12 December 2009 and their response will follow in the new year. They are both aiming for unified implementation with us, on 1 April 2010.

Structure of the ROO

Subject to state aid and parliamentary approval, the above changes will be implemented through amendments to the secondary legislation; the Renewables Obligation Order 2009 (ROO 2009). The 2010 amendment order will be a stand-alone document consisting only of the amendments being made to the ROO. However, for ease of reference the draft version published alongside the consultation, as well as the draft version published alongside this response show the amendments inserted into the ROO 2009 in tracked changes.

Timing to implementation

The next steps towards implementation of these changes are:

Publish draft consolidated ROO amendments for comment	December 2009
Publish draft revised consolidated ROO amendments (following comments from stakeholders)	January 2010
State Aid Clearance	February 2010
England & Wales Amendment Order laid	February 2010
Debates in Houses of Parliament on England & Wales Amendment Order	February/March 2010
Changes made by the Amendment Order take effect	1st April 2010

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Chapter 2

Structural Changes

- **We will extend the RO to 2037**
- **Generating stations receiving full accreditation on or after 26 June 2008 will receive 20 years support from the date they are first accredited, subject to the 2037 end date**
- **Additional capacity receiving full accreditation on or after 26 June 2008 will benefit from 20 years support from the date it is first accredited, subject to the 2037 end date. We will consult further on how to define and treat refurbished or replaced plants**
- **We will remove the 20 ROCs/100MWh renewable electricity cap on the Obligation**
- **Headroom will be increased from 8% to 10% from April 2011**
- **We will consult further on the proposals for a price stabilisation mechanism**
- **The RO will not be opened up to include stations outside the UK in 2010. We are working with the European Commission to inform further policy development in this area**

Introduction

We have already made significant modifications to the RO intended to stimulate renewables deployment with the introduction of banding and headroom in 2009. However, we recognise if we are to achieve the ambitions announced in the Renewable Energy Strategy for renewable electricity generation in 2020, we must build on the changes we have already made.

The further amendments we are making to the RO, as listed below, are intended to make it both more effective at securing higher levels of investment to boost renewables deployment, and increase its efficiency to ensure value for money for the consumer.

Extension of the RO

We recognise the challenge of meeting our 2020 target, and announced in the Pre-Budget Report 2008 our commitment to extend the RO to at least 2037.

Respondents to the REFI consultation agreed that the RO should be extended to at least 2037.

The majority felt we should keep the end date under review or take a decision to extend to 2040. Some welcomed time limiting the RO to 2037 in the context of limiting the cost to the consumer.

There was concern from a significant number of respondents that an end date of 2037 would mean that any generators accredited after 2017 would receive less than 20 years support, which could deter investors after 2012/13, given that planning and

build timescale can be as long as five years. A few respondents suggested that an alternative to further extension would be to increase the level of support for these technologies in a future Banding Review. However, others felt this would not give the long-term certainty to encourage investment.

Given that renewables projects tend to be financed over 15 to 20 years, we do not believe that investment decisions in the near future will be adversely affected by a 2037 end date.

For this reason, **we have decided the Renewables Obligation end date should be 31 March 2037**.

To ensure generators do not receive support for longer than is necessary, we also proposed that support should be limited to 20 years for new projects, and to 2027 for existing generating stations.

Respondents were split almost equally between those who agreed with our proposed cut-off date for entitlement to 20 years support, 26 June 2008, and those who felt that a minimum of 20 years support should apply to all. A very small minority either called for a later cut-off date, e.g. publication of the final Renewable Energy Strategy in July 2009, in order to reduce the cost to consumers, or disagreed in principle to time-limited support.

There were a number of respondents who felt that the cut-off date would penalise early movers. However, whilst there are some projects that will receive less than 20 years support, these projects were built in the full knowledge that this would be the case. We therefore believe that giving any additional support now is an excess cost to consumers and would not result in any additional deployment.

Therefore eligibility for the 20 year support will apply to projects which receive full accreditation on or after 26 June 2008, up to the 2037 end date

We also consulted on whether to provide the full 20 year support to additional capacity or to refurbished or replaced plant. Responses were overwhelmingly in favour of applying the full 20 years in all cases.

There was some concern however regarding the definitions to be used in determining what constitutes a refurbishment or replacement. A number of respondents suggested that we use different criteria for each technology, whilst others asked for a simple criteria that was easily applied.

Additional capacity receiving full accreditation on or after 26 June 2008 will therefore benefit from 20 years support from the date it is first accredited, up to the 2037 end date.

However, we recognise the need to define refurbishment and replacement carefully, and will not provide for this in 2010, but consider in more detail next year.

Efficiency Changes

Headroom

The ROO 2009 introduced changes as to how the size of the Obligation would be set. Previously the level of the Obligation was set by a series of rising targets out to 2015/16. In the ROO 2009 we introduced a headroom mechanism to operate alongside fixed targets, so in determining the Obligation level from 2010 onwards we will use the higher of fixed target or headroom. With the rapid increase in renewables deployment needed to meet the 2020 targets, we are already moving away from calculating the Renewables Obligation using a fixed target. Headroom will set the size of the Obligation for the first time in 2010/11.

Headroom works by providing a set margin between predicted generation (supply of ROCs) and the level of the Obligation (demand for ROCs), helping reduce the likelihood that generation will exceed the Obligation in any given year, the result of which would be a crash in ROC value. It therefore gives investors greater certainty that there will always be a market for their ROCs.

This will also help stabilise the ROC price, preventing fluctuations in value seen with fixed targets where the gap between deployment and the Obligation level has varied considerably. This in turn increases the value for money for consumers, and stabilises the revenue stream for generators, meaning developers are better able to source funding for new projects.

We originally set headroom at 8% above predicted generation in the ROO 2009. However, analysis carried out for us by Redpoint suggested that at this level of headroom there was a one in ten chance of a price crash – due either to overestimating electricity demand or underestimating generation levels. This is a real risk for investors, and one which could have a detrimental effect on deployment and investment rates.

A headroom level of 10% above expected generation levels would reduce this risk. We therefore proposed to increase headroom through a series of adjustments so as to reach 10% by 2014.

The vast majority of respondents agreed with our proposal to increase headroom to 10%. However, there was a near unanimous call for headroom to go directly to 10%, given that the Redpoint analysis suggested this would reduce the risk of a ROC price crash.

There was some concern that the move to a greater level of headroom could lead to higher costs, and a suggestion that we look at limiting the upside risk to the consumer so that they do not pay a premium that is not increasing deployment i.e. if the level of actual generation is much lower than we predicted, this could result in excess cost to the consumer, by increasing the value of ROCs for the same level of deployment.

The Obligation level for 2010/11 was announced on 1 October, and was based on a move to 8% headroom, as our calculations showed that predicted generation would exceed the fixed target for next year. Given the Obligation level for 2010/11 is now set, we do not propose to change the level of headroom for the 2010/11 Obligation period. However, we recognise the need for investor certainty, and given an 8% headroom leaves a high level of uncertainty, we will move to 10% headroom from April 2011.

Headroom will continue to operate alongside fixed targets to 2015, so **in determining the Obligation level from 2011 we will use the higher of fixed target or 10% headroom**.

