

Section B – For Publication

Thank you for the opportunity to respond to the CRU Proposed Direction to the System Operators related to Data Centre Grid Connection Consultation (CRU/21/060) (the "**Consultation Paper**").

In relation to the Options set out in Section 3 of the Consultation Paper we have focused our submission to Sections 3.2 and 3.3.

Section 3.2

1.1 EngineNode agrees with the CRU's view that a moratorium would not be appropriate.

1.2 However, in order to expedite the processing of existing applications, and in particular where the TSO has issued a Connection Method Confirmation, the CRU's direction to the SOs should:

1.2.1 restrict for a limited period (until the effect of the CRU direction issued following this Consultation Paper can be assessed) the processing of applications where a Connection Method Confirmation has not yet been issued and valid planning permission has not yet been granted; and

1.2.2 process by way of appropriate batching, by date of application, existing applications where a Connection Method Confirmation has been issued, and valid planning permission has been granted, including any modifications to those applications to take account of the CRU direction other than to increase MIC.

1.3 Such a step, for a limited period, would avoid an increased build-up of applications and the emergence of a significant backlog. Against the backdrop of the proposed CRU direction, it would give certainty to less progressed projects, giving them an opportunity to adjust their programme timelines and take full account of the CRU direction.

1.4 Such a measured approach by the CRU would also give a clear signal to the local and international supply chain that the Irish data centre sector was still open. It would also provide a clear message to IDA-led Foreign Direct Investment projects that the regulatory framework recognises the importance of not stranding investments made on the basis of existing policy and of providing a clear pathway for new projects.

Section 3.3

Prioritisation

2.1 The CRU's direction should give priority, being on an objective basis, to applications submitted earlier and who are more progressed in the connection process over applications submitted later and/or who are not as well advanced in the connection process. A by date of application based approach has previously been applied by the CRU to managing grid connections.

2.1.1 In this respect, clearly priority should be accorded to applicants, by date of application, who have been issued a Connection Method Confirmation.

2.1.2 Further priority should be afforded to those projects who have secured planning permission which took account of the reserved connection method in the Connection Method Confirmation.

2.2 Priority should also be given to those applicants who are looking to connect in geographic locations that are less constrained parts of the network, and to those applicants seeking to connect directly to EirGrid's transmission network (i.e. 220kV).

Further Clarification and Engagement

2.3 When directing the SOs to implement any control measures, and specifically if directing EirGrid to revise the DCCOPP, the CRU needs to address important details and parameters. We have included in Appendix 1 to this Memo some key questions and comments to be considered by the CRU to assist the CRU in providing that direction and to be addressed by the SOs in developing the revised DCCOPP.

2.4 Following the CRU Direction and before a revised DCCOPP is issued, the SOs should engage in intensive discussions with the data centre industry regarding feasible solutions to address its challenges relating to new large energy user connections. Given the complex and interacting nature of many of the issues and policies and technical and commercial limitations of what is feasible, the importance of that intensive industry consultation cannot be understated.

Alternative Measures

Releasing Unused Capacity

2.5 Whilst firm contracted import capacity is factored into EirGrid's forecasting, it seems to be the case that a portion of that contracted capacity is unused, some unused for many years. Releasing or otherwise making available that unused capacity to the market, over the next four or five years could be instrumental in enabling advanced projects to proceed, in particular those projects where the requirement to install dispatchable on-site generation will require additional development.

2.6 Mechanisms to incentivise parties to release, whether on a permanent or temporary basis, unused capacity should be adopted. These could include rebates, revised ramping schedules and/or payments for flexibility. The timely implementation of

those mechanisms to align with CRU direction is critical.

2.7 The inclusion of "use-it-or-lose-it" conditions in conjunction with more granular ramping schedules in new connection offers, would also assist in managing scarce grid and generation capacity over the next few years.

2.8 Adopting measures to instil responsible usage and the prevention of capacity hoarding will benefit the data centre sector and all large energy users.

Decarbonisation

2.9 The CRU should also have regard to the significant reduction in power consumption which has been demonstrated to result as a consequence of corporate and other data centre customers migrating their internal IT infrastructure from their own, less efficient corporate data halls, to the highly efficient "hyperscale" data centres run by global cloud operators in the Dublin market.

