
Integrated Single Electricity Market

CRU proposed Direction
to the System Operators
related to
Data Centre grid connection
CRU/21/060

Consultation Response from

Bord na Móna

July 2021

1 Context & Main Messages

Bord na Móna (BnM) welcomes the opportunity to respond to this consultation, which is of particular importance to BnM, to security of supply, and ultimately to the delivery of Ireland's Climate targets.

Introduction

BnM is an Irish, semi-state climate solutions company helping lead Ireland towards a climate neutral future. Having been serving communities for over 90 years, enhancing national energy security through peat harvesting, BnM has now radically changed our approach to face an even greater challenge: climate change.

Having ended peat harvesting, the company focus is now on developing climate solutions in renewable energy, sustainable waste management, carbon storage and biodiversity conservation. Our vision is to help Ireland reach net zero greenhouse gas emissions by 2050. The NEAP in Ireland targets an increase in RES-E to 70% by 2030, indicating an investment in the order of at least 3.5GW of offshore wind, 1.5GW of Grid Scale Solar, and increasing onshore wind to 8.2GW – the largest contributor.

To power a net zero future, BnM is expanding our renewable energy infrastructure. We are now using our proven skills in constructing and maintaining large scale assets, developed over decades, to build renewable energy developments across the country. We are the leading developer of onshore wind in RESS1 and have over 1GW of onshore wind projects in advanced development.

Ireland has committed to generating 70% of electricity from renewable sources. BnM is working across wind, solar, biomass and biogas to help achieve this target, and to provide energy security for future generations.

Issue to Hand

This Consultation highlights the increase in data centres and the scale of the demand load they require, highlighting that they are already having a major impact on the Irish electricity system currently and are most likely to continue to do so into the foreseeable future. There has been a notable concentration of data centres in the Dublin Region, and it is clear that future additions to demand in this already congested location, notwithstanding planned and potential grid development, are not sensibly sustainable.

While data centres are a very welcome addition to the well-being of Ireland and to economic progress data centres' grid location can, and should be, used to complement the delivery of renewable energy projects by locating local supply close to local demand. A data centre located in a less congested area being supplied by local renewables, even with weaker grid/network, would reduce the level of constraints on the network and free up grid capacity to allow renewable energy projects to better contribute to Ireland's very ambitious Decarbonisation goals. The counter to not doing this is to concede this opportunity.

We believe that realisation of this opportunity for Decarbonisation is very important, that it is not sufficiently emphasised/highlighted within the options presented¹ or within the prioritisation criteria, and that it needs to be called out and added as a key pillar/consideration, around which any solution is developed.

In contrast, the paper very clearly and justly highlights the CRU's concerns about the threat to security of supply, also considering the potential inability of units to honour their Reliability Option obligations.

Recognising the significant shortcomings of the grid, the consultation invites views regarding the proposed processing of connection applications and subsequent connection of data centres at both the transmission and distribution levels of the electricity grid, which we comment on below.

¹ although it is referred to within the paper and in the Appendix CRU's draft letter to Eirgrid

Bord na Móna in the Mix

BnM wishes to develop projects in the Midlands and beyond.

However, projects require Route to Market for Electricity Flows. While BnM's firm intent is to expand our renewable energy infrastructure, we are very conscious of current and potential future limitations and potential restrictions which could impede adequate access to the grid infrastructure and adequate renewable power flows. The clear variables are:- Generation(Supply), Network(Grid) and Demand.

Having access to suitable uncongested grid is vitally important for projects in the Midlands and in the North-West of the country. Within the BnM response to the recent 'Shaping Our Electricity Future' Consultation, BnM expanded on this, requesting that Eirgrid explore whether a 400kV substation, in addition to a new 220kV substation, is required to connect and to facilitate build of renewables in the Midlands to meet Ireland's 2025 and 2030 RES-E targets.

In consideration of the addition of new data centres, as previously mentioned, there is a critical need to align supply, and demand capabilities, within whichever network/grid capacity restrictions may exist, such that data centres' grid/network location can be used to complement the delivery of renewable energy projects, by locating local supply close to local demand, thereby freeing up grid/network capacity to allow renewable energy projects to better contribute to Ireland's very ambitious Decarbonisation goals.

The addition of a data centre in Tullamore, Co Offaly, near the Thornsberry line would be an example of where such a benefit could result.

In alignment with this, we highlight the merits of the Demand led approach in relation to the connection of data centres, represented as Option 4 in the recent 'Shaping Our Electricity Future' consultation – positioning large users close to sources of clean electricity generation – as what could be a key part of an overall solution.

The Choices

Of the three options presented, BnM favours Option 3 over Options 1 and 2: 'Do nothing' and 'Moratorium', neither of which we believe are practical.

