

**Renewables Obligation: Annual Report 2009-10****Document type:** Annual Report**Ref:** 21/11**Date of publication:** 1 March 2011

**Target audience:** Any parties with an interest in the Renewables Obligation, in particular licensed electricity suppliers, accredited generators and environmental organisations.

**Overview:**

The Government has introduced a number of schemes to encourage the development of renewable generation in the UK.

The Renewables Obligation (RO), the Renewables Obligation (Scotland) (ROS) and the Northern Ireland Renewables Obligation (NIRO) are designed to incentivise renewable generation into the electricity generation market. These schemes require licensed electricity suppliers to source an increasing proportion of their electricity from renewable sources

This report provides information in respect of the 2009-10 obligation period. It includes information on how licensed electricity suppliers complied with their obligations in this period, the number of Renewable Obligation Certificates (ROCs) we issued and detail on generators we accredited for the schemes.

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**Team:** Environmental Programmes

## Context

The UK has signed up to the EU Renewable Energy Directive which includes a target for the UK to supply 15% of total energy demand from renewables by 2020. The Government published the Renewable Energy Strategy (RES) which explains how this legally-binding target will be met. The precise breakdown of the 2020 renewable energy target between technologies will depend on the response of investors to the separate government schemes and incentives. However, the Government has estimated that renewables, promoted under the Renewables Obligation, could provide more than 30% of electricity generation.

The renewables obligation schemes are designed to incentivise renewable generation into the electricity generation market. The first Renewables Obligation Order came into force in April 2002, as did the first Renewables Obligation (Scotland) Order. These Orders were subject to amendment on several occasions, most recently in 2010. The first Renewables Obligation Order (Northern Ireland) came into force in April 2005. New Orders came into force on 1 April 2006, 1 April 2007, 1 April 2009 and 1 April 2010. The Renewables Obligation Order (Northern Ireland) 2007 was amended on 19 October 2007 to allow for its continued effective operation within the new Single Electricity Market arrangements for Ireland with effect from 1 November 2007.

These Orders place an obligation on licensed electricity suppliers in England and Wales, Scotland and Northern Ireland to source an increasing proportion of electricity from renewable sources. In 2009-10 it was 9.7 Renewables Obligation Certificates (ROCs) per 100 MWh in England and Wales and Scotland and 3.5 ROCs per 100 MWh in Northern Ireland. Suppliers meet their obligations by presenting sufficient ROCs to cover their obligations. Where suppliers do not have sufficient ROCs to meet their obligation, they must pay an equivalent amount into a fund known as buy-out, the proceeds of which are paid back on a pro-rated basis to those suppliers that have presented ROCs. The Government policy intent in the 2010 amendment orders is that Great Britain suppliers will be subject to a renewables obligation until at least 31 March 2037, and those in Northern Ireland until at least 31 March 2033.

Each year this Annual Report is published by Ofgem to meet the requirements of the Renewables Obligation legislation, as well as addressing the duties under 'Helping to Achieve Sustainable Development' in Ofgem's Corporate Strategy and Plan.

## Associated Documents

Annual reports for all the previous obligation periods are published in the Environmental Programmes section of the Ofgem website <http://www.ofgem.gov.uk/Sustainability/Environment/RenewablObl/Pages/RenewablObl.aspx>

We also have reports available on our Renewables & CHP Register website (<https://www.renewablesandchp.ofgem.gov.uk>) which provides information on:

- A list of stations accredited under the Renewables Obligations
- Details on the number of ROCs issued by technology, country and Order.
- A list of ROCs that have been revoked by us.

## Table of Contents

<b>Summary .....</b>	<b>1</b>
Compliance by licensed electricity suppliers.....	1
Renewables Obligation Certificates .....	2
Generators accredited under the Renewables Obligation .....	3
Implementation issues.....	3
Changes in legislation.....	3
<b>1. Introduction .....</b>	<b>5</b>
Status of this document.....	5
Ofgem's responsibilities .....	5
<b>2. Compliance by licensed electricity suppliers.....</b>	<b>7</b>
Total Renewables Obligation for England & Wales, Scotland and Northern Ireland .	7
Headline figures .....	7
Detail of ROCs presented.....	13
Co-fired ROCs .....	13
Non-Compliance by suppliers.....	19
Our Audit Process: suppliers .....	20
Mutualisation .....	21
<b>3. Renewables Obligation Certificates .....</b>	<b>22</b>
Renewable Obligation Certificates (ROCs) .....	22
Headline figures .....	22
ROCs issued by technology type .....	25
ROC issue process .....	29
ROC revocation and replacement .....	31
Retired ROCs .....	31
<b>4. Generators accredited under the Renewables Obligation .....</b>	<b>32</b>
Accreditation of generating stations .....	32
Headline figures .....	32
Newly accredited generation for 2009-10 by country.....	35
Total accredited generation for 2009-10 by country .....	35
NFFO and SRO generating stations .....	36
Types of generating station accredited .....	36
Our audit process: generating stations and agents.....	38
<b>5. Implementation Issues .....</b>	<b>41</b>
2009-10 Obligation period .....	41
The Renewables and CHP Register .....	41
ROCs claimed but not issued and Revoked ROCs .....	41
2010-2011 Obligation period .....	42
ROC Register .....	42
Sustainability reporting .....	43
<b>6. Changes in legislation.....</b>	<b>45</b>
Changes to the Renewables Obligation introduced from 1 April 2009 .....	45
Changes to the Renewables Obligation introduced from 1 April 2010 .....	45
Changes to the Renewables Obligation from 1 April 2011 .....	46
Future Changes to the Renewables Obligation .....	47
<b>Appendices .....</b>	<b>48</b>
<b>Appendix 1 - The Authority's Powers and Duties .....</b>	<b>49</b>
<b>Appendix 2 - Compliance by licensed electricity suppliers.....</b>	<b>52</b>

**Appendix 3 – Renewables Obligation certificates: Detailed information..... 68**  
**Appendix 4 - Accredited generating stations - Detailed information 86**  
**Appendix 5 - Glossary..... 93**  
**Appendix 6 – Feedback form: Renewables Obligation Annual Report 2008-2009..... 95**

## Summary

### Chapter Summary

This summary briefly provides the highlights for the 2009-10 obligation period

### Compliance by licensed electricity suppliers

The Renewables Obligation requires licensed electricity suppliers to comply with a target for the supply of electricity from renewable sources. Suppliers must comply with these obligations by presenting ROCs or by making a buy-out payment. The total Renewables Obligation across the UK for 2009-10 was 30,101,092 ROCs, compared to 28,975,678 MWh<sup>1</sup> in 2008-09.

The actual number of ROCs submitted for compliance in 2009-10 increased by 12.6% to 21,337,205 from 18,948,878 in 2008-09. This meant that the percentage of the total UK obligations met by ROCs increased from 65% to 71%. These ROCs equate to a value of over £1.1 billion (assuming a value of £52.36 per ROC). This year the rate of increase of renewable generation has surpassed the pace of the increasing target.

Roughly 29% of the obligation was met through buy-out payments. Suppliers paid a total of £325,947,559 into the buy-out and late payment funds across all three obligations. The price for buying out of the Renewables Obligation was £37.19 per ROC. The increasing percentage of the obligation met by the presentation of ROCs has resulted in the recycle value of a ROC falling to £15.17 in 2009-10 from £18.61 in 2008-09. The ROC 'worth' has also seen a modest decrease from £54.37 in 2008-09 to £52.36 in 2009-10 because of this decrease in recycle value. Based on this figure, the cost of CO<sub>2</sub> saved under the scheme is £96.86 per tonne<sup>2</sup>.

All suppliers complied with their 2009-10 obligations by submitting ROCs or paying into the buy-out fund or a combination of the two. The shortfall in the buy-out funds arising from the non payment on or before 1 September 2010 was £327,718.28 for the Renewables Obligation and £30,607.37 for the Renewables Obligation Scotland. These sums were all paid during the Late Payment period.

Of the 33 suppliers with an obligation under the RO, five complied using just ROCs and 13 entirely through buy-out payments. Of the 27 suppliers with an obligation under the ROS, 12 complied using just ROCs and nine entirely through buy-out

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<sup>1</sup> Banding was introduced in the Renewables Obligation Order 2009 hence, since 1 April 2009, 1 ROC no longer necessarily represents 1 MWh of generated electricity. Obligations are now quoted in ROCs.

<sup>2</sup> The calculation is based on a Grid Rolling Average conversion factor of 0.54055 kg CO<sub>2</sub>/kWh (Source: 2009 Guidelines to Defra/DECC's GHG Conversion Factors for Company Reporting).

payments. Of the eight suppliers with an obligation under the NIRO, three complied using just ROCs and three entirely through buy-out payments. The remainder of suppliers provided a combination of ROCs and buy-out payments.

Suppliers are allowed to present ROCs from stations co-firing biomass for up to 10% of their obligation. Only one supplier, under the RO and the ROS, made maximum use of their allowable limit on co-firing ROCs, and actually met exactly (or very close to) 10% of their obligation from co-fired ROCs. This is a significant change from previous compliance periods where a number of suppliers made full use of the co-firing limit. In the 2008-09 compliance period, for example, six suppliers under the RO, and six suppliers under the ROS reached the 10% cap. We understand that this change was driven by the reduction to 0.5 ROCs per MWh being awarded to co-firing with biomass.

## Renewables Obligation Certificates

One of the functions of the Authority under the Renewables Obligation is to issue ROCs to generators. The Authority issued 21,227,618 ROCs between 1 April 2009 and 31 March 2010. This total was made up of 12,700,639 ROCs, 7,726,811 SROCs and 800,168 NIROCs. The number of ROCs issued in England & Wales and Scotland increased by approximately 11%, with an even larger increase (approximately 29%) in Northern Ireland, compared to the previous obligation period. The 21,227,618 ROCs issued in 2009-10 represented 20,335,563 MWh of renewable electricity generation. This total represented an increase of 7.0% over the 18,996,453 MWh of renewable electricity generated in 2008-09. The RO schemes have been successful in incentivising the generation of more renewable energy, with an average year-on-year increase of almost 22% since 2003.

The number of ROCs issued for on-shore wind (across all three schemes) in 2009-10 accounted for over a third of all ROCs issued. This is the third consecutive year that on-shore wind is the renewable technology that has produced the most ROCs.

For the second time in an obligation period the number of ROCs issued in England for off-shore wind exceeded those issued for on-shore wind. The number of ROCs issued for off-shore wind in England was 2,211,273 which was a 68% increase on the 2008-09 obligation period. For the first time in an obligation period ROCs were issued for off-shore wind generation in Scotland, making up 2.5% of ROCs issued in the country. These figures are anticipated to increase markedly in future years due to the Government's plans to source large amounts of renewable generation from off-shore wind<sup>3</sup>. Since the introduction of banding on 1 April 2009 off-shore wind generating stations accredited after 11 July 2006 are awarded 1.5 ROCs per MWh, those accredited after 1 April 2010 and no later than 31 March 2014 are awarded 2 ROCs per MWh.

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<sup>3</sup> Further information on the plans for further off-shore wind farms and Ofgem E-Serve's role in administering the tender process for off-shore transmission can be found at: <http://www.ofgem.gov.uk/Media/PressRel/Documents1/Final%20shortlist%20press%20notice.pdf>

## Generators accredited under the Renewables Obligation

Another function of the Authority under the Renewables Obligation is to accredit new generating stations. 1,020,919 kW of new renewable capacity was accredited under the RO, ROS and NIRO in 2009-10. The most prevalent technology was on-shore wind with 505,086 kW capacity, followed by off-shore wind with 352,039 kW whilst photovoltaic only contributed 7,721 kW capacity.

The newly accredited capacity in 2009-10 was made up of 3,348 generating stations. In total there were 7,228 generating stations accredited under the RO as of 31 March 2010, compared with 3,801 accredited as of 31 March 2009. 5,467 stations were subsequently withdrawn from RO accreditation after 1 April 2010. Most of them have transferred to the Feed-in-Tariff scheme, designed to incentivise smaller generators (<5MW). About 80% of the generating stations accredited in 2009-10 were photovoltaic, and almost 16% were on-shore wind generating stations.

## Implementation issues

Suppliers and Ofgem encountered some operational issues with the performance of the Renewable and CHP Register in the run up to 1 September 2010 deadline for presenting ROCs. The performance issues resulted in some suppliers having to submit hard copy compliance reports by post. Worthy of note is the fact that no supplier failed to present ROCs by the deadline as a result of these issues. Ofgem are committed to providing an administration service that represents good value for money. We have consequently committed in the next compliance period to make improvements in the operation of the Register.

## Changes in legislation

The Renewables Obligation (Amendment) Order 2010 came into force on 1 April 2010. The changes to the order include the following:-

- extending the RO and ROS to 2037, and the NIRO to 2033
- 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 (or 2033 end date for the NIRO)
- additional capacity receiving full accreditation on or after 26 June 2008 will receive 20 years support from the date it is first accredited, subject to 2037 end date (or 2033 end date for the NIRO)
- removing the 20 ROCs per 100MWh renewable electricity cap on the obligation level
- increase 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 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 a generator's future output where it has been found that ROCs, already submitted for compliance, should not have been issued.
- exclude electricity produced from landfill gas and sewage gas from the Sustainability Reporting requirements from 1 April 2010

- removal from the RO and ROS of PV, hydro, wind and anaerobic digestion for microgeneration technologies<sup>4</sup>, with the continuing support for these technologies coming through the Feed-In-Tariff scheme from 1 April 2010
- strengthening the legislation in circumstances where a supplier has gone into administration.

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<sup>4</sup> These technologies will only be removed from the RO and ROS; they will continue to be supported under the NIRO as there are no plans to introduce Feed-In-Tariffs in Northern Ireland



## 1. Introduction

### Status of this document

1.1. This annual report satisfies the requirements placed on the Authority under the Renewables Obligation Order 2009 (as amended) ('RO'), Renewables Obligation (Scotland) Order 2009 (as amended) ('ROS') and Renewables Obligation Order (Northern Ireland) 2009 (as amended) ('NIRO')<sup>5</sup>. The RO, ROS and NIRO are collectively referred to as 'the Orders' in this report. Additional information which may be of interest to stakeholders is also provided.

1.2. Unless apparent from the context, where 'RO' is used it denotes the RO, ROS and NIRO and where 'ROC' is used it denotes ROCs, SROCs and NIROCs.

1.3. The use of 'Ofgem', 'us', 'our' and 'we' are used interchangeably when referring to the exercise of the Authority's powers and functions under the Orders.

### Ofgem's responsibilities

1.4. The Renewables Obligation Order 2009 (as amended) (RO) and the Renewables Obligation (Scotland) Order 2009 (as amended) (ROS) detail Ofgem's powers and functions in respect of the Renewables Obligation in England and Wales and in Scotland, respectively. Those functions include:

- accrediting generating stations as being capable of generating electricity from eligible renewable energy sources
- issuing Renewable Obligation Certificates (ROCs) and Scottish Renewable Obligation Certificates (SROCs)
- establishing and maintaining a register of ROCs and SROCs
- publishing a list of accredited and preliminary accredited generating stations
- revoking ROCs and SROCs where necessary
- monitoring compliance with the requirements of the Orders
- calculating annually the buy-out price and mutualisation ceiling resulting from the adjustments made to reflect changes in the RPI
- receiving buy-out payments and redistributing the buy-out fund, and
- receiving late payments and redistributing the late payment fund.

1.5. We administer the Northern Ireland Renewables Obligation (NIRO) on behalf of the Northern Ireland Authority for Utility Regulation (NIAUR) under an Agency Services Agreement. Under this agreement Ofgem is required to carry out the

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<sup>5</sup> See Article 57 of the RO and ROS, and Article 49 of the NIRO for the requirements for the Annual Report

functions listed above in respect of Northern Ireland Renewables Obligation Certificates (NIROCs). However the NIAUR continues to retain legislative responsibility for administering the NIRO.

## 2. Compliance by licensed electricity suppliers

### Chapter Summary

This chapter, when read with appendix 2, provides information on:

- ➔ How each licensed electricity supplier ('supplier') complied with its obligation in terms of ROCs presented, buy-out and/or late payment made, or a combination of these
- ➔ The total number of ROCs correctly presented against each supplier's obligation
- ➔ The money each supplier received from the redistribution of the buy-out and/or late payment funds, and
- ➔ The total number of ROCs that remain on the ROC Register for use in the next obligation period (2010-11).
- ➔ We are required to publish this information under the Orders.

### Total Renewables Obligation for England & Wales, Scotland and Northern Ireland

2.1. The RO and ROS require each supplier to source a proportion of the electricity that it has supplied in Great Britain from eligible renewable sources<sup>6</sup>. The NIRO requires each supplier to source a proportion of the electricity that it has supplied in Northern Ireland from eligible renewable sources<sup>7</sup>. The proportion for the 2009-10 obligation period was 9.7 ROCs per 100 MWh in England & Wales and Scotland and 3.5 ROCs per 100 MWh in Northern Ireland. This proportion increases each year as set out in the Orders.

2.2. Suppliers can meet their obligation by presenting ROCs or making buy-out payments to cover any shortfall in the presentation of sufficient ROCs or by a combination of both.

### Headline figures

2.3. The headline figures for supplier compliance in 2009-10 in England & Wales, Scotland and Northern Ireland are set out in Tables 1, 2 and 3 respectively. Further details can be found in Appendix 2.

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<sup>6</sup> See Article 2(1) of the RO and ROS for the definition of eligible renewable sources.

<sup>7</sup> See Article 2(1) of the NIRO for the definition of eligible renewable sources.

2.4. In summary, 33 suppliers had an obligation under the RO, 27 had an obligation under the ROS, and eight had an obligation under the NIRO.

2.5. There were 55 suppliers that did not have an obligation under the RO, 60 that did not have an obligation under the ROS, and 11 that did not have an obligation under the NIRO. This was because they either had no sales to customers or all their sales were to transmission connected customers where exceptions apply<sup>8</sup>.

2.6. Using the percentage obligation levels, combined with sales data from suppliers, we determined that the total Renewables Obligation on electricity supplied to customers across the UK for 2009-10 was 30,101,092 ROCs. On electricity supplied in England & Wales the obligation was 26,971,916 ROCs, on electricity supplied in Scotland it was 2,835,827 ROCs and on electricity supplied in Northern Ireland it was 293,349 ROCs.

2.7. The buy-out price for the 2009-10 obligation period was £37.19.

2.8. The amount of buy-out paid per ROC presented for the 2009-10 obligation period was £15.17. The buy-out paid per ROC was equal across all three obligations due to the single recycling mechanism<sup>9</sup>.

2.9. The percentage of the total obligations met by ROCs increased from 65% in 2008-09 to 71%.

2.10. The actual number of ROCs submitted for compliance increased by 12.6% from 18,948,878 in 2008-09 to 21,337,205 in 2009-10.

2.11. A total of 145,109 ROCs<sup>10</sup> issued during the 2009-10 obligation period were not presented back to us for compliance purposes. This number consisted of 73,961 ROCs, 23,736 SROCs and 47,412 NIROCs. These ROCs remain on the ROC Register for use in the 2010-11 obligation period.

2.12. Tables 1, 2 and 3 summarise the headline figures and make comparisons to earlier obligation periods<sup>11</sup>. More detailed information can be found in Appendix 2.

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<sup>8</sup> Article 3(2) of the Energy Act 2004 (Commencement No 6) Order 2005 (SI 2965) refers.

<sup>9</sup> Further information about the single recycling mechanism can be found in our Guidance for licensed electricity suppliers at: <http://www.ofgem.gov.uk/Sustainability/Environment/RenewablObl/Documents1/Supplierguidance.pdf>

<sup>10</sup> This excludes ROCs that have been revoked or retired from the system

<sup>11</sup> For 2002-03, 2003-04, 2004-05 and 2005-06 please see previous Renewables Obligation: Annual reports

**Table 1: How suppliers complied with their obligations in England & Wales (2009-10).**

	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>	<b>2009-10</b>
<b>Total obligation (ROCs)</b>	19,390,016	22,857,584	25,944,763	26,971,916
<b>Total ROCs presented</b>	12,868,408	14,562,876	16,813,731	18,747,129
<b>Of which GB ROCs</b>	12,581,262	14,202,823	16,295,070	18,236,598
<b>Of which NI ROCs</b>	287,146	360,053	518,661	510,531
<b>Percentage met by ROCs</b>	66%	64%	65%	70%
<b>Total buy-out paid</b>	£216,778,249	£278,789,611	£320,568,079	£305,566,094
<b>Total late payments paid</b>	£0	£46,712	£260,027	£330,618
<b>Shortfall in buy-out and late payment fund</b>	£0	£5,759,907	£5,750,734	£0
<b>Buy-out fund for redistribution</b>	£217,888,311	£280,171,493	£320,673,766	£303,427,603
<b>Late payments fund for redistribution</b>	£2	£54,491	£260,162	£330,683
<b>Redistribution per ROC presented</b>	£16.04	£18.65	£18.61	£15.17
<b>'Worth' of a ROC to a supplier</b>	£49.28	£52.95	£54.37	£52.36

**Table 2: How suppliers complied with their obligations in Scotland (2009-10).**

	2006-07	2007-08	2008-09	2009-10
<b>Total obligation (MWh)</b>	2,022,791	2,456,391	2,774,881	2,835,827
<b>Total ROCs presented</b>	1,725,781	1,864,676	2,094,125	2,406,063
<b>Of which GB ROCs</b>	1,721,685	1,832,964	2,045,785	2,336,392
<b>Of which NI ROCs</b>	4,096	31,712	48,340	69,671
<b>Percentage met by ROCs</b>	85%	76%	75%	85%
<b>Total buy-out paid</b>	£9,613,938	£19,976,934	£23,935,455	£15,952,316
<b>Total late payments paid</b>	£258,978	£47,451	£82,546	£30,875
<b>Shortfall in buy-out and late payment fund</b>	£0	£276,335	£329,021	£0
<b>Buy-out fund for redistribution</b>	£9,662,865	£20,072,617	£23,943,338	£15,841,285
<b>Late payments fund for redistribution</b>	£259,815	£47,737	£82,587	£30,883
<b>Redistribution per ROC presented</b>	£16.04	£18.65	£18.61	£15.17
<b>'Worth' of a ROC to a supplier</b>	£49.28	£52.95	£54.37	£52.36

**Table 3: How suppliers complied with their obligations in Northern Ireland (2009-10).**

	2006-07	2007-08	2008-09	2009-10
<b>Total obligation (ROCs)</b>	216,869	237,382	256,034	293,349
<b>Total ROCs presented</b>	18,465	39,199	41,022	184,013
<b>Of which GB ROCs</b>	12,039	4,523	0	0
<b>Of which NI ROCs</b>	6,426	34,676	41,022	184,013
<b>Percentage met by ROCs</b>	9%	17%	16%	63%
<b>Total buy-out paid</b>	£6,594,948	£5,927,829	£6,858,732	£4,067,656
<b>Total late payments paid</b>	£0	£870,092	£830,232	£0
<b>Shortfall in buy-out and late payment fund</b>	£0	£0	£0	£0
<b>Buy-out fund for redistribution</b>	£6,628,093	£5,958,966	£6,860,976	£4,037,864
<b>Late payments fund for redistribution</b>	£5	£875,435	£830,747	£0
<b>Redistribution per ROC presented</b>	£16.04	£18.65	£18.61	£15.17
<b>'Worth' of a ROC to a supplier</b>	£49.28	£52.95	£54.37	£52.36

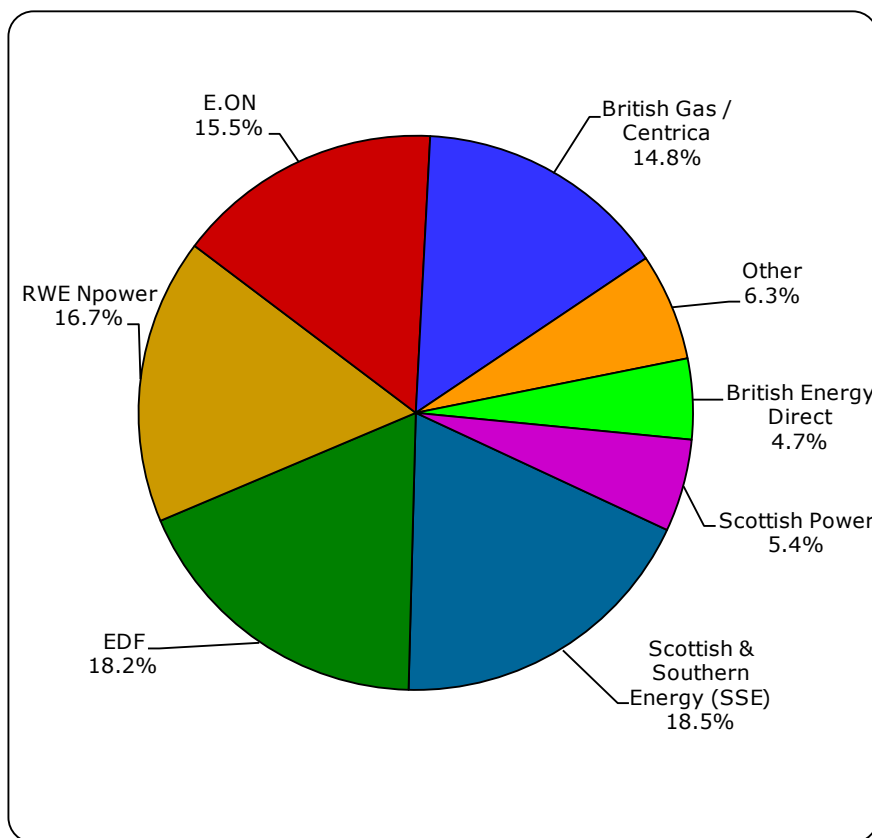
2.13. Scottish & Southern Energy (SSE) had the largest obligation in England and Wales (4,981,778 ROCs) followed by EDF Energy and RWE Npower with obligations of 4,913,672 ROCs and 4,494,476 ROCs respectively.

