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Ciaran MacCann
Compliance and Network Operations
Utility Regulator
Queens House
14 Queens Street
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10th January 2017

RE: Review of Electricity Distribution and Transmission Connections Policy

Dear Mr MacCann,

We would like to thank you for the opportunity to respond to the above policy and set out below responses on the questions raised.

About Lightsource Renewable Energy:

Lightsource Renewable Energy Holdings Limited (**Lightsource**) is a global leader in the funding, development and operation of solar photovoltaic (PV) projects. To date, Lightsource has developed and currently operates the largest solar PV asset portfolios in Europe, with an investment value of over £2.2 billion deployed in just 5 years.

With an operational capacity of over 1.7 Gigawatts, our portfolio of solar projects collectively produces locally generated, decentralised, 'clean' electricity to power over 330,000 UK households. We most recently developed and connected Northern Ireland's first commercial scale, solar PV power station at Crookedstone Road. This pioneering project, with a private wire into Belfast International Airport, demonstrates the credibility and potential for solar power to become a trusted and reliable source of electricity to meet Northern Ireland's demand.

We have demonstrated clear commitment towards investing in Northern Ireland's energy mix from the outset. Our office in Belfast employs local staff and expertise, and we have now identified a pipeline of viable projects across Northern Ireland with a total investment value of c£225 million. We have currently deployed £35 million of this and our ambition to deliver the remainder of this investment requires stable, long-term energy policy that will encourage market growth which will help meet national carbon reduction targets and lower electricity bills for consumers.

We therefore believe there is an urgent requirement for a connections policy that is linked to stable legislation. This will encourage the deployment of renewable energy in Northern Ireland whilst simultaneously addressing potential shortfall of generation capacity and escalating electricity pricing. Crucially the right policy, when implemented, will deliver these benefits quicker and at better value to consumers.

Please find our responses below:

Q1. Do you agree with these strategic priorities?

I. *Efficient and cost-effective connections: Connections should be delivered in a way which maximises efficient use of the electricity network and supports efficient network investment.*

II. *High levels of quality of service and transparency in the provision of connections: Connecting customers should receive a high quality of service which is clear and easy to understand, and which meets their unique requirements.*

III. *Maintains or improves secure supply of electricity in Northern Ireland: The way connections are provided should not act as a barrier to the long-term interests of NI consumers. For example, they should not prevent the issuance of efficient connections which could support an appropriate level of security of supply.*

IV. *Timely, robust and flexible connections process: Connections should be delivered in a timely and flexible way. The connections process should be robust and adaptable enough to cope with market and policy change. Put simply, the way connections are delivered should be future-proofed where possible.*

Yes we agree with these strategic priorities. We also believe a further strategic priority should be considered in relation to encouraging innovation and continuous improvement in connections as we feel this is currently lacking. We are in a period of rapid technology change with a combination of solar PV, energy storage, smart homes and electric vehicles disrupting the electricity market. Inaction on this is having a negative impact on costs, efficiency and security of supply.

Q2. Do you agree that these are the main developments we should be mindful of? Are there any other developments which are important?

In addition to the above, we would like to suggest the policy considers (1) innovations in connection including solutions such as containerised and GRP substations presently accepted by DNOs in mainland UK, and (2) transmission development partnerships where a developer builds a 4 bay 110kv/33kv substation, providing an additional hub on the transmission and freeing up access requirements at DNO level. The available bays left can be used for further small SSG clusters hubs at 33kv to feed into this. This process is being deployed in the Republic of Ireland between Lightsource & Eirgrid.

Q3. Is there a role for connections policy to promote effective network management? If so, what are the issues which need addressed and potential solutions as part of this review?

We believe that connections policy can play a pivotal role in the promotion of effective network management. An example of one issue is the high number of wind energy projects coming onto the grid from the west putting high demand on the grid to transport this power to the high energy demand centres in the east. Solar PV projects are much easier to deploy nearer these high demand centres and therefore require lesser grid upgrades. As a result, solar PV can be more effective in the near to mid-term until the grid is in a position to handle this higher demand from the west so connections policy could be designed to encourage solutions of this nature.