However, while Option 3 contains useful considerations we believe that prioritisation should reflect the opportunity for Decarbonisation, the case for which we have already set out. What is essential for new Renewable projects is a Route to Market.

BnM broadly supports the other prioritisation proposals within Option 3:

'CRU proposes to Direct EirGrid and ESBN as the system operators to implement the following measures with respect to the terms and conditions it may specify for all connection applications received from data centres (whether inside or outside the greater Dublin region):

(a) EirGrid and ESB Networks shall prioritise the processing of data centre connection applications based on;

i) the location of each data centre applicant with respect to whether they are within a constrained or unconstrained region of the electricity system;

ii) the ability of each data centre applicant to bring onsite dispatchable generation (and/or storage) equal to or greater than their demand, which meets appropriate availability and other technical requirements as may be specified by EirGrid, in order to support security of supply;

iii) the ability of each data centre applicant to provide flexibility in their demand by reducing consumption when requested to do so by the TSO in times of system constraint through the use of dispatchable on-site generation (and/or storage) which meets appropriate availability and other technical requirements as may be specified by EirGrid, in order to support security of supply;

iv) the ability of each data centre applicant to provide flexibility in their demand by reducing consumption when requested to do so by the TSO in times of system constraint, in order to support security of supply;

(b) EirGrid & ESBN shall apply the above prioritisation for data centre connection applications on an Ireland wide basis.

The above measures are not currently ranked. *Following conclusion of the consultation the CRU may decide to include a prioritisation for the purposes of any Direction.* We comment on this last proposal below.

2 Practical Consideration – in Summary & Recommendations:

-BnM like other companies, are awaiting the development of the Grid Infrastructure. The Grid Network needs to be able to evacuate power.

-BnM has an active pipeline of development projects which will contribute to Ireland's Decarbonisation targets, which it has the firm intent of developing.

-We have highlighted in this response the opportunity to complement the delivery of renewable energy projects by locating local supply close to local demand from the likes of heavy demand data centres, thereby reducing the level of constraints on the network and freeing up grid capacity to allow renewable energy projects to better contribute to Ireland's very ambitious Decarbonisation goals. We put forward that the counter to not doing this is to concede this opportunity – and highlighted, as an example that the addition of a data centre in Tullamore, Co Offaly, near the Thornsberry line would be an example of where such a benefit could result.

Fully aligned with this proposal, we have highlighted the merits of the Demand led approach, in relation to Datacentres, represented as Option 4 in the recent 'Shaping Our Electricity Future' consultation – positioning large energy users, such as Datacentres, close to sources of clean electricity generation. While this may not suit all data centres, it may well do so for a sizeable proportion. We propose that prioritisation should include this opportunity for Decarbonisation.

Protective considerations needing to be incorporated

-Further to the main body of the consultation, BnM supports the addition within the CRU's draft letter to Eirgrid in Appendix 1 in that it extends the following protective considerations towards underpinning the continuing development of new renewable projects.

'In this regard, although data centre connections are the single largest driver of additional demand at a time of security of supply concerns, the CRU considers it appropriate to continue to facilitate data centre connections to both the transmission system and the distribution system provided that such connections facilitate flexible demand and are not exacerbating supply issues in constrained regions.'

'In addition, EirGrid must be cognisant of whether further large scale transmission infrastructure will be necessary to connect further data centres in constrained regions before making any further connection offers to data centres.'

'Further to the above the CRU expects that EirGrid and ESB Networks will take into consideration the overall principles set out in this letter regarding the importance of security of supply and the facilitation of 70% of electricity demand from renewable energy sources by 2030 in its implementation of this direction. In addition, it will be important that EirGrid and ESB Networks are cognisant of whether further large scale transmission infrastructure would be necessary to connect further data centres in constrained regions before making offers for same.'

Other Matters:

- Is the wording from the CRU to the SOs and Network operators within the protective considerations above sufficiently clear to ensure desired behaviours/outcomes?
- The paper proposes that *'the CRU may decide to include a prioritisation for the purposes of any Direction'*. BnM suggests that further industry consultation may be appropriate, given that the prioritisation of one over another could lead to very different outcomes.
- It is vital that the Capacity Market fully incorporates additional capacity requirement to avoid replicating the types of scarcities which we have already seen within the CRM.
- For generation to be procured for data centres, there must be a clear policy on hybrid connections and behind the meter connections.

We welcome ongoing dialogue with the SOs and RAs and look forward to further constructive engagement and participation in system design.

We hope that you find these comments of use and submit them for your consideration. We would be pleased of course to discuss any aspect of our responses should you so wish.

For and on behalf of Bord na Móna



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