2.14. Scottish & Southern Energy (SSE) had the largest obligation in Scotland (811,180 ROCs) followed by Scottish Power and British Gas/Centrica with obligations of 805,684 ROCs and 373,019 ROCs respectively.

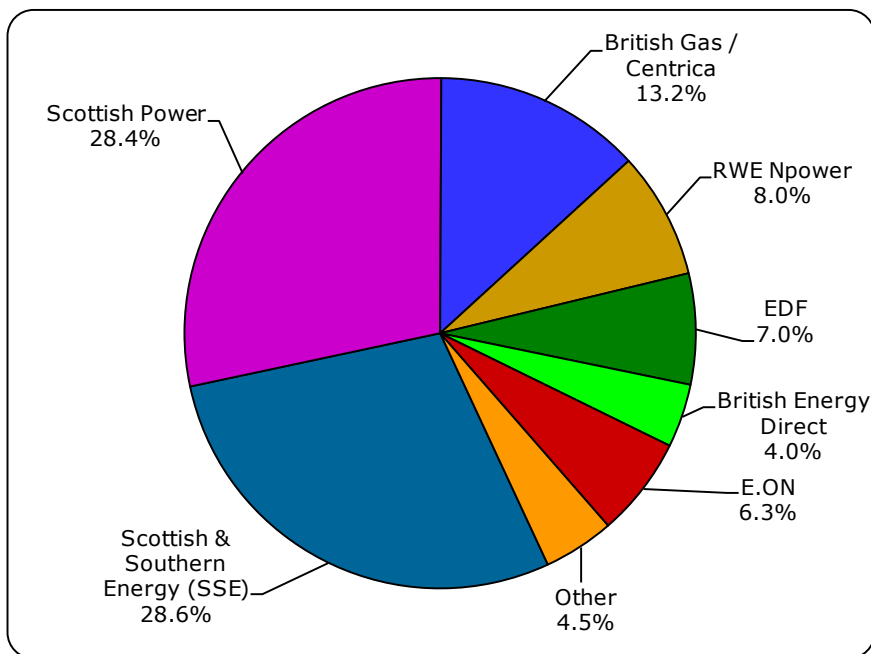
2.15. NIE Energy had the largest obligation in Northern Ireland (161,121 ROCs) followed by Viridian Energy Supply Ltd (Energia) and ESB Independent Energy with obligations of 55,786 ROCs and 47,599 ROCs respectively.

2.16. Figures 1, 2 and 3 show the breakdown of the total obligation by supplier group.

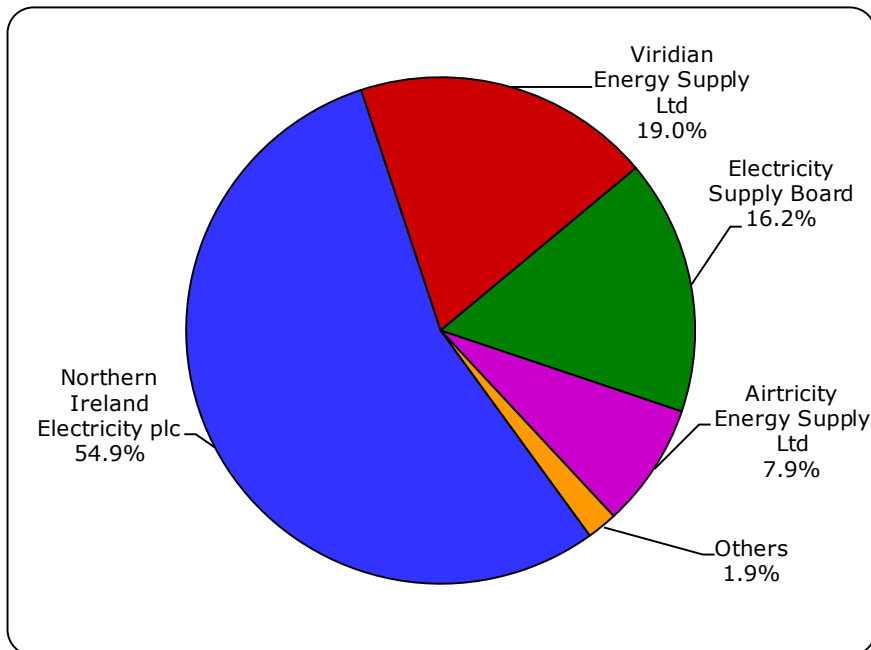
**Figure 1: Proportion of the total size of the RO by supplier group**



**Figure 2: Proportion of the total size of the ROS by supplier group**



**Figure 3: Proportion of the total size of the NIRO by licensee**





**Details of ROCs presented**

2.17. Five suppliers (the same as for the previous obligation period) fulfilled their obligations under the RO entirely by presenting ROCs. These were:

- Opus Energy Ltd
- Haven Power Ltd
- The Renewable Energy Company Ltd
- Good Energy Ltd
- Smartestenergy Ltd

2.18. Eleven suppliers (compared with eight for the previous obligation period) fulfilled their obligations under the ROS entirely by presenting ROCs. These were:

- Scottish Power Energy Retail Ltd
- EDF Energy Customers plc
- British Energy Direct Ltd
- E.ON Energy Ltd
- E.ON UK plc
- GDF Suez Marketing Ltd
- Opus Energy Ltd
- Haven Power Ltd
- The Renewable Energy Company Ltd
- Good Energy Ltd
- Smartestenergy Ltd

2.19. Three suppliers (compared with two for the previous obligation period) fulfilled their obligations under the NIRO entirely by presenting ROCs. These were:

- Airtricity Energy Supply Ltd
- Quinn Energy Supply Ltd
- Viridian Energy Supply Ltd

2.20. In terms of the volume of ROCs presented, SSE presented the most ROCs under the RO (3,363,501), which made up 67.5% of its obligation. Scottish Power Energy Retail Ltd presented the most ROCs under the ROS (805,684); this made up 100% of its obligation. NIE Energy Ltd presented the most ROCs under the NIRO (77,387). This made up 48.0% of its obligation.

**Co-fired ROCs**

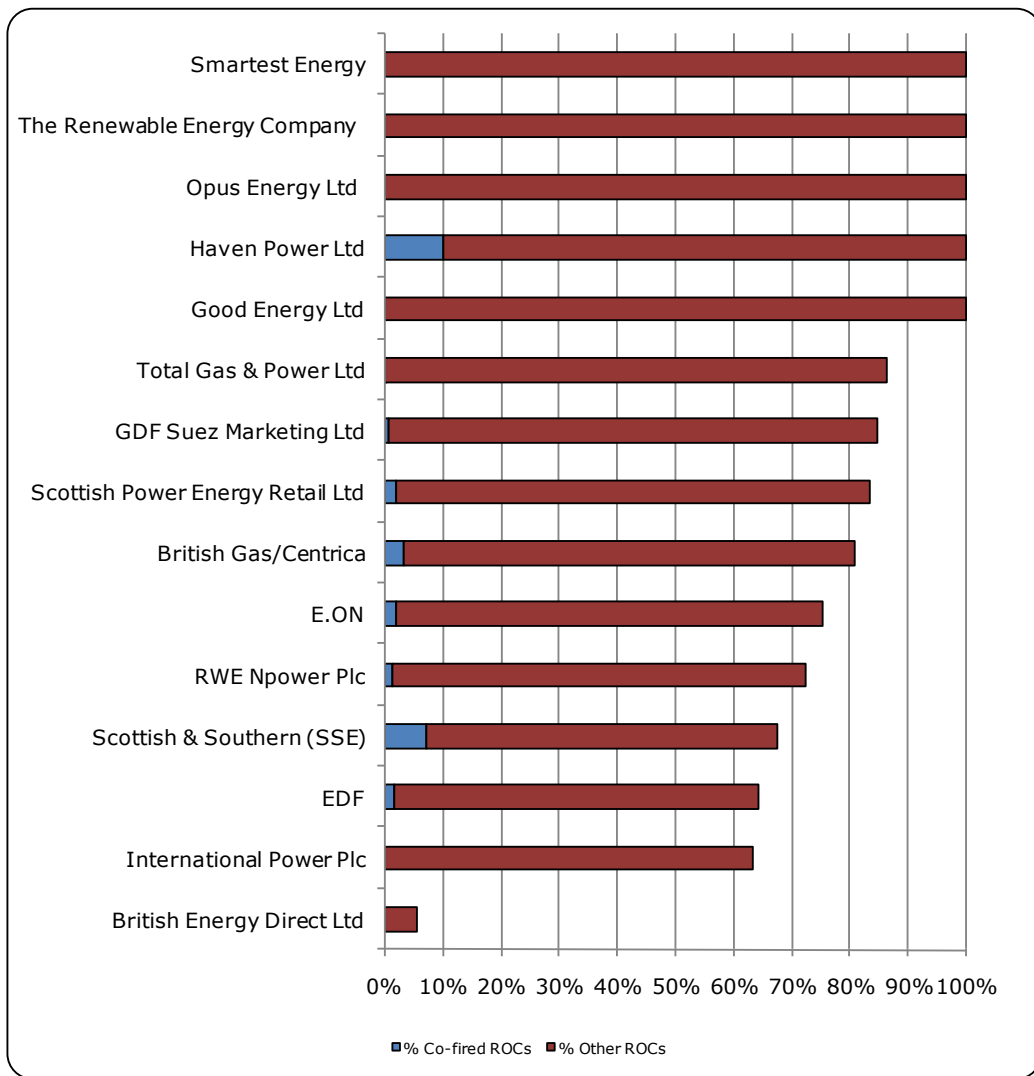
2.21. Under the Orders, each supplier is allowed to meet 10% of its obligation by presenting ROCs that have been issued for co-firing of fossil fuels and biomass.

2.22. Of the 15 supplier groups that used ROCs to meet their obligation under the RO, one supplier had (or were very close to) exactly 10% of their obligation from co-fired ROCs. Of the 13 supplier groups that used ROCs to meet their obligation under

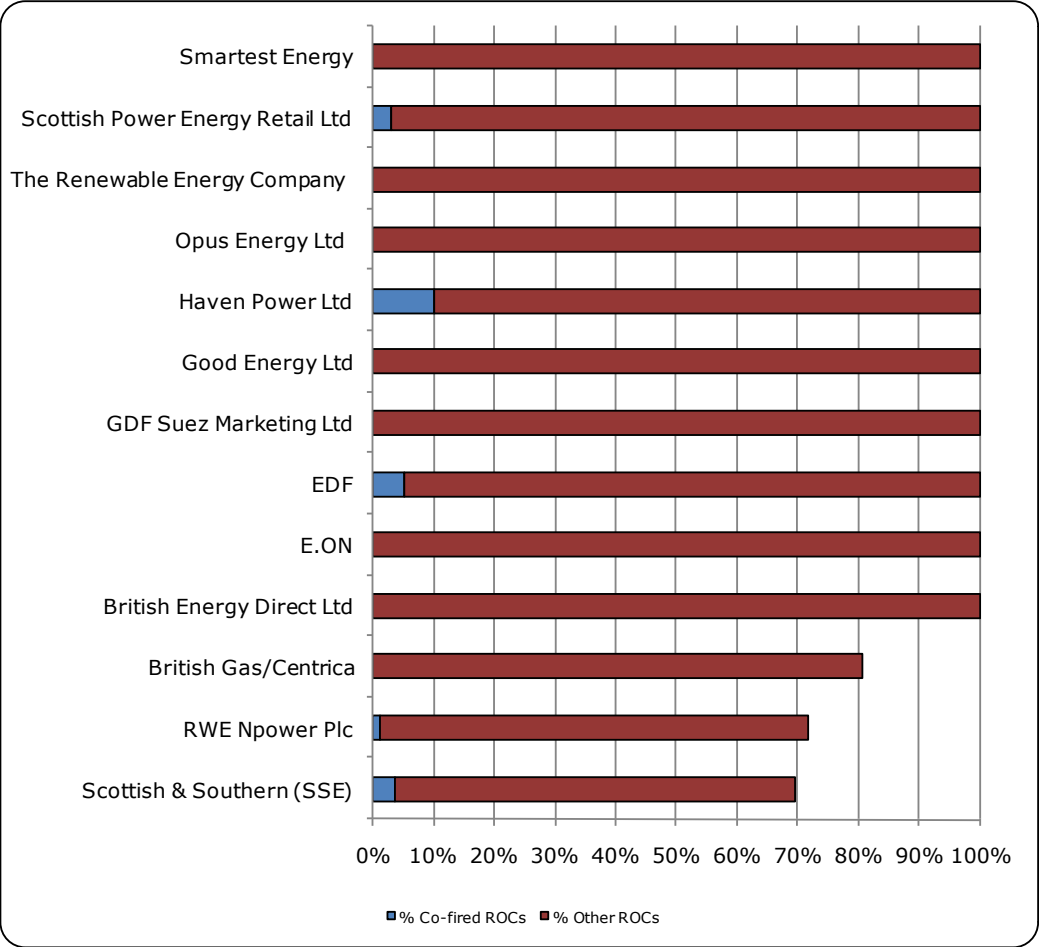
the ROS, one supplier had (or were very close to) exactly 10% of their obligation from co-fired ROCs. None of the suppliers under the NIRO presented co-fired ROCs.

2.23. Figures 4, 5 and 6 compare the proportion of ROCs and co-fired ROCs presented by suppliers in meeting their obligations in England and Wales, Scotland and Northern Ireland respectively in 2009-10. Further detail can be found in Appendix 2

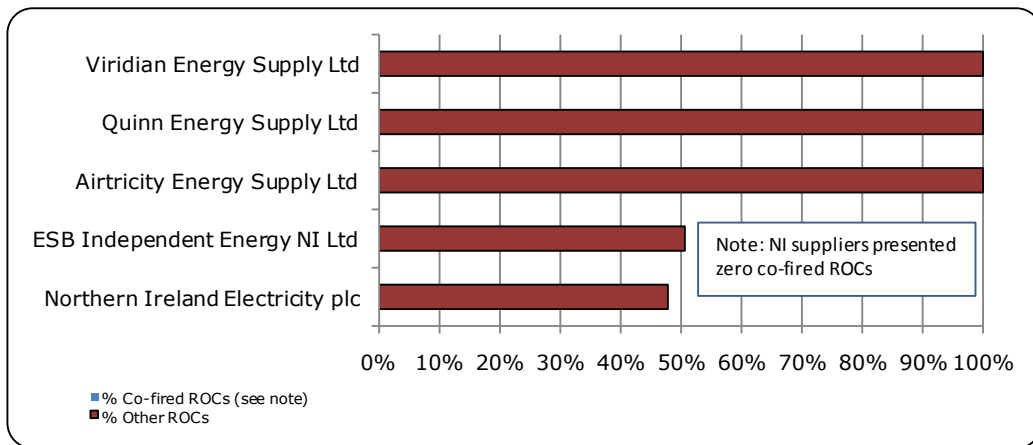
**Figure 4: Proportion of RO that was satisfied by co-fired ROCs and other ROCs**



**Figure 5: Proportion of ROS that was satisfied by co-fired ROCs and other ROCs**



**Figure 6: Proportion of NIRO that was satisfied by co-fired ROCs and other ROCs**



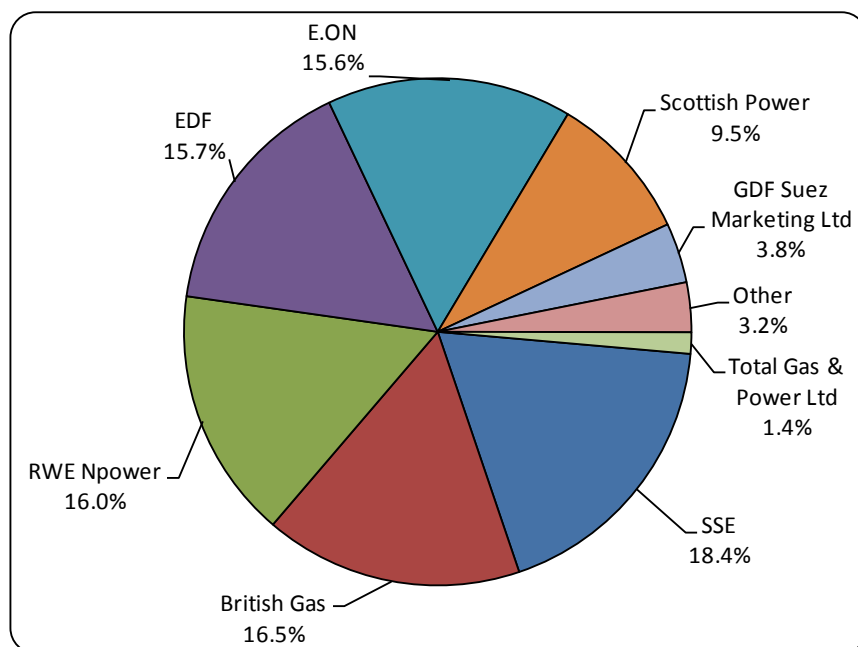
2.24. In the 2009-10 period 812,739 co-fired ROCs were issued and 826,700 were produced to us for compliance, this compares with 2,231,682 issued and 2,216,958 produced to us in the 2008-09 compliance period. Further discussion is included in chapter 3, section 3.8.

2.25. The buy-out funds and late payment funds, including any interest accrued, are recycled through the single recycling mechanism. For the first time Ofgem's and NIAUR's administration costs were removed from the buy-out funds prior to redistribution. The funds are redistributed to suppliers in proportion to the total number of ROCs that each has presented across the three obligations. For example, a supplier that presented ROCs representing 3% of the total number of ROCs presented across all three obligations would get back 3% of the total sum of the three buy-out funds and any late payment funds. That would still be the case if that supplier had only presented these ROCs in respect of just one of the obligations.

2.26. Table 4 and Figure 7 show the proportion of the buy-out and late payment funds received by each supplier. The buy-out fund was re-distributed on 30 September 2010, a month ahead of our legal requirement, and the late payment fund was redistributed on 19 November 2010.

**Table 4: Proportion of total ROCs presented by each licensee**

Licensee	ROCs presented				
	RO	ROS	NIRO	Total	% of ROCs
SSE Energy Supply Ltd	3,363,501	564,410	0	3,927,911	18.41%
British Gas Trading Ltd	3,210,602	301,008	0	3,511,610	16.46%
EDF Energy Customers Plc	3,154,858	198,402	0	3,353,260	15.72%
Npower Ltd	2,323,577	124,873	0	2,448,450	11.48%
E.ON Energy Ltd	2,019,429	99,213	0	2,118,642	9.93%
Scottish Power Energy Retail Ltd	1,214,321	805,684	0	2,020,005	9.47%
E.ON UK Plc	1,131,964	80,070	0	1,212,034	5.68%
GDF Suez Marketing Ltd	765,818	49,751	0	815,569	3.82%
Npower Northern Ltd	508,536	23,067	0	531,603	2.49%
Total Gas & Power Ltd	290,000	0	0	290,000	1.36%
Npower Direct Ltd	199,342	10,548	0	209,890	0.98%
British Energy Direct Ltd	71,738	113,794	0	185,532	0.87%
Npower Yorkshire Ltd	132,550	27	0	132,577	0.62%
Opus Energy Ltd	98,315	24,622	0	122,937	0.58%
Electricity Plus Ltd	84,914	4,719	0	89,633	0.42%
Haven Power Ltd	72,907	4,720	0	77,627	0.36%
NIE Energy Ltd	0	0	77,387	77,387	0.36%
Smartestenergy Ltd	66,028	4	0	66,032	0.31%
Viridian Energy Supply Ltd	0	0	55,786	55,786	0.26%
ESB Independent Energy NI Ltd	0	0	24,180	24,180	0.11%
The Renewable Energy Company Ltd	22,573	617	0	23,190	0.11%
Airtricity Energy Supply Ltd	0	0	23,178	23,178	0.11%
Good Energy Ltd	11,754	534	0	12,288	0.06%
IPM Energy Retail Ltd	4,402	0	0	4,402	0.02%
Quinn Energy Supply Ltd	0	0	3,482	3,482	0.02%
<b>TOTALS:</b>	<b>18,747,129</b>	<b>2,406,063</b>	<b>184,013</b>	<b>21,337,205</b>	<b>100%</b>

**Figure 7: Redistribution of buy-out and late payment funds by supplier group**

2.27. Twenty-five supplier licensees received a share of each of the buy-out funds and late payment funds. Of these, SSE, having presented the largest number of ROCs/SROCs/NIROCs, received the largest payments.

2.28. Table 5 shows the residual balances of the RO bank accounts after all funds were redistributed on 30 September 2010 and 19 November 2010.

**Table 5. Residual balances**

RO buy-out fund (as at 30/09/2010)	£12.31
ROS buy-out fund (as at 30/09/2010)	£15.18
NIRO buy-out fund (as at 30/09/2010)	£11.32
RO late payment fund (as at 23/11/2010)*	£11.83
ROS late payment fund (as at 23/11/2010)*	£14.16

\*Funds were distributed on 19 November 2010 however, due to an error on the part of the bank, interest due on the accounts was correctly added on 23 November 2010. The amounts involved were only £28.53 in the case of the RO late payment fund and £2.67 in the case of the ROS late payment fund.

Note: there was no shortfall in the NIRO buy-out fund in 2009-10 so no payments were made from the NIRO late payment account.

## Non-Compliance by suppliers

2.29. The Orders place a number of obligations on suppliers including a requirement to:

- provide information to DECC by 1 June 2010
- provide us with a copy of the information provided to DECC by 1 June 2010
- provide us with information as to the amount of electricity that they have supplied during the obligation period and the level of their obligation by 1 July 2010
- make a buy-out payment on or before 31 August 2010 in partial or total fulfilment of its obligation
- present ROCs on or before 1 September 2010 in partial or total fulfilment of its obligation, and
- make a late payment, where required, to meet any outstanding obligation by 31 October 2010.

2.30. Fourteen supplier licensees did not send us the relevant supply information by 1 June 2010. However, all the remaining information was received by 9 June 2010. These licensees were:

- MA Energy Ltd
- Essential Power Ltd
- McMillian Ltd
- Fellside Heat and Power Ltd
- Reuben Power Supply Ltd
- Finotec Trading (Cyprus) Ltd
- Eneco Energy Trade BV
- Pan-Utility Ltd
- R S Energy Ltd
- Winnington Networks Ltd
- UK Healthcare Corporation Ltd
- Eucalyptus Worldwide Ltd
- Firmus Energy Supply Ltd
- S C Isramart SRL

2.31. Nine suppliers did not send us the relevant supply information by 1 July 2010; all the remaining information was received by 26 July 2010. Five out of the nine suppliers confirmed that they did not supply any customers in the relevant obligation period. These licensees were

- The Renewable Energy Company (Ecotricity)
- MA Energy Ltd
- Immingham CHP LLP
- R S Energy Ltd\*
- Lowlands Health and Energy Ltd\*
- McMillian Ltd\*
- AES Energy Ltd\*

- AMRECS LLC
- SSE Energy Supply Ltd

2.32. SSE Energy Supply Ltd and The Renewable Energy Company Ltd supplied data before the 1 July 2010 deadline but changed the data after this date. The starred suppliers had either ceased trading or had their licenses revoked before 1 July 2010, all of these suppliers were 'nil' suppliers consequently we did not pursue the data due on 1 July 2010. AMRECS LLC failed to supply the 1 July data and have failed to respond to repeated communications from us. We are presently considering what further action against AMRECS LLC would be appropriate. AMRECS LLC previously confirmed, for the 1 June deadline, that it was a 'nil' supplier.

2.33. Given that compliance with the RO is a relevant requirement of the Electricity Supply Licence, the Authority may use its enforcement powers in the same way that it can in respect of breaches of other licence conditions. In some cases it is not necessary to take any formal enforcement action because the issues are resolved quickly. We make decisions on whether or not to take enforcement action on a case-by-case basis and are guided by our Enforcement Guidelines<sup>12</sup>.

2.34. All suppliers met their obligations for the 2009-10 compliance period.

### **Our Audit Process: suppliers**

2.35. In August 2010 we undertook an independent audit of a number of suppliers. This work was aimed at assessing the reliability and accuracy of the information provided as part of the data provision requirements under the renewables obligation for 2009-10. In particular, suppliers have an obligation to provide us with information as to the amount of electricity that they have supplied during the obligation period and the level of their obligation. As these supply figures form the basis of the suppliers' Renewables Obligation (and hence the cost burden to suppliers), this was the most critical area to be checked during the audits.

2.36. Deloitte, specialist audit division were recruited to conduct these audits. To ensure we covered the issues that might arise across the different segments of the supply market, we asked Deloitte to audit: one large supplier in Great Britain, one small supplier in Great Britain, one supplier with zero sales in Great Britain and one supplier in Northern Ireland. Some of the suppliers were required to take corrective and preventative actions. These were revisited in the 2010 audit.

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<sup>12</sup> A copy of Ofgem's enforcement guidelines is available at <http://www.ofgem.gov.uk/About%20us/enforcement/Documents1/Enforcement%20Guidelines%20post%20consultation.pdf>



2.37. The audits proved very beneficial to the compliance process. For example, as a result of the audit, Ofgem is currently considering how to proceed in respect of a discrepancy in supply figures.

