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Consultation on proposal to grant an electricity transmission license to TI LIRIC LIMITED

The Ulster Farmers Union (UFU) is the largest landowner representative organisation in Northern Ireland with over 12,000 members and we welcome the opportunity to reply to this Consultation.

Northern Ireland Agriculture Role in Energy

Northern Ireland agriculture plays a three-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. **Small Scale 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 and Solar PV. This has shown the commitment of the land-based sector in Northern Ireland to embrace renewable energy.

UFU members are at the forefront of distributed generation, with electricity being produced by buildings with solar panels on the roofs, through wind turbines on their land, via AD plants on their farms and through other forms of on-farm renewable energy. The UFU membership are therefore text book definition of ‘prosumers’.

There is currently 798 wind turbines in Northern Ireland with a total installed capacity of 214MW. According to Renewable NI, 5MW of wind power can power 5,000 homes. So if you combine this all together, the land-based sector, which we represent in Northern Ireland is producing enough wind to power all the households in Belfast.

The Northern Ireland agriculture sector is continuing to deliver reductions in greenhouse gases (GHGs) alongside all other sections of society and small-scale renewable energy generation can play a crucial role in reducing such emissions. By doing so, this will decouple agriculture output from the

environmental constraint of greenhouse gas emissions, whilst improving the overall position of our industry in regard to climate change.

As stated above, there are other forms of renewable generation and if you bring all these into the mix, the Northern Ireland agriculture has the potential to contribute to energy transition/decarbonisation.

As an interested stakeholder, the UFU wishes to provide answers to the following questions;

Q1 Do respondents have any objections to the UR's proposal to grant a transmission licence (which includes the terms and conditions set out in a draft of the proposed licence) to TI? If so, please set out the basis and reasons for any such objection.

No, although we do wish to draw your attention to our reply to Q4, whereby we set out the risks and benefits.

Q2 Do respondents agree with the UR's proposed two-step approach UR. Please provide any supporting information.

Yes

Q3 What are respondents' views pertaining to consumer impact, or any other impact, in granting a licence without specified operational revenue regime licence conditions? Please provide further information which lends support to the views expressed.

In terms of consumer impact, the UFU envisage that from an objective point of view, this could be measured in terms of welfare maximisation, cost minimisation and carbon reduction.

Net consumer welfare change, namely savings in costs for electricity consumers due to changes in the wholesale electricity prices from the introduction of the new interconnector would be favourable. As far as a net producer welfare change is concerned, there are likely to be changes in the gross margin for energy production. This could be through an increase in gross margin from increased exports and/or higher prices in hours when they generate; or a decrease from increased imports and lower prices.

Q4 What are respondents' views on the risks and benefits of the proposed approach?

Risks

Please note that the risks highlighted below are such and should be considered to be an objection.

- **Displacement of indigenous renewables**

The UFU would be wary of any risk which may displace indigenous renewables and would seek assurances that this does not happen. Increased electricity interconnection is key as we continue to grow our use of renewable energy. One of the key characteristics of renewable energy is that it is, firstly, home grown and accessible to every country and it is indigenous renewable energy generated by the land-based sector in Northern Ireland where our priorities lie.

There is a risk that additional interconnector capacity could displace domestic sources of generation. The extent to which interconnectors could displace NI capacity depends on how they are treated in the

capacity market, specifically in regard to de-rating factors and the assessment of required capacity that's procured through auctions. If de-rating factors are applied appropriately, interconnectors should not be inferior to generation capacity in the capacity mechanism. However, given that these de-rating factors are based on projected price differentials, some uncertainty and risk remains as these projections might be incorrect. Risk could be mitigated by using conservative de-rating factors.

Enforced DSR

During "times of system stress" (i.e. high demand and/or low renewable generation) the United Kingdom, the Netherlands, Belgium, Ireland and Austria already rely on electricity imports via interconnectors.

Given that these "times of system stress" are largely concurrent (e.g. after sunset on a windless winter evening), this means that there will not be enough spare electricity for all the countries that rely on the imports, resulting in what is known as "enforced DSR", i.e. rolling black-outs and brown-outs. Times of system stress are often concurrent in the UK and our neighbours, which prompts an important question - when all are importing, who is exporting?

- **Brexit/NI Protocol/Windsor Framework**

The Windsor Framework does not modify Article 9 or Annex 4 of the Protocol, which pertain to the SEM, and apply select parts of EU acts in Northern Ireland under the principle of dynamic alignment (for more on the SEM in the Withdrawal Agreement see here). The new 'Stormont Brake' will not apply to the SEM. Nevertheless, there could still be some indirect repercussions in the energy sector in Northern Ireland resulting from the new agreement. Which if considered in the context of Interconnection between GB and NI, the UFU would be seeking that there would be no adverse impact on Northern Ireland in this regard.

- **Cascade Failures**

One of the primary risks of interconnected grids is the potential for cascade failures. A problem in one part of the network can quickly spread, causing widespread outages. This was precisely the case in the recent incident in the Balkans, where a malfunctioning interconnector in Montenegro triggered a blackout that affected multiple countries. Such cascade failures can be difficult to predict and manage, underscoring the need for robust monitoring and rapid response systems.

- **Management Complexity (all island grid v GB)**

Managing an interconnected grid is a complex task that requires seamless coordination between different regions and countries. Each area may have its own regulations, policies, and operational practices, making it challenging to maintain harmony. During emergencies, this complexity can slow down decision-making processes and complicate recovery efforts.

- **Political and Regulatory Hurdles**

Interconnected grids often span multiple jurisdictions, each with its own regulatory framework. Aligning these regulations can be a daunting task, leading to delays and inefficiencies. Political differences and competing interests can further complicate matters, making it difficult to implement cohesive and effective strategies for grid management.

