
Security of Energy Supply

Consultation Response from the American Chamber of Commerce Ireland (AmCham) to the Department of the Environment, Climate & Communications' consultation on the review of the security of energy supply of Ireland's electricity and natural gas systems

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The American Chamber of Commerce Ireland The Voice of US-Ireland Business

The American Chamber of Commerce Ireland (AmCham) is the collective voice of US companies in Ireland and the leading international business organisation supporting the Transatlantic business relationship. Our members are the Irish operations of all the major US companies in every sector present here, Irish companies with operations in the United States and organisations with close linkages to US-Ireland trade and Investment.

AmCham welcomes the opportunity to contribute to the Department of the Environment, Climate and Communications' consultation on the review of the security of energy supply of Ireland's electricity and natural gas systems.

The 'network crisis' and lack of energy capacity has been raised by AmCham, and others, for many years. AmCham recognises the unprecedented challenges the global community now faces regarding energy supply and pricing – as a small open economy Ireland is particularly exposed to the current unprecedented and unstable energy environment. AmCham also acknowledges the complexity of the challenge in meeting energy demand including protecting the most vulnerable in society, as well as Ireland's economy. It is therefore important that the energy crisis is approached with a degree of urgency and thoroughness, whilst keeping in mind the need to reduce Ireland's emissions.

Risks

AmCham welcomes the consultation's thorough overview of potential security of supply risks. Ireland now faces a number of serious risks from both a demand and a supply perspective. EirGrid recently forecast that Irish electricity supplies will decrease very significantly in net terms over the coming years.¹ This is due to a combination of factors, including obsolete equipment going offline earlier than hoped for, and anticipated new capacity not coming online. Concurrently, demand will increase, driven by already won industrial projects and government policy to accelerate electrification of domestic heating and transport as well as the electrification of industrial heat. EirGrid estimates demand for electricity to increase by 37 percent by 2031.² The situation is further exacerbated by Ireland's dependency on gas imports increasing as supply of indigenous gas from the Corrib Gas Field declines. The importance of detecting possible risks and establishing feasible mitigation measures is therefore indisputable.

The consultation document notes Large Energy User (LEU) demand amongst its list of risks. It states that "*electricity demand is expected to increase significantly due to high levels of electricity demand from large energy users.*" As AmCham outlined in its submission to the Commission for the Regulation of Utilities' consultation on electricity network tariffs, LEUs are most likely to have stable and predictable energy

¹ EirGrid & SONI, 'Ireland Capacity Outlook 2022-2031': [EirGrid & SONI, 'Ireland Capacity Outlook 2022-2031'](#).

² Ibid.

needs.³ In the context of security of supply, any increase in demand by LEUs is foreseen and, as such, should and can be planned for.

Further, LEUs can be part of the solution. Several LEUs are working on technology that would allow the energy storage systems used for backup power to help address any variability within Ireland's power grid. Innovation in relation to grid-interactive UPS technology would also allow for backup energy storage systems within facilities to send power back to the energy grid. The potential exists for such systems to significantly reduce Ireland's carbon emissions whereby they could be utilised to reduce the dependence on fossil fuels, and therefore would contribute to reducing Ireland's overall emissions.

Ireland is fortunate to have, right across the country, some of the largest and most advanced manufacturing facilities in the world in sectors including medical technology, biopharmaceuticals, semi-conductors, automotive technology, food and beverage, as well as significant data centre investments. These facilities are supplying key global supply chains and markets – for example, four out of every five medical stents, saving lives around the world, are created in Ireland; even though Ireland only has 0.06% of the world's population it was the fifth biggest responder to the demand for key products due to Covid. Many of these facilities operate on a 24/7 basis and very carefully plan their shifts to ensure the people needed have sufficient notice. Most already implement best-in-class energy efficiency as energy is one of the biggest costs they must manage - some AmCham member companies are seeing their energy costs rise six-fold over the course of 2022. AmCham notes the comments of EU Energy Commissioner, Kadri Simson in June who recognised that electricity transmission costs in Ireland are amongst the highest in Europe, while the SEAI report for the second half of 2021 highlighted that the weighted electricity cost to business consumers in Ireland was 25% above the EU average.⁴ In this context, AmCham notes the urgency of developing indigenous, renewable, affordable, and secure sources of energy for Ireland.

Continued dialogue between Government and LEUs is important in ensuring planning processes in relation to outputs, and consequently the energy demands that will be placed on the energy system in the coming years are fully understood. AmCham recommends that Government consider the potential of grid-interactive UPS technology, as a potential mitigation measure.

