



Department of
**Enterprise, Trade
and Investment**
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Government Response

Energy

Government Response to Small Scale Banding Review Consultation

January 2015

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EXECUTIVE SUMMARY

1

Introduction

- 1.1 In July 2014, the Minister issued a statutory 12 week consultation on proposed Renewables Obligation Certificate (ROC) banding levels for small scale onshore wind, hydro and anaerobic digestion with a maximum installed capacity up to 5 megawatts (MW) and for solar photovoltaic (PV) up to 250 kilowatts (kW).
- 1.2 Small scale renewable electricity generation has witnessed significant expansion since higher ROC levels were introduced in 2010 for wind, hydro and solar PV and in 2011 for anaerobic digestion (AD).
- 1.3 In line with legislative requirements to carry out banding reviews periodically, the consultation set out the conclusions and recommendations arising from a report commissioned by DETI to provide an assessment of technology cost changes since the higher ROC levels were introduced and forecast changes to 2017.
- 1.4 No changes were proposed to the existing ROC levels for small scale onshore wind, hydro and AD as technology costs variations did not warrant an increase or decrease in support. For solar PV a reduction in support was proposed to reflect significant reductions in technology costs since 2010. The consultation also proposed a six month grace period to reflect potential grid connection delays for solar PV projects.
- 1.5 This document is the Government Response to the consultation and sets out DETI Minister's decisions.

Responses to the consultation

- 1.6 The consultation closed on 25 September 2014. In total, three hundred and thirty five responses were received. Responses were received from a

wide range of stakeholders including independent generators, developers, trade associations, environmental bodies, Non Government Organisations (NGOs) and individuals. Of these responses 230 were template letters from individuals, solar industry employees or other interested stakeholders.

- 1.7 A summary of the responses is provided in the following chapters together with the corresponding decision. A list of respondents can be found at Annex A.

Feedback

- 1.8 The majority of responses (98%, 328 responses) focused on the proposal to reduce the ROC level for solar PV generating stations. Almost all of these opposed the proposed reduction. Of the responses on the solar PV proposals, 105 were template letters from homeowners who have installed solar PV at the current 4 ROCs level but state that they would not have done so if the ROC level had been at 1.6. A further 85 responses were template letters from employees in the solar PV industry concerned that the proposed ROC reduction would result in an immediate cessation in deployment with subsequent job losses.
- 1.9 There were also concerns raised regarding the proposed grace period for solar PV projects which cannot accredit before 1 April 2015 due to grid connection delays and how this might work in practice.
- 1.10 The remaining responses were broadly supportive of the proposals to retain the existing ROC levels for onshore wind, hydro and AD, however several respondents argued for a higher ROC level where there was evidence of increasing technology costs and/or higher grid connection costs.
- 1.11 Having reviewed the evidence presented, particularly in relation to solar PV technology costs, the Minister has decided that the proposed reduction to 1.6 ROCs was not an adequate reflection of technology cost reductions since 2010. Whilst costs have reduced, we accept the industry view that deployment between 2010 and 2012 was limited as technology cost reductions were not significant enough then to make 4 ROCs an attractive incentive. Instead, it has only been since 2012 that costs have reduced enough to encourage significant increased deployment.
- 1.12 A number of respondents suggested that the GB Feed-In Tariff depression was a more accurate representation of solar PV cost reductions and that similar levels should be introduced for NI.

Decision

Onshore Wind, Hydro and Anaerobic Digestion

- 1.13 The current ROC banding levels for small scale (up to 5MW) onshore wind, hydro and anaerobic digestion generating stations with an accreditation date on or before the NIRO's closure to new generation on 31 March 2017 will be retained.

Refurbished Wind Turbines

- 1.14 Refurbished wind turbines with an accreditation date on or before the NIRO's closure to new generation on 31 March 2017 will continue to receive the same ROC levels as new turbines.

