FROM THE PERMANENT SECRETARY
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William Humphrey, MBE
Chairperson
Public Accounts Committee
NI Assembly

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Dear Mr Humphrey

Public Accounts Committee – Request for follow-up information re: Evidence session on Generating Electricity from Renewable Energy

Thank you for your note of 30 March 2021 requesting additional information following our evidence session with the Committee on 18 March.

The additional information is attached.

Yours sincerely

Mike Brennan
PERMANENT SECRETARY

1. **In your letter to the Committee of 4 March 2021 and in your subsequent evidence on the 18 March, you stated that the NIAO's estimate of the rate of returns on small scale standalone wind turbines was based on analysis from *'only one non grid connected turbine'*. The NIAO have told us that this is incorrect. Please can you tell us what source you used for this evidence?**

This is the Department's understanding based on information included in the NIAO Report and in a press release by RenewablesNI on 30 November 2020.

The Department would welcome insight from the NIAO as to why it considers this to be incorrect i.e. is it because the assessment was based on more than one generating station, or was the station connected to the grid?

Paragraph 3.7 of the NIAO Report states:

"We have calculated that the ROCs paid for a typical 225kW standalone wind turbine with a 24 per cent load factor (the percentage of time the turbine generates electricity) would give an annual return in excess of 20 per cent and a payback time on the original investment of less than 4 years. Therefore, in our opinion the rate of ROCs paid for turbines with capacity less than 250kWh appears to have been excessive."

This is supported by footnote number 30:

"Based on a 225kw wind turbine costing £144,000, installation cost £67,000 and grid connection cost £100,000 plus £5,000 per annum servicing costs."

The report does not include further information to suggest that more than one station was considered. The assertion that only one station was considered is reinforced in RenewableNI's press release, which states:

"RenewableNI has learned in response to our complaint, that the NIAO based its report on a single wind turbine project, which is not connected to the electricity grid – an astounding revelation given there are 1,209 single wind turbine generating stations locally."

2. **In your evidence you referred to the "*independent KPMG report*". The KPMG report states that it was produced *'for and on behalf of Renewable NI who are a trade association representing over 40 businesses in the renewables industry'*. The Committee understands that this report was commissioned immediately after the publication of the NIAO report as Renewables NI were concerned with some of the NIAO findings. Please could you explain why you consider the report to be independent?**

The KPMG report was prepared on behalf of RenewableNI and, therefore, was independent in the context that it was not commissioned by Government.

3. Can you explain how you will approach Recommendation 6 of the NIAO report i.e. the review of the actual rates of return achieved by all renewable generators? In particular:

- **Who will carry out the review, what is their experience and when will it be completed?**
- **Aside from Renewable NI data, what other sources of data will you use to inform your review?**
- **How will you ensure the proper independence, rigour and scepticism of all data used to form your analysis and conclusions?; and**
- **What will you be your approach to cost and income data from derated wind turbines which may not have a 'typical' rate of return?**

The Department and the NI Utility Regulator are progressing an exercise to test the conclusions reached in the KPMG Report on rates of return and this may assist in the delivery of Recommendation 6 for small scale wind generating stations up to 250kW.

In addition, the recommendation requires a review of rates of return for all renewable electricity technologies. Options on taking this wider task forward are being considered by the NIRO Assurance & Risk Management Working Group (whose membership is made up of the Department, the Utility Regulator and Ofgem officials).

The likely route will be to seek to appoint a consultant through a public competition, in accordance with the NICS public procurement policy process. It is important to note, however, that the information required on costs and revenue streams is commercially sensitive and generators are not legally obliged to provide such data. While applicants for the contract would be required to explain how they would obtain this information, it should be recognised that this is a major risk to the successful implementation of the recommendation.

The methodology to assess the expected investment return remains the same irrespective of whether a station is using de-rated equipment. I can assure the Committee that de-rated generating stations will be included in the specification for this work.

This is a challenging task in terms of the scope, complexity and availability of key data. Whilst a precise date of completion cannot be provided I would hope that the work will be completed by the end of 2021.

4. In your evidence to the Committee you explained that you were still in talks with Renewables NI in relation to getting access to the underlying data used to inform the rates of return conclusions in their report. Please can you provide as much detail as possible about:

- **The range and type of underlying data you are seeking to obtain from renewables NI/KPMG;**
- **The progress made to date in obtaining the information; and**
- **Any information which you have sought which has either been refused or has been problematic?**

Positive discussions with RenewableNI and KPMG are ongoing. We are seeking information on: the sample group to demonstrate that it is representative; methodology to ensure it is fair and balanced; and costs/revenue data to ensure they are reasonable. No problems have been encountered to date.