It is important that Ireland retains its reputation as a destination that encourages and facilitates inward investment. This reputation has been maintained by Ireland's ability to effectively guarantee the generation of sufficient energy for such FDI projects and

³ [AmCham Ireland response to CRU Tariff consultation - August 2022](#)

⁴ [SEAI, Electricity and Gas Prices in Ireland \(2nd Semester \(July – December\) 2021\)](#)

this is needed for the future. The multinational community – and decision makers at corporate headquarters – appreciate the consistent message from Ireland that it welcomes inward investment – in particular large-scale capital and jobs-intensive investments. This priority is part of Ireland’s global business brand - its promise. AmCham members are committing to increasingly ambitious decarbonisation goals and Ireland must position itself as a location that can accommodate those commitments through the secure supply of indigenous renewable energy.

Mitigation

Any measures put in place to mitigate against risks to energy security must also bear in mind cost, sustainability, and urgency. AmCham appreciates the consultation’s methodical consideration of alignment with the Climate Action Plan, the impact on security of supply, and the feasibility of implementation.

Transitional power sources

In line with the EU Taxonomy and given the long lead in time of offshore wind generated electricity and hydrogen, development of transitional power sources is needed. This includes gas infrastructure that has the ability to pivot to green hydrogen in the future. The use of underground gas storage (UGS) could be explored in relation to flexibility for natural gas sources, including biomethane, and green hydrogen.

Ireland’s electricity supply, during periods of low wind, is derived mainly from gas, increasingly so as coal and heavy fuel oil plants go offline. To ensure continuity of supply, competitor countries in Europe are accelerating the development of additional natural gas energy infrastructure, given that natural gas is a designated transition fuel by the EU. Meanwhile, Ireland is unique among maritime EU countries in its import capabilities for various types of natural gas. Much gas infrastructure can be developed, as mentioned, with the ability to be hydrogen ready, meaning that it can be used when offshore wind becomes available for hydrogen production. AmCham therefore considers the development of such infrastructure a viable interim measure in enhancing Ireland’s energy security whilst paving the way for the use of green hydrogen in the future. Further, the provision of additional gas capacity, and base load supply measures which align with the EU Taxonomy, should be accelerated to support Ireland’s energy needs.

Biomethane & hydrogen

AmCham welcomes the inclusion of a Gas Mitigation Package within Part 2 of the Technical Analysis and the support shown towards renewable gas, such as biomethane in the 2021 Climate Action Plan.

The Climate Action Plan set a target of 1.6 TWh per annum of indigenous sustainably produced biomethane for injection into the gas grid by 2030 and showcased a willingness to explore opportunities to produce further levels of biomethane above 1.6 TWh. Biomethane is suitable to replace natural gas on the network and is fully compatible with existing appliances, technologies, and vehicles, whilst also reducing emissions. In addition, biomethane is well-recognised in response to the EU's commitment to becoming a highly energy-efficient, low carbon economy.

Ireland, with its large agriculture sector, is considered the EU member state with best potential to exploit biogas. Despite this, Ireland is behind its European neighbours in biomethane production. Denmark, with a population similar to Ireland and a large agricultural industry, derived 25% of its 2021 gas needs from biogas, and has set targets of 75% by 2030 and 100% by 2034. Industry experts note the significant sources of suitable biomaterial in Ireland and the competitive advantage that Ireland has in growing grass. In this context, clarity on government strategy with regard to biomethane would be welcome, given that other jurisdictions have such strategies in place.

The setting of a Renewable Energy Support Scheme (RESS) price for biomethane would be beneficial, as a matter of priority. In competitor jurisdictions, companies have the ability to power their facilities with biomethane to meet their emission reductions targets, while this is not currently possible for similar facilities in Ireland. Advancing the use of biomethane in this regard would enhance Ireland's competitiveness as an investment location, and support business in reducing their emissions.

Likewise, Ireland's hydrogen development has been slower than its European counterparts. However, AmCham recognises that progress is being made in this area. AmCham looks forward to the publishing of Ireland's Hydrogen Strategy and appreciates the specific mention of hydrogen throughout the consultation document.

Industry can play a key role in generating demand for, and trialling the use of, hydrogen. Government should look to establishing 'Hydrogen Valleys' similar to those that can be seen across Europe and the UK, as a way to speed up the generation and use of hydrogen. A report published by the European Union, along with The Fuel Cells and Hydrogen Joint Undertaking (FCH JU) notes how *"Hydrogen Valleys are the pioneers of this market and ultimately the steppingstone towards the full rollout of a new hydrogen economy – and the industrialisation of the associated technologies"*

*simultaneously.*⁵ Government should therefore engage with industry, as well as researchers, to examine this “*steppingstone*” as a potential feasible mitigation measure.

Notably, Ireland has one of the best wind resources in Europe, and therefore a huge potential for large scale hydrogen production. Looking beyond the immediate need to address energy security, Ireland should remain ambitious in its targets to decarbonise, but further still to reach its export potential. Ireland could generate enough hydrogen to export to countries with less ability to produce the gas. This presents a real opportunity for Ireland to position itself as a leader in the space, moves should therefore be made to facilitate this. In this regard a long-term strategy focused on self-sufficiency and exports is needed to coincide with the short to medium-term strategy to establish security of supply.