2.38. Two of the suppliers were asked to formalise procedures around reporting of supply data and add additional users to the Renewables and CHP register.

2.39. Different methods of calculating supply data were again noted by Deloitte during the 2010 supplier audit. We have circulated a questionnaire to all non-zero suppliers in the 2009-10 compliance period asking for details of how supply is calculated. We will be collating this data and identifying good practice with a view to making a recommendation for 'a standard supply calculation protocol' in our next revision of the 'Guidance for licensed electricity suppliers' document. This is due to be published in April 2011.

2.40. We find the supplier audit process very useful, and will be repeating the exercise in 2011 as well as revisiting those suppliers with identified deficiencies from the 2010 audit.

### **Mutualisation**

2.41. In the event of a supplier being unable to meet its RO and/or ROS, for example if the supplier has gone into administration during the obligation period, there may be a shortfall in the buy-out fund. This means that the buy-out fund would be less than the total amount which would have been paid in if all suppliers had properly discharged their RO and/or ROS.

2.42. Where the shortfall reaches a certain level, known as the 'relevant shortfall' a mutualisation process applies where all suppliers who have met their obligations will be required to make additional payments to make up the relevant shortfall. In 2009-10 the relevant shortfall was £9,700,000 in England and Wales and £970,000 in Scotland.

2.43. Additional payments were capped at £224,000,000 in England and Wales and £22,400,000 in Scotland for the 2009-10 obligation period; this cap is adjusted each year by RPI. These additional payments, known as the mutualisation fund are redistributed to suppliers in the same way as the buy-out and late payment funds.

2.44. Mutualisation does not apply in Northern Ireland; however, suppliers in Northern Ireland will receive a share of any mutualisation funds.

2.45. The shortfalls in the England & Wales and Scotland buy-out funds were met by payments made in the late payment period. Mutualisation provisions did not apply in the 2009-10 obligation period as there was no shortfall in the RO or ROS after 31 October 2010.

## 3. Renewables Obligation Certificates

### Chapter summary

This chapter, together with Appendix 3, provides information on the number of Renewable Obligation Certificates (ROCs), Scottish Renewable Obligation Certificates (SROCs) and Northern Ireland Renewable Certificates (NIROCs) issued by Ofgem to generating stations in the 2009-10 obligation period. It details information on:

- ➔ The total number of ROCs issued by Ofgem, and
- ➔ This total broken down by technology type.

We are required to publish this information under the Orders.

Information on the number of ROCs that have been issued since April 2006 can be found in the certificates report on our Renewables & CHP Register at <https://www.renewablesandchp.ofgem.gov.uk>

### Renewable Obligation Certificates (ROCs)

3.1. The Orders require us to issue ROCs to accredited generating stations that have generated electricity from eligible renewable sources<sup>13</sup>.

#### Headline figures

3.2. We issued 21,227,618 ROCs in total (representing 20,335,563 MWh of renewable electricity generation) between 1 April 2009 and 31 March 2010. This total was made up of 12,700,639 (England & Wales) ROCs (representing 12,137,658 MWh), 7,726,811 SROCs (representing 7,399,260 MWh) and 800,168 NIROCs (representing 798,645 MWh).

3.3. Since 1 April 2009 the amount of electricity to be stated in a ROC has depended on the technology used to generate the electricity, this dependency is set out in Schedule 2 of the Orders. For stations accredited before 11 July 2006 some technologies have been 'grandfathered' at 1 ROC per MWh. Consequently 1 ROC no longer necessarily represents 1 MWh of generated electricity. Tables 6 and 7 show the average amount of electricity stated in a ROC by country and technology.

**Table 6: Renewable electricity per ROC by country**

England	Wales	Scotland	Northern Ireland	Combined
0.963 MWh	0.909 MWh	0.957 MWh	0.998 MWh	0.958 MWh

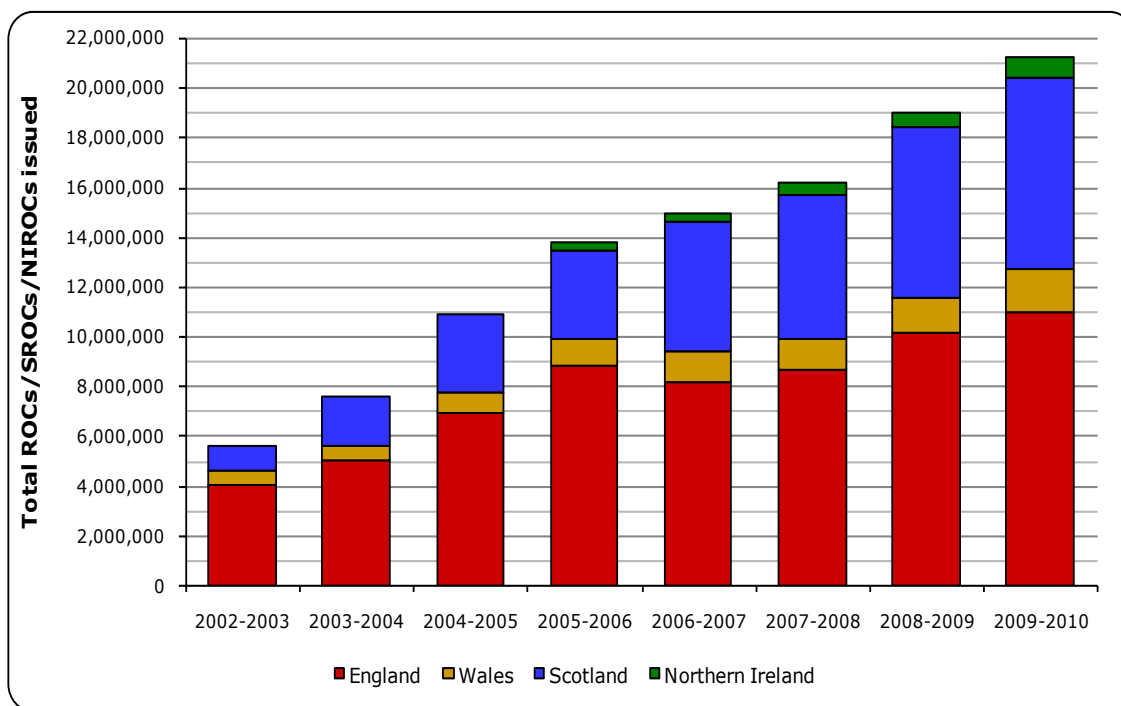
<sup>13</sup> See Article 2(1) of the Orders for the definition of eligible renewable sources.

**Table 7: Renewable electricity per ROC by technology**

	<b>England</b>	<b>Wales</b>	<b>Scotland</b>	<b>Northern Ireland</b>	<b>Combined</b>
<b>Fuelled</b>	0.962 MWh	0.694 MWh	0.678 MWh	0.998 MWh	0.931 MWh
<b>Off-shore wind</b>	0.767 MWh	0.851 MWh	0.667 MWh	N/A	0.769 MWh
<b>On-shore wind</b>	1.000 MWh	1.000 MWh	1.000 MWh	1.000 MWh	1.000 MWh
<b>Landfill gas</b>	0.998 MWh	1.000 MWh	1.000 MWh	1.000 MWh	1.002 MWh
<b>Hydro</b>	0.980 MWh	0.995 MWh	0.999 MWh	0.980 MWh	0.998 MWh

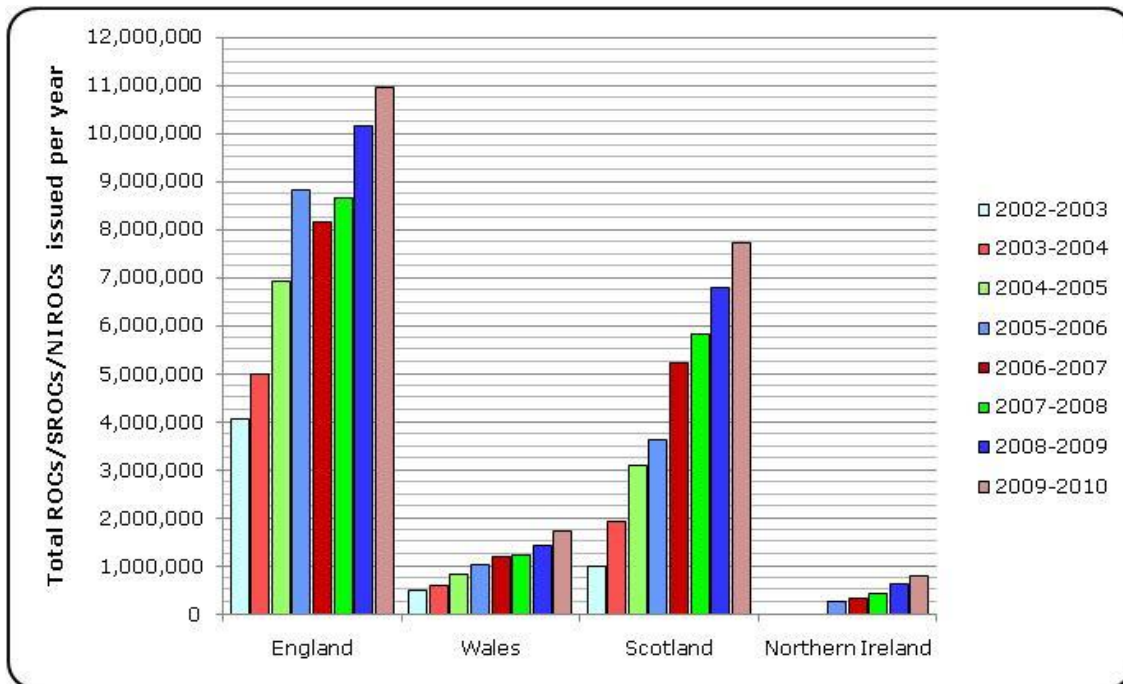
3.4. There have been year-on-year increases in the total number of ROCs we have issued since the RO began, illustrated in Figures 8 and 9. In 2009-10 there was an increase of 11.7% over 2008-2009. However, the growth in the amount of renewable generation was somewhat slower being 7.0%.

**Figure 8: Total number of ROCs issued since 2002<sup>14</sup>**

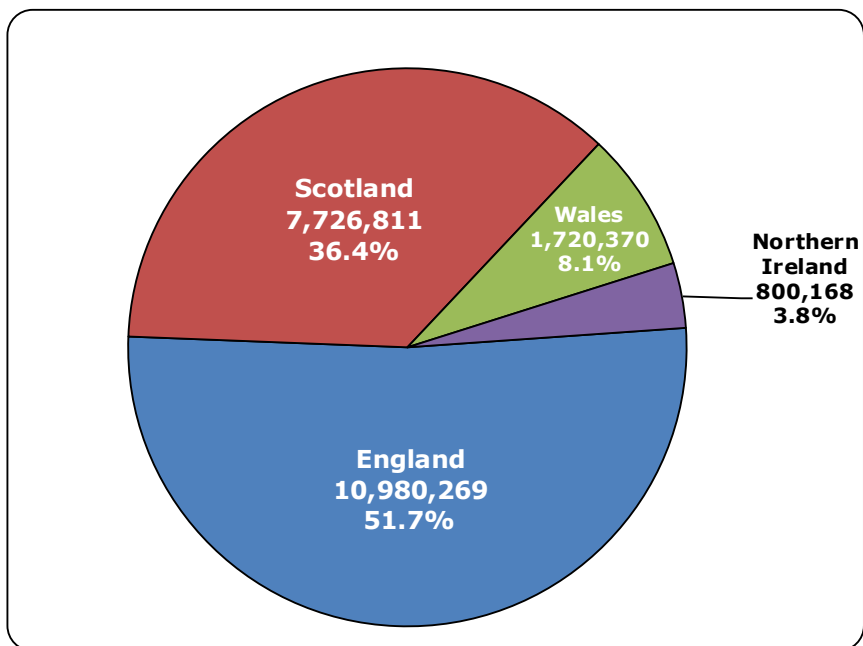


<sup>14</sup> In tandem with the roll-out of NIRO (Northern Ireland Renewables Obligation) in April 2005, ROCs to stations in NI have only been issued for those based on April 2005's generation onwards.

**Figure 9: Total number of ROCs issued since 2002 by country**



3.5. Renewable generating stations located in England received 51.7 percent of all ROCs issued in 2009-10. This compares to 36.4% to generating stations located in Scotland and just 8.1% to generating stations located in Wales. Generating stations located in Northern Ireland received 3.8% of the total number of ROCs issued in this period. This is illustrated in figure 10.

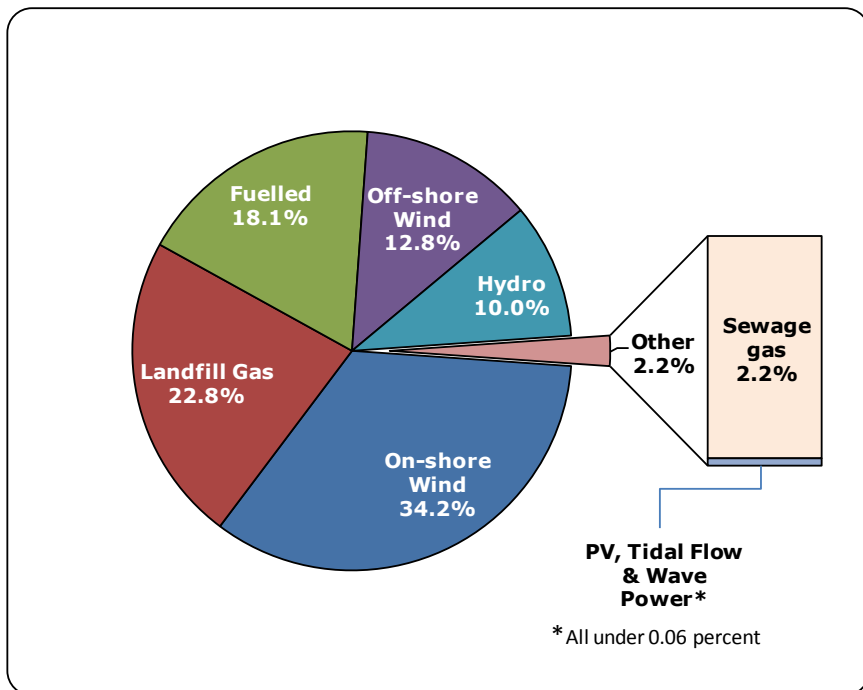
**Figure 10: Number of ROCs issued by country in the 2009-10 period**

3.6. In 2009-10 the number of ROCs issued in increased England by 8.2%, in Wales by 20.7% and in Scotland by 13.6% compared with the previous compliance period. However the largest increase in ROCs issued was for Northern Ireland where the number of ROCs increased by 29.2% compared with the 2008-09 obligation period; 89.7% of the ROCs issued to Northern Ireland were for on-shore wind.

### ROCs issued by technology type

3.7. On-shore wind sites received the largest number of ROCs in the 2009-10 obligation period (7,250,909). In 2008-09, this technology type received 6,220,107 ROCs and 4,814,409 ROCs and 4,208,975 ROCs in 2007-08 and 2007-06 respectively. The number of ROCs issued for on-shore wind has shown an increase of 16.6% over the 2008-9 obligation period. This reflects the increase in wind farm capacity that has been accredited. In terms of total ROCs issued, the next biggest beneficiary was landfill gas, which received 4,834,445 ROCs. Off-shore wind generating stations received 2,716,787 ROCs whilst Hydro generating stations were issued a total of 2,112,980 ROCs in the period. Figure 11 shows the percentage breakdown of the total ROCs issued by technology type. Further detail on the spread of ROCs issued can be found in table B1 in Appendix 3.

**Figure 11: Breakdown of ROCs/SROCs/NIROCs issued by generation technology**



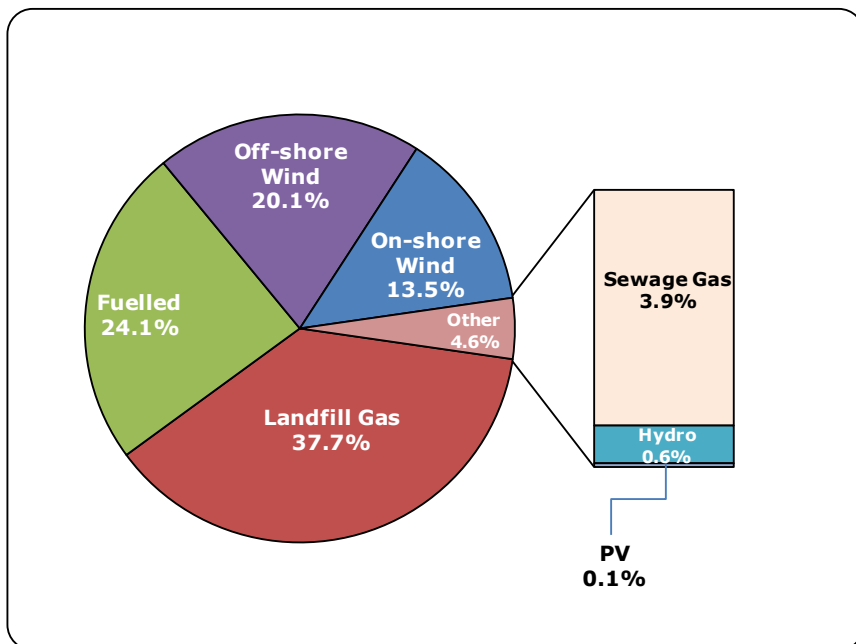
3.8. As can be seen from Figure 11, on-shore wind attracted over a third (34.2%) of the total ROCs issued in 2009-10. It has seen a steady increase in its share over previous compliance periods of 2008-09 (32.7%) and 2007-2008 (30%); off-shore wind attracted a further 12.8% of total ROCs issued, a significant increase over the 2008-2009 period (7.9%). Landfill gas received 22.8% of total ROCs with hydro stations receiving 10.0%, both have fallen since the 2008-2009 period.

3.9. Included in the fuelled sector are the ROCs issued against electricity generated from Biomass, AD and co-firing. Large changes have been seen in the use of biomass and biogas fuels since the previous compliance period. In 2008-09 the total number of ROCs issued for 'dedicated biomass' and 'dedicated biomass with CHP' was 1,616,390 this rose to 2,825,060 in 2009-10, an increase of almost 75%. Anaerobic digestion also rose dramatically from 20,360 ROCs issued in 2008-09 to 94,684 ROCs issued in 2009-10, an increase of 365%. These increases were in stark contrast to use of biomass in co-firing generation, 2,231,682 ROCs were issued in 2008-09 compared with only 776,970 ROCs issued in 2009-10, a decrease of 65%. This change in behaviour has been driven by the introduction of banding in the 2009 Orders. 'Co-firing of biomass' is now issued with only 0.5 ROCs per MWh whilst 'dedicated biomass' is issued with 1.5 ROCs per MWh and AD and 'dedicated biomass with CHP' are issued with 2 ROCs per MWh.

3.10. About 62% accredited generating stations are photovoltaic, however they produce only about 0.05% of generation. These are virtually all domestic installations. The majority of these have now been migrated to the FIT scheme.

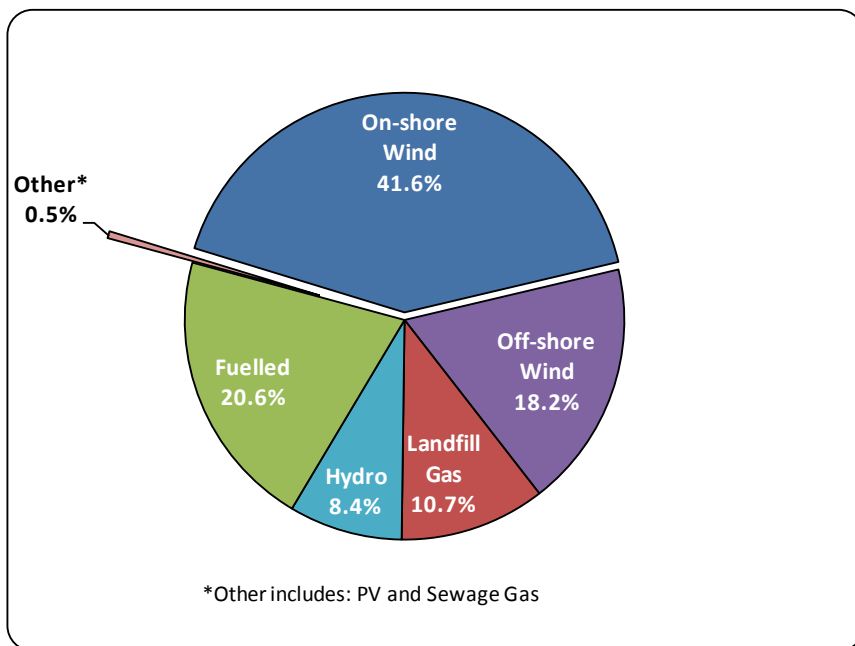
3.11. Figures 12, 13, 14 and 15 disaggregate this information by scheme and country.

**Figure 12: Breakdown of ROCs issued in England by technology type**



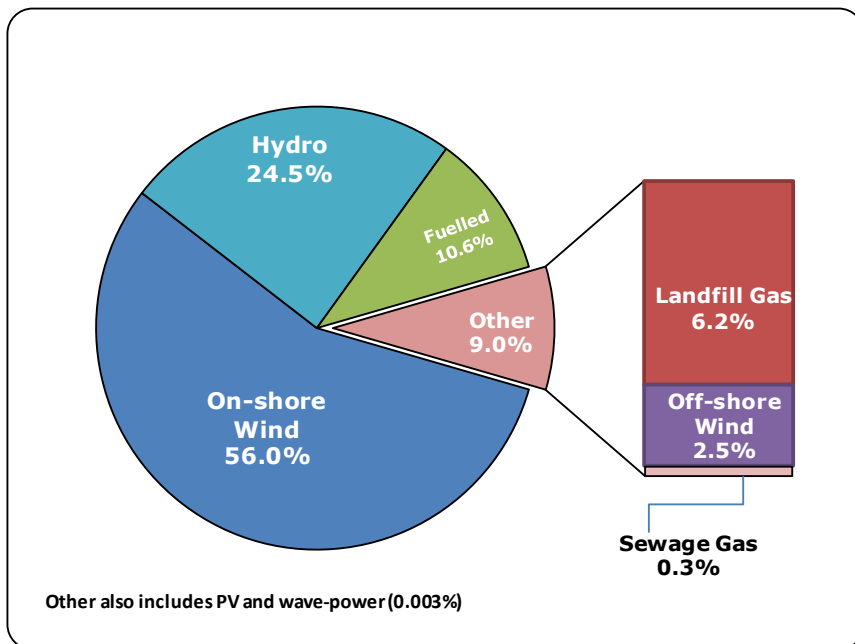
3.12. The largest proportion of ROCs issued in England went to landfill gas (37.7%), followed by fuelled generating stations (24.1%). The proportion of ROCs issued to off-shore wind grew sharply from 13.0% in 2008-2009 to 20.1% in 2009-10. This figure is set to continue to increase in future years as more off-shore stations come on line. For the second year running ROCs issued to off-shore wind stations exceeded those issued to on-shore wind stations.

**Figure 13: Breakdown of ROCs issued in Wales by technology type**



3.13. The largest proportion of ROCs issued in Wales went to on-shore wind generating stations (41.6%). Off-shore wind grew sharply over 2008-2009 from 12.8% to 18.2% in 2009-10. Fuelled stations were issued with 20.6% of the ROCs issued in Wales.

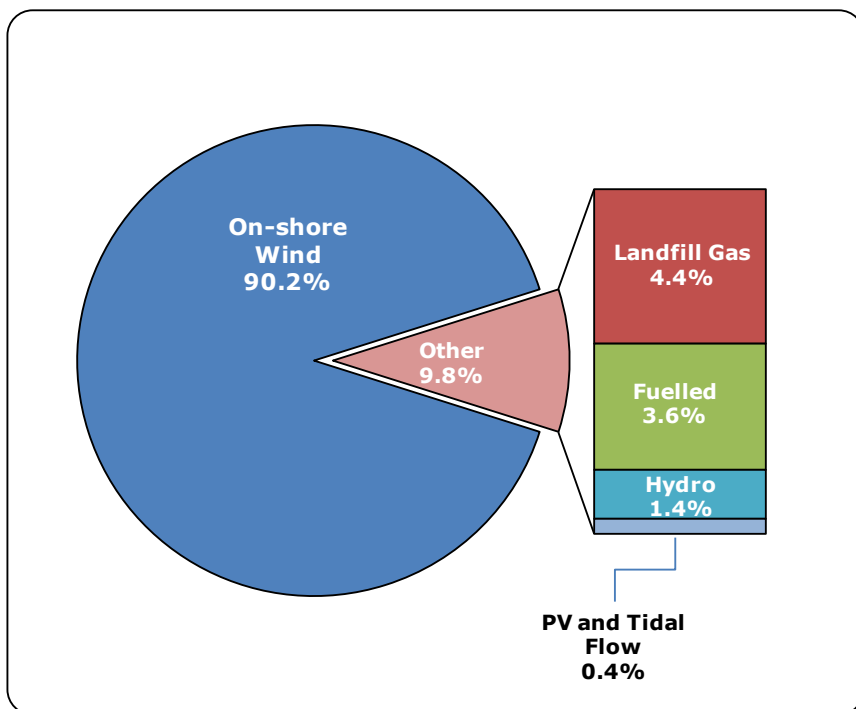
**Figure 14: Breakdown of ROCs issued in Scotland by technology type**





3.14. The majority of ROCs issued (56.0%) in Scotland went to on-shore wind generating stations. Hydro stations were awarded the next largest share with 24.5%. Off-shore wind is included under 'other' but constitutes almost 2.5% of the portion. This is the first year that ROCs have been issued to off-shore wind in Scotland.

