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As Northern Ireland's largest member-based farming organisation with over 12,000 members, the Ulster Farmers' Union is keen to articulate the views of the agricultural industry as the Department for the Economy seeks to develop its Renewable Electricity support scheme for Northern Ireland.

Northern Ireland agriculture plays a four-part role in energy; landowner, local demand customer and renewable generator.

1. Landowner - The electricity infrastructure covers thousands of kilometres of cables, poles and transformers crossing our members land and there are thousands of wayleave agreements as well as formal and informal land access agreements.

2. Local Demand Customer - Farm businesses are direct customers, consuming large and significant volumes of electricity. Farmers and landowners rely upon these lines which cross their land are reliant upon the electricity transmitted and distributed to run their farms.

3. Renewable Energy Generators - As well as being major load customers, over the last decade our members have become significant generators of renewable electricity; Small Scale Wind, Hydro, Anaerobic Digestion, Biomass and Solar PV. Small scale renewable generation from our members now provides enough renewable electricity for 150,000 home such is the importance of our role. This cumulates in the our members being;

4. Prosumers - Provider and consumer of renewable energy

The UFU recognises the significant environmental benefits that renewable energy can deliver in Northern Ireland in terms of reducing carbon emissions, and crucially the pivotal role that the agricultural industry with its land-base has in delivering these public benefits. We recognise the potential for social and economic benefits to agriculture and the rural economy through local agriculture entering into the

renewable energy market. The overarching basis of Government policy must be to assist agriculture to realise these opportunities to the fullest possible extent for the good of the economy.

While the UFU fully appreciates the Department for the Economy's particular interest in renewable energy, we strongly advocate a truly joined-up inter-departmental approach if Government is serious about pursuing this issue. Multi departmental cooperation in the NI Civil Service has not been apparent to date. Only by adopting an overarching inter-departmental communication and co-operation, with improved stakeholder communication will we have a chance of achieving sustainable and effective energy policy going forward.

A Renewable Electricity support scheme Policy for Northern Ireland is a matter of urgency. We stress that Agriculture is at the cross-roads: The Ukraine Russia war era means that conditions are opportune to focus production according to market needs –surely there is no greater a need than a secure, reliable and clean supply of energy –electricity produced locally. We sincerely urge Government to rigorously pursue the Renewable Energy agenda as a matter of urgency while the capacity exists in the farming industry to deliver.

Farming is very much in the line of fire in relation to the climate change debate, yet we have the resources and expertise at hand to play a role in carbon emission reduction through small scale renewables, through both existing and future generation. When it comes to minimising on-farm carbon emissions, embracing small scale renewable energy is an ideal option for many. A modest 50 kWp solar array (can be located on the roof for poultry units/milking parlours etc.) has the potential to save 13,500kg of C02 every year. Even a small on-farm array can save 1,200 kg of carbon a year.

The extent of interest coming from our membership from farmers interested in becoming involved in supplying renewable heat and power is significant. We also emphasise this entrepreneurial attitude should be nurtured by Government.

The UFU is strongly of the view that DfE has a key role in providing meaningful support within Government to advance its renewable electricity agenda in a way that maximises benefits to the rural community and to farmers in particular. That will involve keeping the supply chain short, as well as promoting those technologies which provide greatest benefit in terms of jobs.

The UFU would be concerned that the mechanisms of this consultation is very much on the large scale renewable electricity producer. We fear that there is a lack of potential for the NI Agricultural industry ranging from the micro to small renewable electricity production.

The benefit of net metering has advantages for farmers. Consumers who generate some or all of their own electricity to use that electricity anytime, instead of when it is generated.

It is still necessary to incentivise deployment of small scale/microgeneration assets, as we will need a whole system decarbonization in order to meet NI's renewable energy targets.
Small-scale/microgeneration will remain to be an important tool, lowering individual consumer costs, contribute to demand side flexibility, and support the local green economy.

NI is unique in having developed a significant distributed wind sector with projects <5MW representing 23% of NI's renewable generation capacity. Having developed this sector it would make sense to build on it further, both through engaged investors extending their portfolio and the repowering of projects thereby maximising consumers' investment in grid.

The UFU welcomes the publication of the Consultation on Design Considerations for a Renewable Electricity Support Scheme for Northern Ireland. It is imperative that the government and policy makers act with pace to progress strategies and the development of renewable energy in Northern Ireland.