Price Stabilisation Mechanism

We asked for views on whether to introduce a mechanism to stabilise revenue from electricity prices for renewable electricity generators, and proposed that if we were to take this forward it would likely take the form of a "contract for difference" (CfD).

CfD would work by Government announcing a reference price for wholesale renewable power. In any chosen period of time (for instance yearly), when the wholesale value of renewable electricity exceeded the reference price, generators would be required to make a corresponding payment into a fund; in years when the wholesale value fell below the set level, the generators would receive a corresponding payment from the fund.

The fund's cash flow from the above payments would be spread across electricity suppliers and managed by a Government agency. The Government agency would recoup any payment to generators from suppliers and conversely would pass on any payments received from generators to suppliers; suppliers in turn would be expected to pass these on to their customers.

The effect of the mechanism is designed to be two-fold: to drive costs down and increase deployment. CfD could offer more certainty for investors on returns under the RO, helping to reduce hurdle rates and attract a broader cross-section of investors into the market.

Responses to the proposal were largely negative. However, some organisations agreed that such a mechanism could help access finance, and potentially lead to increased deployment. Respondents with a focus on the cost to the consumer were positive about introducing such a scheme.

The main concern raised was the effect of making another major change to the RO, and the impact this would have on investor confidence. A number of respondents felt a revenue stabilisation mechanism would make the RO significantly more complex, potentially driving investment away from the UK. Some suppliers added that the cash flow implications of having to make large payments would increase their credit risk, which may have to be passed through to consumers, mitigating the intended benefits.

There were also calls for the effects of banding and headroom to be reviewed prior to making a decision on introducing further efficiency measures, as both banding and headroom have only recently been implemented and should help remove some of the inefficiencies that were previously present. Respondents added that grid and planning issues are the major barriers to increased deployment, not the RO, and that these barriers have a knock on effect on the ability of the RO to bring forward deployment and consequently the cost to consumers.

In terms of the practicalities of the mechanism, setting a reference price was viewed as a major difficultly, with concern that if the price was set incorrectly it could lead to either reduced investment or over-reward of projects. As different investors have different risk appetites, respondents felt a single reference price might not be appropriate for all technologies.

If Government were to introduce CfD, the vast majority of respondents preferred the idea of a cap and collar mechanism over a fixed price and most thought an optional system would be the best way to assuage the concerns of investors. Others did however, raise concerns that an optional system could lead to gaming.

We understand the concerns that many investors have over increasing complexity, and some of the more detailed implementation issues. We also recognise that such a mechanism may not in practice be implementable or might not achieve its desired outcome of reducing consumer costs. However, it is important that with such a drive to increase renewables deployment, we explore how best to achieve value for money for consumers.

We therefore propose to commission further research to assess the costs and benefits of introducing a revenue stabilisation mechanism, reporting by the end of 2010.

The research will focus on three main areas:

1. The effect on the wider market of introducing revenue stabilisation for renewable electricity.
2. Developing a model for how CfD could operate, including an assessment of the effect on deployment and cost savings to consumers of that model.
3. An analysis of practical implementation issues such as:
   - how prices could be set;
   - who could administer the mechanism; and
   - how it would be funded.

As part of this work, we will be considering if there are any realistic alternatives to a revenue stabilisation mechanism that could increase the efficiency of the RO without adding too much additional complexity.

Extending the RO to stations outside the UK

Following the announcement in the Renewable Energy Strategy (RES) to open the RO up to stations outside the UK we set out some ideas of how this might work in practice.

Around half of respondents did not like the idea of opening up the RO, generally feeling it would undermine the main objective of the scheme to bring forward and support UK-based renewable generation. Given that the RO is ultimately funded by the UK consumer, many respondents felt that it should be focused on investment in UK jobs and infrastructure.

Of those that were supportive, there were a number of concerns raised about how trading would work in practice and potential effects on the stability and integrity of the RO. There were suggestions for considering limiting eligibility further including:

- capping the amount of generation;
- limiting to generation from countries that had already met or exceeded their target; or
- ensuring that a further contribution was made to the UK in some way.

An overwhelming majority felt we should limit eligibility to generators with a direct connection to the UK to maintain some form of accountability and prevent gaming. A number of these also felt the generation should be connected exclusively to the UK. However, as some respondents pointed out, 'direct connection' may prove difficult to define and could be further complicated by plans for a North Sea or European supergrid. A minority of respondents also pointed out that direct connection would not necessarily result in the least cost, most efficient resources coming forward and would potentially raise the cost to the UK consumer

In terms of ROC support levels, respondents largely felt that stations located outside the UK should not receive a higher level of support, and that additional complexity should be avoided. In some cases it was suggested that if the argument to open up the RO was to meet our target more efficiently, then support levels should be lower. There was a feeling that ROCs should not be issued on transmission losses over very large distances or to compensate for connection costs.

This area is still very much in development and it was clear from the consultation responses that there are a number of issues that need further, more detailed, consideration.

Following publication of the Renewable Energy Directive earlier this year, the UK is currently working with the European Commission to establish a European framework for trading across Member States. This will inform the UK policy on trading, and how the RO fits into that wider policy.

Given the complexity of this area of policy and the need to come to a European consensus, **we have decided to postpone opening up the RO**. The views from this consultation will help inform how we take this forward and **we will consult again next year**.

Chapter 3

Offshore Wind Banding Review

- **Following the early review of the level of support for offshore wind, we will raise the level of support to 2 ROCs/MWh for eligible projects**
- **Eligibility will be based on accreditation dates in line with the Renewable Advisory Board's proposal and remaining consistent with RO policy**
- **Projects that receive full accreditation between 1 April 2010 and 31 March 2014 will receive 2 ROCs/MWh**

Early Review

We announced in the Budget 2009 that we would review the level of support for offshore wind. This followed concerns from the offshore wind industry that their costs had risen, making projects economically unviable. In response to these concerns, DECC commissioned Ernst &Young (E&Y) to carry out a study into the costs of offshore wind and their key drivers. The study reported in early April and suggested that a combination of supply chain and market factors had led to significant increases in costs over a relatively short period.

This increase in costs meant that the condition set out in article 33(3)(e) of the ROO was satisfied, enabling the Secretary of State to carry out an early review of banding provisions in the ROO. On assessing the report, the Secretary of State decided to launch an early review, as announced in the Budget.

After the Budget announcement, we asked the Renewables Advisory Board (RAB) to peer review the E&Y report, before we consulted on possible proposals. The consultation outlined a proposal we had come up with that aimed to direct support to those projects in financial difficulty and an alternative proposal intended to have the same effect suggested by RAB.

Proposals

Contract signing and foundation build

Our proposal was based around signing contracts for the delivery of wind turbines and the requirement of a foundation to be in the water by a certain date. We suggested:

- 2 ROCs for projects signing a firm contract between 22 April 2009 and 31 March 2010, with a foundation in the water by end 2011; and
- 1.75 ROCs for projects signing between 1 April 2010 and 31 March 2011, with a foundation in the water by end 2012.

Projects signing contracts after 31 March 2011 or failing to get a foundation in the water by end 2012 would only be eligible for 1.5 ROCs (the current banding level).

Accreditation

RAB suggested that we remain with our current RO policy of using accreditation as the basis for eligibility. They suggested that if it was the Government's intention to avoid providing support to those that were financially viable at 1.5 ROCs and had signed before the Budget, we could, in addition to accreditation, add a cut-off date for projects reaching financial close before the announcement.