**Figure 15: Breakdown of ROCs issued in Northern Ireland by technology type**



3.15. The vast majority of ROCs issued in Northern Ireland (90.2%) were issued to on-shore wind stations.

### ROC issue process

3.16. We issue ROCs to all generating stations, with a declared net capacity greater than 50 kW, on a monthly basis. Microgenerators (those with a DNC of 50kW and under) can opt to receive ROCs annually. Typically, domestic-scale generators choose this option (often in conjunction with using agents) to minimise the administrative burden they face when claiming ROCs.

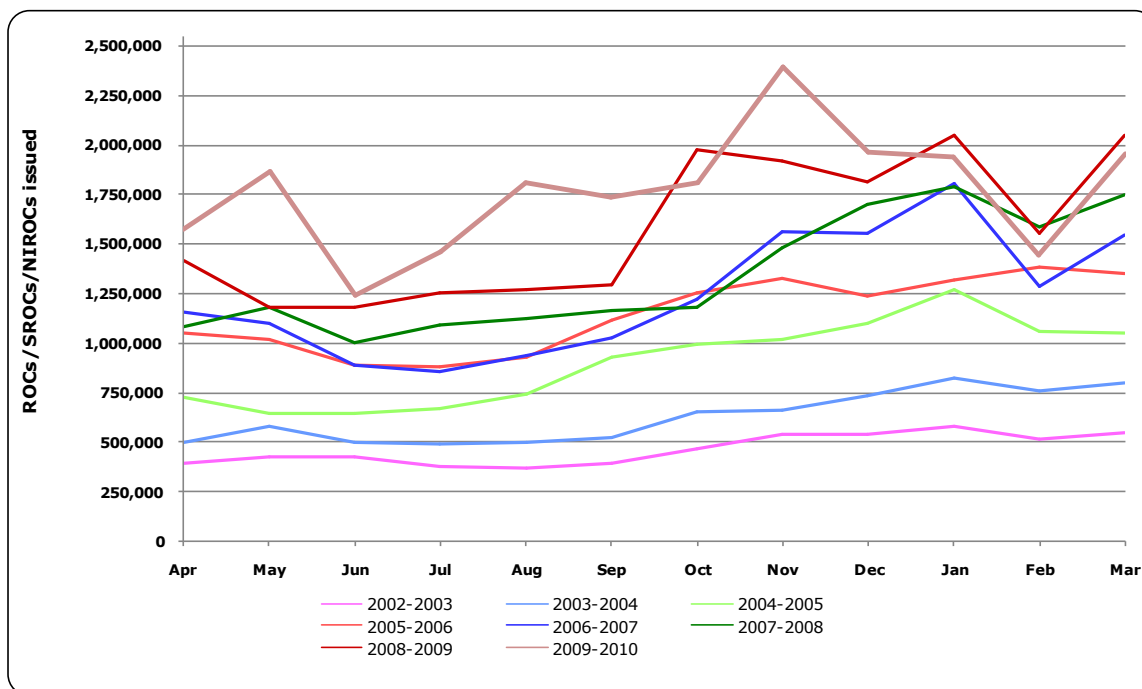
3.17. ROCs issued on a monthly basis are done so two and a half months after the month of generation. ROCs issued on an annual basis are issued two and a half months after the end of the obligation year. This lag reflects the legislative

timeframe for the provision of data to us, i.e. the two-month<sup>15</sup> window, and also our data processing time.

3.18. Figure 16 demonstrates the trend in ROCs issued each year since 2002-03. Figure 17 compares the ROCs issued by technology type per month in the obligation periods.

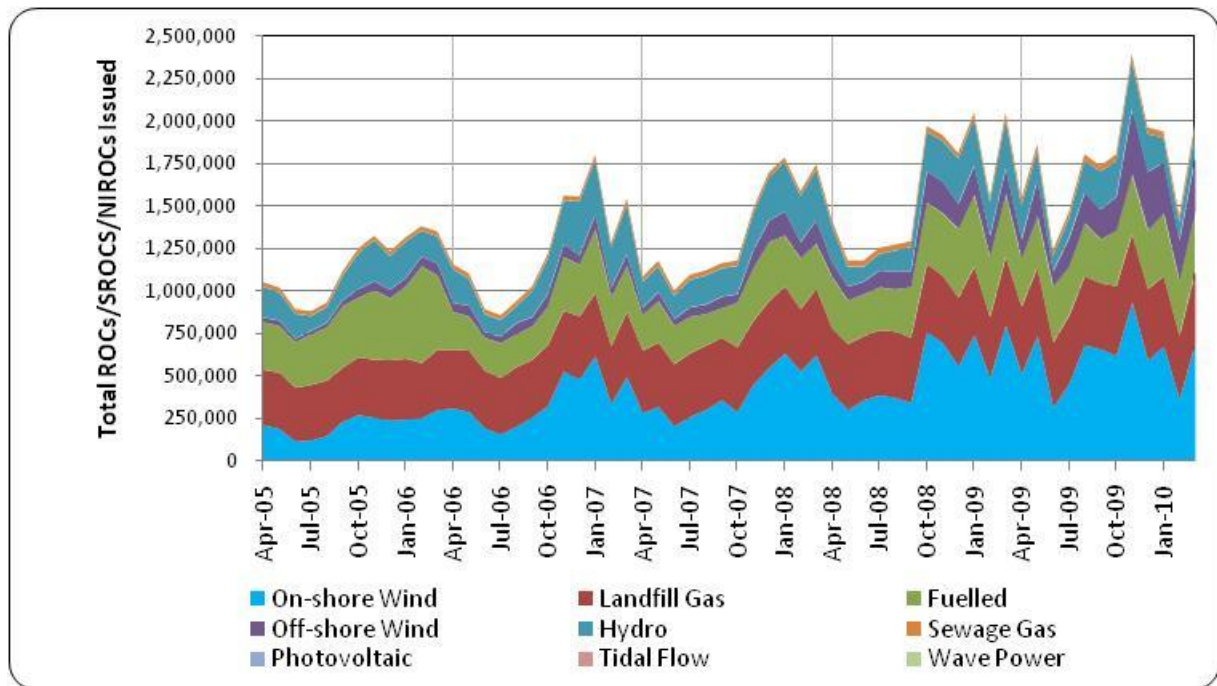
3.19. There is a clear trend across the periods of more ROCs being issued in winter months. This is predominantly due to the weather conditions being favourable for wind and hydro generation.

**Figure 16: ROCs issued per month over the life of the obligations<sup>16</sup>**



<sup>15</sup> Generating stations have two months after the end of the month of generation to provide us with their metered monthly output. We then have a further one month in which to issue ROCs. (Article 24(2) of the Orders).

<sup>16</sup> For the 2007-08, 2008-09 and 2009-10 compliance periods the ROCs issued on an annual basis (mainly covering agents/microgenerators) are not included in the figures.

**Figure 17: ROCs issued by technology type per month**

### ROC revocation and replacement

3.20. We revoked 17,708 ROCs, SROCs and NIROCs in the 2009-10 obligation period. Further detail on ROC revocation by technology can be found in table B9 of Appendix 3.

### Retired ROCs

3.21. In the 2009-10 period 7,788 ROCs were retired. This compares with 11,183 in 2008-09, 11,821 in 2007-08 and 8,814 in 2006-07.

## 4. Generators accredited under the Renewables Obligation

### Chapter summary

This chapter, together with Appendix 4, provides information on the number and type of generating stations accredited under the Renewables Obligations.

We are required to publish this information under the Orders.

A detailed list of all stations accredited under the Orders can be found in the accredited stations report on our Renewables & CHP Register at <https://www.renewablesandchp.ofgem.gov.uk>

### Accreditation of generating stations

4.1. The Orders require us to accredit eligible renewable generating stations for the RO. We have put in place appropriate on-line application forms and guidance to assist us to carry out this function.

#### Headline figures

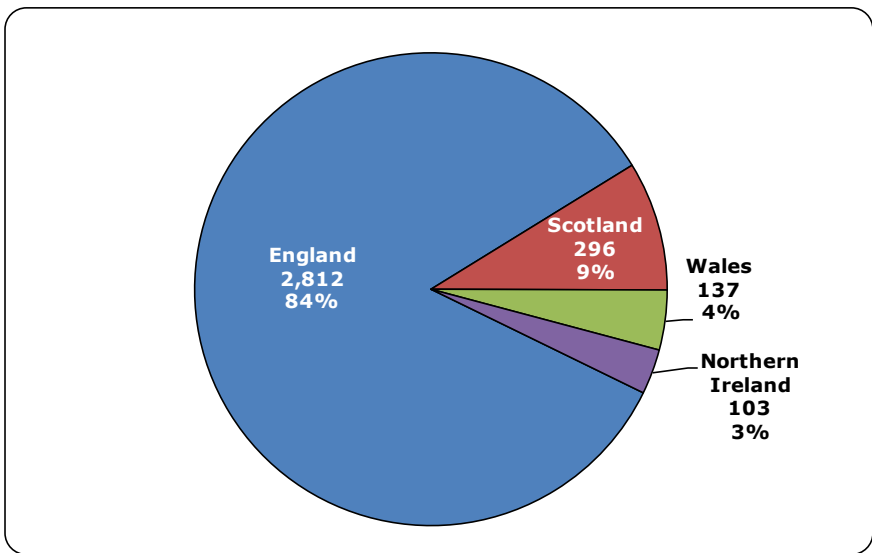
4.2. We accredited 3,348 generating stations during the 2009-10 obligation period, up from 1,396 in 2008-09. There were a total of 7,228 generating stations accredited for the RO as of 31 March 2010. Figure 18 illustrates the location of the stations accredited in the 2009-10 obligation period.

4.3. Since the beginning of the RO the number of stations accredited has grown steadily. At the end of the 2005-06 obligation period, we had accredited 980 stations, this increased to 1,359 at the end of the 2006-07 obligation period, to 2,405 at the end of the 2007-08 period, and to 3,801 as at the end of the 2008-9 obligation period<sup>17</sup>. The significant growth seen since 2006-07 is a result of agents being able to represent microgenerators and amalgamate their output for the purposes of claiming ROCs. In the run up to 1 April 2010, which marked the introduction of the Feed-in-Tariff scheme, we saw an unprecedented number of accreditations (1,507 in March 2010) as illustrated in Figures 19 and 19a. Of the 1,507 generating stations accredited in March 2010 1,494 had a capacity of  $\leq 50\text{kW}$ . Most of the  $\leq 50\text{kW}$  generating stations have subsequently withdrawn from the RO and transferred to the Feed-in-Tariff scheme.

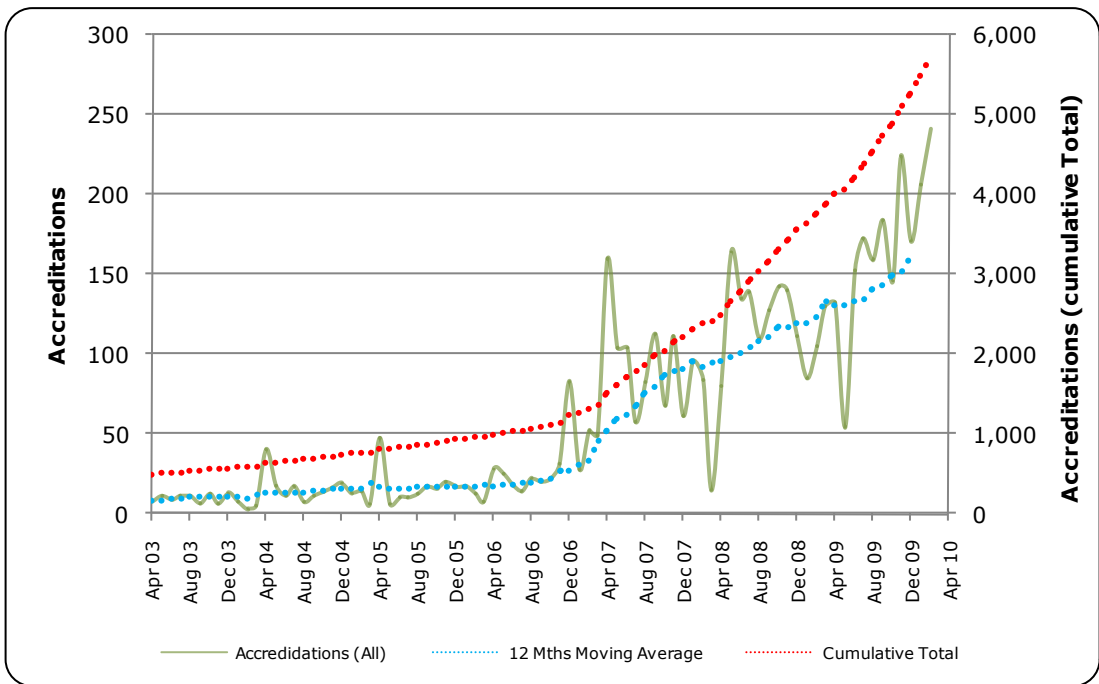
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<sup>17</sup> The number of stations accredited during the 2008-09 obligation period may have subsequently increased since there were a number of stations that were 'pending accreditation' on 31 March 2009.

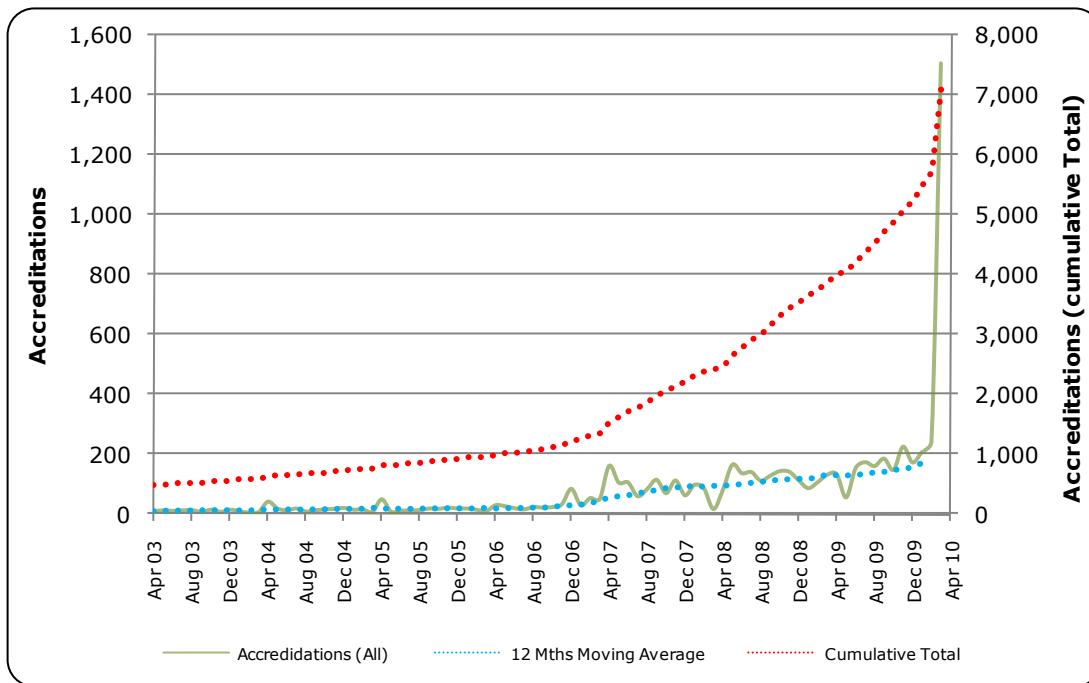
**Figure 18: Comparison of the number of generating stations accredited under the RO, ROS and NIRO by location in 2009-10 obligation period**



**Figure 19: Number of accredited generating stations since 2003 (not including March 2010)**

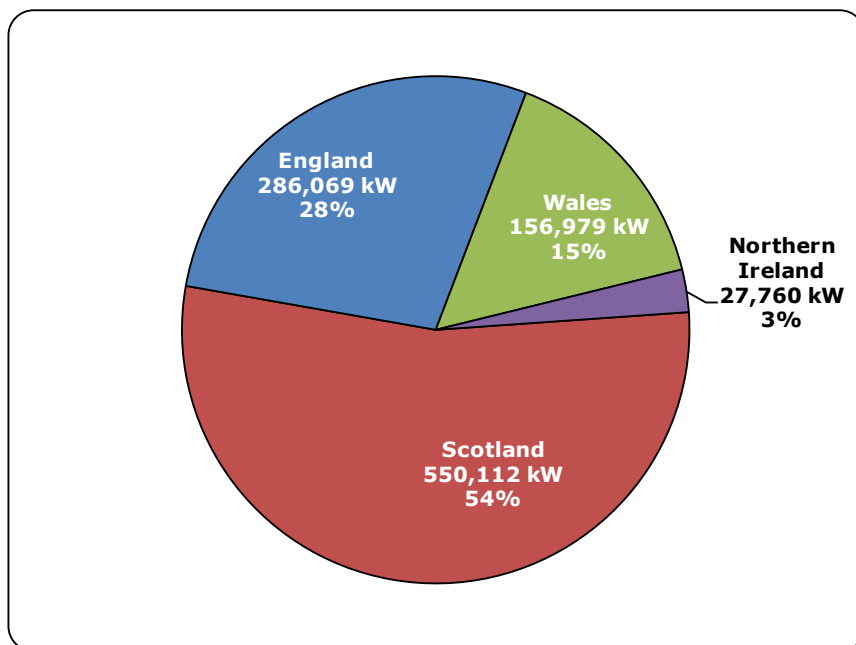


**Figure 19a: Number of accredited generating stations since 2003 (including March 2010)**



4.4. The capacity accredited during the 2009-10 obligation period was 1,020,919 kW. This included accreditation of 135,365 kW of capacity at the Crystal Rig II Wind Farm in East Lothian. Total accredited capacity in the UK was 7,624,566 kW as of 31 March 2010. Figure 20 shows the breakdown of newly accredited capacity by location for the 2009-10 period.

**Figure 20: Comparison of capacity (kW) of generating stations accredited under the RO, ROS and NIRO by location in 2009-10 obligation period**



#### **Newly accredited generation for 2009-10 by country**

4.5. Of the total number of stations accredited under the RO in the United Kingdom, 84% were in England equating to 28% of the total eligible generating capacity. In comparison, Scotland had 9% of the total number of stations and 54% of the total generating capacity, and Wales, which had 4% of the number of generators and 15% of the total generating capacity. These figures suggest that a larger proportion of the microgeneration stations are situated in England compared with Scotland.

4.6. Generating stations located in Northern Ireland account for 3% of the total number of eligible generators accredited under the RO in the United Kingdom, with 3% of total generating capacity.

#### **Total accredited generation for 2009-10 by country**

4.7. As at 31 March 2010, England accounted for 76% of the total number of stations accredited for the RO in the United Kingdom, and 44% of the total eligible generating capacity. In comparison, Scotland had 11% of the total number of stations, but 42% of the total generating capacity. Wales which had 5% of the number of generators and 10% of the total generating capacity.

4.8. As at 31 March 2010, generating stations located in Northern Ireland account for 8% of the total number of eligible generators accredited for the RO in the United Kingdom, accounting for 4% of total generating capacity.

4.9. Further detail can be found in tables C1 and C2 of Appendix 4.

### **NFFO and SRO generating stations**

4.10. Under the Electricity Act 1989, Orders were introduced in England and Wales, Scotland and Northern Ireland requiring the Regional Electricity Companies to contract for certain amounts of electricity generating capacity from renewable sources. These Orders are known as Non-Fossil Fuel Obligations (NFFO and NI NFFO) and the Scottish Renewables Obligation (SRO)<sup>18</sup>. The Orders set out specific eligibility requirements in respect of generating stations situated at locations where a NFFO, SRO or NI NFFO contract exists<sup>19</sup>.

4.11. In the 2009-10 obligation period, we accredited one generating station (on-shore wind) that received support under the NFFO scheme, but none were accredited that receive support under either the SRO or NI NFFO schemes.

4.12. As at 31 March 2010, NFFO generating stations made up around 16.1% of the accredited RO capacity in England and Wales. NI NFFO generating stations made up around 9.7% of the accredited RO capacity in Northern Ireland. SRO generating stations made up around 5.4% of the accredited RO capacity in Scotland. There was, however, a slight reduction in the number of stations no longer receiving support under the NFFO, SRO or NI NFFO schemes because their contracts had come to an end or their contracts had been terminated.

4.13. Further detailed information can be found in table C4 and C4a of Appendix 4.

### **Types of generating station accredited**

4.14. When the RO was first introduced, the most prevalent technology type (in terms of the number of generating stations) was landfill gas, with 202 stations accredited at 1 April 2002. In 2009-10 we accredited 14 landfill gas generating stations.

4.15. The most prevalent technology in the 2009-10 obligation period in terms of the number of stations accredited was photovoltaic with 2681 stations. The most prevalent technology by capacity was on-shore wind with 505,086 kW becoming accredited, as demonstrated in Figure 21.

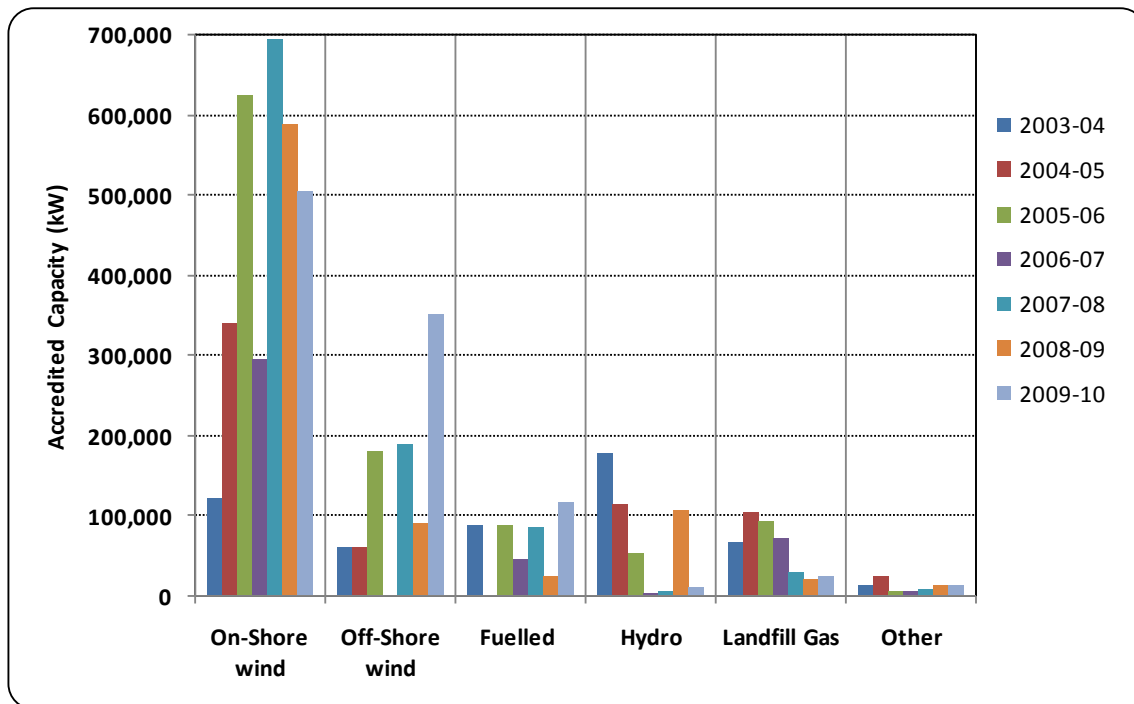
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<sup>18</sup> See the Electricity (Non-Fossil Fuel Sources) (England & Wales) Order 1994, the Electricity (Non-Fossil Fuel Sources) (Northern Ireland) Order 1996 and the Electricity (Non-Fossil Fuel Sources) (Scotland) Order 1994 and subsequent orders.

<sup>19</sup> See Articles 20 and 21 of the RO and ROS, Articles 19 and 20 of the NIRO for further details.

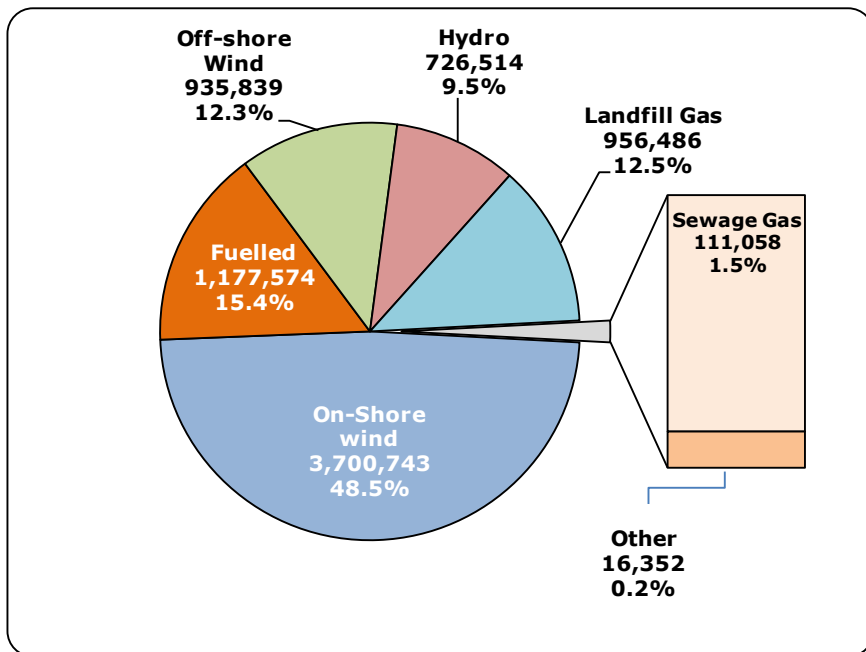


**Figure 21: Additional accredited capacity by technology type and obligation period**



4.16. On-shore wind stations made up 49% of the total renewable capacity installed and accredited under the RO as of 31 March 2010. There was a dramatic increase in accreditation of off-shore wind capacity, four stations totalling 352,039 kW were accredited in 2009-10 compared with one station at 90,000 kW in 2008-09. The total installed capacity for each technology is shown in Figure 22. Further details can also be found in Table C2 in Appendix 4.