Solar PV

- 1.15 Bands for solar PV generating stations will be as follows:

Solar PV	Up to 30 Sep 2015 (ROCs/MWh)	1 Oct 2015 – 30 Sep 2016 (ROCs/MWh)	1 Oct 2016 – 31 March 2017 (ROCs/MWh)
Up to 50 kW	4	3	2
Above 50kW up to 250kW	2	2	2

- 1.16 The Department announced on 18 December 2014 that there would be an extension to the existing levels of support for solar PV until October 2015. This meant that **there will not be a six month grace period for eligible solar PV generating stations which experience grid connection delays. Instead, the reduction from 4 ROCs to 3 ROCs for stations up to 50kW will not now be introduced until 1 October 2015. Consequently, there will be no grace period.**

Implementation

- 1.17 The new ROC levels for solar PV up to 50kW will be introduced by way of an amendment to the Renewables Obligation Order (Northern Ireland) later this year. Therefore, any proposals in this document are subject to Assembly approval.

ONSHORE WIND

2

Question 1 sought stakeholder's views on the proposed retention of the banding level of 4 ROCs/MWh for onshore wind generating stations up to 250kW.

Question 2 sought views the proposed retention of the banding level of 1 ROC/MWh for onshore wind generating stations greater than 250kW up to 5MW.

Question 3 sought views on continued support for refurbished turbines at the same level as new turbines.

Background

2.1 Our consultation document noted that capital costs for small scale onshore wind have shown some increase since 2010, with the greatest increase being in the 5-50kW band. These are as a result of a number of factors including increases in turbine costs, site construction costs and costlier grid connections. However, since 2010, when higher ROC banding levels for small scale onshore wind were introduced, there has continued to be a steady increase in the number of stations accrediting under the NIRO. Currently, in Northern Ireland, there are 604 small scale onshore wind generating stations with a total installed capacity of almost 75 MW¹.

Proposal

2.2 Although analysis commissioned for the review concluded that technology costs had increased slightly since 2010, the current support level of 4 ROCs/MWh for generating stations up to 250kW and 1 ROC/MWh for above 250kW to 5MW continues to provide an acceptable rate of return. There was no evidence to suggest that the increase in costs has deterred investment. It is, therefore, proposed to retain the level of 4 ROCs/MWh for generating stations up to 250kW and 1 ROC/MWh for generating stations greater than 250kW up to 5MW.

¹ Statistics sourced from Ofgem Renewables and CHP Register (January 2015).

Main messages from responses

- 2.3 DETI received twenty four responses in relation to the onshore wind proposals. The majority of respondents (96%) agreed with the retention of the existing ROC levels. One respondent disagreed with the proposed retention, favouring an increase to match technology cost increases. Several respondents, although agreeing with the proposals, suggested alternative proposals. A summary of the key points raised are set out in the following sections.

Technology and grid connection costs

- 2.4 One respondent suggested that technology costs for new 250kW turbines have increased by over 11% from October 2011 to March 2014. Another suggested that grid costs have risen by 24% from 2012 to 2014

Refurbished turbines

- 2.5 There were 22 responses to the question about retaining support for refurbished turbines, 20 of which were positive. While respondents acknowledged that capital costs for refurbished turbines are lower compared to new turbines, they pointed out that operating expenses are dissimilar. Refurbished turbines incur greater expense with regards to maintenance, insurance and replacement of parts.
- 2.6 One respondent said that refurbished turbines should not be given any support. Some machines are already 20 years old and, despite being 'reconditioned' or 'remanufactured', will have a short operational life expectancy due to designed fatigue life. The response went on to explain that the worst aspect is that fatigue failures are notoriously difficult, even impossible, to predict beyond using numerical methods and tend to be catastrophic in nature when they occur.

Higher ROC level for new turbines up to 250kW installed capacity

- 2.7 It was suggested that new equipment up to 250kW should be incentivised at a level of 4.5 ROCs/MWh to reflect the increasing costs of technology. The rationale was that the increasing use of refurbished wind turbines reflects the escalating costs of installing new equipment and the lack of new 250kW models. However, no substantive or corroborating evidence was submitted demonstrating the requirement for the additional 0.5 ROC.