Aims of the review

The principal aim of the offshore wind review was to ensure that projects received the necessary level of support to go forward, and maintain the necessary momentum for the offshore wind industry to ramp up deployment rates in line with our vision for 2020. It was not the aim to support any project at any price, and we were mindful of balancing the impact on consumer bills with a fair and consistent approach to maintain confidence in the industry.

Responses

The majority of respondents to the consultation were in agreement with the outcomes from the Ernst & Young report that stated that the costs for offshore wind projects had increased, resulting in a need for additional support.

Of those who did not agree, one of the main concerns was placing so much emphasis on the offshore contribution, when other technologies were facing issues that needed support. Government recognises this and is working on increasing deployment and relieving non-financial barriers for the renewables industry. However, our evidence and responses to the consultation suggest that the offshore wind industry has faced significant increased costs and needs additional financial support to maintain investment.

Level of support

Most respondents also agreed that, given the evidence presented and/or from their own experience, 2 ROCs/MWh was broadly the right level. However, there was a strong feeling that there was not enough evidence to conclude that costs would fall over the next couple of years. It was therefore argued that the level of support should not be stepped down, but remain at 2 ROCs until implementation of the next banding review in April 2013.

Although it was recognised that a clear signal needed to be given to the supply chain to bring down costs, concerns were raised over the proposed timescales being too tight to bring on any meaningful supply chain development and therefore potentially having the opposite effect of maintaining long-term momentum in the industry. Some added that having temporary arrangements undermined certainty in the renewables

industry generally and would have a knock on effect for other technologies and confidence in the RO.

It is not DECC's intention to create a hiatus in the market by reducing levels before there is evidence that conditions have changed sufficiently. As we are due to begin a scheduled banding review in October 2010, to come into effect from April 2013, we have decided to maintain 2 ROCs/MWh for offshore wind until that review, to avoid a potential situation where developers who miss out on the 2 ROCs/MWh band delay investment until the outcome of the review.

Some stakeholders have raised concerns over the effect of the increase in ROCs on the market. As we have moved to a headroom mechanism with the purpose of stabilising the ROC price, we do not believe that extra ROCs will have a material effect on ROC prices going forward.

Eligibility criteria

There was a mixed response over the question of appropriate eligibility criteria.

Those that agreed with DECC's original proposal thought it offered a clear, short term objective, with a degree of certainty for developers that accreditation lacked. However, the majority had concerns over the foundation clause, raising issues outside the control of the developer (e.g. health and safety, adverse weather, technical) as having the potential to risk undermining their ability to meet the timetable. Others added that with such a tight timescale it would put pressure on the already limited infrastructure resources, could artificially increase costs in the short term and transfer more market power into the hands of manufacturers and construction suppliers.

On a practical level, the difficulty of defining and auditing 'firm contracts' was raised, with concerns around the resulting increase in costs of the scheme's administrative burden that all RO participants would inevitably have to bear. Dealing with supplier insolvency and contracts having to be broken for reasons outside the developers control added to these concerns. There were also fears of increased potential for gaming the system whereby timing of contract signing could be artificially brought forward and the project delayed after one foundation had been built, or where developers placed contracts for turbines that were not project bespoke. A penalty clause was not seen as a robust solution given the size of the penalty that could be afforded in order to preserve a difference of 0.5 ROC/MWh over the course of the project.

Those that preferred the accreditation criteria proposed by RAB argued that any move away from the existing RO policy of using accreditation would increase the perceived risk of investment in the UK and thus affect the attractiveness of the UK renewables market. Of these, some argued that the criteria DECC had proposed had already had a negative effect on investor confidence in the RO.

The main reason for support of the accreditation criterion was its simplicity and consistency with established principles. However, the increased lead time was raised as having the potential to increase uncertainty in eligibility for ROC banding levels.

The financial close cut-off date was not popular, with respondents feeling it unfairly penalised developers who had gone ahead on the basis of a level playing field at 1.5 ROCs/MWh, and would be potentially difficult to identify.

In response to the question of whether projects eligible for 2 ROCs/MWh would be put at an unfair advantage, responses were mixed. Some argued that projects made an investment decision and must have been commercially viable to go forward. However, many felt that cost levels were similar for those projects and they would therefore be at an economic disadvantage competing in the same market.

One of the main concerns was the distortion of the Operation and Maintenance (O&M) market. Several developers presented evidence in the form of a confidential report they had independently commissioned that suggested that cost increases would be seen throughout O&M services and supply chain due to the additional resource demand – largely installation/repair vessels and labour costs – giving firms receiving 2 ROCs/MWh a dominant position in contracting. It was suggested that this would be a minimum increase of 10%, which would have a significant impact on marginal projects that went ahead on the basis of 1.5 ROCs/MWh around the same time.

We consider it important to ensure, as far as possible, a level playing field and apply the fairest and most consistent policy in coming to a solution. After analysing the responses and further consideration of both sets of criteria, we decided that using accreditation to define eligibility was the preferred option. It is in line with support for other RO bands, it is understood, accepted and already used by industry, and therefore it maintains consistency and certainty in the RO as a mechanism for long term support for renewables.

Given the difficulties that contract and foundation criteria present, with regards to increased costs for RO participants, potential for gaming, and introducing uncertainty to investor confidence in the RO, we feel RAB's proposal of accreditation criteria best meets the objectives we set out to meet through this review.

In order to ensure that projects that require the increase in the level of support are captured, **we will award projects that receive full accreditation between 1 April 2010 and 31 March 2014, 2 ROCs/MWh**. Those that have applied to Ofgem before 1 April 2010 and obtained full accreditation will not be eligible for the enhanced level of ROC support. We do not propose to use financial close as a cut-off date as we now consider that to do so would lead to distortion in the O&M market/supply chain putting companies that faced the same market conditions at a disadvantage.

Consideration was given to stepping down support to 1.75ROCs/MWh for projects accredited between 1 April 2014 and 31 March 2015, but we decided that it would be

more cost effective to wait for the outcome of the banding review in 2013 to reconsider the banding levels for those projects further down the line.

The scheduled banding review that begins in October 2010 will be an opportunity to review whether conditions have changed sufficiently to modify the banding level. Following the scheduled review, the new banding regime will come into effect from April 2013. However, should the review conclude that there should be a decrease in banding for offshore wind, that decrease will take effect from April 2014.

With regards to early and scheduled reviews we have taken on board the comments raised by industry over the need to set out a process going forward. We are therefore proposing to consult RAB on the process for future reviews (both early and scheduled), before publishing our approach.

Phasing

Following the publication of the consultation document, several developers have raised the issue of the level and length of support for different phases of large offshore wind farms. These phases may be split contractually and/or in terms of construction.

In line with RO policy, our intention is to provide support for projects for 20 years from accreditation of a generating station or from accreditation of additional capacity.

Support for offshore wind phasing will depend on the nature of how the project is accredited. For example:

- projects that gain full accreditation as one generating station (incorporating all phases) within the eligibility window will receive 2 ROCs/MWh for 20 years, from the time they are accredited;
- projects that accredit phases as separate generating stations will receive the relevant ROC band at the time of full accreditation of the relevant station for 20 years up to the end date of 2037;
- projects that accredit subsequent phases as additional capacity, rather than as separate generating stations, will receive the relevant ROC band at the time of full accreditation of the additional capacity for 20 years up to the end date of 2037.