**Figure 22: Total capacity (kW) accredited for the RO, ROS and NIRO by technology as at 31 March 2010**



### Our audit process: generating stations and agents

4.17. We expect operators of generating stations applying for accreditation to submit complete and accurate information. They are also required to inform us of any subsequent changes that might affect their accredited status. This helps us to ensure that accreditation remains valid, and to make certain that we issue the correct number of ROCs. A programme of audits gives us assurance that accreditations are valid and output data submissions for ROC issue are correct and in compliance with the Orders.

4.18. During the 2009-10 obligation period we carried out technical audits of 27 accredited stations above 50kW and 20 accredited micro-generators across England and Wales, Scotland and Northern Ireland. Similar issues were identified in all three countries. Most of the findings were satisfactory but some revealed irregularities that called into question: the number of ROCs that the operator received, departures from agreed procedures for fuel measurement and sampling, or failures to report modifications at the generating station. The following tables summarise the audit results.

**Table 8: Summary of technical audit results for stations over 50kW**

<b>Generating technology</b>	<b>No. of stations audited</b>	<b>Types of irregularity detected</b>
Fuelled	6	<ul style="list-style-type: none"> <li>▪ Meter readings and output data incorrectly reported</li> <li>▪ Fuel measuring and sampling methodology not accurate</li> <li>▪ Inconsistencies in rounding of qualifying percentage</li> <li>▪ Incorrect declared net capacity reported on application</li> <li>▪ Fossil fuel used for electricity generation not declared</li> <li>▪ Input electricity not deducted</li> <li>▪ Carryover of fuels not measured and re-sampled</li> <li>▪ Operator contact details not updated</li> <li>▪ Biomass fuels used don't meet the biomass definition</li> <li>▪ Single line diagram incorrect</li> <li>▪ Lack of meter calibration certificates</li> <li>▪ Additional capacity not declared on application</li> <li>▪ Calculation errors in the number of certificates issued</li> </ul>
Hydro	4	<ul style="list-style-type: none"> <li>▪ Station exceeds the 20MW declared net capacity limit set for certain hydro stations</li> <li>▪ Double counting of input electricity</li> <li>▪ Input electricity incorrectly reported</li> <li>▪ Lack of meter calibration certificates</li> <li>▪ Additional capacity not declared on application</li> </ul>
Landfill gas	3	<ul style="list-style-type: none"> <li>▪ Inconsistencies in data submitted</li> <li>▪ Standby and import connections not declared on application</li> <li>▪ Engine capacity limitations not declared on application</li> <li>▪ Input electricity not deducted</li> <li>▪ Inconsistencies with the commissioning date of generating station</li> <li>▪ Difference between the main and check meter readings</li> <li>▪ Erroneous claim of certificates for one month</li> </ul>
Off-shore wind	1	<ul style="list-style-type: none"> <li>▪ Calculation errors in the number of certificates issued</li> </ul>
On-shore wind	5	<ul style="list-style-type: none"> <li>▪ Input electricity not deducted correctly</li> <li>▪ Total installed capacity incorrectly labelled on single line diagram</li> <li>▪ MPAN number incorrectly declared on application</li> <li>▪ Incorrect output reported for one month</li> <li>▪ Discrepancy in declared net capacity reported</li> </ul>
Photovoltaic	1	<ul style="list-style-type: none"> <li>▪ Incorrect output volumes submitted for one month</li> <li>▪ Meter details incorrectly declared on application meter</li> <li>▪ Lack of meter calibration certificate</li> </ul>
Sewage gas	5	<ul style="list-style-type: none"> <li>▪ Calculation errors in the number of certificates issued</li> <li>▪ Discrepancy in half hourly meter and manual meter readings</li> <li>▪ Incorrect meter serial number declared on application</li> <li>▪ Inconsistencies with station's capacity and capacity connection declared on application</li> <li>▪ Station modifications not reported</li> <li>▪ Operator contact information not updated</li> </ul>
Tidal	1	<ul style="list-style-type: none"> <li>▪ No issues identified</li> </ul>
Wave Power	1	<ul style="list-style-type: none"> <li>▪ Incorrect capacity declared on application</li> </ul>

**Table 9: Summary of technical audit results for microgenerators**

<b>Generating technology</b>	<b>No. of stations audited</b>	<b>Types of irregularity detected</b>
Hydro	2	<ul style="list-style-type: none"> <li>▪ Meter details incorrect</li> <li>▪ Single line diagram incorrect</li> </ul>
Photovoltaic	4	<ul style="list-style-type: none"> <li>▪ PV manufacturer could not be determined</li> </ul>
Wind	14	<ul style="list-style-type: none"> <li>▪ Incorrect meter readings submitted</li> <li>▪ Accredited for Levy Exemption Certificates but not claiming</li> <li>▪ Minor discrepancies with information on application</li> <li>▪ Incorrect meter details declared on application</li> <li>▪ A historic record of meter readings not kept</li> <li>▪ Schematic diagram incorrect</li> </ul>

4.19. The audit identified 2 issues that called into question the validity of accreditation. The first issue was where a station exceeded the 20MW DNC limit set for certain hydro stations. We are yet to establish whether the station could operate above 20MW indefinitely without damaging the plant<sup>20</sup>. In addition, one turbine at this generating station was driven by a compensation flow and could be regarded as a separate hydro generating station with a declared net capacity of below 20MW<sup>21</sup>. The second issue was in relation to a fuelled station where the fuel used did not meet the definition of a biomass fuel. We are currently reviewing these matters, and will take the appropriate remedial action.

4.20. The most common findings were in relation to the accuracy of the information submitted for ROC claims because of issues with metering equipment, measuring and reporting of 'input electricity', or the incorrect reporting of data. We notified each operator of the issues identified by the audit and requested assurances that the issues would be rectified. We will also carry out a follow-up exercise to ensure that the issues have been addressed. The errors found represented only a marginal difference to the ROCs issued. There were several cases where single line diagrams and meter details on file were not correct, in these cases operators were required to rectify the situation by providing correct details and approving updated single line diagrams.

<sup>20</sup> The definition of 'declared net capacity' refers to the highest level of generation that 'can be maintained indefinitely without causing damage to the plant.'

<sup>21</sup> The definition of a hydro generating station regards turbines driven by compensation flow as separate hydro generating stations

## 5. Implementation Issues

### Chapter summary

This chapter sets out the issues that arose in the 2009-10 obligation period.

It also looks at the issues that have come up in 2010-11 obligation period that are ongoing at the time this report was published.

Our 2008-09 Annual Report sets out some of the issues that came up prior to April 2009.

### 2009-10 Obligation period

#### The Renewables and CHP Register

5.1. The Renewables and CHP Register ('the Register') suffered from a number of performance issues in the run up to the 2010 deadline for submitting compliance reports.

5.2. A number of suppliers with large compliance reports informed us that the Register crashed or reported error messages whilst trying to submit a large compliance report. As the deadline approached we asked large suppliers to submit their compliance reports by email with a hard copy to follow in the post. No supplier failed to submit a compliance report by the deadline due to issues with the Register. The problem was quickly identified as a 'timing out' issue and we implemented a quick fix which has temporarily solved the problem.

5.3. Suppliers also informed us of some instances where the number of ROCs and co-fired ROCs were incorrectly calculated. We quickly fixed this issue.

5.4. Some suppliers had problems accessing their accounts on the register. The problems varied in their nature and severity and might in part be due to the tight timescales we had to develop the system for FIT scheme functionality. In the run up to the next compliance round we will contact suppliers and ask them to check that access to their accounts is working correctly at least a month in advance of 1 July 2011.

5.5. Ofgem has committed to improve the performance of the Register prior to the next compliance deadline at the end of August 2011. This commitment will include a permanent fix to the timing out issue observed when submitting large compliance reports.

#### ROCs claimed but not issued and Revoked ROCs

5.6. At the time of writing (18 February 2011) 84,837 ROCs had been claimed by generators but not issued by the Authority for the 2009-10 period.

5.7. Whilst we recognise the importance of issuing ROCs in a timely manner, Ofgem has a statutory duty to ensure that ROCs are only issued when we are satisfied that the electricity generated is eligible and has met all the requirements under the Orders.

5.8. Our records show that the majority of ROCs claimed but not issued are being withheld for the following reasons:

- Estimated data from generator
- Late data from generator
- Awaiting fuel approval
- Awaiting accreditation
- Accreditation amendments
- Awaiting response to query

5.9. Sometimes ROCs must be revoked after they have been issued, 17,708 ROCs were revoked from the 2009-10 period. The reasons for this fall into two main categories:

- ROCs issued based on incorrect banding
- Amended data from generators

5.10. If a ROC has already been produced to the Authority then it cannot be revoked. The Authority may, however, withhold the issue of a further ROC to the generator in question.

## **2010-2011 Obligation period**

### **ROC Register**

5.11. During the last few months we have had a number of queries about the ROCs that are viewable on the Renewables and CHP register public reports.

5.12. Ofgem has taken the decision that any ROC with a 'pending' status (i.e. pending revoked, pending redeemed and pending transfer) should not be visible on the public report. This decision was taken after consultation with stakeholders.

5.13. 'Pending redeemed' and 'pending transfer' ROCs were seen as potentially commercially sensitive. Suppliers may not want the source of their ROCs to be public knowledge. These ROCs are included on the Register after their status has been changed to 'redeemed' or 'issued'.

5.14. The decision not to include 'pending revoked' ROCs on the register was made to protect the reputation of the generator concerned. Whilst the ROC in question is still 'pending revoked' there is a chance that after our investigation is complete that

the ROC status could be returned to 'issued'. They are therefore not visible on the Register until the status changes to either 'issued' or 'revoked'.

5.15. The Renewables Obligation Order 2009 (as amended)<sup>22</sup> requires us to establish and maintain a ROC Register. The contents of the Register must be made available for inspection by the public at reasonable notice. We are not required to maintain a 'live' register.

5.16. In August-November the problem of ROCs not being visible is most acute since the 'pending redeemed' ROCs are not visible on the public reports. For the 2009-10 compliance round there were 21,337,205 ROCs that were not visible from September until early November.

5.17. In previous compliance rounds we have changed the status of 'pending redeemed' ROCs to 'redeemed' after the end of the late payment period (31 October). In future compliance periods we will endeavour to change the status of ROCs produced to us to 'redeemed' by mid September.

### **Sustainability reporting**

5.18. In line with the requirements of the European Renewable Energy Directive 2009 (RED), sustainability reporting will be a requirement for generating stations using bioliquids. These requirements is being brought into the current RO regime through the Renewables Obligation (amendment) Order 2011 which is due to come into force on 1st April 2011.

5.19. The generator will be required to supply information regarding the Greenhouse Gas (GHG) emission saving of their fuel. They must demonstrate a GHG emission saving of at least 35% to be eligible for ROCs before 2017. From 1 Jan 2017 a GHG saving of 50% will have to be demonstrated and from 1 Jan 2018 a GHG saving of 60% will have to be demonstrated.

5.20. The generator will also have to demonstrate compliance with land criteria. This will show that the impact of farming the plant life from which a bioliquid was extracted is acceptable. Hence raw material should not be obtained from land with high biodiversity value, from land with high carbon stock or from land that was peatland in January 2008.

5.21. On an annual basis the generator will be required to produce to the Authority an independent audit report. This report will verify that the GHG saving criteria and land criteria information supplied by the generator is accurate and in line with the

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<sup>22</sup> The Renewables Obligation Order 2009 (as amended), Article 59 and Schedule 4

requirements of the order. The annual audit report is due to be produced to the Authority by 31 May following the end of the compliance period.

5.22. If the audit report is not produced or the content is not satisfactory then the Authority may revoke ROCs issued or refuse to issue further ROCs.

5.23. Ofgem is on track to deliver upgrades to the Register in line with the requirements of the Renewables Obligation Amendment Order 2011.

5.24. Also in line with the requirements of the RED, DECC are additionally extending the sustainability criteria beyond bioliquids to solid and gaseous biomass. Generators using solid and gaseous biomass will be required to report on, but not meet, the sustainability criteria from 1 April 2011. Meeting the sustainability criteria will only become a condition of receiving ROCs from 1 April 2013.

5.25. Once work on the bioliquid guidance is complete, Ofgem will set about working on the solid and gaseous biomass elements of the order.



## 6. Changes in legislation

### Changes to the Renewables Obligation introduced from 1 April 2009

6.1. The Renewables Obligation Order 2009, the Renewables Obligation (Scotland) Order 2009 and the Renewables Obligation Order (Northern Ireland) 2009 came into force on 1 April 2009. This legislation introduced a number of changes to the Orders including:

- banding the RO so that different levels of support are provided to different technologies. Established technologies receive fewer ROCs per MWh (e.g. 0.25 ROCs per MWh for landfill gas) and emerging technologies will receive more ROCs per MWh (e.g. 1.5 ROCs per MWh for regular dedicated biomass).
- in association with the banding structure, grandfathering rights have been introduced; these cover exceptions to banding based on commissioning and accreditation dates for some technologies.
- introducing 4 yearly reviews of the banding levels from 2013, and early reviews if needed.
- in conjunction with the banding structure, the obligation will change from an obligation to source a certain percentage of a supplier's sales to an obligation to present a number of ROCs per MWh of a supplier's sales
- extending obligation levels up to 20% on a 'guaranteed headroom' basis (8% 'buffer' between number of ROCs and the target).
- microgenerators will be able to take annual meter readings up to 2 months following the end of the obligation period, as long as they provide this data to Ofgem within this timeframe. The first period that this will be applicable for is the obligation year 2009-10
- Ofgem's costs of administering the RO will be recovered from the buy-out funds and late payment funds from 2010-11
- if the late payment fund is less than £50,000 then it will be rolled over and re-distributed in the following year's obligation period, from 2010-11
- a change to the treatment of generators supplying through private wire networks
- the introduction of a requirement on generators to submit annual sustainability reporting for biomass to Ofgem, and for Ofgem to make this information publicly available.
- allowing energy from waste to be deemed at 50% renewable content and allowing a higher percentage where adequate sampling procedures are in place, and
- the cap on suppliers meeting their obligation from co-fired power stations will be raised from 10% to 12.5% from 2010-11.

### Changes to the Renewables Obligation introduced from 1 April 2010

6.2. The Renewables Obligation (Amendment) Order 2010, the Renewables Obligation (Scotland) Amendment Order 2010 and the Renewables Obligation (Amendment) Order (Northern Ireland) 2010 came into force on 1 April 2010. This legislation introduced a number of changes to the Orders including:

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- extending the RO and ROS to 2037, and the NIRO to 2033
  - 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 (or 2033 end date for the NIRO)
  - additional capacity receiving full accreditation on or after 26 June 2008 will receive 20 years support from the date it is first accredited, subject to 2037 end date (or 2033 end date for the NIRO)
  - removing the 20 ROCs/100MWh renewable electricity cap on the obligation level
  - increase 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 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 a generator's future output where it has been found that ROCs, already submitted for compliance, should not have been issued.
  - exclude electricity produced from landfill gas and sewage gas from the Sustainability Reporting requirements from 1 April 2010
  - removal from the RO and ROS of PV, hydro, wind and anaerobic digestion for microgeneration technologies<sup>23</sup>, with the continuing support for these technologies coming through the Feed-In-Tariff scheme from 1 April 2010
  - increasing the level of support under the NIRO for onshore wind, hydro and PV technologies
  - strengthening the legislation in circumstances where a supplier has gone into administration

6.3. The Register was amended to accommodate the changes by the time they came into force. We also published updated guidance documents in March 2010.

### **Changes to the Renewables Obligation from 1 April 2011**

6.4. The Government is currently working on draft documents of the Renewables Obligation (Amendment) Order 2011, the Renewables Obligation (Scotland) Amendment Order 2011 and the Renewables Obligation (Amendment) Order (Northern Ireland) 2011, which are expected to come into force on 1 April 2011.

6.5. The changes to the Orders will reflect the requirements of articles 17 to 19 of the Renewables Energy Directive 2009 in respect of renewables obligation.

6.6. The changes that will be introduced to the Orders include:

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<sup>23</sup> These technologies will only be removed from the RO and ROS; they will continue to be supported under the NIRO as there are no plans to introduce Feed-In-Tariffs in Northern Ireland

- The definition of 'fossil fuel' will be amended, to remove bioliquids produced directly or indirectly from coal, lignite, natural gas, crude liquid petroleum or petroleum products from the scope of the definition of fossil fuel. In consequence,
- bioliquids produced directly or indirectly from those products will fall within the definition of renewable sources.
- A definition of 'bioliquid' will be included.
- Articles 2, 3 and 4 will be updated to include reference to fossil derived bioliquids when dealing with mixtures of fuels and calculation of energy content.
- A new article will set out how to determine the proportion of a fossil derived bioliquid which will be treated as being composed of fossil fuel. ROCs will not be issued in respect of the generation of electricity attributed to the proportion of the fossil derived bioliquid which is treated as being composed of fossil fuel.
- No ROCs will be issued in respect of any electricity generated using bioliquid that does not meet the greenhouse gas emission saving criteria and the land criteria (set out in Schedule 1A and 1B respectively).
- Operators of generating stations claiming ROCs for the generation of electricity from bioliquid will have to provide a bioliquid sustainability audit report on an annual basis.
- After each obligation period the Authority must forward to the Secretary of State a summary of the sustainability information submitted during that period.
- New information where electricity is generated from biomass (other than bioliquid), including information requirements relating to the greenhouse gas emission saving from the use of the biomass to generate electricity (calculated in accordance with the new Schedules 3A or 3B as applicable) will be required.
- When installation of off-shore wind turbines is phased no part of the station will receive more than 20 years support under the RO.
- A new article will set out a five year time limit from the date of accreditation by which applications for registration of off-shore wind turbines included in the accredited capacity, and for registration of off-shore wind turbines that form part of additional capacity, must be received.
- Increased levels of support under the NIRO for electricity generated from anaerobic digestion.
- Operators of onshore wind, hydro and PV generating stations accredited under the NIRO before 1 April 2010 will receive the higher ROC levels for any additional capacity added after this date, subject to the banding thresholds.
- Onshore wind and hydro microgenerators under the NIRO must use Microgeneration Certification Scheme or equivalent equipment and installers.

6.7. We are working to ensure the Register is amended to accommodate these changes by the time they come into force. We will also be publishing updated guidance documents shortly before 1 April 2011.

## **Future Changes to the Renewables Obligation**

6.8. DECC has also taken powers to introduce a Renewable Heat Incentive (RHI) scheme under the Energy Act 2008, which is expected to be introduced this year. DECC will shortly publish its proposals on the RHI, including details of the transitional arrangements for renewable CHP plants.

## Appendices

### Index

<b>Appendix</b>	<b>Name of Appendix</b>	<b>Page Number</b>
1	The Authorities Powers and Duties	49
2	Compliance by licensed Electricity Suppliers	52
3	Renewables Obligation Certificates: detailed information	68
4	Accredited generating Stations: detailed information	86
5	Glossary	93
6	Feedback form: Renewables Obligation Annual report 2009-10	95

## Appendix 1 – The Authority's Powers and Duties

1.1. Ofgem is the Office of Gas and Electricity Markets which supports the Gas and Electricity Markets Authority ('the Authority'), the regulator of the gas and electricity industries in Great Britain. This appendix summarises the primary powers and duties of the Authority. It is not comprehensive and is not a substitute to reference to the relevant legal instruments (including, but not limited to, those referred to below).

1.2. The Authority's powers and duties are largely provided for in statute (such as the Gas Act 1986, the Electricity Act 1989, the Utilities Act 2000, the Competition Act 1998, the Enterprise Act 2002 and the Energy Acts of 2004, 2008 and 2010) as well as arising from directly effective European Community legislation.

1.3. References to the Gas Act and the Electricity Act in this appendix are to Part 1 of those Acts<sup>24</sup>. Duties and functions relating to gas are set out in the Gas Act and those relating to electricity are set out in the Electricity Act. This appendix must be read accordingly<sup>25</sup>.

1.4. The Authority's principal objective is to protect the interests of existing and future consumers in relation to gas conveyed through pipes and electricity conveyed by distribution or transmission systems. The interests of such consumers are their interests taken as a whole, including their interests in the reduction of greenhouse gases and in the security of the supply of gas and electricity to them.

1.5. The Authority is generally required to carry out its functions in the manner it considers is best calculated to further the principal objective, wherever appropriate by promoting effective competition between persons engaged in, or commercial activities connected with,

- the shipping, transportation or supply of gas conveyed through pipes;
- the generation, transmission, distribution or supply of electricity;
- the provision or use of electricity interconnectors.

1.6. Before deciding to carry out its functions in a particular manner with a view to promoting competition, the Authority will have to consider the extent to which the interests of consumers would be protected by that manner of carrying out those functions and whether there is any other manner (whether or not it would promote competition) in which the Authority could carry out those functions which would better protect those interests.

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<sup>24</sup> Entitled 'Gas Supply' and 'Electricity Supply' respectively.

<sup>25</sup> However, in exercising a function under the Electricity Act the Authority may have regard to the interests of consumers in relation to gas conveyed through pipes and vice versa in the case of it exercising a function under the Gas Act.

1.7. In performing these duties, the Authority must have regard to:

- the need to secure that, so far as it is economical to meet them, all reasonable demands in Great Britain for gas conveyed through pipes are met;
- the need to secure that all reasonable demands for electricity are met;
- the need to secure that licence holders are able to finance the activities which are the subject of obligations on them<sup>26</sup>; and
- the need to contribute to the achievement of sustainable development.

1.8. In performing these duties, the Authority must have regard to the interests of individuals who are disabled or chronically sick, of pensionable age, with low incomes, or residing in rural areas<sup>27</sup>.

1.9. Subject to the above, the Authority is required to carry out the functions referred to in the manner which it considers is best calculated to:

- promote efficiency and economy on the part of those licensed<sup>28</sup> under the relevant Act and the efficient use of gas conveyed through pipes and electricity conveyed by distribution systems or transmission systems;
- protect the public from dangers arising from the conveyance of gas through pipes or the use of gas conveyed through pipes and from the generation, transmission, distribution or supply of electricity; and
- secure a diverse and viable long-term energy supply,

and shall, in carrying out those functions, have regard to the effect on the environment.

1.10. In carrying out these functions the Authority must also have regard to:

- the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed and any other principles that appear to it to represent the best regulatory practice; and
- certain statutory guidance on social and environmental matters issued by the Secretary of State.

1.11. The Authority may, in carrying out a function under the Gas Act and the Electricity Act, have regard to any interests of consumers in relation to

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<sup>26</sup> Under the Gas Act and the Utilities Act, in the case of Gas Act functions, or the Electricity Act, the Utilities Act and certain parts of the Energy Acts in the case of Electricity Act functions.

<sup>27</sup> The Authority may have regard to other descriptions of consumers.

<sup>28</sup> Or persons authorised by exemptions to carry on any activity.

communications services and electronic communications apparatus or to water or sewerage services (within the meaning of the Water Industry Act 1991), which are affected by the carrying out of that function.

The Authority has powers under the Competition Act to investigate suspected anti-competitive activity and take action for breaches of the prohibitions in the legislation in respect of the gas and electricity sectors in Great Britain and is a designated National Competition Authority under the EC Modernisation Regulation<sup>29</sup> and therefore part of the European Competition Network. The Authority also has concurrent powers with the Office of Fair Trading in respect of market investigation references to the Competition Commission.

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<sup>29</sup> Council Regulation (EC) 1/2003.

