



26 September 2014

Renewable Electricity Branch
Department of Enterprise Trade and Investment
Netherleigh
Massey Avenue
Belfast
BT4 2JP

Dear Sirs,

Proposed Changes to the Northern Ireland Renewables Obligation – Small Scale Banding Review Consultation

The Ulster Farmers' Union (UFU) is the largest farmer/land-owner representative organisation in Northern Ireland. With 12,500 members covering every aspect of NI agriculture and horticulture, including many farm enterprises which are intensive use of energy and heat, namely dairy, pig, poultry and mushroom sectors. In addition to traditional farm production, the UFU are the largest single representative of small scale renewable energy/heat generators (<250kW) in NI, covering a wide range of other renewable projects including Wind, Anaerobic Digestion, Solar Thermal/PV and biomass (both feedstock production and generation).

Onshore Wind

The position of the UFU is that we represent small scale onshore wind, namely <250kW.

1. Do you agree with the proposed retention of the banding level of 4 ROCs/MWh for onshore wind generating stations with a maximum installed capacity up to 250kW?

The UFU are in favour of the retention of 4 ROCs for this scale of onshore wind. However, we believe that more policy focus should be given to tiering of the banding, with higher support for the 5-75kW capacity turbines. With Project 40 due to be launched in 2015, output of turbines will be curtailed before grid capacity levels are breached. Smaller turbines and the likelihood of reduced connection costs will lower capacity expectations and a greater reward for smaller turbines (within a tier system) will lessen the impact of any curtailment. The UFU message to our members has been "big is not always best" and more focus on support for smaller turbines in the context of a micro-grid or a managed connection solution.

2. Do you agree with the proposed retention of the banding level of 1 ROC/MWh for onshore wind generating stations with a maximum installed capacity >250kW-5MW?

N/A

3. Do you agree that refurbished turbines should continue to be supported at the same level as new turbines?

Yes.

Anaerobic Digestion

The position of the UFU is that are in a position to represent small scale onshore AD, namely <500kW.

4. Do you agree with the proposed retention of the banding level of 4 ROCs/MWh for AD generating stations with a maximum installed capacity up to 500kW?

The UFU are opposed to the retention of 4 ROCs for this banding level for Anaerobic Digestion.

Focus is needed on the lower levels of capacity and we believe that ROC support should be tiered, with larger ROCs for micro-scale on-farm AD units. The UFU support the development of on-farm micro-scale AD and we have made the case that the debate has not targeted the correct level of AD capacity.

Some classify 100-250kW as being on-farm micro-scale, however the UFU feel that the actual capacity level needs to be closer to 25-50kW, where only feedstocks produced by the farm business are utilised, with no reliance upon imported stocks. The rush for rented ground to feed larger digesters has pushed up the price of on-farm ground at the detriment of those involved in more traditional farming practices, where 500kW AD plants are actually commercial enterprises as opposed to farm businesses.

On 21 October 2010, when responding to Proposed Changes to the Northern Ireland Renewables Obligation, the UFU asked for a tiered model for AD with more ROCs allocated to up to and including 100kW-sized installations.

Now that 4 years have passed and no progress has been made in developing ≤ 50 kW scale technology to be used on farm. The problem concerns the lack of <50kW AD units, with technology development more skewed towards the larger scale. Greater ROC support for this level of AD will encourage technology development and bring about a solution and bring about smaller more efficient AD plants. This will bring about significant improvements in slurry management and on farm energy/heat efficiencies.

Consequently the UFU wish to propose the following;

Capacity	NI ROCs/MWh
≤ 50 kW	6 ROCs
50 kW – 250 kW	4 ROCs
250 kW – 500 kW	2 ROCs

By reducing the support for commercial plants (250-500kW) and moving the support to <50kW, there will be no additional funding required as the ROC payment is being displaced elsewhere.

There is an alternative to support <50kW AD. Consider the payment of Heat ROCs. It is the addition of a CHP unit to an AD plant which often adds to the cost at this scale and a payment on the heat output could mitigate against this. Please note that this needs to be considered aside from the RHI.

Despite being in favour of these changes, we would wish these changes only to apply to new connections.

5. Do you agree with the proposed retention of the banding level of 3 ROCs/MWh for AD generating stations with a maximum installed capacity >50kW-5MW?

This should be reduced to 1 ROCs, to allow for greater support for <50kW AD units.

Hydro

6. Do you agree with the proposed retention of the banding level of 4 ROCs/MWh for hydro generating stations with a maximum installed capacity up to 20kW?

Yes

7. Do you agree with the proposed retention of the banding level of 3 ROCs/MWh for hydro generating stations with a maximum installed capacity >20kW-250kW?

