

Electricity Connection Policy Team
Commission for Regulation of Utilities
The Exchange
Belgard Square North
Tallaght
Dublin 24

electricityconnectionpolicy@cru.ie

19 March 2024

RE: Consultation on Review of Large Energy Users connection policy – CRU/2024001

Dear Electricity Connection Policy Team

Bord Gáis Energy (BGE) welcomes this opportunity to respond to the CRU's consultation on a its review of Large Energy Users (LEU) connection policy. BGE supports the review by the CRU of grid-related policy to ensure that developers in, and users of, the Irish electricity system are provided with the clarity they need to contribute to the transition of the Irish grid for delivery of the government's 2030 targets for renewable generation and decarbonisation.

We believe there can be a twin-track approach to implementation. Grid constraints are the pressing challenge, creating an immediate need for locational signals for LEUs to connect where they avoid adding to the congestion burden, or even help to alleviate constraints. This could be delivered simply by requiring LEUs to accept a non-firm¹ demand connection if they choose to locate in constrained areas. A more phased approach can be taken to the other requirements, such as LEUs demonstrating real-time net zero supply to their point of connection.

LEUs must be able to demonstrate energy supply from new, incremental indigenous renewable sources. We don't believe LEUs need to be obliged to locate adjacent to renewable generation, provided they can demonstrate unconstrained access to zero carbon supplies. However, as detailed in our response to the call for evidence, energy clusters and parks are a key tool to delivering Ireland's net zero objectives and should be an attractive proposition for new LEU location. The CRU, other state entities and SOs must ensure the right frameworks are in place to facilitate LEUs locating within energy hubs.

We have responded to the consultation questions, grouped but theme, in the following section.

Transition period

We support the use of a pragmatic glide path or transition period for new LEUs meeting net zero emissions, reflecting the time needed for the delivery of new renewable projects, technologies, flexibility services, verification schemes and incentive mechanisms that can support delivery of the measures under consideration.

An exception to this is the challenge of grid constraints. LEUs cannot have the right to a firm offtake connection in constrained areas before required reinforcement works are completed. LEUs should have the choice of locating in an area where they are no constraints and receiving a firm connection, or accepting a non-firm

¹ By non-firm we mean a demand connection where the SO can constrain the LEU's power import capacity, typically when the network is under stress, under terms and conditions agreed with the SO. As described in Section 3.5 of the consultation there are various options for this – ranging from timed connections to response to network conditions. The LEU would have the option of deploying on-site generation and/or storage to cover its demand needs for periods when its imports are curtailed by the SO.

connection until the network is upgraded. This would create an early incentive to locate new LEU demand in less constrained parts of the network.

Measuring performance

The end target should be for LEUs to a) have real time zero emissions and b) demonstrate that their energy supply is backed by incremental indigenous sources of renewable energy. This would require tracking both the temporal aspects for real time emissions, and the spatial aspects of renewable generation. We have a concern that if emissions and indigenous supplies are assessed on an annual or monthly basis that this would not account for periods of low wind and/or high generation constraints.

Demonstrating net zero emissions

LEUs must be able to prove they are accessing zero carbon electricity when the wind is not blowing, or wind generation is constrained. The ultimate target should be hourly matching of LEU demand against timestamped GOs or renewable certificates. This is in line with the direction set by the revised EU renewables directive (RED III), which encourages granular guarantees of origin. Until the systems and energy resources are there to enable hourly certification the CRU could consider interim measures. This could include asking LEUs to demonstrate they are achieving net zero energy consumption during periods determined by the SOs, such as when the system is under stress, due to any combination of low wind, high constraints, or high national demand.

Requirement for indigenous sources of renewable energy

LEUs should be required to demonstrate that their energy supply comes from new (i.e., incremental to existing) indigenous renewable sources. It's vital that those sources are not located behind constraints if this means the energy can't flow freely onto the system when the LEU is consuming. Energy hubs and parks can be one solution to this.

Role of electricity storage

We are in favour of electricity storage being GO certified so that its net zero attributes can be tracked, but more thought is needed on how that could be implemented.

Location of LEUs & Assessment Criteria

Moving LEUs away from demand constraints

The immediate issue relevant to the location of LEUs is grid constraints. New LEUs should have a choice of location but will need to accept that a firm connection is not possible in areas where there are demand constraints unless they can provide sufficient on-site renewable generation to cover their demand. This will create an incentive for LEUs to locate in less constrained areas where they can connect faster and on a firm basis.