Introduce amendments to the bandwidths for the ROC bands

- 2.8 One respondent suggested that consideration be given to increasing the generation threshold from 250kW to 500kW to reflect the general UK approach and the availability of more efficient wind turbines within the marketplace. In addition, the current level of 4 ROCs/MWh was not viable to install new models of turbines in the 11kW to 100kW range, and that wind generators of 100kW or less should receive 5 ROCs/MWh.

Post-Consultation Decision

- 2.9 Following consideration of the evidence submitted from the consultation exercise, the Minister remains of the opinion that an increase in ROC support for onshore wind is not necessary to ensure continued deployment. Nor is a change to existing banding thresholds required.
- 2.10 Increased grid connection costs are acknowledged but providing additional ROC support will not solve grid constraints.
- 2.11 Where a grid connection is required, prospective generators are encouraged, as far as is possible; to satisfy themselves that grid connection is available and affordable before undertaking investment. NIE's Network Heat Map² is a useful tool for developers in this regard.
- 2.12 The proposal to continue to support refurbished turbines at the same levels as new turbines was met with mostly positive responses; however some stakeholders felt that refurbished turbines should not be supported at all. **Decision: refurbished turbines will continue to receive the same support levels as new ones**
- 2.13 Following analysis of the evidence submitted and consideration of the alternative proposals suggested by respondents **the existing ROC banding levels for small scale onshore wind at 4 ROCs/MWh for generating stations up to 250kW and 1 ROC/MWh for generating stations greater than 250kW up to 5 MW will be retained.**

² <http://www.nie.co.uk/Connections/Generation-connections/Small-scale-generation/11kV-Network-Heat-Map>

ANAEROBIC DIGESTION

3

Question 4 asked sought views on the proposal to retain the current banding level of 4 ROCs/MWh for AD generating stations up to 500kW.

Question 5 sought views on the proposal to retain the current banding level of 3 ROCs/MWh for AD generating stations greater than 500kW up to 5MW.

Background

3.1 In 2011, support for small scale anaerobic digestion (AD) was increased to 4 ROCs for generating stations up to 500kW and 3 ROCs for generating stations above 500kW up to 5 MW. To date, the actual numbers deployed have been relatively low with only 15 stations accredited with a total installed capacity of approximately 8.8 MW³. However, we understand that a further 18 MW is committed to connect.

Proposal

3.2 The evidence from the CEPA/PB report suggested that there has been little change in technology costs for AD since 2010. The consultation therefore proposed to retain the existing banding level of 4 ROCs/MWh for generating stations up to 500kW and 3 ROCs/MWh for installations between 500kW and 5MW.

Consultation Responses

3.3 13 responses were received in relation to the AD ROC banding level proposals. 12 respondents (92%) agreed with the proposed retention of the current ROC banding levels and 1 respondent disagreed.

3.4 One respondent was opposed to the retention of 4 ROCs/MWh for AD generating stations up to 500kW. Instead, it was argued that the focus should be on much smaller capacities, closer to 25-50kW as these can be

³ Statistics sourced from Ofgem Renewables and CHP Register (January 2015).

on-farm micro-scale where only feed stocks produced by the farm business are utilised, with no reliance upon imported stocks.

Post-Consultation Decision

- 3.5 DETI has considered the suggestion of additional bandwidths and alternative higher ROC banding levels for micro-scale AD. However, at this juncture, with a short time remaining before the NIRO is due to close to new accreditations in 2017, the introduction of additional bands was not justified. The lack of evidence coming forward on the pipeline of projects that might fall into these new banding levels, outweighs the argument for their introduction. **Decision: retain the banding level of 4 ROCs/MWh for generating stations up to 500kW and 3 ROCs/MWh for generating stations above 500kW up to 5MW.**

HYDRO

4

Question 6 sought views on the proposal to retain the current banding level of 4 ROCs/MWh for hydro generating stations up to 20kW.

Question 7 sought views on the proposal to retain the current banding level of 3 ROCs/MWh for hydro generating stations greater than 20kW up to 250kW.

Question 8 sought views on the proposal to retain the current banding level of 3 ROCs/MWh for hydro generating stations greater than 250kW up to 5MW.