Chapter 4

Co-firing and use of Biomass

- **We will maintain the co-firing of regular biomass cap at 12.5%, but review the cap as part of the Banding Review due to start in October 2010**
- **We have decided not to impose a restriction on the use of tallow in the RO at this time, but will revisit this issue for the 2011/12 Order once the market for tallow has stabilised following recent changes and we have a clearer view on Commission requirements for biomass reporting**
- **Sewage gas and landfill gas generating stations will be exempt from the requirement to produce Sustainability Reports**

Co-firing cap

Introduction

A co-firing cap was introduced due to concerns that, if not restrained, co-firing ROCs could potentially flood the ROC market. This could significantly decrease the value of ROCs for other technologies and result in investors placing a higher risk premium on their investment decisions.

The cap only applies to ROCs from stations co-firing regular biomass. It does not apply to ROCs from stations co-firing with energy crops, co-firing with regular biomass and CHP, or co-firing with energy crops and CHP, as we do not believe that ROCs generated from these stations have the same potential to flood the ROC market. This is due, in part, to the relative immaturity of the energy crop supply chain, but also to the evidence from the few examples of co-firing with CHP sites currently existing or proposed. It also reflects our policy position to offer both energy crops and CHP additional support due to the greater carbon emissions mitigation they offer compared with regular biomass and non-CHP stations.

Some respondents to the 2008 Statutory Consultation raised concerns about the effect of the cap on the co-firing ROC market, arguing that it restricted competition and disproportionately penalised independent co-firers. They felt the cap forced these independent co-firers to participate in a partitioned marketplace, meaning they had to accept significant discounts in price for their ROCs.

To help provide additional evidence, we instructed Oxera to look at these arguments and provide us with a report on the effect of the cap on the co-firing market. Mindful of concerns raised by other respondents that uncapped co-firing could lead to unpredictable fluctuations in the ROC price, we also asked Oxera to look at the effect on the wider ROC market of changes to the size of the cap (including its removal). The Oxera report was published on 22 September 2009.

The Oxera report suggested that in the long run the cap is unlikely to significantly affect the ROC market for co-firing. This is due in part to the banding allocated to co-firing in April 2009, which effectively doubles the amount of co-firing generation with regular biomass needed to receive 1 ROC (i.e. 2MWh as opposed to 1MWh). However, in the

shorter term there is a suggestion that there may be a problem in that the cap may restrict independent generators' ability to sell ROCs, as plants close earlier than expected. For example those affected by emissions control legislation under the Large Combustion Plant Directive (LCPD), may now run at a higher capacity in the short term than originally envisaged.

In the consultation we asked respondents whether the cap should be retained at 12.5% going forward, or to provide evidence if they thought it should be changed. Some respondents called for the co-firing cap to be tightened, and for co-firing to be removed from the RO by 2016 as had originally been planned. However, the majority of respondents felt that the cap should continue at 12.5%.

One of the main concerns was that unrestrained co-firing would increase the demand for biomass in a supply market which was already tight, driving up the price and making it less attractive to invest in biomass plants. Respondents felt this could be exacerbated by the predicted reduction in ROC value, which Oxera suggested would impact biomass investment over and above other technologies.

Others were worried about using the RO to "lock-in" carbon emissions by subsidising coal-fired plants to continue operation, and there were further concerns that removing the cap would increase uncertainty in the calculations for setting the Obligation. Currently we use the cap to determine the maximum number of ROCs to be generated for co-firing with regular biomass. Without a cap it was felt that there would be too much uncertainty over the level of co-firing, making it considerably harder to predict future ROC generation, and therefore removing any efficiencies associated with headroom and increasing the risk of over-supply.

In addition some respondents suggested that the Oxera report: had not fully considered the limitations on biomass supply imposed by other biomass markets such as animal feed; did not differentiate the price of fuel available for co-milling (very expensive) from that suitable for direct injection (cheaper but higher O&M costs); and over-estimated the potential for direct injection to allow stations to achieve greater than 6% thermal cap from co-firing. It was felt that these factors could have led to an over-estimation in the likely growth in co-firing.

A number of respondents did not believe the current 12.5% cap would be met and suggested Government monitor the situation over the next few Obligation periods, adjusting the cap if necessary. They argued that this was supported by the Oxera report findings that co-firing ROCs generally received the same price as normal ROCs, indicating that there was not a constraint on the number of ROCs produced.

A minority felt the cap should be raised due to insufficient competition for co-firing ROCs from independent generators resulting in dependency on the price offered by the Big Six suppliers who control a large percentage of the market. Some suggested that independent co-firers had adjusted their generation to take account of this or had not entered the market due to uncertainty about finding a buyer for their ROCs. It was argued this had resulted in less co-firing than would otherwise occur in an unconstrained

market, and consequently higher emissions and increased rents to suppliers due to fewer ROCs being available for compliance.

As we have announced the Obligation for 2010/11 based on a calculation using the co-firing cap set at 12.5% **we have decided not to increase the level of the cap for the 2010/11 Obligation period**.

We have considered the responses to the consultation and think more work is necessary to address some of the concerns expressed. We believe this is best carried out as a part of our Banding Review, due to begin in October 2010, which will look at the costs of the different technologies – including co-firing – and will examine potential deployment going forward. **We will consider whether the co-firing cap needs to be changed in light of the conclusions of this work.**

Indirect effects of co/by products and wastes

In the Government Response to the statutory consultation on the ROO 2009 we noted that there were sustainability concerns resulting from the use of co-products, by-products and wastes in the RO that are also feedstocks for other industries. This concern was mainly expressed in relation to tallow, though we recognise the issue is applicable more broadly.

In the case of tallow, the sustainability issue arises from the use of tallow by other non-energy sectors, namely the oleo-chemical industry. Concerns have been raised that demand created by the RO could lead to the supply of tallow for the oleo-chemical industry being restricted, forcing them to substitute with palm oil, which raises particular sustainability concerns. It was suggested that Government should consider placing a cap on the use of tallow within the RO to limit its use for energy generation.

Since publication of the 2008 Government Response, the only oleo-chemical producer currently using tallow within the UK has announced that it is consulting on the potential closure of its UK tallow processing plant. It is not yet clear how this move will alter the UK market for tallow, but we continue to work with the Department for Business, Innovation and Skills (BIS) to monitor this issue. Further clarification of European waste legislation is also desirable to provide legal certainty on the circumstances when the Waste Incineration Directive (WID) applies to the burning of tallow. The Department for Environment, Food and Rural Affairs (Defra) are currently engaging with the European Commission to gain this clarity. For these two reasons, we suggested in the ROO 2010 statutory consultation that it was not appropriate to propose limiting the use of tallow within the RO at this time.

In the consultation we also identified that similar issues occur with other co-products, by-products or wastes such as molasses, straw and waste wood, which also impact on the Renewable Transport Fuel Obligation (RTFO). The Renewable Energy Directive (RED) sets out how such feedstocks should be treated in terms of biofuels and bioliquids and has committed the Commission to providing a methodology to report the full indirect effects of biofuel production pathways. However, there is currently no such undertaking

for solid biomass, though it may be considered within the paper on sustainability reporting of biomass that the Commission is bound to deliver by the end of 2009.