David Brown
UFU President

Q1: Do you agree with the above principles? Please provide evidence, where possible, to support your response.

The UFU agree with the three underlying principles of a renewable electricity support scheme for Northern Ireland. We would emphasize at this point that it is crucial that the scheme is developed in an effective and time efficient manner and the scheme should be flexible in nature. The UFU look forward to being part of this process.

The UFU would like to point out that not only must the price be sustainable for the consumer but it must also be sustainable for the producers of the renewable electricity. This cannot be pinned to the lowest common dominator.

Generation including Solar PV, small wind turbines, AD, biomass, hydro technologies is complimentary to the set-up of the vast majority of farm structures in Northern Ireland. When connected to lower voltage distribution lines, distributed Generation can help support delivery of clean, reliable power to additional customers and reduce electricity losses along transmission and distribution lines. By generating electricity in smaller amounts closer to end-users, there will be improvements in energy efficiency, reductions in carbon pollution and an improvement in grid resiliency thus curtailing the need for new transmission investments. The Northern Ireland land-based sector has seen a significant number of distributed generators seeking to connect to the distribution network over the last decade. The UFU lobbied NIE Networks, Utility Regulator and the NI Assembly during this time highlighting our concerns that our members were encountering many barriers in navigating their way through the connection process, and many projects were left unfulfilled. With the availability of further capacity unlikely in its conventional form, it is important to encourage local options for electricity transmission, i.e Distributed Generation. If DfE are going to meet the 2030 renewable target.

We strongly advocate a truly joined-up inter-departmental approach if Government is serious about pursuing this issue. Multi departmental cooperation in the NI Civil Service has not been apparent to date. An 80% target can only happen if we have a planning service which streamlines renewable energy initiatives. The UFU believe that the current planning service has room for improvement. Furthermore, a mindset change is required within DAERA and in particular NIEA. Bureaucracy is a major issue and a more streamline process is required for the process to work.

Q2: Do you agree that a Contracts for Difference (CfD) scheme should be the preferred approach to support renewable electricity generation in Northern Ireland? Please provide evidence, where possible, to support your response.

The UFU believes this provides a mechanism. CfD provides a foundation but it cannot do everything. Both the CfD in GB and the RESS in ROI have demonstrated success in stimulating the growth of renewables for larger scale projects. However, the UFU do not believe it will work for micro to small scale renewable electricity production. If a mix of micro to large scale is required then CfD can not be the only mechanism.

For the correct support then a two tiered approach is required to support the smaller scale. Through the generation of renewable energy on our farms, agriculture is playing an active role in reducing carbon emissions and we have resources at hand to play a major role, both in terms of existing but also future small- scale renewable generation. The land based sector in NI is already producing enough renewable energy to provide power to 150,000 homes. Although small-scale/microgeneration will not contribute as much to the 80% target, this will still lower individual consumer costs, contribute to demand side flexibility, and support the local green economy. There may be opportunities in the future where farmers/land owners in the future may want to supply neighboring homes or businesses. These opportunities cannot be closed off from its infancy.

Q3: Do you think that participation in a renewable electricity support scheme should be mandatory for all generators to ensure a longer-term fair and stable price for NI consumers? Please provide evidence, where possible, to support your response.

While generators should be encouraged to join, we believe that this scheme should not be mandatory. Existing projects will have been financed on the assumption of a 20 year ROC agreement. A mandatory migration to a CfD may drive some projects to make a loss. Furthermore, another DfE revision of commitments akin to Renewable Heat Incentive payments, would further undermine investor confidence in government backed schemes in NI. In this regard, we would recommend that participation should be voluntary.

Furthermore, if a producer wishes to take a risk then they should be allowed to do so.

Q4: What should be the minimum capacity for new sites to be eligible for a renewable electricity support scheme for Northern Ireland? Please provide evidence, where possible, to support your response.

The UFU is fundamentally against the principle of having a minimum capacity. NI is unique in having developed a significant distributed wind sector with projects with <5MW representing 23% of NI's renewable generation capacity. Having developed this sector it would make sense to build on it further, both through engaged investors extending their portfolio and the repowering of projects thereby maximising consumers' investment in grid.

Through the generation of renewable energy on our farms, agriculture is playing an active role in reducing carbon emissions and we have resources at hand to play a major role, both in terms of existing but also future small- scale renewable generation. The land based sector in NI is already producing enough renewable energy to provide power to 150,000 homes.

