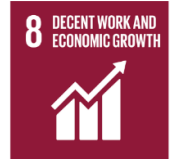




**Chambers
Ireland**
Advancing business together



Review of Large Energy Users connection policy

Submission by Chambers Ireland

March 2024

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Key Points

- It is critical that investment in renewable energy infrastructure is sustained to safeguard against future geopolitical shocks and help the State meet its climate targets.
- We are supportive of strategies which align where necessary both gas and electricity networks in Ireland.
- The role of renewables in ensuring security of supply continues to be a priority, not only for LEUs but for all Irish businesses.
- We agree with connection policies which utilise waste effectively and contributes to a low cost and low carbon economy.
- Any focus on maintaining optionality and provisions which centre on meeting net-zero targets should also take into account factors outside of the control of LEUs.
- Biomethane can play a crucial role in assisting hard-to-abate sectors that face challenges in decarbonising.
- Operational support schemes will be critical for scaling an indigenous biomethane industry.
- Operational support for scaling biomethane will create market certainty for developers, stimulate growth, encourage investment, reduce risk and bring down the costs associated with production.
- The renewable gas certification scheme is necessary for developing a renewable gas industry.
- Greater investment in green hydrogen infrastructure ought to be facilitated.

About Chambers Ireland

Chambers Ireland is an all-island business organisation with a unique geographical reach. Our members are the Chambers of Commerce in the cities and towns throughout the country – active in every constituency. Each of our member Chambers is central to their local business community and all seek to promote thriving local economies that can support sustainable cities and communities.

Our Network has pledged to advocate for and support the advancement of the United Nations Sustainable Development Goals (SDGs). As SDG Champions, we use the Goals as a framework to identify policy priorities and communicate our recommendations. We have a particular focus on five of the goals encompassing decent work and economic growth (SDG 8), sustainable cities and communities (SDG 11), Gender Equality (SDG 5), Industry, Innovation and Infrastructure (SDG 9) and climate action (SDG 13).¹ In the context of the current consultation, SDGs 7 (affordable and clean energy), 13, and 9 are the most relevant.

Climate action is critical to promoting sustainable economic development and meeting our climate targets across a range of sectors and industries. As SDG Champions, we support all policies and measures which help decarbonise both the electricity and gas networks and ultimately achieve our climate and energy targets. Equally, every effort should be made to ensure that Ireland does not miss the opportunities that arise from the Green Transition; be it investment in wind, solar or other industries such as biomethane production.

¹ The Chambers Ireland SDGs. Available at: <https://chambers.ie/sustainable-development-goals/>

Key observations

General

As an organisation with the SDGs at the heart of our operations, we welcome the opportunity to contribute to the consultation regarding the Large Energy Users connection policy review.

We are especially supportive of strategies which align – where necessary - both gas and electricity networks in Ireland. We agree with the CRU that a coordinated approach is required for connections to both networks, to ensure that where policies are introduced for electricity, they do not stimulate increases in emissions from new gas connections and vice-versa.

Furthermore, we acknowledge the role that Large Energy Users (LEUs) play in contributing to the State's competitiveness and productivity. Equally, they have a critical role to play in achieving the State's Climate goals; as an organisation, we support a strategy that sets out proposals to empower LEUs to help achieve our climate target of a 51% cut in economy-wide emissions, and for the share of electricity demand generated from renewable sources to be up to 80% by 2030.²

Security of supply

Security of supply is pivotal not only for LEUs but for *all* businesses and has been highlighted increasingly in recent years as both a continental and national priority. Diversity in supply will be key to ensuring that security. Combining Wind/Wave/Solar/Battery/Hydrogen technologies – in addition to renewable biomass and biomethane options – will be pivotal to delivering renewable energy to our electricity and gas networks. Specifically in the context of Hydrogen, its availability when it is needed is the fundamental selling point of the technology. While considerable storage capacity will be required if we are to have a two month strategic reserve of Green Hydrogen (circa 600k tonnes or 100m cubic meters of liquified hydrogen) that is less

² Government announcement on sectoral emissions ceilings: <https://www.gov.ie/en/press-release/dab6d-government-announces-sectoral-emissions-ceilings-setting-ireland-on-a-pathway-to-turn-the-tide-on-climate-change/#:-:text=%E2%80%9CToday%20the%20government%20has%20agreed,under%20Climate%20Action%20Plan%202021.>

than 4% of the capacity of the Kinsale gas field. We could reasonably store several years of energy in just that area, even as other sites become viable.

In the past we consistently argued that the RePowerEU instrument should be used to strengthen Europe's energy security, and that we should aim to increase wind energy across the EU to at least 480 GW in 2030. Specifically, the “overriding public interest” clause should be of huge benefit to Ireland in securing planning for wind energy infrastructure. This will simplify permitting and ensure concerted action to strengthen our energy supply chains. However, it is the national grid infrastructure that is the overwhelming bottleneck. We should ensure that RePowerEU can also be applied to upgrading and reinforcing the grid as a matter of priority.