## Appendix 2 – Compliance by licensed electricity suppliers

**Table A1: 2009-10 supplier compliance with RO**

Licensee	ROCs Obligation	GB ROCs presented	NIROCs presented	Total ROCs presented	Buyout payment	Late payment
BES Commercial Electricity Limited	4	0	0	0	£148.76	£0.00
BP Power Trading Ltd	147	0	0	0	£5,466.93	£0.00
British Energy Direct Ltd	1,268,108	71,738	0	71,738	£44,493,000.30	£0.00
British Gas Trading Ltd	3,978,678	3,210,602	0	3,210,602	£28,564,746.44	£0.00
Dual Energy Direct Limited	2	0	0	0	£74.38	£0.00
E.ON Energy Ltd	2,615,022	1,983,733	35,696	2,019,429	£22,150,103.67	£0.00
E.ON UK Plc	1,574,842	1,131,964	0	1,131,964	£16,470,632.82	£0.00
EDF Energy Customers Plc	4,913,672	3,154,858	0	3,154,858	£65,410,292.66	£0.00
Electricity Plus Ltd	118,174	84,914	0	84,914	£1,236,939.40	£0.00
Energy Data Company Ltd	967	0	0	0	£35,962.73	£0.00
First Utility Ltd	15,201	0	0	0	£565,325.19	£0.00
Gazprom Marketing & Trading Retail Ltd	2,604	0	0	0	£96,842.76	£0.00
GDF Suez Marketing Ltd	903,122	765,818	0	765,818	£5,120,319.20	£0.00
Good Energy Ltd	11,754	11,754	0	11,754	£0.00	£0.00
Haven Power Ltd	72,907	63,001	9,906	72,907	£0.00	£0.00
Immingham CHP LLP	24,156	0	0	0	£898,361.64	£0.00
IPM Energy Retail Ltd	6,966	3,897	505	4,402	£95,355.16	£0.00
MA Energy Ltd	710	0	0	0	£0.00	£26,639.65
Npower Direct Ltd	277,421	199,342	0	199,342	£2,903,758.01	£0.00



**Table A1: 2009-10 Supplier Compliance with RO (continued)**

Licensee	ROCs Obligation	GB ROCs presented	NIROCs presented	Total ROCs presented	Buyout payment	Late payment
Npower Ltd	3,206,691	2,243,039	80,538	2,323,577	£32,843,009.66	£0.00
Npower Northern Ltd	707,722	492,421	16,115	508,536	£7,407,727.34	£0.00
Npower Yorkshire Ltd	184,468	132,550	0	132,550	£1,930,830.42	£0.00
Opus Energy Ltd	98,315	98,315	0	98,315	£0.00	£0.00
OVO Electricity Limited	2,836	0	0	0	£105,470.84	£0.00
Power4All Ltd	112,545	0	0	0	£4,185,548.55	£0.00
Scottish Power Energy Retail Ltd	1,455,773	1,178,333	35,988	1,214,321	£8,979,599.88	£0.00
Smartestenergy Ltd	66,028	66,028	0	66,028	£0.00	£0.00
Spark Energy Supply Ltd	2,504	0	0	0	£0.00	£93,937.64
SSE Energy Supply Ltd	4,981,778	3,031,718	331,783	3,363,501	£60,183,721.63	£0.00
The Renewable Energy Company Ltd	22,573	22,573	0	22,573	£0.00	£0.00
Total Gas & Power Ltd	336,308	290,000	0	290,000	£1,722,194.52	£0.00
Utilita Electricity Ltd	5,598	0	0	0	£0.00	£210,040.51
Wilton Energy Ltd	4,320	0	0	0	£160,660.80	£0.00

Supplier (Group)	ROCs Obligation	GB ROCs presented	NIROCs presented	Total ROCs presented	Buyout payment	Late payment
E.ON	4,189,864	3,115,697	35,696	3,151,393	£38,620,736.49	£0.00
RWE Npower	4,494,476	3,152,266	96,653	3,248,919	£46,322,264.83	£0.00

**Table A2: 2009-10 supplier compliance with ROS**

Licensee	ROCs Obligation	GB ROCs presented	NIROCs presented	Total ROCs presented	Buyout payment	Late payment
British Energy Direct Ltd	113,794	113,794	0	113,794	£0.00	£0.00
British Gas Trading Ltd	373,019	301,008	0	301,008	£2,678,089.09	£0.00
E.ON Energy Ltd	99,213	99,213	0	99,213	£0.00	£0.00
E.ON UK Plc	80,070	80,070	0	80,070	£0.00	£0.00
EDF Energy Customers Plc	198,402	198,402	0	198,402	£0.00	£0.00
Electricity Plus Ltd	6,567	4,719	0	4,719	£68,727.12	£0.00
First Utility Ltd	731	0	0	0	£27,185.89	£0.00
Gazprom Marketing & Trading Retail Ltd	220	0	0	0	£8,181.80	£0.00
GDF Suez Marketing Ltd	49,751	49,751	0	49,751	£0.00	£0.00
Good Energy Ltd	534	534	0	534	£0.00	£0.00
Haven Power Ltd	4,720	1,417	3,303	4,720	£0.00	£0.00
IPM Energy Retail Ltd	121	0	0	0	£4,499.99	£0.00
MA Energy Ltd	94	0	0	0	£0.00	£3,526.94
Npower Direct Ltd	14,679	10,548	0	10,548	£153,631.89	£0.00
Npower Ltd	173,784	124,873	0	124,873	£1,819,000.09	£0.00
Npower Northern Ltd	32,102	23,067	0	23,067	£336,011.65	£0.00
Npower Yorkshire Ltd	38	27	0	27	£409.09	£0.00
Opus Energy Ltd	24,622	24,498	124	24,622	£0.00	£0.00
OVO Electricity Limited	75	0	0	0	£2,789.25	£0.00
Power4All Ltd	16,689	0	0	0	£620,663.91	£0.00
Scottish Power Energy Retail Ltd	805,684	775,747	29,937	805,684	£0.00	£0.00
Smartestenergy Ltd	4	4	0	4	£0.00	£0.00
Spark Energy Supply Ltd	729	0	0	0	£0.00	£27,348.46
SSE Energy Supply Ltd	811,180	528,103	36,307	564,410	£9,177,376.30	£0.00
The Renewable Energy Company Ltd	617	617	0	617	£0.00	£0.00
Total Gas & Power Ltd	28,321	0	0	0	£1,053,257.99	£0.00
Utilita Electricity Ltd	67	0	0	0	£2,491.73	£0.00

**Table A2: 2009-10 Supplier compliance with the ROS (continued)**

Supplier (Group)	ROCs Obligation	GB ROCs presented	NIROCs presented	Total ROCs presented	Buyout payment	Late payment
E.ON	179,283	179,283	0	179,283	£0.00	£0.00
RWE Npower	220,780	158,488	0	158,488	£2,313,143.62	£3,526.94

**Table A3: 2009-10 supplier compliance with NIRO**

Licensee	ROCs Obligation	GB ROCs presented	NIROCs presented	Total ROCs presented	Buyout payment	Late payment
Airtricity Energy Supply Ltd	23,178	0	23,178	23,178	£0.00	£0.00
Bord Gais Eireann	77	0	0	0	£2,863.63	£0.00
ContourGlobal Solutions (Northern Ireland) Ltd	316	0	0	0	£11,752.04	£0.00
ESB Independent Energy NI Ltd	47,599	0	24,180	24,180	£870,952.61	£0.00
Firmus Energy Supply Ltd	1,790	0	0	0	£66,570.10	£0.00
NIE Energy Ltd	161,121	0	77,387	77,387	£3,114,067.46	£0.00
Quinn Energy Supply Ltd	3,482	0	3,482	3,482	£0.00	£0.00
Viridian Energy Supply Ltd	55,786	0	55,786	55,786	£0.00	£0.00

**Table A4: ROCs presented in England and Wales**

Licensee	ROCs Obligation	ROCs Presented				% RO met by ROC type		
		Total	Co-fired	Banked (08-09)	Other	Co-fired	Banked (08-09)	Other
British Energy Direct Ltd	1,268,108	71,738	0	0	71,738	0.00%	0.00%	5.66%
British Gas Trading Ltd	3,978,678	3,210,602	135,000	747	3,074,855	3.39%	0.02%	77.28%
E.ON Energy Ltd	2,615,022	2,019,429	35,817	25,404	1,958,208	1.37%	0.97%	74.88%
E.ON UK Plc	1,574,842	1,131,964	48,006	51,073	1,080,891	3.05%	3.24%	68.63%
EDF Energy Customers Plc	4,913,672	3,154,858	74,897	84,771	2,995,190	1.52%	1.73%	60.96%
Electricity Plus Ltd	118,174	84,914	1,502	0	83,412	1.27%	0.00%	70.58%
GDF Suez Marketing Ltd	903,122	765,818	4,983	3,184	759,132	0.55%	0.35%	84.06%
Good Energy Ltd	11,754	11,754	0	2,938	8,816	0.00%	25.00%	75.00%
Haven Power Ltd	72,907	72,907	7,290	1	65,617	10.00%	0.00%	90.00%
IPM Energy Retail Ltd	6,966	4,402	0	389	4,013	0.00%	5.58%	57.61%
Npower Direct Ltd	277,421	199,342	3,526	0	195,816	1.27%	0.00%	70.58%
Npower Ltd	3,206,691	2,323,577	40,756	12,768	2,270,053	1.27%	0.40%	70.79%
Npower Northern Ltd	707,722	508,536	8,995	0	499,541	1.27%	0.00%	70.58%
Npower Yorkshire Ltd	184,468	132,550	2,345	0	130,205	1.27%	0.00%	70.58%
Opus Energy Ltd	98,315	98,315	0	692	97,623	0.00%	0.70%	99.30%
Scottish Power Energy Retail Ltd	1,455,773	1,214,321	29,895	21,771	1,162,655	2.05%	1.50%	79.87%
Smartestenergy Ltd	66,028	66,028	0	2,604	63,424	0.00%	3.94%	96.06%
SSE Energy Supply Ltd	4,981,778	3,363,501	365,888	12,288	2,985,325	7.34%	0.25%	59.92%
The Renewable Energy Company Ltd	22,573	22,573	0	345	22,228	0.00%	1.53%	98.47%
Total Gas & Power Ltd	336,308	290,000	12	30,684	259,304	0.00%	9.12%	77.10%

Supplier (Group)	ROCs Obligation	ROCs Presented				% RO met by ROC type		
		Total	Co-fired	Banked (08-09)	Other	Co-fired	Banked (08-09)	Other
E.ON	4,189,864	3,151,393	83,823	76,477	3,039,099	2.00%	1.83%	72.53%
RWE Npower Plc	4,494,476	3,248,919	57,124	12,768	3,179,027	1.27%	0.28%	70.73%

**Table A5: ROCs presented in Scotland**

Licensee	ROCs Obligation	ROCs Presented				% RO met by ROC type		
		Total	Co- fired	Banked (08- 09)	Other	Co- fired	Banked (08- 09)	Other
British Energy Direct Ltd	113,794	113,794	0	0	113,794	0.00%	0.00%	100.00%
British Gas Trading Ltd	373,019	301,008	0	0	301,008	0.00%	0.00%	80.70%
E.ON Energy Ltd	99,213	99,213	0	0	99,213	0.00%	0.00%	100.00%
E.ON UK Plc	80,070	80,070	0	0	80,070	0.00%	0.00%	100.00%
EDF Energy Customers Plc	198,402	198,402	10,438	0	187,964	5.26%	0.00%	94.74%
Electricity Plus Ltd	6,567	4,719	83	0	4,636	1.26%	0.00%	70.60%
GDF Suez Marketing Ltd	49,751	49,751	0	0	49,751	0.00%	0.00%	100.00%
Good Energy Ltd	534	534	0	133	401	0.00%	24.91%	75.09%
Haven Power Ltd	4,720	4,720	472	0	4,248	10.00%	0.00%	90.00%
Npower Direct Ltd	14,679	10,548	187	0	10,361	1.27%	0.00%	70.58%
Npower Ltd	173,784	124,873	2,209	0	122,664	1.27%	0.00%	70.58%
Npower Northern Ltd	32,102	23,067	408	0	22,659	1.27%	0.00%	70.58%
Npower Yorkshire Ltd	38	27	0	0	27	0.00%	0.00%	71.05%
Opus Energy Ltd	24,622	24,622	0	254	24,368	0.00%	1.03%	98.97%
Scottish Power Energy Retail Ltd	805,684	805,684	23,417	1,307	780,960	2.91%	0.16%	96.93%
Smartestenergy Ltd	4	4	0	0	4	0.00%	0.00%	100.00%
SSE Energy Supply Ltd	811,180	564,410	30,574	12,235	524,709	3.77%	2.17%	64.68%
The Renewable Energy Company Ltd	617	617	0	0	617	0.00%	0.00%	100.00%

Supplier (Group)	ROCs Obligation	ROCs Presented				% RO met by ROC type		
		Total	Co- fired	Banked (08- 09)	Other	Co- fired	Banked (08- 09)	Other
E.ON	179,283	179,283	0	0	179,283	0.00%	0.00%	100.00%
RWE Npower	227,170	163,234	2,887	0	160,347	1.77%	0.00%	70.58%

**Table A6: ROCs presented in Northern Ireland**

Licensee	ROCs Obligation	ROCs Presented				% RO met by ROC type		
		Total	Co-fired	Banked (08-09)	Other	Co-fired	Banked (08-09)	Other
Airtricity Energy Supply Ltd	23,178	23,178	0	0	23,178	0.00%	0.00%	100.00%
ESB Independent Energy NI Ltd	47,599	24,180	0	329	23,851	0.00%	1.36%	50.11%
NIE Energy Ltd	161,121	77,387	0	698	76,689	0.00%	0.90%	47.60%
Quinn Energy Supply Ltd	3,482	3,482	0	0	3,482	0.00%	0.00%	100.00%
Viridian Energy Supply Ltd	55,786	55,786	0	0	55,786	0.00%	0.00%	100.00%

**Table A7: Total number of GB ROCs and NIROCs presented under each obligation**

Obligation	GB ROCs	NIROCs	Total
Renewables Obligation	18,236,598	510,531	18,747,129
Renewables Obligation (Scotland)	2,336,392	69,671	2,406,063
Northern Ireland Renewables Obligation	0	184,013	184,013
<b>Total</b>	<b>20,572,990</b>	<b>764,215</b>	<b>21,337,205</b>

**Table A8: Late payment and interest**

Licensee	Obligation	Outstanding buy-out	Days late	Interest due	Late payment due	Late payment received
Spark Energy Supply Ltd	RO	£93,123.76	58	£813.88	£93,937.64	£93,937.64
MA Energy Ltd	RO	£26,404.90	59	£234.75	£26,639.65	£26,639.65
Utilita Electricity Ltd	RO	£208,189.62	59	£1,850.89	£210,040.51	£210,040.51
Spark Energy Supply Ltd	ROS	£27,111.51	58	£236.95	£27,348.46	£27,348.46
MA Energy Ltd	ROS	£3,495.86	59	£31.08	£3,526.94	£3,526.94
<b>Total</b>		<b>£358,325.65</b>		<b>£3,167.55</b>	<b>£361,493.20</b>	<b>£361,493.20</b>

**Table A9: Distribution of buy-out and late payment funds to suppliers**

Licensee	RO/ROS/NIRO fund redistribution payments						Total
	England and Wales		Scotland		Northern Ireland		
	Buy-out	Late payment	Buy-out	Late payment	Buy-out	Late payment	
Airtricity Energy Supply Ltd	£329,604	£359	£17,207	£33	£4,386	£0	£351,589
British Energy Direct Ltd	£2,638,374	£2,875	£137,743	£268	£35,110	£0	£2,814,370
British Gas Trading Ltd	£49,937,161	£54,424	£2,607,111	£5,084	£664,540	£0	£53,268,320
E.ON Energy Ltd	£30,128,336	£32,835	£1,572,935	£3,067	£400,934	£0	£32,138,107
E.ON UK Plc	£17,235,836	£18,784	£899,845	£1,755	£229,366	£0	£18,385,586
EDF Energy Customers Plc	£47,685,331	£51,970	£2,489,548	£4,855	£634,574	£0	£50,866,278
Electricity Plus Supply Ltd	£1,274,634	£1,389	£66,545	£129	£16,962	£0	£1,359,659
ESB Independent Energy NI Ltd	£343,853	£374	£17,951	£35	£4,575	£0	£366,788
GDF Suez Marketing Ltd	£11,597,871	£12,640	£605,499	£1,180	£154,339	£0	£12,371,529
Good Energy Ltd	£174,742	£190	£9,122	£17	£2,325	£0	£186,396
Haven Power Ltd	£1,103,901	£1,203	£57,632	£112	£14,690	£0	£1,177,538
IPM Energy Retail Ltd	£62,599	£68	£3,268	£6	£833	£0	£66,774
NIE Energy Ltd	£1,100,488	£1,199	£57,454	£112	£14,644	£0	£1,173,897
Npower Direct Ltd	£2,984,759	£3,252	£155,827	£303	£39,719	£0	£3,183,860
Npower Ltd	£34,818,400	£37,947	£1,817,793	£3,545	£463,347	£0	£37,141,032
Npower Northern Ltd	£7,559,707	£8,239	£394,675	£769	£100,601	£0	£8,063,991
Npower Yorkshire Ltd	£1,885,322	£2,054	£98,428	£191	£25,089	£0	£2,011,084
Opus Energy Ltd	£1,748,236	£1,905	£91,271	£178	£23,264	£0	£1,864,854
Quinn Energy Supply Ltd	£49,516	£53	£2,585	£5	£658	£0	£52,817
Scottish Power Energy Retail Ltd	£28,725,660	£31,307	£1,499,704	£2,925	£382,267	£0	£30,641,863
Smartestenergy Ltd	£939,013	£1,023	£49,023	£95	£12,495	£0	£1,001,649
SSE Energy Supply Ltd	£55,857,206	£60,876	£2,916,184	£5,687	£743,322	£0	£59,583,275
The Renewable Energy Company Ltd	£329,775	£359	£17,216	£33	£4,388	£0	£351,771
Total Gas & Power Ltd	£4,123,970	£4,494	£215,303	£419	£54,879	£0	£4,399,065
Viridian Energy Supply Ltd	£793,309	£864	£41,416	£80	£10,557	£0	£846,226
<b>Total</b>	<b>£303,427,603</b>	<b>£330,683</b>	<b>£15,841,285</b>	<b>£30,883</b>	<b>£4,037,864</b>	<b>£0</b>	<b>£323,668,318</b>

**Table A9(a): Distribution of buy-out and late payment funds to Supplier Group<sup>30,31,32</sup>**

Supplier (Group)	RO/ROS/NIRO fund redistribution payments						Total
	England and Wales		Scotland		Northern Ireland		
	Buy-out	Late payment	Buy-out	Late payment	Buy-out	Late payment	
E.ON	£47,364,172	£51,619	£2,472,780	£4,822	£630,300	£0	£50,523,693
RWE Npower	£48,522,822	£52,881	£2,533,268	£4,937	£645,718	£0	£51,759,626

<sup>30</sup> As no late payments were due from suppliers with an NI Obligation, none were subsequently redistributed to eligible suppliers from the NIRO Late Payment Fund

<sup>31</sup> The buy-out and late payment funds were redistributed on 30 September and 19 November 2010 respectively. No payments were made into the late payment fund after the latter date.

<sup>32</sup> The payments redistributed to suppliers are based on the number of ROCs originally presented for compliance.



**Table A10: Summary table of Supplier Compliance**

<b>Supplier</b>	<b>Total Obligation</b>	<b>Total ROCs Produced</b>	<b>Total payments made by suppliers</b>	<b>Total monies Redistributed to suppliers</b>	<b>Percentage of funds</b>
AES Energy Ltd	0	0	£0.00	£0.00	0.00%
Airtricity Energy Supply Ltd	23,178	23,178	£0.00	£351,589.00	0.11%
AMRECS LLC	0	0	£0.00	£0.00	0.00%
BES Commercial Electricity Ltd	4	0	£148.76	£0.00	0.00%
Better Business Energy Ltd	0	0	£0.00	£0.00	0.00%
Blizzard Utilities Ltd	0	0	£0.00	£0.00	0.00%
Bord Gais Eireann	77	0	£2,863.63	£0.00	0.00%
BP Trading	147	0	£5,466.93	£0.00	0.00%
British Energy Direct Ltd	1,381,902	185,532	£44,493,000.30	£2,814,370.00	0.87%
British Gas/Centrica	4,351,697	3,511,610	£31,242,835.53	£53,268,320.00	16.46%
Caboodle	0	0	£0.00	£0.00	0.00%
Candela Energy Supply Ltd	0	0	£0.00	£0.00	0.00%
ContourGlobal Solutions (Northern Ireland) Ltd	316	0	£11,752.04	£0.00	0.00%
Dual Energy Direct Ltd	2	0	£74.38	£0.00	0.00%
E.ON	4,369,147	3,330,676	£38,620,736.49	£50,523,693.00	15.61%
Ecotrade Solutions Ltd	0	0	£0.00	£0.00	0.00%
EDF	5,112,074	3,353,260	£65,410,292.66	£50,866,278.00	15.72%
Electricity for Business	0	0	£0.00	£0.00	0.00%
Electricity Supply Board	47,599	24,180	£870,952.61	£366,788.00	0.11%
Eneco energy Trade BV	0	0	£0.00	£0.00	0.00%
Energy 2 Sell Ltd	0	0	£0.00	£0.00	0.00%
Energy COOP Ltd	0	0	£0.00	£0.00	0.00%
Energy Data Company Ltd	967	0	£35,962.73	£0.00	0.00%
Essential Power Ltd	0	0	£0.00	£0.00	0.00%

**Table A10: Summary table of Supplier Compliance (continued)**

<b>Supplier</b>	<b>Total Obligation</b>	<b>Total ROCs Produced</b>	<b>Total payments made by suppliers</b>	<b>Total monies Redistributed to suppliers</b>	<b>Percentage of funds</b>
Eucalyptus Worldwide Ltd	0	0	£0.00	£0.00	0.00%
Fellside Heat & Power Ltd	0	0	£0.00	£0.00	0.00%
Finotec Trading (Cyprus) Ltd	0	0	£0.00	£0.00	0.00%
Finotec Trading UK Ltd	0	0	£0.00	£0.00	0.00%
Firmus Energy Supply Ltd	1,790	0	£66,570.10	£0.00	0.00%
First Utility Ltd	15,932	0	£592,511.08	£0.00	0.00%
Gazprom Marketing & Trading Retail Ltd	2,824	0	£105,024.56	£0.00	0.00%
GDF Suez Marketing Ltd	952,873	815,569	£5,106,335.76	£12,371,529.00	3.82%
Good Energy Ltd	12,288	12,288	£0.00	£186,396.00	0.06%
Haven Power Ltd	77,627	77,627	£0.00	£1,177,538.00	0.36%
Home Counties Energy Plc	0	0	£0.00	£0.00	0.00%
Immingham CHP LLP	24,156	0	£898,361.64	£0.00	0.00%
Ineos Chlor Energy Ltd	0	0	£0.00	£0.00	0.00%
International Power Plc	7,087	4,402	£99,855.15	£66,774.00	0.02%
Lowlands Health and Energy Ltd	0	0	£0.00	£0.00	0.00%
Lumen Energy Supply Ltd	0	0	£0.00	£0.00	0.00%
MA Energy Ltd	804	0	£30,166.59	£0.00	0.00%
Mc Millian Ltd	0	0	£0.00	£0.00	0.00%
Morgan Stanley Capital Group Inc	0	0	£0.00	£0.00	0.00%
Northern Ireland Electricity plc	161,121	77,387	£3,114,067.46	£1,173,897.00	0.36%
Opus Energy Ltd	122,937	122,937	£0.00	£1,864,854.00	0.58%
OVO Electricity Ltd	2,911	0	£108,260.09	£0.00	0.00%
Pan-Utility Ltd	0	0	£0.00	£0.00	0.00%
Power & Gas Ventures Ltd	0	0	£0.00	£0.00	0.00%
Power4All Ltd	129,234	0	£4,806,212.46	£0.00	0.00%
Premier Power Ltd	0	0	£0.00	£0.00	0.00%

**Table A10: Summary table of Supplier Compliance (continued)**

<b>Supplier</b>	<b>Total Obligation</b>	<b>Total ROCs Produced</b>	<b>Total payments made by suppliers</b>	<b>Total monies Redistributed to suppliers</b>	<b>Percentage of funds</b>
Primary Connections Ltd	0	0	£0.00	£0.00	0.00%
Quinn Energy Supply Ltd	3,482	3,482	£0.00	£52,817.00	0.02%
R S Energy Ltd	0	0	£0.00	£0.00	0.00%
Regent Electricity (NI) Ltd	0	0	£0.00	£0.00	0.00%
Renewable Energy Company (Ecotricity)	23,190	23,190	£0.00	£351,771.00	0.11%
Reuben Power Supply Ltd	0	0	£0.00	£0.00	0.00%
RWE Npower Plc	4,721,646	3,412,153	£48,700,044.67	£51,759,626.00	15.99%
S. C. Isramart SRL	0	0	£0.00	£0.00	0.00%
Scottish & Southern (SSE)	5,792,958	3,927,911	£69,361,097.93	£30,641,863.00	9.47%
Scottish Power Energy Retail Ltd	2,261,457	2,020,005	£8,979,599.88	£1,001,649.00	0.31%
Sembcorp	4,320	0	£160,660.80	£0.00	0.00%
Smartest Energy	66,032	66,032	£0.00	£59,583,275.00	18.41%
Spark Energy Supply Ltd	3,233	0	£121,286.10	£0.00	0.00%
Team Gas and Electricity Ltd	0	0	£0.00	£0.00	0.00%
Telecom Plus Plc	0	0	£0.00	£0.00	0.00%
The Nuclear Decommissioning Authority	0	0	£0.00	£0.00	0.00%
The Royal Bank of Scotland Plc	0	0	£0.00	£0.00	0.00%
Total Gas & Power Ltd	364,629	290,000	£2,775,452.51	£4,399,065.00	1.36%
Tradelink Solutions Ltd	0	0	£0.00	£0.00	0.00%
UK Healthcare Corporation Ltd	0	0	£0.00	£0.00	0.00%
Utilita Electricity Ltd	5,665	0	£212,532.24	£0.00	0.00%
Utilitis Consulting	0	0	£0.00	£0.00	0.00%
Viridian Energy Supply Ltd	55,786	55,786	£0.00	£846,226.00	0.26%
Volt Energy Supply Ltd	0	0	£0.00	£0.00	0.00%
Winnington Networks Ltd	0	0	£0.00	£0.00	0.00%
<b>Total</b>	<b>30,101,092</b>	<b>21,337,205</b>	<b>£325,932,125.08</b>	<b>£323,668,318.00</b>	<b>100.00%</b>