Data centres have shown a strong preference to locate in the Greater Dublin Area, but the networks won't be able to provide new firm capacity for many years. Non-firm connections with high curtailment rates will not be viable for most data centres, and other LEUs. Equally, in urban areas, beyond time-limited back-up generation, most LEUs would not be able to secure the land and planning to have sufficient generation on-site.

Instead of presenting LEUs with a 'Hobson's choice' the Government and agencies need to create coordinated locational signals to help LEUs locate in areas that meet their economic needs as well as helping the energy system. The CRU, DETE, IDA and system operators should work together to identify less-constrained areas that can be made attractive to LEUs within a reasonable timescale.

BGE believes energy clusters and parks can be an important tool in delivery of the Irish grid's net zero objectives. The IDA and DETE could actively promote energy cluster participation to new LEUs, where major demand can act as an anchor tenant for new parks, with their baseload demand providing commercial support for the development of adjacent renewable projects.

Locating LEUs in proximity to new renewable generation

LEUs could be incentivised to locate in areas where their demand could also help new renewable generation connect to the system, by alleviating generation constraints. It should be a commercial choice for LEUs to co-locate with renewable generation or within energy parks. We believe mandatory requirements can be limited to evidencing supply from new indigenous renewable production.

Irrespective of locational requirements on LEUs, there needs to be more integrated spatial and strategic planning of the energy networks – not just between generation and demand, but also vectors such as gas (including hydrogen) and other key services important to LEUs (such as water and telecommunications.) The System Operators and enterprise energies have a role to play in identifying sites for future energy parks or hubs, in addition to those already emerging.

Non-firm demand connections & demand flexibility

Commercially and operationally, non-firm connections and mandatory demand response requirements will not be viable solutions for many of the LEUs in the scope of this consultation, because they have limited ability to move away from 24x7 operations. Non-firm and timed connections will be a good solution for some customers – such as the electric bus garages mentioned in the consultation.

Non-firm connections should be a choice for demand customers. The SOs will need to provide connecting customers with sufficient data on the probability of curtailment and curtailment methodologies, so that they decide if they can make a fully informed decision on whether to accept a non-firm.

Demand flexibility from LEUs for system support should be voluntary and compensated, providing the incentive for LEUs to provide system services. The CRU needs to ensure that markets are open to demand flexibility services from LEUs. LEUs may also use their demand flexibility to decarbonise their site operations at least cost. This should be incentivised through their wider requirements to demonstrate net zero operation.

Gas

There is a role for LEUs in growing the use of renewable gasses in Ireland, but as the consultation notes there could be a natural ceiling for indigenous biomethane production. Consideration needs to be given to the supply needs of other economic sectors e.g., agriculture, industry, transport, and energy. This needs to go back to Government to bring better clarity on its National Biomethane Strategy and a faster pathway to indigenously produced hydrogen. More specifically the relevant teams in DECC, the Department of Agriculture and DETE should collaborate on producing a more coordinated strategy for biomethane and hydrogen, because there are currently inconsistencies in the use cases and timelines for delivery of both. Having a clear and timely glide path covering both biomethane and hydrogen use would help give certainty to LEUs coming to and expanding in Ireland.

In the longer-term LEUs could be a key demand customer for the hydrogen industry in Ireland, especially for future energy hubs with hydrogen production and storage infrastructure.

Roles of other organisations

As the CRU already recognises, there needs to be a coordinated approach across industry, system operators, IDA and other Government departments and agencies. We don't underestimate the burden that the measures discussed in the consultation could place on large demand customers.

The Irish economy would benefit from a more strategic and spatial approach to network planning that captures all the vectors important to energy demand and generation. This should help facilitate the optimum siting of new generation and demand and therefore reduce delivery times for new grid and. The IDA, for example, should work on facilitating the delivery of other services important to LEUs – such as water, telecoms,

and skills – that could help locate LEUs outside constrained areas and within energy hubs. Coordination will also be needed with DECC and GNI on strategies to deliver biomethane and hydrogen.

I hope you find this response useful. Please do not hesitate to contact me should you wish to discuss any aspect in more detail.

Yours sincerely

Helen Stack
Regulatory Affairs – Commercial
Bord Gáis Energy