Background

- 4.1 Since the introduction of higher ROC levels for small scale technologies in 2010, there has been a relatively conservative increase in the numbers of hydro generating stations accredited under the NIRO. Presently in Northern Ireland, there are 39 accredited hydro generating stations with a total installed capacity of approximately 3.7 MW⁴.
- 4.2 It was noted in the consultation that hydro costs have increased since 2010. However, given the site-specific nature of hydro projects, there is a particularly wide range of potential capital costs. The evidence base suggests that the main factors contributing to higher costs are the site-specific nature of the projects, the limited availability of potential sites, grid cost increases, and according to respondents, requirements of the planning and consenting process have increased, hence pushing up development costs.

Proposal

- 4.3 Whilst, the banding review suggested that costs for hydro have increased since 2010, costs are very much site specific and can vary greatly. The

⁴ Source: Ofgem Renewables and CHP Register (Data collected January 2015)

consultation therefore proposed to retain the current ROC banding levels for all three hydro bands.

Consultation Responses

- 4.4 DETI received 13 responses in relation to the hydro ROC banding proposals. 12 respondents (92%) agreed with the proposed retention of the current ROC banding levels and 1 respondent disagreed.
- 4.5 One respondent suggested that there is potential for hydropower at sites around Northern Ireland which is not being taken advantage of. It was also suggested that the current ROC banding levels of support for up to 20kW and between 20kW and 250kW are insufficient to incentivise hydropower. However, no alternative ROC bands were suggested.

Post-Consultation Decision

- 4.6 The main driver of costs are location specific and there is insufficient evidence to support increased ROC levels as a solution.
- 4.7 **Decision: retain the current ROC banding levels for all three hydro bands of 4 ROCs/MWh for generating stations up to 20kW, 3 ROCs/MWh for generating stations greater than 20kW up to 250kW and 2 ROCs/MWh for generating stations greater than 250kW up to 5MW. The ROC banding levels will remain in place until the NIRO's closure to new generation in 2017.**

SOLAR PHOTOVOLTAIC

5

Question 9 sought views on the proposed reduction from 4 ROCs/MWh to 1.6 ROCs/MWh for solar PV generating stations up to 250kW.

Question 10 sought views on the suggestion that solar PV technology costs, in terms of per kWh installed are approximately the same for all sizes.

Question 11 sought views on the proposed introduction of a 6 month grace period for small scale solar PV generating stations that meet the eligibility criteria.

Question 12 sought views on the proposed grace period eligibility criteria.

Background

- 5.1 Northern Ireland has seen significant and dramatic growth in the small scale solar PV sector since the introduction of 4 ROCs/MWh for stations up to 50kW in 2010. This growth has been particularly prevalent since 2012/13 with up to an 800% increase in the number of applications.
- 5.2 In 2010/11 there were 227 small scale solar PV generating stations accredited under the NIRO with a total installed capacity of just over 1 MW but by December 2014 this had increased to 8445 stations with a total installed capacity of over 47 MW. The most significant and rapid period of growth has been the 12 months between 2012/13 and 2013/14 where there has been an increase from 1138 stations to approximately 8445⁵ and an increase in total installed capacity from 5 MW to 47MW⁶. This rapid growth coincides with decreasing technology costs over the same period.

⁵ Source: Ofgem Renewables and CHP Register (January 2015)

⁶ Source: Ofgem Renewables and CHP Register (January 2015)

Proposal

- 5.3 Based on the evidence presented as part of the banding review, the consultation proposed to reduce ROC banding levels from 4 to 1.6 ROCs/MWh for solar PV generating stations up to 250kW. In addition, the consultation proposed to introduce a 6 month grace period for small scale solar PV (i.e. up to 250kW) projects which are unable to accredit under the NIRO prior to the introduction of new ROC banding levels on 1 April 2015 due to grid connection delays.