**Table A11: Licensees with no obligation**

<b>RO</b>	<b>ROS</b>	<b>NIRO</b>
730 Energy Ltd	730 Energy Ltd	Electricity Supply Board
AES Energy Ltd (Revoked: 31 July 2009)	AES Energy Ltd (Revoked: 31 July 2009)	E.ON UK Plc (Revoked: 26 Nov. 09)
Affinity Power Ltd	Affinity Power Ltd	Lowlands Health and Energy Ltd (Revoked: 14 Nov 09)
AMRECS LLC	AMRECS LLC	Npower Ltd
Better Business Energy Ltd	BES Commercial Electricity Ltd	Power & Gas Ventures Ltd
Blizzard Utilities Ltd	Better Business Energy Ltd	Premier Power Ltd
Caboodle Energy Ltd	Caboodle Energy Ltd	Regent Electricity (NI) Ltd
Candela Energy Supply Ltd	Candela Energy Supply Ltd	Scottish Power Energy Retail Ltd
Citigen (London) Ltd	Citigen (London) Ltd	SSE (Ireland) Ltd
Donnington Energy Ltd	Donnington Energy Ltd	SSE Energy Supply Ltd
Economy Power Ltd	Dual Energy Direct Ltd	Tradelink Solutions Ltd
Ecotrade Solutions Ltd	Economy Power Ltd	
Electricity Direct Ltd	Ecotrade Solutions Ltd	
Eneco energy Trade BV	Electricity Direct Ltd	
Energy 2 Sell Ltd	Eneco energy Trade BV	
Energy Co2 Ltd	Energy 2 Sell Ltd	
Energy COOP Ltd	Energy Co2 Ltd	
Essential Power Ltd	Energy COOP Ltd	
Eucalyptus Worldwide Ltd	Energy Data Company Ltd	
Evenlode Energy Ltd	Essential Power Ltd	
Farmoor Energy Ltd	Eucalyptus Worldwide Ltd	
Fellside Heat & Power Ltd	Evenlode Energy Ltd	
Finotec Trading (Cyprus) Ltd	Farmoor Energy Ltd	
Finotec Trading UK Ltd	Fellside Heat & Power Ltd	
Garsington Energy Ltd	Finotec Trading (Cyprus) Ltd	

**Table A11: Licensees with no obligation (continued)**

<b>RO</b>	<b>ROS</b>
Home Counties Energy Plc	Finotec Trading UK Ltd
Ineos Chlor Energy Ltd	Garsington Energy Ltd
International Power Plc	Home Counties Energy Plc
International Power Retail Supply Company Ltd	Ineos Chlor Energy Ltd
Lumen Energy Supply Ltd	International Power Plc
Mc Millian Ltd	International Power Retail Supply Company Ltd
Morgan Stanley Capital Group Inc	Lumen Energy Supply Ltd
Npower Northern Supply Ltd	Mc Millian Ltd
Npower Yorkshire Supply Ltd	Morgan Stanley Capital Group Inc
Opus Energy (Corporate) Ltd (previously Cherwell Energy Ltd)	Npower Northern Supply Ltd
Pan-Utility Ltd	Npower Yorkshire Supply Ltd
Primary Connections Ltd	Opus Energy (Corporate) Ltd (previously Cherwell Energy Ltd)
R S Energy Ltd	Pan-Utility Ltd
RBS Sempra Energy Europe Ltd	Primary Connections Ltd
Reuben Power Supply Ltd	R S Energy Ltd
S. C. Isramart SRL	RBS Sempra Energy Europe Ltd
SEEBOARD Energy Ltd	Reuben Power Supply Ltd
Slough Energy Supplies Ltd	S. C. Isramart SRL
SME Energy Ltd	SEEBOARD Energy Ltd
South Wales Electricity Ltd	Slough Energy Supplies Ltd
SWEB Energy Ltd	SME Energy Ltd
Team Gas and Electricity Ltd	South Wales Electricity Ltd
Telecom Plus Plc	SWEB Energy Ltd
The Nuclear Decommissioning Authority	Team Gas and Electricity Ltd
The Royal Bank of Scotland Plc	Telecom Plus Plc

**Table A11: Licensees with no obligation (continued)**

<b>RO</b>	<b>ROS</b>
Tradelink Solutions Ltd	The Nuclear Decommissioning Authority
UK Healthcare Corporation Ltd	The Royal Bank of Scotland Plc
Utilitease Ltd	Tradelink Solutions Ltd
Volt Energy Supply Ltd	UK Healthcare Corporation Ltd
Winnington Networks Ltd	Utilitease Ltd
	Volt Energy Supply Ltd
	Wilton Energy Ltd
	Winnington Networks Ltd

**Table A12: A list of supplier groups and their licences**

Supplier Group	Supply Licences
British Gas / Centrica	British Gas Trading Ltd
	Electricity Direct Ltd
EDF	EDF Energy Customers Plc
	SEEBOARD Energy Ltd
	SWEB Energy Ltd
E.ON	Citigen (London) Ltd
	E.ON Energy Ltd
	E.ON UK Plc
	E.ON UK Plc (NI)
	Economy Power Ltd
International Power	International Power Plc
	International Power Retail Supply Company Ltd
	IPM Energy Retail Ltd
Opus Energy	Donnington Energy Ltd
	Evenlode Energy Ltd
	Farmoor Energy Ltd
	Garsington Energy Ltd
	Opus Energy (Corporate) Ltd
	Opus Energy Ltd
Royal Bank of Scotland	RBS Sempra Energy Europe Ltd
	The Royal Bank of Scotland Plc
RWE Npower	Electricity Plus Ltd
	Npower Direct Ltd
	Npower Ltd
	Npower Ltd (NI)
	Npower Northern Ltd
	Npower Northern Supply Ltd
	Npower Yorkshire Ltd
	Npower Yorkshire Supply Ltd

Supplier Group	Supply Licences
Scottish & Southern Energy (SSE)	Scottish and Southern Energy Plc (NI)
	Slough Energy Supplies Ltd
	South Wales Electricity Ltd
	SSE Energy Supply Ltd
	SSE Energy Supply Ltd (NI)
Utilitis Consulting	730 Energy Ltd
	Affinity Power Ltd
	SME Energy Ltd
	Utilitease Ltd
Scottish Power	Scottish Power Energy Retail Ltd
	Scottish Power Energy Retail Ltd (NI)

### Appendix 3 – Renewables Obligation Certificates: Detailed Information

**Table B1: 2009-10 ROCs, SROCs and NIROCs issued per generation technology type by Order<sup>33, 34</sup>**

Technology Group	ROCs/SROCs/NIROCs issued			
	RO	ROS	NIRO	Total
Fuelled*	2,997,468	816,455	28,492	3,842,415
Hydro 20MW DNC or less	190,631	1,791,626	8,569	1,990,826
Hydro 50kW DNC or less	7,083	4,484	1,422	12,989
Hydro greater than 20MW DNC	0	39,631	0	39,631
Landfill Gas	4,321,898	477,458	35,089	4,834,445
Micro Hydro	13,247	55,123	1,164	69,534
Off-shore Wind	2,524,171	192,616	0	2,716,787
On-shore Wind	2,197,326	4,322,542	718,131	7,237,999
Photovoltaic	576	0	0	576
Photovoltaic 50kW DNC or less	8,990	186	1,101	10,277
Sewage Gas	433,768	23,233	0	457,001
Tidal Flow	0	0	2,197	2,197
Wave Power	0	31	0	31
Wind 50kW DNC or less	5,481	3,426	4,003	12,910
<b>Total</b>	<b>12,700,639</b>	<b>7,726,811</b>	<b>800,168</b>	<b>21,227,618</b>

\*See table B1a for a breakdown of the ROCs issued to Fuelled stations

<sup>33</sup> ROCs are only issued to generators in England & Wales, SROCs are only issued to generators in Scotland, and NIROCs are only issued to generators in Northern Ireland. Consequently some tables that were present in the 2008-2009 Annual Report have been omitted to avoid duplication of information.

<sup>34</sup> Total number of Sewage Gas ROCs issued in 2009/10 is 562,370 (this sums the 457,001 ROCs issued to stations accredited under the Sewage Gas technology identifier and, 105,369 ROCs issued to stations accredited under the Fuelled technology identifier).



**Table B1a: Breakdown of the ROCs, SROCs and NIROCs issued under the Fuelled heading in Table B1**

Fuelled Generation Technology type	ROCs/SROCs/NIROCs issued			
	RO	ROS	NIRO	Total
Anaerobic Digestion	76,428	18,256	0	94,684
Co-firing of biomass	723,658	53,312	0	776,970
Co-firing of energy crops	32,322	0	0	32,322
Dedicated biomass	1,743,219	398,439	28,492	2,170,150
Dedicated biomass with CHP	310,406	344,504	0	654,910
Dedicated energy crops	1,096	1,944	0	3,040
Dedicated energy crops with CHP	4,970	0	0	4,970
Electricity generated from sewage gas	105,369	0	0	105,369
<b>Fuelled Total</b>	<b>2,997,468</b>	<b>816,455</b>	<b>28,492</b>	<b>3,842,415</b>

**Table B2: ROCs, SROCs and NIROCs issued by country and technology**

Generation Technology	ROCs/SROCs/NIROCs issued				
	England	Wales	Scotland	N. Ireland	Total
Fuelled*	2,642,312	355,156	816,455	28,492	3,842,415
Hydro 20MW DNC or less	51,510	139,121	1,791,626	8,569	1,990,826
Hydro 50kW DNC or less	5,517	1,566	4,484	1,422	12,989
Hydro greater than 20MW DNC	0	0	39,631	0	39,631
Landfill Gas	4,137,518	184,380	477,458	35,089	4,834,445
Micro Hydro	10,273	2,974	55,123	1,164	69,534
Off-shore Wind	2,211,273	312,898	192,616	0	2,716,787
On-shore Wind	1,481,992	715,334	4,322,542	718,131	7,237,999
Photovoltaic	576	0	0	0	576
Photovoltaic 50kW DNC or less	8,965	25	186	1,101	10,277
Sewage Gas	424,925	8,843	23,233	0	457,001
Tidal Flow	0	0	0	2,197	2,197
Wave Power	0	0	31	0	31
Wind 50kW DNC or less	5,408	73	3,426	4,003	12,910
<b>Total</b>	<b>10,980,269</b>	<b>1,720,370</b>	<b>7,726,811</b>	<b>800,168</b>	<b>21,227,618</b>

\* See table B2a for a breakdown of the ROCs issued to Fuelled stations

**Table B2a: Breakdown of ROCs, SROCs and NIROCs issued under the Fuelled heading in Table B2**

Fuelled Generation Technology type	ROCs/SROCs/NIROCs issued				
	England	Wales	Scotland	N. Ireland	Total
Anaerobic Digestion	76,428	0	18,256	0	94,684
Co-firing of biomass	721,872	1,786	53,312	0	776,970
Co-firing of energy crops	32,322	0	0	0	32,322
Dedicated biomass	1,598,799	144,420	398,439	28,492	2,170,150
Dedicated biomass with CHP	101,456	208,950	344,504	0	654,910
Dedicated energy crops	1,096	0	1,944	0	3,040
Dedicated energy crops with CHP	4,970	0	0	0	4,970
Electricity generated from sewage gas	105,369	0	0	0	105,369
<b>Fuelled Total</b>	<b>2,642,312</b>	<b>355,156</b>	<b>816,455</b>	<b>28,492</b>	<b>3,842,415</b>

**Table B2b: Proportional change this period of ROCs, SROCs and NIROCs issued per generation technology type by location**

Generation Technology	% increase in ROCs/SROCs/NIROCs issued (08/09 to 09/10)				
	England	Wales	Scotland	N. Ireland	Total
Fuelled: Anaerobic Digestion	N/A	N/A	N/A	N/A	
Fuelled: Co-firing of biomass	-65%	-91%	-64%	*	-65%
Fuelled: Co-firing of energy crops	249%	*	*	*	249%
Fuelled: Dedicated biomass	44%	-21%	28%	132%	34%
Hydro 20MW DNC or less	-12%	-2%	-8%	-13%	-8%
Hydro 50kW DNC or less	134%	112%	188%	159%	150%
Hydro greater than 20MW DNC	N/A	N/A	-48%	N/A	N/A
Landfill Gas	3%	5%	1%	1258%	3%
Micro Hydro	17%	-1%	4%	20%	6%
Off-shore Wind	68%	72%	N/A	N/A	81%
On-shore Wind	30%	0.3%	15%	22%	16%
Photovoltaic	65%	-100%	*	N/A	64%
Photovoltaic 50kW DNC or less	281%	92%	343%	184%	268%
Sewage Gas	10%	33%	32%	N/A	11%
Tidal Flow	N/A	N/A	N/A	N/A	N/A
Wave Power	N/A	N/A	N/A	N/A	N/A
Wind 50kW DNC or less	156%	70%	218%	172%	174%
<b>Total</b>	<b>8%</b>	<b>21%</b>	<b>14%</b>	<b>29%</b>	<b>12%</b>

\*No generation with this technology in 2008-09

**Table B3: ROCs, SROCs and NIROCs issued under the RO by country and technology**

Generation Technology	ROCs issued		
	England	Wales	Total
Fuelled*	2,642,312	355,156	2,997,468
Hydro 20MW DNC or less	51,510	139,121	190,631
Hydro 50kW DNC or less	5,517	1,566	7,083
Hydro greater than 20MW DNC	0	0	0
Landfill Gas	4,137,518	184,380	4,321,898
Micro Hydro	10,273	2,974	13,247
Off-shore Wind	2,211,273	312,898	2,524,171
On-shore Wind	1,481,992	715,334	2,197,326
Wind 50kW DNC or less	5,408	73	5,481
Photovoltaic	576	0	576
Photovoltaic 50kW DNC or less	8,965	25	8,990
Sewage Gas	424,925	8,843	433,768
Wave Power	0	0	0
<b>Total</b>	<b>10,980,269</b>	<b>1,720,370</b>	<b>12,700,639</b>

\* See table B3a for a breakdown of the ROCs issued to Fuelled stations

**Table B3a: Breakdown of ROCs, SROCs and NIROCs issued under Fuelled heading in Table 3**

Fuelled Generation Technology type	ROCs issued		
	England	Wales	Total
Anaerobic Digestion	76,428	0	76,428
Co-firing of biomass	721,872	1,786	723,658
Co-firing of energy crops	32,322	0	32,322
Dedicated biomass	1,598,799	144,420	1,743,219
Dedicated biomass with CHP	101,456	208,950	310,406
Dedicated energy crops	1,096	0	1,096
Dedicated energy crops with CHP	4,970	0	4,970
Electricity generated from sewage gas	105,369	0	105,369
<b>Fuelled Total</b>	<b>2,642,312</b>	<b>355,156</b>	<b>2,997,468</b>

**Table B4: ROCs, SROCs and NIROCs issued by country and month**

Month	ROCs/SROCs/NIROCs issued				
	England	Wales	Scotland	N. Ireland	Total
April 2009	775,169	89,093	621,258	58,124	1,543,644
May 2009	931,277	143,497	716,793	76,187	1,867,754
June 2009	731,081	80,946	389,901	41,620	1,243,548
July 2009	832,295	129,716	450,809	50,873	1,463,693
August 2009	856,025	145,630	732,949	74,394	1,808,998
September 2009	824,006	126,227	728,735	62,569	1,741,537
October 2009	893,694	135,522	702,910	75,442	1,807,568
November 2009	1,120,782	249,702	925,138	103,551	2,399,173
December 2009	1,059,176	187,251	646,766	74,871	1,968,064
January 2010	1,018,426	169,673	680,104	75,643	1,943,846
February 2010	896,961	113,177	400,943	36,481	1,447,562
March 2010	1,023,323	149,495	723,925	64,304	1,961,047
Annually	18,054	441	6,580	6,109	31,184
<b>Total</b>	<b>10,980,269</b>	<b>1,720,370</b>	<b>7,726,811</b>	<b>800,168</b>	<b>21,227,618</b>

**Table B5: 2009-10 ROCs, SROCs and NIROCs issued per generation technology type by month**

Generation Technology	ROCs/SROCs/NIROCs issued						
	Apr 09	May 09	Jun 09	Jul 09	Aug 09	Sep 09	Oct 09
Fuelled*	281,218	304,066	328,332	288,826	312,277	257,742	324,361
Hydro 20MW DNC or less	178,763	152,901	81,276	102,523	181,273	217,256	204,784
Hydro 50kW DNC or less	347	372	253	306	330	334	351
Hydro greater than 20MW DNC	17,338	11,556	1,848	7,753	1,136	0	0
Landfill Gas	397,316	403,937	385,540	399,866	406,007	389,364	411,859
Micro Hydro	5,310	6,340	3,022	4,173	7,235	6,641	6,001
Off-shore Wind	112,782	211,636	90,752	167,143	179,073	174,898	201,121
On-shore Wind	513,410	737,533	314,990	456,539	684,366	660,220	620,314
Wind 50kW DNC or less	41	28	24	39	40	34	28
Photovoltaic	63	72	86	87	67	51	24
Photovoltaic 50kW DNC or less	4	6	20	19	18	8	2
Sewage Gas	37,038	39,257	37,274	36,264	37,061	34,898	38,596
Tidal Flow	7	47	131	155	111	87	123
Wave Power	7	3	0	0	4	4	4
<b>Total</b>	<b>1,543,644</b>	<b>1,867,754</b>	<b>1,243,548</b>	<b>1,463,693</b>	<b>1,808,998</b>	<b>1,741,537</b>	<b>1,807,568</b>

\* See table B5a for a breakdown of ROCs issued to Fuelled stations

**Table B5: ROCs, SROCs and NIROCs issued by generation technology against time (continued)**

Generation Technology	ROCs/SROCs/NIROCs issued						
	Nov 09	Dec 09	Jan 10	Feb 10	Mar 10	Annual	Total
Fuelled*	350,288	347,238	367,484	321,625	358,924	34	3,842,415
Hydro 20MW DNC or less	276,174	216,240	142,409	102,992	134,235	0	1,990,826
Hydro 50kW DNC or less	451	445	398	423	495	8,484	12,989
Hydro greater than 20MW DNC	0	0	0	0	0	0	39,631
Landfill Gas	406,354	421,314	416,281	375,830	420,777	0	4,834,445
Micro Hydro	8,570	6,574	5,088	4,619	5,961	0	69,534
Off-shore Wind	385,198	343,269	301,240	237,644	312,031	0	2,716,787
On-shore Wind	933,966	592,953	674,816	364,818	684,074	0	7,237,999
Wind 50kW DNC or less	36	37	41	31	42	12,489	12,910
Photovoltaic	19	16	8	21	61	1	576
Photovoltaic 50kW DNC or less	1	1	2	6	14	10,176	10,277
Sewage Gas	37,883	39,741	35,753	39,364	43,872	0	457,001
Tidal Flow	229	233	324	189	561	0	2,197
Wave Power	4	3	2	0	0	0	31
<b>Total</b>	<b>2,399,173</b>	<b>1,968,064</b>	<b>1,943,846</b>	<b>1,447,562</b>	<b>1,961,047</b>	<b>31,184</b>	<b>21,227,618</b>

\* See table B5a for a breakdown of the ROCs issued to Fuelled stations



**Table B5a: Breakdown of ROCs, SROCs and NIROCs issued under Fuelled heading in table B5**

Fuelled Generation Technology type	ROCs/SROCs/NIROCs issued						
	Apr 09	May 09	Jun 09	Jul 09	Aug 09	Sep 09	Oct 09
Anaerobic Digestion	4,620	5,440	6,350	6,675	6,801	8,178	10,073
Co-firing of biomass	48,558	44,362	49,960	53,376	37,880	49,428	61,436
Co-firing of energy crops	982	794	2,565	2,437	3,578	3,757	5,095
Dedicated biomass	218,768	217,087	216,640	163,423	199,653	136,707	183,353
Dedicated biomass with CHP	0	26,133	44,707	55,407	55,708	51,733	55,511
Dedicated energy crops	0	1,474	0	0	514	57	0
Dedicated energy crops with CHP	0	0	0	0	0	0	0
Electricity generated from sewage gas	8,290	8,776	8,110	7,508	8,143	7,882	8,893
<b>Fuelled Total</b>	<b>281,218</b>	<b>304,066</b>	<b>328,332</b>	<b>288,826</b>	<b>312,277</b>	<b>257,742</b>	<b>324,361</b>

Fuelled Generation Technology type	ROCs/SROCs/NIROCs issued						
	Nov 09	Dec 09	Jan 10	Feb 10	Mar 10	Annual	Total
Anaerobic Digestion	9,202	9,188	8,669	8,123	11,365	0	94,684
Co-firing of biomass	69,389	81,686	114,017	85,056	81,822	0	776,970
Co-firing of energy crops	2,818	2,119	2,811	2,907	2,459	0	32,322
Dedicated biomass	207,255	182,716	143,629	128,528	172,357	34	2,170,116
Dedicated biomass with CHP	52,434	60,942	85,745	88,075	78,515	0	654,910
Dedicated energy crops	0	995	0	0	0	0	3,040
Dedicated energy crops with CHP	0	0	2,661	0	2,309	0	4,970
Electricity generated from sewage gas	9,190	9,592	9,952	8,936	10,097	0	105,369
<b>Fuelled Total</b>	<b>350,288</b>	<b>347,238</b>	<b>367,484</b>	<b>321,625</b>	<b>358,924</b>	<b>34</b>	<b>3,842,415</b>

**Table B6: 2009-10 ROCs issued under the RO by generation technology type by month**

Generation Technology	ROCs issued						
	Apr 09	May 09	Jun 09	Jul 09	Aug 09	Sep 09	Oct 09
Fuelled*	216,369	219,529	240,864	221,965	215,364	209,133	263,694
Hydro 20MW DNC or less	7,639	7,687	7,154	13,879	16,425	15,514	10,459
Hydro 50kW DNC or less	229	236	152	206	195	183	197
Landfill Gas	357,235	363,102	347,153	359,925	364,426	347,049	365,893
Micro Hydro	969	1,248	881	1,091	1,295	1,039	840
Off-shore Wind	112,290	209,766	89,725	164,831	175,471	169,434	183,977
On-shore Wind	134,243	236,108	91,053	165,549	193,554	174,923	167,756
Wind 50kW DNC or less	36	25	19	31	30	26	24
Photovoltaic	63	72	86	87	67	51	24
Photovoltaic 50kW DNC or less	4	6	20	19	18	8	2
Sewage Gas	35,185	36,995	34,920	34,428	34,810	32,873	36,350
<b>Total</b>	<b>864,262</b>	<b>1,074,774</b>	<b>812,027</b>	<b>962,011</b>	<b>1,001,655</b>	<b>950,233</b>	<b>1,029,216</b>

\* See table B6a for a breakdown of the ROCs issued to Fuelled stations

**Table B6: ROCs issued under the RO by generation technology type by month (continued)**

Generation Technology	ROCs issued						
	Nov 09	Dec 09	Jan 10	Feb 10	Mar 10	Annual	Total
Fuelled*	259,953	282,139	312,534	274,427	281,463	34	2,997,468
Hydro 20MW DNC or less	38,491	27,252	17,745	16,536	11,850	0	190,631
Hydro 50kW DNC or less	251	255	238	242	285	4,414	7,083
Landfill Gas	361,216	375,400	371,490	334,078	374,931	0	4,321,898
Micro Hydro	1,341	1,288	1,054	1,132	1,069	0	13,247
Off-shore Wind	339,013	307,260	273,041	222,338	277,025	0	2,524,171
On-shore Wind	334,207	214,827	177,525	123,446	184,135	0	2,197,326
Wind 50kW DNC or less	22	25	26	27	33	5,157	5,481
Photovoltaic	19	16	8	21	61	1	576
Photovoltaic 50kW DNC or less	1	1	2	6	14	8,889	8,990
Sewage Gas	35,970	37,964	34,436	37,885	41,952	0	433,768
<b>Total</b>	<b>1,370,484</b>	<b>1,246,427</b>	<b>1,188,099</b>	<b>1,010,138</b>	<b>1,172,818</b>	<b>18,495</b>	<b>12,700,639</b>

\* See table B6a for a breakdown of the ROCs issued to Fuelled stations

**Table B6a: Breakdown of ROCs issued under Fuelled heading in table B6**

Fuelled Generation Technology type	ROCs issued						
	Apr 09	May 09	Jun 09	Jul 09	Aug 09	Sep 09	Oct 09
Anaerobic Digestion	3,678	3,743	4,677	5,542	5,609	6,748	7,542
Co-firing of biomass	40,636	40,407	46,771	49,733	33,172	45,033	56,203
Co-firing of energy crops	982	794	2,565	2,437	3,578	3,757	5,095
Dedicated biomass	162,783	165,809	162,071	132,864	140,740	124,489	162,635
Dedicated biomass with CHP	0	0	16,670	23,881	24,078	21,167	23,326
Dedicated energy crops	0	0	0	0	44	57	0
Dedicated energy crops with CHP	0	0	0	0	0	0	0
Electricity generated from sewage gas	8,290	8,776	8,110	7,508	8,143	7,882	8,893
<b>Fuelled Total</b>	<b>216,369</b>	<b>219,529</b>	<b>240,864</b>	<b>221,965</b>	<b>215,364</b>	<b>209,133</b>	<b>263,694</b>

