Ofgem’s perspective on the Renewables sector

Charles Hargreaves
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Overview

• Key drivers of change in renewable sector
• Trends in the RO scheme
• The costs of the RO
• Trends in the FIT scheme
• Concluding thoughts
Forthcoming changes

• The RO will close in 2017
• The introduction of the CFD mechanism
• The influence of the carbon floor price
• Potential for future changes in European legislation
Total ROCs issued and corresponding generation since 2007-08

- 2007-08: 16.2m ROCs, 16.2 TWh
- 2008-09: 19.0m ROCs, 19.0 TWh
- 2009-10: 21.4m ROCs, 20.5 TWh
- 2010-11: 25.0m ROCs, 23.3 TWh
- 2011-12: 35.0m ROCs, 31.3 TWh
- 2012-13: 44.3m ROCs, 35.0 TWh

Legend:
- Green: Northern Ireland
- Blue: Scotland
- Red: Wales
- Grey: England

Renewable Generation (TWh) vs. ROCs Issued (Millions)
Annual issue of ROCs by generation technology since 2007-08
Monthly issue of ROCs since 2007-08 by generation technology

- **Fuelled**
- **Offshore wind**
- **Onshore wind**
ROCs issued and generation by technology type in 2012-13 (UK-wide)

- Fuelled: 34.7%
- Hydro: 19.7%
- Landfill Gas: 14.1%
- Offshore wind: 11.1%
- Onshore wind: 6.3%
- Other: 5.0%

ROCs issued: 1.6%
Generation (MWh): 18.1%
ROCs issued and generation by technology type in 2012-13 (Scotland)

- Fuelled: 61.8% ROCs issued, 67.5% generation
- Hydro: 4.6% ROCs issued, 4.2% generation
- Offshore wind: 5.8% ROCs issued, 10.4% generation
- Onshore wind: 4.9% ROCs issued, 17.2% generation
- Other: 7.8% ROCs issued, 4.6% generation
Trend in total UK ROC obligation and ROCs redeemed since 2002-03

ROCs (Millions)

<table>
<thead>
<tr>
<th>Obligation Period</th>
<th>ROCs Redeemed</th>
<th>Obligation</th>
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<tbody>
<tr>
<td>2002-03</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>2003-04</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>2004-05</td>
<td>9</td>
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<td>2005-06</td>
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<td>2006-07</td>
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</tr>
<tr>
<td>2011-12</td>
<td>30</td>
<td>32</td>
</tr>
<tr>
<td>2012-13</td>
<td>40</td>
<td>45</td>
</tr>
</tbody>
</table>

Obligation: Green; ROCs Redeemed: Light Green
### ROC recycle value since 2008-09

<table>
<thead>
<tr>
<th></th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
<th>2011-12</th>
<th>2012-13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total of buy-out and late payments redistributed</td>
<td>£352,651,576</td>
<td>£323,668,318</td>
<td>£358,308,373</td>
<td>£123,116,772</td>
<td>£164,420,029</td>
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<tr>
<td>Total ROCs presented</td>
<td>18,948,878</td>
<td>21,337,205</td>
<td>24,969,364</td>
<td>34,404,733</td>
<td>44,773,499</td>
</tr>
<tr>
<td>Recycle value per ROC presented</td>
<td>£18.61</td>
<td>£15.17</td>
<td>£14.35</td>
<td>£3.58</td>
<td>£3.67</td>
</tr>
<tr>
<td>Worth of a ROC to a supplier</td>
<td>£54.37</td>
<td>£52.36</td>
<td>£51.34</td>
<td>£42.27</td>
<td>£44.38</td>
</tr>
<tr>
<td>Average ROCs issued/MWh</td>
<td>1.00</td>
<td>1.04</td>
<td>1.07</td>
<td>1.12</td>
<td>1.27</td>
</tr>
<tr>
<td>Support per MWh supplied</td>
<td>£54.37</td>
<td>£54.45</td>
<td>£54.93</td>
<td>£47.34</td>
<td>£56.36</td>
</tr>
</tbody>
</table>
FIT capacity

- Anaerobic digestion
- Hydro
- Micro CHP
- Photovoltaic
- Wind

- 88% Photovoltaic
- 8% Wind
- <1% Hydro
- 2% Micro CHP
- 2% Anaerobic digestion
Number of installations accredited against changes in legislation and degression

- FIT Year 1 (2010-11)
- FIT Year 2 (2011-12)
- FIT Year 3 (2012-13)

Registered FIT Installations by Month

- Phase 2A Solar PV Tariff
- PV Degression 0-
- 2B non-Solar PV Tariff
- FIT Order
FIT Capacity by region, MW
Concluding thoughts

• The scale of renewable generation has increased considerably over the past ten years

• This has had cost implications for the sector and for consumers

• There is a strong regional variation in the development in capacity

• Further changes are planned for the renewables sector, which will have implications for the take up of the different technologies
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Our priority is to protect and to make a positive difference for all energy consumers. We work to promote value for money, security of supply and sustainability for present and future generations. We do this through the supervision and development of markets, regulation and the delivery of government schemes.

We work effectively with, but independently of, government, the energy industry and other stakeholders. We do so within a legal framework determined by the UK government and the European Union.
Annexes
How the RO works

1. Output figures
2. Issues ROCs for output
3. Sell ROCs
4. Present ROCs and/or buy-out to fulfil Obligation
5. Recycle buy-out payments

- Generators
- Traders & Brokers
- Suppliers
Ofgem E-Serve’s role in the FIT scheme

- Accreditation of eligible installations (including migration of RO generators)
- Operation of the Central FIT Register
- Compliance functions
- Periodic & Annual Levelisation
- Information and guidance
- Reporting