Q4B: Do you think the minimum capacity for eligibility should be technology specific? Please provide evidence, where possible, to support your response.

The UFU is fundamentally against the principle of minimum capacity.

Q5: Do you agree that incentivising small-scale and microgeneration would not make a substantial contribution to reaching the Energy Strategy targets? Please provide evidence, where possible, to support your response.

We disagree with this question. Farming businesses are ideally positioned to provide land to generate onsite power for grid infill. Where energy is consumed onsite, energy savings and reductions in overheads can arise. The NI land-based sector has already played a significant role to date in renewable electricity production through small scale projects. NI farmers and growers also have the resources and expertise at hand to play a future role in renewable electricity production, as long as the appropriate support mechanism is in place.

Q5b: Do you think a dedicated support scheme is required to incentivise deployment of small-scale/microgeneration assets even if it may not substantially contribute to the 80% target? Please provide evidence, where possible, to support your response.

Further to our response to Q5 above, it is still necessary to incentivise deployment of scale/microgeneration assets, as we will need a whole system decarbonization in order to meet NI's renewable energy targets.

As well as being major load customers, over the last decade our members have become significant generators of renewable electricity; Small Scale Wind, Hydro, Anaerobic Digestion, Biomass and Solar PV. Small scale renewable generation from our members now provides enough renewable electricity for 150,000 home such is the importance of our role.

Q6: Do you think that incentivisation within the renewable electricity support scheme for Northern Ireland should be tailored by technology type? Please provide evidence, where possible, to support your response.

Within the micro to small scale on farm production there must be an opportunity to succeed and secure the necessary capacity within an appropriate support scheme.

Q6b: If yes, what should the technology split look like and how should the budget be split across each technology type? Please provide evidence, where possible, to support your response

The UFU disagree with this principle as further detail would be required to ascertain that micro to small scale on farm electricity production would be supported.

Q7: Do you think flexible assets should be included in a renewable electricity support scheme for Northern Ireland, or is a separate support scheme preferable? Please provide evidence, where possible, to support your response

Any assets that contribute to the green economy and non fossil fuel generation should be appropriately supported regardless of the technology. The energy market is mainly based on daily auctions and is difficult to forecast. Current markets also don't recognise or remunerate storage for the other valuable

services that it provides such as congestion management, carbon abatement and managing renewable oversupply, and facilitating increased renewable penetration on the grid. The alternative to the development of sufficient storage is a large amount of renewable oversupply, need for significant additional grid infrastructure, and unachievable demand side response requirements from end consumers.

Q8: Do you think community benefit should be included as an eligibility requirement for generators to qualify for a support scheme in Northern Ireland? Please provide evidence, where possible, to support your response.

No, we believe we should follow the GB model. The UFU believe that the renewables industry in NI has the potential and commitment to deliver significant community benefit naturally, in addition to the other economic and environmental benefits of renewable energy.

Q8b: If yes, what community benefit mechanism do you believe is most suitable to Northern Ireland? Please provide evidence, where possible, to support your response.

N/A

Q9: Do you think there should be qualifying criteria for projects to be eligible to apply to the renewable electricity support scheme in NI? Please provide evidence, where possible, to support your response.

The UFU believe there should be qualifying criteria for 1MW and above so they cannot monopolise the market thus making the scheme for everyone. Fairness for all would allow more scope for small scale electricity production onto the grid.

Q10: What do you think is the optimal frequency for access to a support scheme for Northern Ireland? Please provide evidence, where possible, to support your response.

The UFU believe that the GB model as of March 2023 were annual auctions are held, is the optimal frequency. This should provide more opportunity in a short to medium term and should be easier for everyone to manage. There should be annual support rounds for small scale.

Q11: Given the information presented above, what do you think is the most appropriate agreement length for contracts within a renewable electricity support scheme for Northern Ireland? Please provide evidence, where possible, to support your response

Support for the scheme should be for the lifetime of the asset typically 25 years. This would allow for better predictability and reduce consumer uncertainty, as well as driving down prices with the ability to access cheaper finance. This should in turn protect consumers in times of high electricity prices.

Q12: Given the options presented above, what do you think is the most suitable price clearing process for a support scheme for Northern Ireland? Please provide evidence, where possible, to support your response.