In the interim we therefore commissioned, in partnership with the Renewable Fuels Agency, a study to develop a methodology to measure the indirect impacts of co-products, by-products or wastes. This study applied the methodology to a series of case studies, including tallow, solid municipal waste and straw, and will be used to inform the development of future sustainability reporting requirements for biomass feedstocks. The results will be considered for inclusion in future sustainability reporting requirements for the RO and will also be submitted to the Commission as part of the evidence base on this issue.

The vast majority of respondents agreed that we should not impose a restriction on the use of tallow in the RO until clarity of the new marketplace has been established. A few respondents expressed concern that failing to restrict tallow use at this time could lead to an increase in the use of palm oil as the most likely substitute.

Having considered the responses we have decided that we will not make any changes for the 2010/11 Order. We will look at wider sustainability issues more generally for the 2011/12 Order. This should allow the market for tallow to stabilise following recent changes and we will also have a clearer view of Commission requirements on biomass reporting more generally.

Sewage gas and Landfill gas to be excluded from Sustainability Reporting

We introduced sustainability reporting from 1 April 2009 as a first step towards monitoring the sustainability of organic matter used in electricity generation.

As sewage gas is the product of biomass and a large part of the material sent to landfill is biomass, or biomass in origin, both of these types of generation are caught under the current provisions in the ROO 2009 Order and will be required to provide sustainability reports.

We do not believe there is any value added by requiring sewage and landfill gas to provide sustainability reports. The aim of the sustainability report is to allow us to incentivise the most sustainable forms of co-firing and biomass, and address key concerns over sustainability e.g. land use change (particularly deforestation) and the distance transported.

Sewage gas is produced from a relatively homogenous source (human effluent). Therefore sewage gas returns, while likely to be quantifiable, are not likely to shed any light on the matters the sustainability reporting is aimed at, e.g. prior land use. Landfill gas on the other hand is by, its very nature, the product of a number of possible sources, most of which will not be easily quantifiable nor sourced. This means that returns made as part of the sustainability reporting requirement are likely to state that to the best of the operator's knowledge and belief the information is "not known".

We therefore do not believe there is any benefit in including these returns in reports, and note that if they are included they could skew the reporting statistics. However, we will still require sustainability reporting where sewage gas stations add other biomass, for example food waste, to the sewage.

As this change will not apply before 1 April 2010 sewage gas and landfill gas stations will be required to report for this Obligation Period. Ofgem have provided an IT work-round to allow them to report for this period and we will work with Ofgem to ensure that the statistics in the report are not skewed by these returns.

Chapter 5

Technical and Administrative Issues

- **We will meet with industry representatives in January 2010 to review lessons learned from the 2010/11 Obligation-setting process and to test assumptions used in setting the 2011/12 Obligation level**
- **The draft Obligation level for 2010/11 with underlying calculations will be published in July 2010**
- **Ofgem will be able to offset ROCs that are subsequently found to have been issued incorrectly from a generator's future output, and will have six years to verify the information relied upon to issue a ROC**
- **We will consult further next year on how Ofgem can deal with a generator no longer eligible for ROCs or facing insolvency**

Calculating the level of the Obligation

The changes introduced by the Renewables Obligation Order (ROO) 2009 included the requirement for the Secretary of State to announce the level of the Obligation for the next Obligation period on 1 October preceding the start of that Obligation period.

In order to announce the Obligation level it is necessary to carry out three calculations (A, B and C) as set out in Part 2 of the RO Order (articles 6-12). We have recently carried out these calculations for the 2010/11 Obligation period.

In the consultation we discussed the underlying assumptions used for these calculations, and gave respondents the opportunity to comment on these. Most respondents generally agreed with the principles we set out for carrying out the calculations. However, there were some useful points raised that we intend to look at in more detail. These include:

- use of alternative sources of electricity demand information and requests for more transparency in how Government UEP figures are calculated;
- how we determine load factors for different technologies including landfill gas and onshore/offshore wind;
- how we determine the potential generation from co-firing; and
- how we could improve the information on which we were basing our new generation levels.

For the 2010/11 Obligation period the calculations set the Obligation level for England and Wales at 0.111 ROCs per MWh[1] (11.1%). Contrary to our expectations, headroom, Calculation B, was invoked for this period, rather than the target of 10.4% (0.104 ROCs per MWh). This was due to predictions of the electricity demand level being lower than expected, which was largely because of the economic downturn. We expect it is likely we will move back to the fixed target for 2011/12, and then to headroom thereafter. However, this will depend on the level of generation and demand.

1 The Obligation level for Scotland has been set at 0.111 ROCs per MWh and for Northern Ireland it has been set at 0.0427 ROCs per MWh for the 2010/11 Obligation Period

The process of setting the Obligation level for 2010/11, along with the responses to the consultation, have helped identify some important questions around the assumptions we used for load factors and the reliability of predicted dates for new generation. While we have erred on the side of caution in determining the level for 2010/11, we recognise more work needs be done on these areas for future obligation periods. We therefore propose to work with industry over the next year, ahead of calculating the 2011/12 Obligation levels.

The timetable below sets out when we intend to engage industry in setting the 2011/12 Obligation level.

Jan 2010	Lessons learned meeting with industry representatives
Feb-Jul 2010	Work with industry representatives to test assumptions, including: • testing electricity demand predictions; • testing load factors; • exploring issues around intermittency; • looking at co-firing assumptions; and • checking RESTATs data for future generation.
Jun 2010	Send letters to developers checking build status on projects for 2011/12
Jul 2010	Publish draft Obligation level
Aug/Sep 2010	Meeting with Industry representatives to discuss draft Obligation levels
1 Oct 2010	Publish 2011/12 Obligation level

We will be inviting representatives from the following:

Association of Electricity Producers
British Wind Energy Association
Centrica
Drax
EDF Energy
EON
Ofgem
Renewable Energy Association
RWE nPower
Scottish and Southern Energy
Scottish Power

Subject to available space we would be interested in hearing from other companies wishing to join this group. Please respond to rfi@decc.gsi.gov.uk headed "Calculating the Renewables Obligation Level 2011/12".

ROC Revocation

ROC revocation was originally introduced to prevent generators over claiming ROCs and allow Ofgem to rectify any mistakes made in allocation. In relation to revocation of ROCs before they are presented to the Authority, this is fairly straightforward and appears to be working.

However, in our consultation we recognised that revocation of ROCs from suppliers once the ROC has been produced could impact on a supplier's Obligation compliance, and potentially lead to penalties being imposed through no fault of the supplier. A number of suppliers reiterated this point in their response. Additionally, this increased risk for suppliers may lead to a reduction in the value a supplier places on a ROC, thus impacting generator revenues.

Preventing any ROC from being revoked after it has been produced removes commercial risk for both generators and suppliers. However, this would open the system up to potential gaming; whereby generators do not report a mistake in their claim until after the ROC has been produced, when there would be no recourse available to Ofgem to correct the situation. It also means that Ofgem would be unable to rectify any mistake on their part once the ROCs had been redeemed.