Fuelled Generation Technology type	ROCs issued						
	Nov 09	Dec 09	Jan 10	Feb 10	Mar 10	Annual	Total
Anaerobic Digestion	7,407	7,590	7,588	7,279	9,025	0	76,428
Co-firing of biomass	65,096	77,729	109,870	81,902	77,106	0	723,658
Co-firing of energy crops	2,818	2,119	2,811	2,907	2,459	0	32,322
Dedicated biomass	151,858	160,429	131,380	119,284	128,843	34	1,743,219
Dedicated biomass with CHP	23,584	23,685	48,272	54,119	51,624	0	310,406
Dedicated energy crops	0	995	0	0	0	0	1,096
Dedicated energy crops with CHP	0	0	2,661	0	2,309	0	4,970
Electricity generated from sewage gas	9,190	9,592	9,952	8,936	10,097	0	105,369
<b>Fuelled Total</b>	<b>259,953</b>	<b>282,139</b>	<b>312,534</b>	<b>274,427</b>	<b>281,463</b>	<b>34</b>	<b>2,997,468</b>

**Table B7: 2009-10 SROCs issued under the ROS by generation technology type by month**

Generation Technology	SROCs issued						
	Apr 09	May 09	Jun 09	Jul 09	Aug 09	Sep 09	Oct 09
Fuelled*	62,575	82,380	85,300	65,209	94,253	46,123	58,095
Hydro 20MW DNC or less	170,536	144,750	73,725	88,226	164,185	201,014	193,750
Hydro 50kW DNC or less	91	106	78	72	101	122	127
Hydro greater than 20MW DNC	17,338	11,556	1,848	7,753	1,136	0	0
Landfill Gas	39,130	39,685	37,306	39,003	40,650	40,298	41,128
Micro Hydro	4,219	4,945	2,082	3,011	5,851	5,514	5,104
Off-shore Wind	492	1,870	1,027	2,312	3,602	5,464	17,144
On-shore Wind	325,015	429,235	186,178	243,382	420,908	428,166	385,311
Wind 50kW DNC or less	2	1	3	5	8	5	1
Photovoltaic 50kW DNC or less	0	0	0	0	0	0	0
Sewage Gas	1,853	2,262	2,354	1,836	2,251	2,025	2,246
Wave Power	7	3	0	0	4	4	4
<b>Total</b>	<b>621,258</b>	<b>716,793</b>	<b>389,901</b>	<b>450,809</b>	<b>732,949</b>	<b>728,735</b>	<b>702,910</b>

\* See table B7a for a breakdown of the ROCs issued to Fuelled stations

**Table B7: SROCs issued under the ROS by generation technology type by month (continued)**

Generation Technology	SROCs issued						
	Nov 09	Dec 09	Jan 10	Feb 10	Mar 10	Annual	Total
Fuelled*	87,901	62,581	52,579	44,738	74,721	0	816,455
Hydro 20MW DNC or less	236,581	187,850	123,552	85,528	121,929	0	1,791,626
Hydro 50kW DNC or less	164	148	119	146	176	3,034	4,484
Hydro greater than 20MW DNC	0	0	0	0	0	0	39,631
Landfill Gas	40,980	40,920	39,873	37,306	41,179	0	477,458
Micro Hydro	7,086	5,172	3,925	3,390	4,824	0	55,123
Off-shore Wind	46,185	36,009	28,199	15,306	35,006	0	192,616
On-shore Wind	504,314	312,297	430,525	213,048	444,163	0	4,322,542
Wind 50kW DNC or less	10	9	13	2	7	3,360	3,426
Photovoltaic 50kW DNC or less	0	0	0	0	0	186	186
Sewage Gas	1,913	1,777	1,317	1,479	1,920	0	23,233
Wave Power	4	3	2	0	0	0	31
<b>Total</b>	<b>925,138</b>	<b>646,766</b>	<b>680,104</b>	<b>400,943</b>	<b>723,925</b>	<b>6,580</b>	<b>7,726,811</b>

\* See table B7a for a breakdown of the ROCs issued to Fuelled stations

**Table B7a: Breakdown of ROCs issued under Fuelled heading in table B7**

Fuelled Generation Technology type	SROCs issued						
	Apr 09	May 09	Jun 09	Jul 09	Aug 09	Sep 09	Oct 09
Anaerobic Digestion	942	1,697	1,673	1,133	1,192	1,430	2,531
Co-firing of biomass	7,922	3,955	3,189	3,643	4,708	4,395	5,233
Dedicated biomass	53,711	49,121	52,401	28,907	56,253	9,732	18,146
Dedicated biomass with CHP	0	26,133	28,037	31,526	31,630	30,566	32,185
Dedicated energy crops	0	1,474	0	0	470	0	0
<b>Fuelled Total</b>	<b>62,575</b>	<b>82,380</b>	<b>85,300</b>	<b>65,209</b>	<b>94,253</b>	<b>46,123</b>	<b>58,095</b>

**Table B7a: Breakdown of ROCs issued under Fuelled heading in table B7 (continued)**

Fuelled Generation Technology type	SROCs issued						
	Nov 09	Dec 09	Jan 10	Feb 10	Mar 10	Annual	Total
Anaerobic Digestion	1,795	1,598	1,081	844	2,340	0	18,256
Co-firing of biomass	4,293	3,957	4,147	3,154	4,716	0	53,312
Dedicated biomass	52,963	19,769	9,878	6,784	40,774	0	398,439
Dedicated biomass with CHP	28,850	37,257	37,473	33,956	26,891	0	344,504
Dedicated energy crops	0	0	0	0	0	0	1,944
<b>Fuelled Total</b>	<b>87,901</b>	<b>62,581</b>	<b>52,579</b>	<b>44,738</b>	<b>74,721</b>	<b>0</b>	<b>816,455</b>

**Table B8: NIROCs issued under the NIRO by generation technology type by month**

Generation Technology	NIROCs issued						
	Apr 09	May 09	Jun 09	Jul 09	Aug 09	Sep 09	Oct 09
Fuelled (all dedicated biomass)	2,274	2,157	2,168	1,652	2,660	2,486	2,572
Hydro 20MW DNC or less	588	464	397	418	663	728	575
Hydro 50kW DNC or less	27	30	23	28	34	29	27
Landfill Gas	951	1,150	1,081	938	931	2,017	4,838
Micro Hydro	122	147	59	71	89	88	57
On-shore Wind	54,152	72,190	37,759	47,608	69,904	57,131	67,247
Wind 50kW DNC or less	3	2	2	3	2	3	3
Photovoltaic 50kW DNC or less	0	0	0	0	0	0	0
Tidal Flow	7	47	131	155	111	87	123
<b>Total</b>	<b>58,124</b>	<b>76,187</b>	<b>41,620</b>	<b>50,873</b>	<b>74,394</b>	<b>62,569</b>	<b>75,442</b>

**Table B8: NIROCs issued under the NIRO by generation technology against time (continued)**

Generation Technology	NIROCs issued						
	Nov 09	Dec 09	Jan 10	Feb 10	Mar 10	Annual	Total
Fuelled (all dedicated biomass)	2,434	2,518	2,371	2,460	2,740	0	28,492
Hydro 20MW DNC or less	1,102	1,138	1,112	928	456	0	8,569
Hydro 50kW DNC or less	36	42	41	35	34	1,036	1,422
Landfill Gas	4,158	4,994	4,918	4,446	4,667	0	35,089
Micro Hydro	143	114	109	97	68	0	1,164
On-shore Wind	95,445	65,829	66,766	28,324	55,776	0	718,131
Wind 50kW DNC or less	4	3	2	2	2	3,972	4,003
Photovoltaic 50kW DNC or less	0	0	0	0	0	1,101	1,101
Tidal Flow	229	233	324	189	561	0	2,197
<b>Total</b>	<b>103,551</b>	<b>74,871</b>	<b>75,643</b>	<b>36,481</b>	<b>64,304</b>	<b>6,109</b>	<b>800,168</b>

**Table B9: Revoked 2009-10 ROCs/SROCs/NIROCs by technology and country**

Generation Technology	ROCs/SROCs/NIROCs revoked					Total
	RO			ROS	NIRO	
	England	Wales	Total	Scotland	N. Ireland	
Fuelled*	5,886	3,858	9,744	1,380	0	11,124
Hydro 20MW DNC or less	110	8	118	45	117	280
Landfill Gas	4,877	0	4,877	0	0	4,877
Micro Hydro	0	0	0	470	6	476
On-shore Wind	14	0	14	87	752	853
Wind 50kW DNC or less	17	0	17	9	50	76
Photovoltaic 50kW DNC or less	0	0	0	0	0	0
Sewage Gas	22	0	22	0	0	22
<b>Total</b>	<b>10,926</b>	<b>3,866</b>	<b>14,792</b>	<b>1,991</b>	<b>925</b>	<b>17,708</b>

\* See table B9a for a breakdown of the ROCs revoked from fuelled stations



**Table B9a: Breakdown of ROCs revoked under Fuelled heading in table B9**

Generation Technology	ROCs/SROCs/NIROCs revoked					
	RO			ROS	NIRO	Total
	England	Wales	Total	Scotland	N. Ireland	
Anaerobic Digestion	84	0	84	1,380	0	1,464
Co-firing of biomass	3,447	0	3,447	0	0	3,447
Dedicated biomass	1,901	3,858	5,759	0	0	5,759
Dedicated biomass with CHP	454	0	454	0	0	454
<b>Fuelled Total</b>	<b>5,886</b>	<b>3,858</b>	<b>9,744</b>	<b>1,380</b>	<b>0</b>	<b>11,124</b>

## Appendix 4 – Accredited generating stations – Detailed information

All capacity figures quoted in Appendix 4 are in kW

**Table C1: Generating stations accredited in 2009-10 by generation technology type and country (All capacities)<sup>35,36</sup>**

Generation Technology	England		Wales		Scotland		Northern Ireland		Total	
	Qty	Capacity	Qty	Capacity	Qty	Capacity	Qty	Capacity	Qty	Capacity
Fuelled	18	54,129	2	22,469	3	37,480	2	1,376	25	115,455
Hydro	37	473	18	395	32	9,274	2	41	89	10,183
Landfill Gas	10	15,580	1	1,700	2	2,115	1	5,680	14	25,075
Off-Shore Wind	2	172,800	1	90,000	1	89,239	0	0	4	352,039
On-Shore Wind	265	30,856	25	42,040	193	411,758	48	20,432	531	505,086
Photovoltaic	2,477	6,979	89	266	65	246	50	231	2,681	7,721
Sewage Gas	3	5,251	1	110	0	0	0	0	4	5,361
<b>Total</b>	<b>2,812</b>	<b>286,068</b>	<b>137</b>	<b>156,979</b>	<b>296</b>	<b>550,112</b>	<b>103</b>	<b>27,760</b>	<b>3,348</b>	<b>1,020,919</b>

<sup>35</sup> These figures are after taking into account the stations that ceased generating from renewable sources or that were decommissioned during the 2009-10 period.

<sup>36</sup> Fuelled capacity for co-fired stations is an estimate of the renewable capacity and is based on the proportion of biomass used to feed the generating station in relation to the total generating station capacity.

**Table C1a: Generating stations accredited in 2009-10 by generation technology type and country (DNC>50kW)**

Generation Technology	England		Wales		Scotland		Northern Ireland		Total	
	Qty	Capacity	Qty	Capacity	Qty	Capacity	Qty	Capacity	Qty	Capacity
Fuelled	12	54,003	2	22,469	3	37,480	2	1,376	19	115,329
Hydro	1	148	2	268	8	9,017	0	0	11	9,433
Landfill Gas	10	15,580	1	1,700	2	2,115	1	5,680	14	25,075
Off-shore wind	2	172,800	1	90,000	1	89,239	0	0	4	352,039
On-shore Wind	8	29,185	4	41,940	26	410,494	1	20,000	39	501,619
Photovoltaic	2	138	0	0	0	0	0	0	2	138
Sewage Gas	3	5,251	1	110	0	0	0	0	4	5,361
<b>Total</b>	<b>38</b>	<b>277,105</b>	<b>11</b>	<b>156,487</b>	<b>40</b>	<b>548,345</b>	<b>4</b>	<b>27,056</b>	<b>93</b>	<b>1,008,994</b>

**Table C1b: Generating stations accredited in 2009-10 by generation technology type and country (DNC<=50kW)**

Generation Technology	England		Wales		Scotland		Northern Ireland		Total	
	Qty	Capacity	Qty	Capacity	Qty	Capacity	Qty	Capacity	Qty	Capacity
Fuelled (all dedicated Biomass)	6	125	0	0	0	0	0	0	6	125
Hydro	36	325	16	127	24	256	2	41	78	749
On-shore Wind	257	1,671	21	100	167	1,264	47	432	492	3,467
Photovoltaic	2,475	6,840	89	266	65	246	50	231	2,679	7,583
<b>Total</b>	<b>2,774</b>	<b>8,962</b>	<b>126</b>	<b>493</b>	<b>256</b>	<b>1,767</b>	<b>99</b>	<b>704</b>	<b>3,255</b>	<b>11,925</b>

**Table C2: All accredited generators<sup>37</sup> by generation technology type and country (all capacities)<sup>38</sup>**

Generation Technology	England		Wales		Scotland		Northern Ireland		Total	
	Qty	Capacity	Qty	Capacity	Qty	Capacity	Qty	Capacity	Qty	Capacity
Fuelled	89	1,002,395	5	41,756	11	129,597	4	3,826	109	1,177,574
Hydro	141	23,730	69	78,315	210	621,285	24	3,183	444	726,514
Landfill Gas	352	812,211	18	36,708	37	99,265	3	8,302	410	956,486
Off-shore wind	10	686,600	2	150,000	2	99,239	0	0	14	935,839
On-shore Wind	743	748,919	102	378,582	421	2,254,635	340	318,607	1,606	3,700,743
Photovoltaic	3,998	12,186	160	461	112	382	225	872	4,495	13,902
Sewage Gas	129	101,200	13	4,561	5	5,297	0	0	147	111,058
Tidal Stream	0	0	0	0	0	0	1	1,200	1	1,200
Wave Power	0	0	0	0	2	1,250	0	0	2	1,250
<b>Total</b>	<b>5,462</b>	<b>3,387,243</b>	<b>369</b>	<b>690,383</b>	<b>800</b>	<b>3,210,950</b>	<b>597</b>	<b>335,990</b>	<b>7,228</b>	<b>7,624,566</b>

<sup>37</sup> These figures reflect the number of accredited stations as at the end of the 2009-10 period i.e. 31 March 2010

<sup>38</sup> A number of generating stations under Fuelled category are classified as co-firing generating stations claim and receive biomass ROCs as well as co-firing ROCs dependent on the fuel used as at a particular time

**Table C2a: Total accredited generators by generation technology type and country (DNC >50kW)**

Generation Technology	England		Wales		Scotland		Northern Ireland		Total	
	Qty	Capacity	Qty	Capacity	Qty	Capacity	Qty	Capacity	Qty	Capacity
Fuelled	82	1,002,262	5	41,756	11	129,597	4	3,826	102	1,177,441
Hydro	51	22,661	33	77,885	150	620,361	15	2,975	249	723,882
Landfill Gas	352	812,211	18	36,708	37	99,265	3	8,302	410	956,486
Off-shore wind	10	686,600	2	150,000	2	99,239	0	0	14	935,839
On-shore Wind	114	744,754	37	378,211	101	2,252,292	36	316,175	288	3,691,432
Photovoltaic	15	1,054	0	0	0	0	0	0	15	1,054
Sewage Gas	128	101,170	13	4,561	5	5,297	0	0	146	111,028
Tidal Stream	0	0	0	0	0	0	1	1,200	1	1,200
Wave Power	0	0	0	0	2	1,250	0	0	2	1,250
<b>Total</b>	<b>752</b>	<b>3,370,712</b>	<b>108</b>	<b>689,121</b>	<b>308</b>	<b>3,207,301</b>	<b>59</b>	<b>332,478</b>	<b>1,227</b>	<b>7,599,612</b>

**Table C2b: Total accredited generators by generation technology type and country (DNC <= 50kW)**

Generation Technology	England		Wales		Scotland		Northern Ireland		Total	
	Qty	Capacity	Qty	Capacity	Qty	Capacity	Qty	Capacity	Qty	Capacity
Fuelled	7	133	0	0	0	0	0	0	7	133
Hydro	90	1,069	36	430	60	924	9	208	195	2,632
On-shore Wind	629	4,165	65	371	320	2,343	304	2,432	1,318	9,311
Photovoltaic	3,983	11,133	160	461	112	382	225	872	4,480	12,849
Sewage Gas	1	30	0	0	0	0	0	0	1	30
<b>Total</b>	<b>4,710</b>	<b>16,531</b>	<b>261</b>	<b>1,263</b>	<b>492</b>	<b>3,649</b>	<b>538</b>	<b>3,512</b>	<b>6,001</b>	<b>24,954</b>

**Table C3: Proportional increase this period in accredited generators by generation technology and country (all capacities)<sup>39</sup>**

Generation Technology	England		Wales		Scotland		Northern Ireland		Total	
	Qty	Capacity	Qty	Capacity	Qty	Capacity	Qty	Capacity	Qty	Capacity
Fuelled	25%	6%	67%	116%	38%	41%	100%	56%	30%	11%
Hydro	36%	2%	35%	1%	18%	2%	9%	1%	25%	1%
Landfill Gas	3%	2%	6%	5%	6%	2%	50%	217%	4%	3%
Off-shore wind	25%	34%	100%	150%	100%	892%	N/A	N/A	40%	60%
On-shore Wind	55%	4%	32%	12%	85%	22%	16%	7%	49%	16%
Photovoltaic	163%	134%	125%	136%	138%	181%	29%	36%	148%	125%
Sewage Gas	2%	5%	8%	2%	0%	0%	N/A	N/A	3%	5%
<b>Total</b>	<b>106%</b>	<b>9%</b>	<b>59%</b>	<b>29%</b>	<b>59%</b>	<b>21%</b>	<b>21%</b>	<b>9%</b>	<b>86%</b>	<b>15%</b>

**Table C3a: Increase this period in accredited generators by generation technology and country (DNC > 50W)**

Generation Technology	England		Wales		Scotland		Northern Ireland		Total	
	Qty	Capacity	Qty	Capacity	Qty	Capacity	Qty	Capacity	Qty	Capacity
Fuelled	17%	6%	67%	116%	38%	41%	100%	56%	23%	11%
Hydro	2%	1%	6%	0%	6%	1%	0%	0%	5%	1%
Landfill gas	3%	2%	6%	5%	6%	2%	50%	217%	4%	3%
Off-shore wind	25%	34%	100%	150%	100%	892%	N/A	N/A	40%	60%
On-shore wind	8%	4%	12%	12%	35%	22%	3%	7%	16%	16%
Photovoltaic	15%	15%	N/A	N/A	N/A	N/A	N/A	N/A	15%	15%
Sewage gas	2%	5%	8%	2%	0%	0%	N/A	N/A	3%	5%
<b>Total</b>	<b>5%</b>	<b>8%</b>	<b>10%</b>	<b>23%</b>	<b>13%</b>	<b>17%</b>	<b>7%</b>	<b>8%</b>	<b>8%</b>	<b>13%</b>

<sup>39</sup> The percentage increases are the newly accredited quantities and capacity in the 2009-10 period as a proportion of the 2008-2009 figures.

**Table C3b: Increase this period in accredited generators by generation technology and country (DNC <= 50kW)**

Generation Technology	England		Wales		Scotland		Northern Ireland		Total	
	Qty	Capacity	Qty	Capacity	Qty	Capacity	Qty	Capacity	Qty	Capacity
Fuelled	600%	1566%	N/A	N/A	N/A	N/A	N/A	N/A	600%	1566%
Hydro	67%	44%	80%	42%	67%	38%	29%	25%	67%	40%
On-shore wind	69%	67%	48%	37%	109%	117%	18%	22%	60%	59%
Photovoltaic	164%	159%	125%	136%	138%	181%	29%	36%	149%	144%
<b>Total</b>	<b>143%</b>	<b>118%</b>	<b>93%</b>	<b>64%</b>	<b>108%</b>	<b>94%</b>	<b>23%</b>	<b>25%</b>	<b>119%</b>	<b>92%</b>

**Table C4: Total accredited generators (as at 31 March 2010) by technology type and NFFO / SRO classification**

Generation Technology	England and Wales		Scotland		Northern Ireland		Total	
	NFFO	Non-NFFO	SRO	Non-SRO	NI NFFO	Non-NFFO	NFFO/SRO	Other
Fuelled	1	93	0	11	0	4	1	108
Hydro	18	192	10	200	3	21	31	413
Landfill Gas	129	241	11	26	0	3	140	270
Off-shore wind	1	11	0	2	0	0	1	13
On-shore Wind	48	797	14	407	7	333	69	1,537
Photovoltaic	0	4,158	0	112	0	225	0	4,495
Sewage Gas	0	142	0	5	0	0	0	147
Tidal Stream	0	0	0	0	0	1	0	1
Wave Power	0	0	1	1	0	0	1	1
<b>Total</b>	<b>197</b>	<b>5,634</b>	<b>36</b>	<b>764</b>	<b>10</b>	<b>587</b>	<b>243</b>	<b>6,985</b>

**Table C4a: Total accredited capacity (as at 31st March 2010) by technology and NFFO/SRO classification**

Generation Technology	England and Wales		Scotland		Northern Ireland		Total	
	NFFO	Non-NFFO	SRO	Non-SRO	NI NFFO	Non-NFFO	NFFO/SRO	Other
Biomass	0	114,634	0	93,270	0	3,826	0	211,730
Biomass with ACT	0	90,108	0	3,407	0	0	0	93,515
Cofired	10,644	828,765	0	32,920	0	0	10,644	861,685
Hydro	14,088	87,958	11,363	609,922	685	2,498	26,136	700,378
Landfill Gas	339,731	509,188	30,595	68,670	0	8,302	370,326	586,160
Off-shore wind	1,800	834,800	0	99,239	0	0	1,800	934,039
On-shore Wind	291,601	835,900	131,281	2,123,354	31,780	286,827	454,662	3,246,081
Photovoltaic	0	12,648	0	382	0	872	0	13,902
Sewage Gas	0	105,761	0	5,297	0	0	0	111,058
Tidal Stream	0	0	0	0	0	1,200	0	1,200
Wave Power	0	0	500	750	0	0	500	750
<b>Total</b>	<b>657,864</b>	<b>3,419,762</b>	<b>173,739</b>	<b>3,037,211</b>	<b>32,465</b>	<b>303,525</b>	<b>864,068</b>	<b>6,760,498</b>



## Appendix 5 - Glossary

### **A**

Act	Electricity Act 1989
ACT	Advanced Conversion Technology
AD	Anaerobic Digestion

### **B**

BERR	Department of Business, Enterprise and Regulatory Reform
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### **D**

DECC	Department of Energy and Climate Change
DETI	Department of Enterprise, Trade and Investment
DNC	Declared Net Capacity

### **F**

FMS	Fuel Measurement and Sampling
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### **G**

GB	Great Britain
GB ROCs	ROCs and SROCs

### **K**

kW	Kilowatt
kWh	Kilowatthour

### **M**

MSO	Marine Supply Obligation
MW	Megawatt
MWh	Megawatthour

### **N**

NI	Northern Ireland
NIAUR	Northern Ireland Authority for Utility Regulation
NIRO	Northern Ireland Renewables Obligation
NIROC	Northern Ireland Renewables Obligation Certificates
NFFO	Non-Fossil Fuel Obligation
NFPA	Non-fossil Fuel Purchasing Agency

### **O**

Ofgem	Office of Gas and Electricity Markets
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### **P**

PV	Photovoltaics
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### **R**

RO	Renewables Obligation
ROO	Renewables Obligation Order 2009 (as amended)
ROC	Renewable Obligation Certificate
ROS	Renewables Obligation (Scotland)

RPI

Retail Price Index

**S**

SRO

Scottish Renewables Obligation

SROC

Scottish Renewable Obligation Certificate

## Appendix 6 – Feedback form: Renewables Obligation Annual Report 2009-10

We would welcome your feedback on this report, including the length of the document and the content. Please address your feedback to [richard.bellingham@ofgem.gov.uk](mailto:richard.bellingham@ofgem.gov.uk) or [peter.collins@ofgem.gov.uk](mailto:peter.collins@ofgem.gov.uk). You may wish to respond to the following questions in giving your feedback.

### **Overall**

Is the report too long, or too short?

Is the report easy to read and understand? If not, can you please tell us what you would like to change?

Is the report structured in a way that you can easily find what you are looking for. If not, what can we do to improve this?

### **Main document**

What part of this report do you find most helpful?

What part of this report do you find least helpful?

Do you think the charts convey information clearly, or not? If not, what do you dislike about the charts? What can we do to improve our charts?

### **Appendices**

We publish a number of tables in the appendices to this document. Do you think the appendices contain too much information, or too little?

If too much, which tables are least helpful?

If too little, what other information would you like to see contained in the appendices?

### **How we will deal with your feedback**

This Annual Report is published under the requirements set out in the RO legislation. It contains information that we are required to publish. It also contains information that we believe stakeholders will find useful.

We will endeavour to incorporate all comments into the report. However, we must ensure the content of the report meets the requirements of the RO legislation. As such, we may not be able to incorporate all comments.

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