Q4. Should we review the distribution charging framework, with a view to making connection charges deeper? If so, how should this be designed? What are the benefits, costs and risks of doing so?

As per our answer in question 2, it could be an option for developers to enter into Public Private Partnership (**PPP**) arrangements, where cost sharing on larger transmission infrastructure creates capacity for the DNO to utilise the spare bays at a refund to the PPP from the smaller connecting developers. The key benefit here is developers contributing to the cost of transmission upgrades which facilitates more capacity availability at distribution level for both generation and load customers.

Q5. Should we review how the connections process and queue is managed? If so, what are the issues which need addressed and potential solutions?

Yes we believe the connection process and queue management should be reviewed. It has been our experience in practice that the interaction with the DNO in Northern Ireland is slow, inconsistent, cumbersome and expensive, with constant struggles for simple information which causes high risk to projects.

Our experience with grid applications is that processing has been far slower than expected, with many applications delayed by over 12 months by NIE/SONI. This coupled with the impending closure of the Northern Ireland Renewable Obligation Scheme (**NIRO**) have adversely impacted future deployment of renewables and resulted in a number of stranded renewable energy developments. This has had a major impact on the amount of investment in renewable energy in Northern Ireland. This directly affects the inward investment, affordable energy prices and benefits to the manufacturing industry that renewable energy can deliver. This also presents a threat to Northern Ireland's security of supply.

High energy costs and the difficulty in obtaining a generating supply connection contribute to the lack of investment of manufacturing companies in the NI market. Since 2015, approximately 2,500 high value manufacturing jobs in NI have been lost, the impact of which is likely to be tripled when including indirect and induced jobs. Sirocco, Michelin and JTI all announced their closing, with Sharader Electronics, Caterpiller, Invista and Bombardier announcing job cuts as well.

It is our view that grid applications for projects which directly benefit high energy users, should be given priority and that an expedited process should be implemented to allow the manufacturing industry to secure critical cost savings, improving competiveness and leading to greater economic stability in Northern Ireland. Although this may not directly benefit all electricity consumers, a strong economy obviously has indirect benefits.

In relation to the hoarding of capacity, we agree this needs to be minimised. We support making the necessary legislative changes to reintroduce the requirement for planning permission at the application stage. This will ensure only viable projects are assessed and will remove a high number of speculative developers from the queue. In the interim we support the use of enforceable milestones to incentivise capacity release such as securing land rights and planning permission within a certain period of time after a defined connection offer acceptance date. Further milestones should be considered where developers need to demonstrate progress such as evidence of significant investment. This will further assist in ensuring capacity is not held back unnecessarily if a project is not going to be realised in a reasonable timeframe.

In relation to queue management we provided some relevant suggestions within our response to NIE & SONI's consultation "Alternative Connection Application and Offer Process Proposal" in April 2015.

Q6. Should we consider connections customer service, engagement and pricing transparency as part of this review? What are the issues which need addressed and potential solutions?

Yes, these should be part of the review. We believe that better customer service and engagement with portfolio customers is required. We recommend dedicated account managers should be appointed to (i) ensure a direct contact is available through the process, (ii) ensure a smoother interaction is provided when dealing simultaneously with multiple projects (iii) support feedback on Best Practice from other jurisdictions and (iv) improve accountability in relation to meeting statutory timeframes.

We recommend the development of online services for customer interface to improve quality, transparency and tracking.

We believe there should be a number of options provided for connections, allowing the customer to select what best fits, not just the least cost technical solution. This will contribute to greater innovation while also improving pricing transparency.

Q7. Are there other issues we should review? Which issue(s) are in your view the most material and why?

We have outlined the key issues in our responses to the questions 1 to 6. We consider the most material issues to be a lack of innovation in connection methodology and processes as technology changes, unclear connection timelines and poor customer interaction. This combination of factors will continue to be detrimental to project economics as well as developer and investor confidence, ultimately resulting in network inefficiency, higher costs to consumers and less private sector investment in the electricity network.

Please do not hesitate to contact us if you require anything further.

Yours sincerely,

Lightsource Renewable Energy Holdings Limited