In order to ensure a balance between unwanted complexity or risk and a consistent, fair approach, we proposed that Ofgem offset the number of ROCs to be revoked from the appropriate generator's future output, thereby transferring the risk of presenting an incorrectly allocated ROC from suppliers to generators. Where a generator was no longer in operation, we suggested that the original ROCs may still need to be revoked from the supplier. To increase certainty, we proposed a time limit of six years from the date of ROC allocation in which Ofgem could identify and take action on misallocated ROCs, to tie in with their audit timeframe.

In general, respondents agreed in principle that there should be a mechanism to offset incorrectly issued ROCs, and the vast majority agreed that offsetting the ROCs from future generation was a practical and proportionate response. However, respondents generally felt that six years was too long and a shorter limit of two or three years would be preferable.

There were concerns over the proposal to revoke ROCs from suppliers if a generator was no longer in operation or able to produce the amount of ROCs (i.e. in the case of generators coming to the end of their 20 years of support). Most respondents felt that this unfairly increased the risks for suppliers, and could have a disproportionate effect on the treatment of small generators. As suppliers would carry the risk of a generator overclaiming ROCs and subsequently closing down, they may therefore not wish to purchase ROCs from smaller, less well-capitalised generators, especially those nearing the end of their 20-year support period.

This was not the policy intent of the proposal, which was to remove the risk of suppliers presenting incorrectly issued ROCs. Given our wish to ensure a consistent

and fair approach, and taking into consideration the responses to the consultation, we have decided that **misallocated ROCs will be offset from the relevant generator's future output**. In the case of a generator not being able to produce the ROCs, we will not take any action against a supplier.

Although respondents felt that the timeframe for Ofgem to verify the ROCs was longer than they would like, this fits with Ofgem's timeframe for general audit, and we do not feel that the benefits of reducing the time limit to two or three years are worth the additional costs that more regular audits would entail. **We will therefore allow Ofgem six years from the date of ROC allocation in which they can take action.**

We will consult further next year as to how Ofgem can deal with generators no longer in business, no longer eligible for ROCs, or facing insolvency.

3-month average for measurement of AD feedstock

In section 2 of the consultation, we proposed that we would alter the provisions in the Order which address how to calculate the renewable output of a generating station which generates electricity using mixed gas from AD feedstock. At present the Order allows the renewable output to be determined by reference to the dry mass of the material from which the mixed gas used in generating electricity is formed.

We proposed that we would alter these provisions to specifically provide that Ofgem could use a three-month average when determining from what dry mass the mixed gas has been formed. Since publication, we have considered this issue further with Ofgem.

On balance, we consider the current drafting does not restrict Ofgem's ability to administer the dry mass provisions within the ROO. The Order as currently worded affords Ofgem the flexibility to determine in a particular case from which dry mass the mixed gas has been formed. The Order does not restrict when the dry mass must enter the AD process; hence Ofgem could still consider the dry mass inputted into an anaerobic digester in the previous three months if this is appropriate in the particular circumstances.

We will not, therefore, be amending the Order in relation to this issue.

Chapter 6

Transitional Arrangements

- **Existing eligible microgeneration technologies will cease to be part of the RO from 1 April 2010. They will join the Feed-InTariffs (FITs) scheme when it comes into force**
- **After 1 April 2010, new microgenerators in technologies eligible for FITs will no longer be eligible to join the RO**
- **Small generators that have been granted full accreditation:**
  - **before 15 July 2009 will remain in RO;**
  - **from 15 July 2009 to 31 March 2010 will have a one-off choice to switch;**
  - **from 1 April 2010 will have a one off choice to join either RO or FITs**

Introduction

Section 4 of the REFI consultation dealt with cross-cutting issues, predominantly the transitional arrangements that we proposed to put in place for micro- and small generators.[2] This chapter sets out the decisions we have taken in response to the consultation on those aspects of the transitional arrangements affecting the RO. The Response to the Feed-In Tariffs section of the consultation, to be published early in the new year, will set out our decisions regarding the treatment of generators and the tariff levels for the FITs scheme. We will also be writing to all existing agents and eligible generators within the RO with details of the transfer arrangements, and advice on who to contact with any queries. Agents will be responsible for informing the generators they act on behalf of about how the transition will affect them.

We proposed in the FITs section of the consultation that technologies which would be offered tariffs under FITs from the start of the scheme would include:

- Wind
- Solar PV
- Hydro
- Anaerobic Digestion
- Biomass and Biomass CHP
- Non-renewable microCHP

The final list of technologies will be included in the FITs Response.

Microgenerators

We intend that FITs will replace the RO as far as possible as the financial support mechanism for microgeneration in Great Britain. FITs is a scheme aimed at non-energy

2 Microgeneration refers to generating stations with a declared net capacity up to and including 50kW; small generators refers to generating stations with a declared net capacity of above 50kW up to 5MW.

professionals, which guarantees a fixed level of reward for each unit of electricity for the lifetime of an installation's eligibility for payments. By contrast, since the value of a ROC is determined by the market, microgenerators remaining in the RO would be exposed to fluctuations in the level of reward payable for their electricity.

We also expect suppliers to respond to the introduction of FITs by changing the commercial tariffs they currently offer to customers generating their own electricity, and by diverting resources to implement the FITs scheme rather than acting as agents under the RO.

Accordingly, we sought views in the consultation on a proposal to transfer all eligible microgeneration technologies from the RO to FITs, where tariffs would be offered for their technology from the start of the scheme. Only one respondent to the consultation objected to the principle of this automatic transfer.

As one exception to this arrangement, we proposed in the consultation that the transfer to FITs could potentially be postponed where a contract was in force between a microgenerator and an agent under the RO, the termination of which before 1 April 2010 would lead to financial loss for either party. Whilst no consultation responses addressed this proposal specifically, we have since come to the conclusion that such a provision is unnecessary, since the introduction of FITs would in any case cause these contracts to be frustrated unless they included clauses making express provision for this event. Through the MicroPower Council we have been able to obtain limited information on the nature of contracts between microgenerators and agents under the RO, which has suggested that there is no need to make this exception.

As such, the current intention is that **all microgeneration technologies which generate electricity in the ways proposed in the FITs section of the consultation will cease to be eligible for support under the RO after 31 March 2010. Those microgenerators will receive tariffs under the FITs scheme as soon as it comes into effect (which is anticipated to be 1 April 2010)**. As noted above, the final list of technologies which will be offered tariffs is still being considered and will be included in the FITs Response. If a technology proposed in the FITs section of the consultation is not included in the final list, that technology will remain in the RO. **If you have any concerns about this approach please let us know before 8 January 2010.**

We proposed in the consultation that, once FITs are in place, any new microgenerators in technologies eligible for FITs would not be eligible to join the RO. Nearly all respondents agreed with this proposal.

The FITs section of the consultation signalled our intention to make maximum use of third-party certification, such as the Microgeneration Certification Scheme (MCS) or equivalent, in the accreditation of new generators under FITs. Full details of how this will work in practice will be set out in the FITs Response early next year. It should be noted that, in the event additional accreditation requirements to those described in the consultation are imposed for the FITs scheme, microgenerators not meeting these requirements will still be ineligible for support under the RO if their technology is

offered tariffs under FITs. Such generators would, however, be eligible to transfer to FITs from the RO if their generating station has commissioned and they have applied for (and subsequently been granted) accreditation under the RO by 31 March 2010.