Consultation responses

- 5.4 328 responses were received in relation to the proposals to reduce the banding levels for small scale solar PV. All of the respondents disagreed with the proposals. Of the 328 responses, 190 were in the form of generic letters from householders and from employees of the solar industry concerned about their jobs. 54 responses provided more detail in support of a higher ROC level.
- 5.5 Some stakeholders argued that the proposed reduction in ROC banding level due to falling cost of solar panels is flawed for Northern Ireland. It was suggested that the Department should not be comparing the cost of panels from 2010, but actually 2012, as increases in solar PV installations did not happen until 2012 when panel prices fell to previously unseen low levels. It was also stated that the price in May 2012 was approximately £2700 per KWp, compared to £1640 per KWp in 2010. Respondents also suggested that prices have risen slightly since the publication of the evidence base with a current price of £1800 per KWp which equates to a 29% reduction in technology costs and not the 69% as stated in the consultation document.
- 5.6 The point was made by some respondents that the actual value of a ROC has also fallen significantly since 2010. It was noted that, in 2010, the average ROC price was approximately £45 but has now fallen to approximately £40 which equates to an 11% reduction in real terms. The Department accepts that this was not factored into the original analysis.
- 5.7 A large number of respondents raised concerns regarding the general future of the small scale solar PV industry in Northern Ireland, should a 1.6 ROC level be introduced. Some respondents suggested that there are currently between 500–1000 people employed in the solar industry and that the large majority will lose their jobs as a result of the proposed ROC reduction due to a subsequent reduction in installation levels.
- 5.8 A number of respondents pointed out that the current level of 4 ROCs has made it feasible for companies to operate ‘free solar’ or ‘rent a roof’ schemes, where the installing company will realise the ROCs and the householder can avail of the free electricity generated from the panels. It was argued that this type of scheme may be beneficial to low income households and social housing. A reduction to 1.6 ROCs would mean that these schemes are no longer financially viable for companies to install as the returns on investment would be too low.

- 5.9 A number of respondents argued that the current small scale GB FIT tariff is substantially higher than the proposed 1.6 ROCs and that NI generators would be unfairly disadvantaged. It was argued that a ROC level similar to the GB FIT might be a better approach. .
- 5.10 Some comments raised concerns that NI could experience a similar situation that occurred in Great Britain when the small scale FIT tariff was dramatically reduced. This created a spike in demand followed by a sudden drop. It was suggested this gave rise to opportunists and poor after sales service for customers with post installation problems. It also created significant problems for the PV industry in relation to significant ramping up of installations, followed by a catastrophic reduction in demand.
- 5.11 A number of respondents pointed out that solar is the only technology available to most urban houses and its loss will disadvantage most households from wishing to counter the cost of rising fuel costs. One respondent argued that retaining the 4 ROC level would help to give communities wishing to develop solar PV projects greater certainty going forward and make their projects more economically viable.

Post-Consultation Decision

- 5.12 Whilst a large volume of responses were received in relation to the solar PV proposals, a smaller number provided evidence in support of retaining a higher ROC level.
- 5.13 The Department acknowledges that a number of the assumptions made in the underlying analysis may not apply equally to all capacities within the ROC banding bandwidths and the proposed level of 1.6 ROCs/MWh may not provide sufficient incentive for future deployment of small scale solar PV in the short term. A number of respondents suggested alternative ROC banding levels; however no quantifiable evidence was submitted to corroborate the proposed levels.
- 5.14 The Department notes the concerns about the impact on the solar PV industry if 1.6 ROCs was to be introduced. The purpose of the NIRO is not to support job creation; it is to incentivise the deployment of renewable at least cost to the consumer.
- 5.15 Some respondents suggested that DETI adopts the equivalent GB FIT tariff rates for Northern Ireland. Some of the support levels given in the Small Scale FIT in GB are higher than those proposed, however a direct read-across is difficult as the FIT scheme operates a per kilowatt hour tariff, has several bandwidths below 50kW and has separate tariffs based on pre-qualifying energy efficiency requirements and multiple installations.
- 5.16 Following consideration of the responses and evidence submitted, the Minister remains of the opinion that the current banding level of 4 ROCs/MWh does not support development at the lowest cost to consumers. However, it is acknowledged that the proposed sudden

reduction to 1.6 ROCs/MWh could have an unintended and detrimental impact on both the solar PV industry and the future deployment of small scale solar in Northern Ireland.