Decarbonising the energy sector

Decarbonisation must go hand in hand with digitalisation, as new and emerging digital technologies can improve monitoring, reduce waste, and increase operational efficiencies for businesses. To promote the digital transformation, messaging ought to be focused on the twin transition and the hand-in-hand benefits that can be derived from focusing on digital and green investment. Furthermore, simplifying advice and resources in this space would encourage more businesses to update their infrastructure accordingly.

In the context of LEUs (particularly those in industries like aluminium smelting, cement manufacturing and agrifood), they could be incentivised to transition to hydrogen (or a hydrogen/methane mix) where appropriate to reduce our dependence on imported fossil fuels. This could be done while also catalysing a Green Hydrogen industry. The existing method of creating nitrogen fertiliser is dependent on superheating methane using the Haber-Bosch process. Green Hydrogen can be an alternative zero-carbon feedstock for this process for fixing nitrogen, which would not only facilitate the creation of a more environmentally sensitive fertiliser industry, but also one which does not carry the same geopolitical and price risks of our existing source of nitrate fertiliser.

More generally, the ambition for wind in Ireland over the coming decade is enormous as it requires us to more than treble the size of our wind energy production industry, adopt new

technologies to the Irish electricity grid, and upgrade, reinforce, and build huge amounts of transmission equipment to bring renewable energy from where it is generated to where it is needed. This effort requires a regulatory regime that fully supports that ambition. Unfortunately, our current regulatory system inhibits this ambition; in our view, the chief hindrance to meeting our climate goals is the absence of a planning system that facilitates offshore wind farm development. This ought to be the top priority at all levels of the State's administration.

Solar is often seen as a quick fix to adding more power to the grid, but our concern is that the presumed ease with which such developments are assumed to enjoy is merely a result of the lack of large solar development plants, large solar power plants will likely experience novel challenges as they progress through planning, and so the massively increased ambitions for this technology may contain a large amount of unaccounted for risk.

The same ought to be assumed of the proposed development of offshore wind farms; we are particularly concerned that the minimalist approach that is being taken to consents is likely to lead to an undershoot in terms of how much power is available to the grid in 2030. No extra capacity is being considered for projects that do not progress at the pace which is desired. This will likely lead to a higher than targeted reliance on fossil fuel thermal plants and so will prevent other sectors from being able to decarbonise at the rate that is hoped. Consequently, we doubt the credibility of national plans that aim to see 80% penetration of renewables in the electricity market by 2030.

Investment in infrastructure

We have consistently emphasised the need for greater, sustained investment in strategically important infrastructure³ having regard to the National Planning Framework while also ensuring that any development of future infrastructure enables sustainable economic development

³ <https://chambers.ie/press-releases/chambers-ireland-perspective-on-budget-2024/#:~:text=Infrastructure%3A,enhanced%20National%20Development%20Plan%20delivery,;>
[https://chambers.ie/investment-in-infrastructure-brings-about-untold-economic-benefits/;](https://chambers.ie/investment-in-infrastructure-brings-about-untold-economic-benefits/)

throughout the State. Water, energy, transport and waste are areas of strategic importance to Ireland's economic future and all require sustained investment. In the context of the current consultation, this applies particularly to renewable energy infrastructure and utilities.

Supporting our point regarding investment is the undeniable fact that given the geopolitical shocks experienced in recent years, we cannot assume that the future will be any less disruptive to business. Enabling greater use of renewable and low carbon sources of electricity can help the State to meet its climate targets and provide energy security in a context of rising demand and dependence on energy imports. The State therefore must ensure it capitalises on every opportunity to make our business environment more productive, efficient, and sustainable; this is critical to safeguard the functioning of the business environment against any potential future geopolitical shocks.

Questions

Measuring performance

Should the end target/goal be real time zero emissions? Do respondents have other suggestions as to how this can be demonstrated? Please provide reasons and rationale for any views provided.

Unfortunately decarbonisation at this level is a complex process which can sometimes be hindered by factors outside the control of the LEU. Were it the case that all new LEUs were required to have a zero emissions target upon connection, then there ought to be consideration given to the range of technologies that the LEU may use in order to achieve a net zero status.

Secondly, there are other factors which may limit an LEU in this regard which may be outside of their control. For example, regulatory uncertainty has a very large opportunity cost as it delays and stalls projects which are in the development pipeline. This is especially relevant in the context of the State's planning system; our hope is that the anticipated planning reforms will help change this scenario, as in its current state it impedes the development of projects of national importance. This is not exclusive to the development of LEUs and we have raised planning as an issue numerous times⁴ as a core impediment for other projects relating to critical infrastructure. Unfortunately this impacts investment in such projects as while the regulatory uncertainty continues, the associated financing costs increase also.