5. In your evidence you said that there are also many de-rated turbines in Great Britain (where derating means that the power rating of a turbine has been restricted below its original maximum output). Please can you provide the Committee with evidence of this? If possible as part of this please can you provide the number of small standalone de-rated turbines in the UK by region and as a percentage of total small scale standalone wind turbines by region?

We stated that derating is available across the UK but did not indicate the prevalence of de-rated turbines outside of Northern Ireland.

Whilst the Department is responsible for NIRO policy, the NI Utility Regulator (UR) is responsible for the administration of the scheme and fulfils this role through an Agency Services Agreement with Ofgem. Ofgem also administer the ROs and small scale FIT in GB and has confirmed the response below.

The RO Orders (in England and Wales, Scotland and Northern Ireland) do not refer to 'de-rating' and it is not an explicitly defined term or eligibility criteria. As a result, the application form and subsequent dataset do not flag whether or not a station is de-rated.

Ofgem did, however, complete a resource intensive exercise, at the Department's request, with a view to assess the position in Northern Ireland to inform written questions from the NI Assembly and to provide information to the NIAO. This confirmed that at 21 December 2020 there were 242 derated onshore wind stations up to 250kW accredited in Northern Ireland.

Ofgem will carry out a similar exercise to determine the number of derated onshore wind stations that are accredited under the GB ROs, if we request them to do so. However, this will necessitate a station by station investigation which, given the number of wind assets involved, would take between one and two months to complete.

Information on the estimated number of derated wind stations accredited under the FIT in GB, up to 5MW, is available, however, and is detailed in the table below. The table reflects the position at 31 March 2020.

Region	Number of onshore wind accreditations under the FIT in GB (0-5MW)	Total estimated derated accreditations	Percentage of number of derated wind installations as compared with all accredited wind (%)
England	3,668	61	1.7
Wales	634	15	2.4
Scotland	3,194	109	3.4
Total	7,496	185	2.5

6. There appears to be a clear incentive for to reduce the output of larger turbines by de-rating them in Northern Ireland given the large step down in ROCs banding once over 250kw output. If de-rating small turbines has also been an issue in GB can you tell us what the incentive has been for turbine owners there to do this?

Small scale onshore wind is supported under the FIT in GB. Tariff boundaries under the FIT differ from the ROC banding categories under the NIRO and de-rating is most prevalent in the 15-500kW capacity range.

While it is not possible to determine the precise reasons for derating, Ofgem consider that the drivers under the FIT could be similar to the reasons why derating has taken place in NIRO accredited stations and could potentially include one or more of the following:

- grid capacity limitations;
- low availability of equipment at a higher capacity;
- the possibility of obtaining a higher tariff.

In addition, anecdotally, Ofgem has been advised that some turbine manufacturers offer better ongoing maintenance contracts than others, which may impact turbine choice and de-rating.

7. Can you confirm if you consider de-rated turbines (as they are often used in Northern Ireland i.e. to lower the output of a larger turbine to qualify for the higher ROCs banding) to be within the spirit of the NIRO scheme?

The reason for de-rating is not always solely motivated by the higher ROC banding level up to 250kW i.e. developers may install a de-rated turbine to facilitate grid capacity restrictions or due to low availability of sub-250kW equipment.

One of the main objectives of the NIRO is to increase the proportion of our electricity consumption that is generated from renewable sources. The NIRO legislation, therefore, is focused on the electricity generated and ROCs are issued based on the level of generation. De-rated wind turbines meet that criteria.

It is important to note that de-rated turbines are typically larger than a standard turbine with a similar output; they are generally more efficient and therefore generate more renewable electricity without the need to develop other generating sites. Also, they are usually more expensive than standard turbines.

8. In the evidence session it was stated that non-grid connected turbines are just as big an issue in GB as Northern Ireland. Can you confirm if non-grid connected turbines are allowed to claim FiT? Also can you provide details of the numbers of non-grid connected turbines accredited each year under the NIRO scheme or FiT/RO in GB, from the beginning of 2015 to 2018 (please can you ask Ofgem for the detail if necessary).

We stated that off-grid stations are spread throughout the UK. I can confirm that off-grid stations are eligible under the FIT in GB.