- 5.17 **Decision: a stepped reduction in ROC levels between now and 1 October 2016 is the best approach to minimise the impact on the industry while providing an adequate support level to ensure deployment continues at a steady pace, alongside anticipated ongoing reducing technology costs.**
- 5.18 **As already confirmed, the 4 ROCs will remain in place until 30 September 2015. After that, solar PV generating stations up to 50kW with an accreditation date that falls in the period 1 October 2015 to 30 September 2016 will be eligible for 3 ROCs/MWh and for the period 1 October 2016 to 31 March 2017, 2 ROCs/MWh. Solar PV generating stations above 50kW up to 250kW with an accreditation date that falls on or before the NIRO's closure to new generation on 31 March 2017 will continue to receive 2 ROCs/MWh.**
- 5.19 This transitional move to a reduced ROC level offers the industry time to prepare for the reduction and ensures a consistent level of 2 ROCs across all solar PV bands for the last six months of the scheme.

Grace Period

- 5.20 In DETI's announcement on 18 December 2014, it was confirmed that that, in light of the six month extension to the 4 ROC level to 30 September 2015, a grace period would no longer be necessary.

GENERAL COMMENTS

6

Question 13 sought stakeholders' views on any wider issues the Department should take account of in setting small scale renewables policy.

Background

- 6.1 The consultation noted that there would likely be a number of issues relating to the small scale renewables industry which may not lie directly within any of the areas consulted upon and provided an opportunity for stakeholders to raise any views that they may have regarding small scale renewable policy in Northern Ireland.

Consultation Responses

- 6.2 A number of respondents put forward comments in relation to wider small scale related issues. A summary of the key points are set out below:

Northern Ireland Electricity's (NIE) changes to G83 levels

In March 2014, NIE reduced the capacity levels for generators wanting to connect to the electricity grid network using the G83 'fit and inform' application process. Respondents say that these changes have had a significant impact on deployment and investment returns.

Grid connection costs

Respondents commented that support levels for large scale solar PV are almost irrelevant due to the cost of grid connection.

Incentivising alternatives

Respondents suggested that more thought should be given to incentivising energy storage, electric vehicles and battery technology. In addition, it was suggested that the Department should be doing more to educate and raise public awareness to promote acceptance of making lifestyle changes.

Market uncertainty

A number of respondents pointed out that if the Department takes several months to make a determination on this consultation, it will create more market uncertainty and confusion. It was suggested that the Department should defer the implementation of any revised ROC levels, as a decision in January or February 2015 would be too late for the industry to react.

Conclusion

- 6.3 The Department would like to thank respondents for the points raised on a range of small scale renewable issues. These will help inform policy development going forward. On the issue of market uncertainty, the Minister responded in December 2014 by extending current ROC levels until October 2015 to meet the industry's concerns. A number of the other topics raised have been made to the Department previously and we endeavour to work with our colleagues in Northern Ireland Electricity, NIAUR and DECC on these matters.

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Action Renewables	Renewable Power Systems
Altec Solar	RES
Amber Green	Saliis
ARENA Network	Solar NI
B9 Energy	Solar Power NI
B9 Solutions Limited	Sustainable NI
Blakiston Houston Estates	TC Renewables
Bryson Energy	The GreenYard (NI) Ltd
Carey Consulting	Total Home Renewables
Carillion Energy Services	UGEN Energy Systems
ett Training Works	Ulster Farmers Union
Fermanagh Trust	Your Power
Friends of the Earth	
Future Renewables	Also:
Galgorm Renewables Limited	12 template responses from individuals challenging the CEPA assumptions
Geini	
Horizon Renewables	
Ian Milliken	28 template responses on fuel poverty implications arising from ROC reduction
Kes Solar	
Kingspan Energy	85 template responses from employees of solar PV companies concerned about their future
Lightsource	
Mark Browne Consulting	
National Energy Action (NEA) NI	105 template responses from homeowners stating they would not have installed solar PV at 1.6 ROCs
National Federation of Roofing Contractors Ltd	
NI Co-operative Forum	
NIE	Additional responses from MLAs on behalf of Solar PV company employees
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NI Housing Executive	
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