Key to ensuring that hydrogen is a viable option in the future is the acceleration of offshore wind development in Ireland.

Offshore wind

Ireland has a huge capacity for offshore wind production but lacks the vital infrastructure to make the most of its potential. In comparison the UK government recently announced the development of an additional 12GW of offshore wind energy and the Netherlands has announced the development of an additional offshore wind capacity of 11GW by 2030.⁶

The recent loss of developers from offshore projects creates potential barriers to significant contributions to renewable energy provision being made by offshore wind in this decade. Further, according to a report by Wind Energy Ireland, Belfast harbour is the only port on the island of Ireland ready to be used to construct offshore wind farms.⁷

Offshore wind is a key area which has suffered due to logjams and delays in Ireland’s planning system. Indeed, offshore wind developers have left Ireland due to the lack of a planning authority to facilitate offshore wind construction. Offshore wind projects are complex and highly technical, and planning applications must be thoroughly scrutinised. To be effective, it is essential that Maritime Area Regulatory Authority and

⁵ [*Hydrogen Valleys: Insights into the emerging hydrogen economies around the world*](#)

⁶ [*Aldert Otter, PhD researcher at MaREI, 'How Ireland could become an offshore wind superpower' - Silicon Republic.*](#)

⁷ [*Wind Energy Ireland, Gavin & Doherty Geosolutions, National Ports Study.*](#)

An Bord Pleanála are given sufficient resources to make the transition as smooth as possible and to successfully navigate new legislation.

Further with the official focus remaining on phase one projects, and a timeline restricted to 2030, developers may be withholding commitments until there is more certainty. Even once planning is awarded the possibility of long delays due to judicial review challenges is a further deterrent to developers and further slows down progress in the area. There is a need for funding, clarity, and streamlined planning processes to accelerate the development of infrastructure that is crucial for Ireland to meet both its general energy demands and climate action goals.

Electricity interconnection

AmCham supports the technical analysis' consideration of electricity interconnectors; an increase in transfer capacity between Ireland and Northern Ireland to 1,500 MW, the 700 MW Celtic interconnector to France by 2030 and a 500 MW interconnector to GB by 2030. AmCham further welcomes the consideration of an additional 700 MW electricity interconnector between Ireland and France, which will further strengthen Ireland's resilience against an unserved electricity demand under a shock scenario. However, the "*uncertainty regarding the exact timing*" must be addressed to provide stability for business in relation to the security of Ireland's future power supply.

Further, as is acknowledged in the 'risks' section, AmCham stresses the need to consider the threat posed by future geopolitical tensions in regard to cybersecurity and physical sabotage on energy infrastructure. Measures must be put in place to ensure that energy infrastructure is resilient to such attacks, and Ireland's indigenous energy production must be accelerated to lessen Ireland's dependence on such structures.

Timeliness

Only one of the mitigations options listed in the consultation document is "*likely*" by 2025, and several remain uncertain out to 2030. Given the urgency of the current energy security crisis, alongside the need to achieve emissions targets by 2030, efforts must be accelerated to ensure that timelines can be reduced.

The very significant deficit highlighted by Eirgrid and the lack of clarity on electricity and gas supply for expansion of the current industrial base, mean that all efforts to provide energy to the system should be welcomed and urgently accelerated, especially those that are in alignment with EU policy. The provision of a roadmap providing clarity on supply for current operations and for future expansion, as a matter

of urgency, would be beneficial. There is a need for two conversations; one on short-medium term need and immediate mitigation measures, and one on the longer-term journey to energy sustainability and exports.

Policy measures

In terms of policy measures, AmCham is broadly supportive of those detailed in the consultation document. The suggestion that an annual report should be produced collaboratively by EirGrid, ESB, and Gas Networks Ireland, addresses the need for a joined-up thinking approach to the energy problem. AmCham agrees with the sentiment that the *“energy system is considered in a holistic manner and that security of supply for the Irish energy systems is considered fully.”* A unified approach is an efficient and thorough means through which to monitor and address the energy security issue.

AmCham further supports the idea that *“it is important that Ireland has up-to-date and regular information on security of supply available, even during periods when our energy security is considered high.”* The need for a consistency in the monitoring of the situation, particularly when demand may seem sufficient, is therefore crucial, particularly in terms of planning for future demand and growth.

The electrification of industrial heat can complement the continued growth of indigenous renewables – with significant cost, security and decarbonisation benefits. Policy measures to support this would be welcome, namely the addressing of the current pricing disparity between grid charges for electrified heat and natural gas.

In terms of security of energy supply, a cohesive strategy and timeline is needed in order to get energy projects underway. There is little time to waste, and efforts must now be directed at establishing concrete and ambitious targets against which to benchmark. Further, the energy security crisis is not unique to Ireland. Ireland must look to its European counterparts and consult ‘best practice’ models. This is particularly helpful in the area of green hydrogen, offshore wind, biomethane, and transitional measures in line with EU Taxonomy.