The details below have been provided by Ofgem. They confirm that Northern Ireland has the smallest representation of off-grid stations in terms of numbers and only Wales has a lower total installed capacity:

The number of off-grid stations under the ROs across the UK

Region	Off-grid	Capacity (kW)
England	41	86,465
Wales	1	3,718
Scotland	9	24,482
Northern Ireland	51	15,388

The number of off-grid stations under the FIT across GB

Region	Off-grid	Capacity (kW)
England	755	6,312
Wales	86	1,339
Scotland	175	3,892

The total number of off-grid stations across the UK

Region	Off-grid	Capacity (kW)
England	796	92,777
Wales	87	5,057
Scotland	184	28,374
Northern Ireland	51	15,388

Numbers of non-grid connected turbines accredited each year under the NIRO scheme or FIT/RO in GB, from the beginning of 2015 to 2018

	ROs Off-grid	FIT Off-grid	Total
2015	1	74	75
2016	13	23	36
2017	86	49	135
2018	1	59	60

9. Can you confirm what the cost to the NI consumer of the small standalone wind turbine scheme is?

The NIRO provides support to accredited generating stations of all sizes. There is no standalone wind turbine scheme.

The annual cost of the NIRO to consumers is driven by the obligation level placed on all electricity suppliers in the UK, rather than the number of ROCs issued to generators in each region. The cost for NI consumers represents approximately 5% of the average local domestic electricity bill, estimated to be £31 per annum in 2019.

The cost is not disaggregated by technology, however, in their report "An economic review of small-scale wind in Northern Ireland" (page 21) KPMG concluded that the average individual small-scale turbine costs a NI consumer 0.05p (one twentieth of a penny) annually, or 1p over the entire 20-year life of the turbine.

10. Who were the consultants that carried out the review of NIRO banding rates in 2010 and 2014 on behalf of DETI and were these the same consultants that carried out reviews around the same time on RHI subsidy rates? If the same consultants were used, why does the Department retain confidence in their work on NIRO when it was shown to be flawed on RHI?

<u>NIRO ROC banding increases in 2010</u>

The small-scale FIT was introduced in GB from 1 April 2010 to support renewable electricity generation up to 5MW. The FIT tariff levels were based on a report

completed by Element Energy/Poyry in July 2009 for the Department of Energy & Climate Change (DECC) entitled "Design of Feed-in Tariffs for Sub-5MW Electricity in Great Britain."

The Department (DETI) increased ROC banding to 4 ROCs per megawatt hour for small scale onshore wind (up to 250kW), solar PV (up to 50kW) and hydro (up to 1MW) from 1 April 2010 to maintain broad parity with the level of support available under the FIT. DETI did not commission consultancy work in this regard.

Small scale banding review – 2014

The small scale banding review was informed by a report commissioned by DETI and completed by Cambridge Economic Policy Associates (CEPA) and Parsons Brinkerhoff in 2013. CEPA also completed work for the Department on RHI tariff levels in March 2012.

CEPA were awarded the contract on the NIRO banding review on merit, following an open and transparent procurement process. Whilst the provider was the same as for the RHI tariff work the personnel were not. The Department has no reason to doubt the reliability of this work.

11. In your evidence you agreed that the levels of financial support were higher in Northern Ireland than in GB for small standalone turbines and ADs after 2014. However, you also said that you took comfort that the rates were not excessive because there was no rush to install new generating stations from 2014 onwards and that indeed the rate of installation was the same or lower than in previous years. This conflicts with information gathered by the NIAO from Heads of Planners at local councils, and the NIAO's report, shows that there was a substantial increase in standalone turbines accredited between 2014 and 2018 (figure 6, page 26) and a huge increase in anaerobic digesters (figure 11, page 41) being accredited between 2014 and 2018. Can you please provide this Committee with data to support your comment?

Our comments related to small scale onshore wind only. We stated that in the two years from 2014 to closure of the NIRO to small scale wind in 2016, support in Northern Ireland was higher than in GB. We did not state that there was no rush to install new generating stations from 2014 onwards.

In the context of rates of return for small scale wind, we quoted statistics on the annual number of NIRO accreditations to demonstrate that the increase in ROC banding, to 4 ROCs per megawatt hour from 1 April 2010, did not result in a significant increase in accreditations. The main point is that the 2nd highest number of accreditations recorded i.e. 161, occurred in 2008/09, prior to the ROC banding increase, and that the number of annual accreditations immediately following the increase from 2010/11 to 2013/14 fluctuated between 30 and 95.