Small generators

Existing small generators

We proposed in the consultation that small generators (those with a declared net capacity above 50kW up to 5MW) who had already applied for (and subsequently been granted) full accreditation under the RO before the publication of the RES and REFI consultation on 15 July 2009 would remain in the RO. Allowing these generators to transfer to FITs would impact on the Obligation level already calculated for the 2010/11 Obligation period and incur an additional cost, without providing the same benefits as at the microgeneration scale.

Relatively few respondents to the consultation directly expressed an opinion on this proposal. Of those who did, whilst some argued that existing generators up to 1MW should have the option to transfer to FITs, others supported keeping the threshold at 50kW to minimise disruption to the RO. We are therefore retaining the original proposal.

Interim small generators

The consultation sought views on the proposal that small generators who have been or will be granted full accreditation under the RO between 15 July 2009 and FITs coming into operation should be able to elect to transfer to FITs until the end of 2010. We proposed that generators notifying Ofgem of this choice by 31 December 2009 would transfer to FITs with effect from 1 April 2010, and those notifying by 31 December 2010 would transfer with effect from 1 April 2011.

A number of respondents argued that small generators in this category wishing to transfer to FITs should have to notify this decision in time for it to be factored into the calculation of the Obligation level for the following year. In response, we are recommending that small generators wishing to transfer to FITs with effect from 1 April 2011 notify this choice to Ofgem by 31 August 2010.

The Obligation level for the 2010/11 Obligation period was published by DECC on 1 October. For small generators wishing to transfer to FITs with effect from 1 April 2010, we proposed in the consultation that they would need to notify this to Ofgem by 31December 2009. In order to provide generators with more notice, we have since removed this deadline. Instead, we recommend that any small generators wishing to transfer to FITs with effect from 1 April 2010 should notify this choice to Ofgem by 28 February 2010.

Unless small generators benefiting from this choice notify Ofgem of their intention to transfer to FITs, they will remain in the RO.

New small generators

Once the FITs scheme has come into effect, we proposed that new small generators should be able to choose whether they wish to join the RO or FITs if their technology is eligible under FITs. This would be a one-off choice exercised before applying to join either scheme. A few respondents argued that allowing such a choice would create uncertainty for the RO – and that therefore all small generators eligible for FITs should join that scheme by default – but otherwise the majority were in favour of this proposal.

However, even among those who were supportive in principle, concerns were raised about the need to adopt an appropriate project milestone by which this choice should be notified. Respondents were split on this issue: some argued that the choice should be made as near to commissioning as possible, so that generators can make the best choice for their circumstances, and others suggested it should be made as far in advance of commissioning as possible to minimise the impact on the RO.

In practical terms, it will be difficult to require this choice to be notified before generators apply to join either scheme, since this is the first substantive point of contact they will have with Ofgem. So all **new small generators will have to make a one-off choice of whether to join the RO or the Feed-in Tariffs at the point of applying for accreditation**.

Additional capacity

One exception to the rule whereby a generator having elected to join FITs will not subsequently be able to receive support through the RO, is in the event that it adds additional capacity such that it exceeds the maximum level of the FITs scheme (e.g. a generator with a capacity of 4.9MW adding an additional 0.5MW). In these circumstances the generator would be eligible to transfer to the RO to continue receiving support.

Annex A

Summary of Responses to the Consultation on Renewables Obligation

This summary has been prepared by AEA for the Department of Energy and Climate Change (DECC).

Structural changes

The consultation proposed a number of changes to the structure of the RO. These were:

- extension of the scheme's end date to 2037;
- introduction of a fixed 20 year period of support; and
- increasing headroom from 8% to 10% in yearly increments of 0.5%.

The extension of the RO to 2037 received extensive support, but a significant minority (33 out of 97) thought it should extend beyond 2037. Of these, 19 (including six out of eight suppliers) suggested 2040, six "at least" 2040, one 2043 and one 2050.

The 20 year support limit was also welcomed, although some thought that all plant, regardless of when it was built, should be entitled to 20 years of support.

Support for the inclusion of refurbished plants was almost unanimous, but many respondents stressed the need for a clear definition of what counted as refurbishment. As there is no clear cut off between what constitutes a high level of maintenance and what constitutes refurbishment, careful definition is needed to avoid incentivising poor maintenance or gaming by rotating assets.

There was almost unanimous support for 10% headroom, with some respondents suggesting it should be introduced earlier, and one suggesting that more than 10% was needed. One public sector respondent thought the methodology for calculating the projections should be published so that stakeholders could replicate it to evaluate the impact on their investments.

There was an overwhelming suggestion that headroom should go directly to 10%. It was suggested that the gradual approach could run the risk of the installed capacity exceeding the Obligation at some point in the ramping up period.

Revenue stabilisation

Support for the wholesale price stabilisation mechanism appears equivocal, with many questioning its benefits. Reasons given included complexity, administrative costs, credit and cash flow risks, distortion of the electricity market and the fact that it represents a move away from a market-based mechanism.

Some generators and some in industry said that a wholesale price stabilisation mechanism would represent yet another change to the RO, reinforcing the perception of policy instability thereby reducing investor confidence. One generator, however, thought that a suitably designed mechanism could redress an imbalance of market power between large suppliers and independent renewable generators. Respondents

in several categories suggested that the wholesale price stabilisation mechanism would effectively turn the RO into a Feed-in Tariff (FIT).

Two out of three finance community respondents were against the wholesale price stabilisation mechanism, citing the complexity of the approach and claiming that it would actually reduce investor confidence rather than increase it. The respondent who agreed provided no further comment.

A majority of respondents thought that suppliers would not pass on the benefits of the wholesale price stabilisation mechanism to consumers.

Respondents were split on whether they thought the wholesale price stabilisation mechanism would help the UK meet its targets, with a large number of respondents unsure about whether it would or would not and many responding "partially", "possibly" and "not necessarily".

A number of possible indices to use in a wholesale price stabilisation mechanism were suggested. These included:

- Elexon market price index;
- crude oil price;
- different indices for different technologies;
- develop a new UK electricity price index, similar to that used in Switzerland;
- "a year-ahead index of forward traded price information split into summer/winter peak and off peak";
- one said there was no valid and representative price index for power.

Examples of possible implementation challenges for the wholesale price stabilisation mechanism suggested include:

- practicalities of managing payments;
- securing agreement on the index to be used;
- how to deal with generators that go into administration and do not make payments on time;
- confidentiality issues between generators and suppliers regarding the disclosure of information.

The proposed transitional arrangements for the introduction of the wholesale price stabilisation mechanism were considered to be reasonable. Of those that thought the Contract for Difference would be a good way of implementing price stabilisation, most did not explain why. Those that did, said that it would transfer risk from generators to suppliers, and that it would operate separately from the RO without affecting its operation. Those that were opposed, thought it could lead to cash flow problems and credit risk and that it was too complex. A few respondents preferred the "straight line

mechanism" to the cap and collar. Several thought that if a cap and collar mechanism were introduced, lenders would base their lending decisions on the collar price.

A large majority of respondents thought that the mechanism should be optional.