⁴ <https://chambers.ie/wp-content/uploads/2023/08/Chambers-Ireland-Budget-Submission-2024.pdf> pg: 30 - 32; <https://chambers.ie/press-releases/chambers-ireland-welcomes-the-establishment-of-the-new-planning-and-environmental-court/>

Comments are invited on the requirement for indigenous sources of renewable energy e.g. renewable electricity feeding into the Irish system and for gas secure sufficient renewable gas credits feeding into Irish system. Comments are invited on how the storage of renewable energy is captured by any measurement system when this stored renewable energy is used.

We have already referenced how important security of supply is for our Network, and within that context, it is our view that an indigenous renewables should feed into the Irish system. We also agree with the stipulation that aligning the tracking systems for both renewable gas and renewable electricity should be explored as a potential option to mitigate any double counting of credits.

Location of LEUs

Should new LEUs be located close to areas of renewable generation and/or storage or within energy parks? Please provide reasons and rationale for any views provided.

Yes this is a logical approach. We agree with the stipulations in the consultation document that new LEUs should be located - where possible - outside of constrained or congested areas on the grid. Due to their large associated demand, this will help avoid significant investments in the grid. We also agree with the stipulation in the consultation document that this would increase operational efficiencies in terms of reduced ongoing transmission and distribution losses on the system.

What type of measures to facilitate this approach could be introduced to encourage new LEUs to locate close to renewable generation.

We support the idea of incentives being offered by appropriate enterprise agencies. The example given in the consultation document is pertinent: i.e: if a new LEU chooses what the CRU consultation document alludes to as a 'more beneficial' location, then it may be more straightforward for them to obtain a connection. In our view, this appears reasonable as an incentive.

Should there be any exemptions to locational requirements for certain LEUs? How could this be assessed? If so what type of connection conditions/requirements might these require?

We accept that certain exemptions as to any locational requirements may be necessary for particular types of LEUs. We also agree with the position that an appropriate lead-in time is necessary for any potential requirements for locating LEU demand close to renewable generation. Best practice suggests a timeframe which can allow the requirements to be introduced, while also phasing out other requirements where deemed appropriate.

Comments are invited from interested parties on the level of proximity between LEUs and renewable generation? How should this be measured? Should this value apply across the board or be determined on a case-by-case basis?

A case-by-case basis seems a reasonable approach.

Non-firm demand connections

Should non-firm/flexible electrical connections be provided to islanded LEUs in order to facilitate flexibility between the electrical and gas systems?

At a high level, we support appropriate solutions which facilitate flexibility between both systems. However we emphasise that this would require a lot of coordination between both the DSO and the TSO, especially where network constraints are present.

On-site generation and storage

Comments are invited on the use of renewable generation and storage on-site. Should this be used to match LEUs demand on-site or to provide flexibility services to the system? Please provide reasons and rationale for any views provided. Do LEUs require back-up generation for operational reasons? If so, what is the typical annual running hours of this back-up generation?

In order to decide which option is the most appropriate, it ought to be considered that developing onsite renewable generation and storage on-site is especially challenging for LEUs, particularly due to permitting constraints. Regarding back-up generation, though we are not in a position to provide an in-depth analysis of the running hours of back-up generation, we agree that this is required for LEUs.

Demand flexibility

Should demand flexibility services be mandatory or voluntary for new LEUs? Please provide reasons and rationale for any views provided?

We welcome the acknowledgment by the CRU that if demand flexibility is mandatory for new LEU connections, there may be situations where certain LEUs are unable to provide these services. On that basis, we accept that exemptions in such scenarios may be merited.

Should LEU connections in certain parts of the network be required to provide demand flexibility services? Is this measure justified?

While we acknowledge that LEUs connected to the network may be well-placed to provide demand flexibility services to assist in key areas that have specific challenges during periods of network congestion. Nonetheless, were such a requirement to be imposed, then it needs to be evidence-based. Before making a judgement as to justifiability, an understanding of the LEUs needs and obstacles to provide the flexibility services needs to be ascertained.

If demand flexibility is voluntary for new LEUs, what type of incentives could be introduced to encourage the adoption of these services?

We agree that incentives ought to be introduced to encourage uptake of these services.

If demand flexibility is mandatory for new LEUs, should there be any exemptions for certain LEUs to having to provide these services? How could this be assessed? On what basis could these exemptions be applied?

Consistent with our answer elsewhere in our submission, we agree that exemptions may be merited in certain scenarios. If necessary then this may be done on a case-by-case basis, taking into account factors such as the location of the LEU.