Benefits

Interconnected power grids offer numerous advantages that have driven their adoption.

By its very nature, increased transmission interconnection stands to be of potential benefit to all our members here in Northern Ireland, namely with the availability of increased capacity on the grid at a distribution level. This will be to the advantage of conventional farm businesses and those involved in small scale renewables, both existing and potential generators.

- **Enhanced Reliability**

One of the most significant advantages of interconnected grids is the enhanced reliability they provide. When multiple regions are connected, they can share resources to balance supply and demand more effectively. For example, if one area experiences a sudden surge in demand or an unexpected drop in generation, it can draw power from neighbouring regions. This mutual support helps to prevent localised blackouts and ensures a more stable power supply.

- **Cost Efficiency**

Interconnection also brings considerable economic benefits.

By sharing infrastructure, countries can lower overall costs. Investments in large-scale power plants, transmission lines, and other infrastructure can be shared, leading to economies of scale. Furthermore, interconnected grids allow for more efficient utilisation of existing resources, reducing the need for costly backup systems.

Renewable Integration

The push towards renewable energy sources like wind and solar has been a major driver of grid interconnection. These sources are inherently variable/intermittent. An interconnected grid can help manage this variability by transferring surplus renewable energy from one region to another.

Q5 Are there any additional risks or benefits regarding further interconnection? If so, please provide supporting evidence.

Risk that from a NI energy policy point of view that Interconnectors could be viewed in isolation as being the only solution to the problems we have faced over many years. When in fact, they should be viewed and considered as part of a mixture of solutions.

Role of storage

The role of storage (in whatever form it may take) should not be diminished in terms of priority and should remain part of the solution (alongside Interconnection) in energy transition.

By providing localised backup power, energy storage systems can enhance grid resilience and stability.

- **Improved Resilience**

The UFU have long advocated the merits of decentralised energy storage systems, such as home batteries, community storage facilities, and microgrids. These can provide critical backup power during outages. These systems can operate independently of the central grid, ensuring that essential services remain operational even when the main power supply is disrupted. For example, during the recent blackout, homes and businesses equipped with battery storage systems would have been able to maintain power, mitigating the impact of the outage.

- **Peak Shaving and Load Balancing**

Energy storage can also help manage peak demand and balance loads more effectively. By storing excess energy during periods of low demand and releasing it during peak times, storage systems can "shave" the peaks, reducing the strain on the grid. This load balancing capability is particularly valuable in interconnected grids, where fluctuations in supply and demand can have far-reaching effects.

- **Renewable Energy Support**

Supporting the integration of renewable energy is another critical role of decentralised storage. By storing excess renewable energy when it is abundant and releasing it when needed, storage systems can smooth out the variability of renewable sources. Maximising the use of green and contributing to a cleaner and more sustainable energy mix.

Much emphasis in terms of the merits of Interconnectors lie in the context of Security of Supply. However, Interconnectors are DC connected and so carry no natural inertia. Grid reliability depends on real inertia which can prevent failures. The synthetic inertia that can be provided by DC connected systems (including wind and solar generation and batteries also) is only good for assisting the speedy recovery from failure, not preventing the failure in the first place.

Q6 Do respondents have any views regarding the anticipated timelines outlined?

UFU have no views specific to this question.

Q7 Are there other provisions that stakeholders consider should be included in the licence conditions and/or the revocation schedule? Please provide details and supporting rationale.

Not to the best of our knowledge.

Q8 What are the specific issues of further interconnection that are most likely to need specific regulation? Please provide your reasons.

In Northern Ireland there is currently no established policy on the need for further interconnection. The UFU would welcome and stress the need for further studies and research to determine whether, and if so, how much additional interconnection may be required.

The UFU welcomes the fact that the UR intends to work in partnership with DfE in establishing the needs case for interconnection in parallel with the assessment of whether or not a Cap and Floor regime is appropriate for Northern Ireland.

Q9 Do respondents have any views on the proposed approach in relation to a potential regulated Cap and Floor operating revenue regime?

Any interconnectors considering project finance need to be well structured and have strong contractual protections against downside revenues and hence consideration is needed by the Utility Regulator on the merits (or otherwise) of cap and floor operating revenue regime in Northern Ireland.

In GB, Ofgem has created a cap and floor regime in order to encourage investment in electricity interconnectors, striking a balance between commercial incentives and appropriate risk mitigation for project developers. The regime will deliver a new generation of interconnectors that will benefit GB energy consumers.

Electricity interconnectors developed under the cap and floor regime will earn revenue from the allocation of capacity to users who want to flow electricity between GB and neighbours. Interconnectors may also earn additional revenue streams, such as from participating in the capacity market or providing services to system operators.

The floor is the minimum amount of revenue that an electricity interconnector can earn. Meaning that, if an interconnector does not receive enough revenue from its operations, its revenue will be 'topped up' to the floor level.

The funds are transferred from the system operator, which will in turn recover the sum from transmission charges applied to all users of the national electricity transmission system.

This falls into line with the UFU policy position that there needs to be a full and open discussion on the socialisation of costs in relation to utility infrastructure in Northern Ireland and this includes as assessment of the appropriateness of a Cap and Floor regime

UFU are calling for a public consultation on UR findings in relation to the appropriateness of a Cap and Floor regime in Northern Ireland, seeking stakeholder views as to the benefits and risks associated with this regime.

If you have any questions, do not hesitate to get in touch.

Yours sincerely,

Chris Osborne
UFU Senior Policy Officer