We recommend adopting a pay as clear approach. This encourages generators to bid lower prices. Under a pay-as-cleared market, participants are automatically awarded the most expensive offer accepted, so there is an incentive to bid only at your short-run marginal cost, and you will be paid the market clearing price.

This model provides efficiency, transparency, and incentives to keep costs as low as possible.

Q13: Given the information presented above, do you think strike prices should be indexed to inflation? Please provide evidence, where possible, to support your response

In order to manage inflation risk, it is crucial that strike prices should be index linked. A lack of index linkage drove prices up in ROI, resulting in more expensive energy for both the generator and the consumer.

Indexing the Strike Price to inflation helps provide more clarity and certainty around the income generators can expect to receive over the lifetime of their contract. Additionally, because it is indexed to inflation, the Strike Price holds its value over time rather than decreasing as it would if it were not indexed to inflation.

Q14: Do you have any further comments on design considerations for a Renewable Electricity Support Scheme for Northern Ireland? Please provide evidence, where possible, to support your response.

The UFU would like to reiterate that the support should be open to all projects including the very smallest with contract lengths as long as possible. Pay as clear should reduce the scope for price gaming as well as establishing a single fair price for capacity.

In relation to smaller scale, the UFU have been working together with a range of businesses and stakeholders under the umbrella of the REDC (Renewable Energy Development and Consultancy) Collaborative network. The group is working together to enhance what renewable energy can offer and develop new aspects to the original idea of renewable energy in Northern Ireland, with a focus on nutrient recovery, both in terms of bringing new projects on line but also looking at improving the efficiencies of existing renewable installations. One of the technologies under consideration by the REDC is micro-scale AD. If successful, this concept could open up access to AD technology to many more farmers, who previously would not have been able to afford it, despite it being a perfect fit to their farm model. In fact, there is even the proposal of a portable AD unit being able to pass from farm-to-farm, Organic Power (OP), one of the key REDC stakeholders, have created a new flexible bespoke design for a containerised small-scale AD unit. The REDC project is not just about AD, but is seeking to close the loop by producing a truly circular economy based on digestion of biodegradable waste and additional processes which can add further value, with a focus on nutrient recovery. Which could have implication for the vision we set out in the context of alternative to carbon capture. Through a combination of AD, nutrient recovery and nitrogen, farmers can make their own energy and fertiliser, and cut ammonia emissions by over 50%. The technology enables local production of fertiliser using livestock slurry/digestate, air and electricity. The technology adds nitrogen from the air into the liquid and increases the nitrogen content. The reaction stops the loss of ammonia and reduces emissions, making it an efficient and sustainable fertiliser. It is by adding value to the process do we feel that the evolution of small-scale renewables can play a role in the push for zero carbon emissions, specifically biogas in this case. In terms of the circular economy, the work of the REDC has proven to advance the recycling of nutrients and organic matter, with Digestate, displacing carbon-heavy artificial fertilisers. So, not only does this create circular systems in our cities, farms and businesses, but also helps to integrate our rural and urban economies, which to date has been disjointed. The advancement of the circular economy will address this if supported by co-operation amongst all NI Civil Service departments.

Role of Agriculture in the Energy Strategy - In Northern Ireland agriculture accounts for a higher percentage of economic output compared to other parts of the United Kingdom. And hand-in-hand with this, the NI land-based sector is sitting on and managing some of the most favourable settings for the small-scale renewables. One report stated that Northern Ireland has the most favourable setting for onshore wind turbine generation in NW Europe. In June 2015, the UFU wrote to the then DARD Minister Michelle O'Neill highlighting our concerns about on going problems facing the small-scale renewables sector. We pointed out that in 2007, DARD launched their Renewable Energy Action Plan (REAP), setting out the challenge promoting renewable energy and achieving sustainable development. In our letter to Michelle O'Neill, we made the case that the latter has not materialised. Our overarching message was that the Department of Agriculture (then DARD now DAERA) should facilitate the selling of energy, especially considering the potential of Micro-grids and we continue to call for this.

Agriculture can play active role in reducing carbon emissions and we have resources to hand to play a big part, both in terms of existing renewable infrastructure and recognition of the on-going innovative solutions which the UFU are working on. There are a number of key priorities missing from this consultation and it needs to be addressed at this early stage and we are happy to meet DfE to discuss these.

In conclusion any future scheme should not be overly complex and flexible for all.