Energy efficiency

Comments are invited from interested parties on the use of waste heat from LEU sites. Comments are invited on the use of waste heat from LEUs to feed district heating networks or other processes.

At a high level we agree with any policy which utilises waste effectively and contributes to a low cost and low carbon economy. We also agree with the statement from the JRC guidelines regarding locational impacts on the efficiency of LEUs⁵. If future research aligns well with a circular approach which effectively and appropriately utilises waste heat, then this would be a positive development. However at present it is difficult to determine what form implementation would take.

⁵ https://e3p.jrc.ec.europa.eu/sites/default/files/documents/publications/jrc132576_jrc132576_jrc_2023_best_practice_guidelines_v14.1.0final_gt1.pdf

Should provisions to use waste heat from new LEUs in suitable locations to feed district heating or other processes be mandatory or voluntary? Please provide reasons and rationale for any views provided.

Please refer to our previous comment regarding using recoverable waste heat from LEUs.

Gas

Comments are invited from interested parties on the use of biomethane towards decarbonisation of LEU demand. Do respondents have a view on the volume of indigenous biomethane that can be produced annually? Do respondents have a view on the scalability of using biomethane towards the decarbonisation of LEU demand?

As the use of natural gas decreases to meet our net-zero emission targets, we are of the opinion that biomethane can play a crucial role in assisting hard-to-abate sectors that face challenges in decarbonising. It is pivotal that the scaling up of the renewable gas sector in Ireland is accelerated. This is consistent with our point regarding using a mix of energy sources where appropriate to decarbonise. Hence we are supportive of the National Energy Security Framework 2022⁶ and the Energy Security in Ireland to 2030 strategy,⁷ in relation to their acknowledgments of the role biomethane can play in relation to security of supply.

One of the main considerations in the context of scaling an indigenous biomethane in Ireland is operational support. Operational support schemes will create market certainty for developers and stimulate growth, which will simultaneously encourage investment, reduce risk and bring down costs associated with production. Such supports will need medium to long term commitments if these results are to be realised and the benefits are to be scalable.

We are of the view that without adequate operational support, the opportunity will be lost to develop a biomethane industry in Ireland which also meets the target of 5.7 TWh of

⁶ <https://www.gov.ie/pdf/?file=https://assets.gov.ie/221399/86cb99f5-58e3-4821-bc4c-e1bb1fa706fb.pdf#page=null>

⁷ <https://www.gov.ie/pdf/?file=https://assets.gov.ie/278473/4919d4e2-44ea-454a-855a-0229eeda4f4f.pdf#page=null>

biomethane on a yearly basis by 2030. Failure to do so means we will miss the opportunity before us and this ties in neatly with our point elsewhere which focuses on investing in infrastructure, decarbonisation and security of supply.

Comments are invited from interested parties on the use of green hydrogen towards decarbonisation of LEU demand and the timelines in which this might be viable. Please provide reasons and rationale for any views provided.

Though a timeline may be difficult to determine, in line with our comments elsewhere in our submission regarding capitalising on opportunities in the renewable sector, this is not something we can afford to squander and investment in green hydrogen infrastructure ought to be facilitated. Regarding LEUs (particularly those in industries like aluminum smelting, cement manufacturing and agrifood) they could be incentivised to transition to hydrogen (or a hydrogen/methane mix) to reduce our dependence on imported fossil fuels while also catalysing a Green Hydrogen industry.

Relatedly, we believe that Ireland is in a unique position to benefit from the hydrogen aspect of the Green Transition and should focus on using this technology to help decarbonise the sector. This is particularly the case, given our extensive Exclusive Economic Area, as our sea territory offers us access to enormous volumes of renewable energy. Indeed, economies of scale may arise from servicing the large industrial, and electricity generation, meaning that due to the demand for Green Hydrogen, Irish consumers may benefit from our European peers underwriting the creation of the infrastructure needed to capture the locally produced renewable energy and the supporting infrastructure that a Hydrogen industry will need.

Comments are invited from interested parties on the renewable gas certification scheme.

In our view, the renewable gas certification scheme is necessary for developing the State's renewable gas industry. The scheme is utilised well in tracking transactions of renewable gas

along supply chains and also enables reporting and monitoring via the Emissions Trading Scheme. Ultimately this will help grow confidence in the sector.

Assessment criteria

Comments are invited from interested parties on maintaining optionality in what provisions an LEU must meet as part of its net zero emissions requirements.

As stated previously, any focus on maintaining optionality should also take into account factors that are often outside of the control of LEUs. Additionally, there needs to be an acknowledgment that LEUs may require multiple options to demonstrate compliance with net zero requirements. This should entail a mix of technologies to do so; including for example, storage and different types of renewable technologies.