Generally, opinion seemed to be evenly split on whether biomass and generation involving co-firing should be excluded from any new stabilisation mechanism, with a slight majority in favour. Some respondents thought that price stabilisation would help the biomass industry, while others thought it would harm it. One biomass generator thought it would help independent generators cope with the market power of large suppliers.

Those that thought it would help, referred to the extra security that it would bring, while those who thought it would be harmful referred to the correlation with fossil fuel prices and appeared to suggest that stabilisation would reduce generators' revenue security. One wind generator and one industry respondent pointed out that the dispatchable nature of biomass means that it has less need of revenue stabilisation, as it can choose when to sell, thereby making price volatility work to its advantage.

Support for inclusion of ROC prices in the stabilisation mechanism was mixed, with a slight majority in favour. One generator thought it would make the mechanism more complex. One installer thought there was a case for waiting to see how well the mechanism works for wholesale electricity before applying it to ROC prices.

Stations outside the UK

Approximately half of respondents expressed the view that only capacity physically connected to the UK should be allowed to claim the RO, suggesting that opening the scheme up to non-UK stations would undermine the RO. One respondent suggested that, in addition to the proposed conditions, a capacity limitation should also be imposed.

There was general support for the proposal that if extra UK generation is allowed, it must have a direct interconnection. Several respondents said it should be "direct and exclusive", and a few said it should be "physical, direct and exclusive".

There was some confusion over the definitions of the terms "connection" and "interconnection", and whether they meant different things.

Of the respondents that felt the RO should be opened up to non-UK stations roughly half thought that the level of support for ROC-eligible non- UK generation should be in line with that available in the UK and that additional complexity should be avoided. Nineteen of the thirty-four respondents who thought this also agreed with the proposed conditions that such stations should satisfy. Of those that disagreed, many were opposed to non-UK generation as such.

Arguments in favour of the proposal included:

- it would reduce the cost of delivering the UK's minimum obligations;
- it would create a level playing field.

Arguments against the proposal included:

- it would be difficult to achieve, as many EU countries do not have liberalised energy markets like the UK;
- UK should focus on domestic effort;
- it could reduce UK energy security;
- there could be difficulties with enforcement.

Respondents raised the following issues about non-UK generation under the RO:

- uncertainty about how it would impact on the UK ROC market;
- uncertainty about how it would be regulated;
- risk of double counting with other countries' targets;
- risk that a generator could get support from the UK *and* from the host country;
- it would need a set of clear and unambiguous rules.

Offshore wind

Respondents agreed with Ernst & Young's analysis[3] of offshore wind costs; that offshore wind projects had increased in cost and that consequently there is a need for additional support. A small minority thought its conclusions were optimistic. One respondent thought the recent change in the pound/euro exchange rate has made Ernst & Young's estimates outdated.

Most agreed that 2 ROCs/MWh was roughly the correct level and that there was not sufficient evidence to suggest that costs would drop in the near future. Some respondents were more concerned that a change could have a negative impact on long term stability, than with the actual value of that change. A few suggested that costs should be reviewed first to see if they really are coming down, and if not, the step down date should be postponed.

Five out of six suppliers agreed with the change but, of those, three said they would prefer that the step-down should not be automatic, but should follow a technology and costs review.

3 Ernst & Young. Cost of and financial support for offshore wind. http://www.decc.gov.uk/en/content/cms/what_we_do/uk_supply/energy_mix/renewable/policy/renew_obs/renew_obs.aspx.

One of the proposed eligibility criteria for the 2 ROC band was that at least one foundation is completed to above the sea surface by 31 December 2012. Several respondents thought that there was a significant risk of external factors such as bad weather impacting on operators' ability to meet the deadline for foundation installation and suggested that the government should retain discretionary powers in case this happens due to uncontrollable external factors.

The issue of identifying when an agreement became a firm contract was also raised with suggestions that this would impact on the cost of the RO and ultimately flow through to RO participants.

Out of seven generators, three thought the difference in ROC support between projects that signed just before the 2009 Budget announcement in the existing regime, and projects which could become eligible for 2 ROCs, would be unfair and two had no opinion.

Some developers raised the issue about the level of support provided to wind farms that have staggered operation over a number of years with comments on the length of support these projects will receive.

Biomass and sustainability

An overwhelming majority of respondents (34 out of 44) agreed that the use of tallow should not be restricted in the RO at this time. However, a small number of respondents thought that a full impact assessment should be carried out, and that a precautionary approach should be adopted.

One NGO suggested there should be a restriction on the use of tallow in the RO unless verification is provided that the tallow is sourced sustainably and from within the EU.

Co-firing cap

The majority of respondents agreed with retaining the cap on co-firing, including 9 out of 12 generators. Arguments presented in favour of keeping the cap included:

- uncapping co-firing would raise issues about capacity, which is currently quite low, along with security of coal supply;
- uncapping co-firing could impact on biomass prices for alternative uses;
- removing the cap would increase the price of biomass;
- continuity in the regulations will avoid creating uncertainties.

Arguments against the cap that were suggested included that it could disadvantage independent co-firing generators because the existence of a cap enables suppliers to negotiate a significant discount on the co-fired ROC price.

Most respondents did not think the cap should be changed.

Technical and administrative issues

Calculating the level of the Obligation

The majority of respondents agreed with proposals set out to calculate the Obligation. There were suggestions and comments on how electricity demand in subsequent Obligation periods could be predicted. These included:

- setting up an expert group to produce a methodology;
- a 'look-back' mechanism, based on a previous year's consumption;
- assuming a 1% increase in demand is too simplistic;
- needing a complex model that incorporates the economic climate, previous years' consumption, seasonal variations and climate change effects on demand, changes in building design etc;
- existing econometric models;
- using DECC's own energy projections.

For predicting the renewable contribution in subsequent Obligation periods, the majority of respondents suggested variations on DECC's proposed method of using historical ROC production data modified by other relevant factors such as weather data. Suggested variations include:

- review load factors with industry each year;
- use regional load factors;
- use "high end" load factors (in order not to underestimate);
- wind generation operations should be requested to report their P50 output so as to make predictions;
- using rolling forecasts of future ROCs;
- taking into account the expected technical improvements of each technology.

Several respondents suggested that the methodology should be designed to have an in-built optimistic bias, so as to minimise the risk of having too little headroom leading to a ROC price crash.

An overwhelming majority agreed with DECC's proposal for accounting for banked ROCs, but two suppliers disagreed with the proposed method, stating that modelling ROC banking was too unreliable and that ROC banking was too unpredictable.

For predicting new renewable capacity during subsequent generation periods, there was general agreement with the approach of using RESTATS supplemented by the BWEA database if necessary, although one respondent thought that these databases

were not sufficiently robust and another thought that it would be better to use a single database rather than two.

ROC revocation

An overwhelming majority (21 out of 27) of respondents agreed with DECC's proposal that revoked ROCs should be offset against future output but, of those, nearly all (19 out of 21) said that the time limit should be less than six years. Of these, one thought it should be three years, one suggested "two to three years", seven suggested two years and one "one to two years". Three respondents thought it should not be possible to revoke ROCs at all once they had been redeemed.

Of those that did not agree with the proposal, three positively disagreed, two gave no comment and one was unclear. Some identified the issue of reclaiming ROCs from a generator that has gone out of business.

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