Yes.

8. Do you agree with the proposed retention of the banding level of 3 ROCs/MWh for hydro generating stations with a maximum installed capacity >250kW-5MW?

Yes

Solar PV

9. Do you agree with the proposed reduction from 4 ROCs/MWh to 1.6 ROCs/MWh for solar PV generating stations with a maximum installed capacity up to 250kW?

As stated for wind and AD, consideration needs to be given to a tiered approach for smaller scale solar PV installations. On 1 March 2014 changes were made on how renewable micro-generation is connected to the grid. There are two engineering recommendations; G83 and G59.

Micro-generation installations (smaller scale solar PV and smaller wind turbines) are installed under a simplified connection protocol (or Engineering Recommendation) known as G83/1. Such connections, when installed at single sites are done so using "fit and inform" principles. The installer fits and commissions the generator, informing NIE that this has been done and submits the relevant documentation within 30 days for approval. NIE checks this information and will arrange for the installation of an import/export electricity meter. G83/1 had limits of 6.5kW for single phase and 20kW for three-phase.

From 1 March 2014 this changed, with capacity limits changing for Single Phase to 3.68kW (from 6.5kW) and three-phase to 11.04 kW (from 20kW).

Anything larger has to apply under Engineering Recommendation G59. Applications for a proposed connection with installed capacity greater than the G83 limit, must apply for a Connection Offer under the more technical and lengthy G59 connection application process. This is known as "inform and fit".

Consequently, with a tiered ROC system for smaller capacity connections, this could mitigate against more expensive grid connection charges.

The UFU are calling for 4 ROCs to be maintained for micro-generation level capacity solar PV (up to 11.4kW)

10. Do you agree with the conclusion that solar PV technology costs, in terms of per kWh installed are approximately the same for all sizes? If you disagree with the proposals please say why with evidence.

Yes

Grace Periods

11. Do you agree with the proposed introduction of a 6 month grace period for small scale solar PV generating stations that meet the eligibility criteria?

The UFU would be in favour of extending this to 12 months. 4 to 1.6 is a large sudden drop and the grace period should reflect this.

12. Do you agree with the eligibility criteria proposed by DETI?

The eligibility criteria would need to be changed for any lengthening of the grace period, as per the above suggestion.

In addition to the areas identified, the UFU believes that that any proposed ROC small scale banding changes needs to take into consider micro-grids and in particular storage of small scale renewable energy/heat.

Micro-Grids and Storage

By its very nature, small-scale renewable generation (in this case wind and solar PV) produces energy intermittently, often at night when it cannot be used by the farm business. Should a storage solution be available, the electricity could be stored when generated off-peak and used on-farm during the day thereby displacing peak demand and smoothing out any intermittency. The UFU believes that there has not been enough policy consideration or support has been given to the concept of storage of small scale renewable energy/heat in Northern Ireland.

Down Farmers for Renewable Energy (DDFRE) are looking at a micro-grid with renewable energy storage being an integral part of its set up. The micro-grid will incorporate IAES (Isothermal Compressed Air Energy Storage) in the Lecale area of SE Down. IAES is a large scale storage solution, however, the UFU are considering small on-farm single application solutions. Sited on-farm, the idea is that the energy/heat could be stored via second life traction batteries (used in electric cars etc).

With Managed Connections coming closer through Project 40 and subsequent curtailment for small scale renewable generation soon to be a part of the renewables landscape, an on-farm storage solution would allow many reduced capacity generation units (with reduced connection costs) to be economically liable. This form of on-farm storage will allow power delivery at specified peak times, maximizing the potential revenue and managed profitability despite anticipated curtailment

Advantages of storing renewable energy

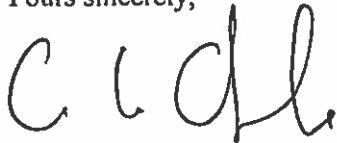
- Alternative to traditional grid reinforcement (cost avoidance for NIE)
- Reduces peak demand (reducing losses and reducing asset allocation)
- Carbon savings from displaced peak generation
- Will ensure that despite curtailment, projects will remain viable
- Improve security of supply

The UFU believes that a landowner/farmer should be rewarded via financial incentive for storing renewable energy. This will assist in product development and have wider non-financial benefits, including improving on-farm energy/heat efficiency.

Whilst it may be too late in the day, there is an opportunity for renewable energy storage to be discussed when the small-scale Feed-In Tariff consultation process commences and the UFU are calling for this to be taken into consideration.

If you have any queries do not hesitate to contact myself on 02890 370222.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'C Osborne'.

Chris Osborne
Senior Policy Officer