2.10 As digitalisation accelerates and the broad variety of online services central to daily life, including Online Banking, Online Shopping, Media Streaming, Work from Home technology and Social Networks, grow exponentially, it cannot be understated how large Data Centres are the most energy efficient means of providing that core infrastructure for cloud computing and the Internet of Things.

2.11 As illustrated through the Covid 19 pandemic, digitalisation is a key enabler of a reduced carbon footprint for much of the workforce, with data centre hosted technologies facilitating many to dramatically reduce their carbon-intensive work commutes and to lower business travel more generally.

2.12 The predictability of data centre demand can be an enabler for the continued development of renewable energy projects in Ireland. It is expected that data centres will be instrumental in ensuring the Government's unsubsidised corporate PPA targets are achievable.

Appendix 1

When directing the SOs to implement these control measures, and specifically if directing EirGrid to revise the DCCOPP, we request that the following comments & questions are considered. We believe that due consideration and assessment of the following will contribute to a more complete policy and significantly ease interpretation:

- The term “constrained”, when referencing regions of the electricity system, should be defined.

- The terms “dispatchable”, “appropriate availability” and “other technical requirements”, for both generation and storage, should be defined and/or expanded upon. In the absence of the detailed technical requirements the customer is limited in their ability to design and achieve planning permission for the generator, e.g. the autonomy requirements for on-site storage, required ramp rates, Generator merit designation and associated Secondary Fuel Obligation (SFO) requirements etc. These detailed technical requirements are needed at Stage 1 of the process to enable the customer to design and achieve planning permission for the on-site generator.

- Furthermore, while the “connection method confirmation” is received during Stage 1, the expected firm/non-firm split of the requested MIC is not confirmed at this stage. Additional clarity and extended consultation with the SOs at time of the “connection method confirmation” could not only address the issue of any firm/flex split, but also a potential geo-radius or transmission-node specific set of locations where dispatchable generation could be deployed to by the applicant to still qualify for more firm capacity. As above, the customer needs to masterplan their site to include their Data Centre(s) and the dispatchable on-site generation. In the absence of confirmation of the firm/non-firm split of the requested MIC, the customer is limited in their ability to design the on-site generation as its MW size will be determined by the size of their non-firm MIC.

- The appropriate application process and contractual model should be confirmed by the SOs, e.g. should the connection be classed as an “Autoproducer”? If so the proposal that the applicant brings “on site dispatchable generation (and/or storage) equal to or greater than their demand” implies that the MIC should be less than or equal to the MEC, i.e. an “Importing” or “Exporting” Autoproducer may be appropriate? Also if the “Autoproducer” classification is confirmed to be appropriate, which of the following connection agreement strategies should be progressed?:
 1. A single connection agreement with a single connection point including MIC & MEC
 2. Two ‘linked’ connection agreements with separate connection points, one with an MIC and one with an MEC.

- With respect to ECP-2, to the extent it should apply, it should be confirmed these applications will be treated as “Autoproducers” and therefore progressed as “nonbatch projects” i.e. “Category B”. Furthermore, it should be confirmed that the SOs prioritise these connections “in order to maintain security of supply” and that these applications are not “folded into next batch”. In this regard, it would be more

appropriate to cater for any requirement for export capacity as a modification to the existing import capacity applications rather than as a new application.

- Where the customer brings on site dispatchable generation (and/or storage) 'to provide flexibility in their demand by reducing consumption when requested to do so by the TSO', it should be confirmed that this will result in offsetting non-firm MIC (as per the current DCCOPP). It should also be confirmed that the amount of non-firm MIC which will be offset will equal the amount of dispatchable on-site generation (and/or storage) brought on site.
- Where the customer does not bring on site dispatchable generation (and/or storage) but instead provides 'flexibility in their demand by reducing consumption when requested to do so by the TSO", it should be confirmed that this will result in a flexible demand connection, i.e. non-firm MIC.
- Considering the potential of gas-fired on-site gas generation and the dependency on the associated gas infrastructure, the CRU's direction to EirGrid and ESB Networks (the SO's) should be aligned with any potential direction to Gas Networks Ireland.