There was an increase in the number of accreditations in the later years of the scheme i.e. 128 in 2014/15 and in 2015/16; 248 in 2016/17; and 152 in 2017/18. This is not unusual and is the expectation approaching closure of any scheme as

demonstrated in respect of closure of the ROs and the small scale FIT in GB. Typical lead time for project development is around 4 years and the intention to close the Scheme was announced in 2012.

12. In your evidence it was stated that one of the reasons for having a much higher level of financial support via the NIRO scheme for small standalone wind turbines was to encouraging rural diversification, as this was a key objective of the NIRO scheme. Please can you provide us with contemporaneous evidence that rural diversification was a primary objective of the NIRO scheme?

We stated that ROC banding levels are evidence based and that small scale generation generally needs higher levels of support that large scale generation. We did not state that the encouragement of rural diversification was one of the reasons for a higher level of support for small scale wind.

One of the primary objectives of the NIRO, as set out at page 5 of the Preliminary Consultation published in June 2004 (attached), was to encourage and support rural diversification.

The Northern Ireland Renewables Obligatio

13. In respect of the Invest NI loan which was made to the AD plant in Donegal, can you provide the Committee with the total outstanding amount due on the loan at 31 March 2021 including all interest which should be due and the date of when this loan was agreed?

At 31 March 2021, £14.2m is outstanding in the Invest NI accounts in respect of principal and interest.

14. Invest NI have reported to the Economy Committee that it has an expected credit loss in their 2020-21 financial statements of £10 million in respect of the loan to the plant in Donegal. Can you explain why Invest NI has an expected credit loss of £10 million? Does this mean it is more likely than not that a loss of £10 million will be incurred?

When giving evidence the loan had not been written down in full by Invest NI but it was taking expected credit loss (ECL) as required under accounting policies.

Since the PAC session a refinancing proposal has been put forward and Invest NI has confirmed that this offers the best prospect for the plant to continue to operate.

However, based on past performance the output increases are likely to be challenging and the refinancing plans cannot be guaranteed, and the business could still fail in the short term. The alternative is almost certainly an insolvency process during April which will mean that the original rationale for supporting the project would be lost.

This refinancing will result in Invest NI selling its interest for a nominal value and the Department of Finance has approved the loan write off.

15. How does the Department plan to recoup these monies, if the loan is not written off and what other loans has Invest NI offered to the business sector, for the building of Anaerobic Digester Plants in Northern Ireland including a potential plant in Ballymena?

Based on the terms of a potential refinance, Invest NI will not recoup any of its investment in the Glenmore project and as such has reflected the loss in its financial statements.

Invest NI has provided support to one other Anaerobic Digester Plant at Ballymena and this plant is fully operational. In respect of the Ballymena plant, Invest NI has an outstanding balance of principal and interest on the loan of c£9m and shares at a cost value of £1.3m at 31 March 2021.

16. We understand that capital grants may have been payable by the former DARD to support the costs of small standalone turbines. Please can you confirm:

- **when your Department became aware of these grants;**
- **if they had any impact on eligibility for the NIRO scheme;**
- **if they were built into the calculations to support the ROCS banding levels in 2010 and 2014; and**
- **if you are aware of any other capital or revenue grants payable to renewables generators from other arms of Government over the NIRO scheme's operation?**

DAERA has advised that renewable technologies were funded under the Northern Ireland Rural Development Programme 2007-2013, specifically under Measure 3.1 'Diversification into non-agricultural activities'.

The NIRO was introduced in April 2005 i.e. before the Rural Development Programme, and responsibility to ensure that any assistance did not constitute over funding, therefore, fell to DARD. They have advised that payments were made from November 2011 to March 2014 and that when calculating possible grant aid, all applications involving the generation of renewable electricity took account of any potential earnings from Renewable Obligation Certificates (ROCs) for a period of 3 years i.e. the timescale under de-Minimis aid that all grants are calculated.

DAERA has received a related request for information from the NIAO asking for details of interaction with DETI/DfE; payments to fund wind turbines; eligibility criteria; and the period of operation. Neither DfE nor DAERA have an official record of contact on this matter, although DAERA believe that discussions to gain an understanding of how the NIRO operated did take place.

We are not aware of other grants available to small scale onshore wind stations during the period that the NIRO was open to new generation.