Wholesale Electricity and Gas Policy Division Department of the Environment, Climate and Communications 29-31 Adelaide Road Dublin 2 D02 X285

27th October 2022

Subject: Review of the security of energy supply of Ireland's electricity and natural gas systems consultation

Dear Madam/Sir,

With regard to the recent Electricity and Gas Security of Supply Review, please accept my submission, as follows, to the Public consultation for your consideration.

I would also like to refer you to some of the many reports published over the last few years which give recommendations on how to deal with energy security in Ireland. Some of these reports which can be found online include:

- Sustainable Energy Authority of Ireland (SEAI): "Energy Security in Ireland" (2020)¹
- National Preventive Action Plan Gas: Commission for Regulation of Utilities ("CRU") (2018)²
- International Energy Agency (IEA): "Energy Policies of IEA Countries Ireland 2019 Review" (2019)³
- Irish Academy of Engineering: "Natural gas essential for Ireland's future energy security (2018)⁴

Most of the reports have been pointing out security of supply issues for years now, and particularly a need to solve our gas storage issues. Gas storage and supply has been identified as a key item to have in place ahead of the transition to renewables in order to offset the intermittency of renewables. In addition, issues around BREXIT, and our binding EU commitments towards market interconnectivity and security of supply make the case for an LNG terminal in Ireland very compelling.

As guidance, Eirgrid has also been pointing out over the last few years that Ireland has broken peak demand scenarios multiple times over the last few years and has been warning of more outages. This situation cannot be allowed to develop further and action needs to be taken by the government. Please also refer to the "All-Island Generation Capacity Statement 2020-2029" which was published by Eirgrid in 2020⁵. The report focuses on the electricity supply/demand outlook for the island of Ireland over the next 10 years and points out that Ireland would face significant shortages of power under various scenarios after 2026, especially once the coal-fired power plants close down. The analysis shows that should Moneypoint close there could also be deficits of energy before 2026. This report was in place well before the current Russia-Ukraine crisis.

Generally speaking, power demand is also expected to increase significantly, especially from data centres. These will account for up to 27% of demand by 2029. While reducing our dependence on coal is fine, I believe this report again demonstrates that we have been walking into a security of supply energy crunch with no remedial action taken. We have a number of major issues in our gas and electricity systems and action needs to be taken now.

Our transition to using more renewable sources of power needs to be balanced so that we do not encounter other supply shocks, especially like the one we have been recently experiencing. I therefore believe a Liquefied Natural Gas import terminal (LNG terminal) should be immediately put in place. An LNG terminal can provide our country with many benefits including:

- An immediate gas storage and supply unit which can smooth any supply disruption.
- Flexible sendout of gas from the terminal.
- Ability to diversify and choose our supply sources and avoid reliance on one import source.

- Reduce our gas costs by diversifying our supply sources away from our sole alternative. Energy costs could also become more competitive should the government decide to support term LNG supply deals.
- Support the transition to Renewables by smoothing out intermittencies.
- LNG bunkering solutions for visiting ships to promote cleaner burning fuels in ships (alternative to heavy fuel oil).

In my view, the solution for our gas security of supply is quite clear, and has been clear for years. I would also propose that an Irish owned and controlled company needs to lead the implementation of an LNG import terminal for Ireland. An LNG terminal will allow our gas supply sources to be diversified as well as ensuring Irish consumers can source competitive LNG from the market. An LNG terminal will also support the transition to renewables in a smoother fashion, as well as future proofing and securing our energy supply systems.

Furthermore, I would like to add that the LNG industry has already demonstrated its value during the current crisis by replacing large amounts of Russian gas in Europe. Ireland is not directly interconnected with EU markets and is therefore exposed. We must act quickly in the interests of securing our energy supplies and future economic growth.

Public Consultation Questions

Risks

- 1. Are there any other security of supply risks that you can identify in addition to those set out in section 6?
- The CEPA report only models a disruption gas supplies from Russia but does not model any disruption to global supplies of other energy sources e.g., of coal or oil. During the current crisis, we have seen a disruption of both coal and oil supplies, in addition to gas. As an example, the current Russia-Ukraine crisis has meant a ban on Russian coal into Europe and a subsequent strengthening of premiums for alternative sources, further exacerbating the pricing crisis for our energy.
- The report seems to be fairly biased to the fact that disruption to pipelines is less likely. The report also seems to consider an omnipresent or reliable UK gas supply situation when there are also risks to the UK's own natural gas supplies. The report from DECC was published on the 19th of September and one week later, on the 26th of September, the Nordstream 1 and Nordstream 2 pipelines were targeted in an attack of sabotage, immediately reducing gas supply to Germany and exacerbating the crisis. The likelihood of an event happening in the Irish sea where the lines of the interconnectors are knocked out must therefore be taken under increased consideration. Note that Ireland is also classed as an unfriendly country by Russia during the current conflict in Ukraine.
- Ireland has no gas storage facilities and is reliant on gas for more than 50% of electricity generation.
 Therefore Ireland is extremely exposed to any such security of supply event. It would be grossly irresponsible not to ensure having a backup/alternative solution for the continuity of Ireland's gas supply during a disruption.

2. If there are other risks that you have identified, could you outline some mitigation options to address the risk(s)?

- Under the report, it looks like there are two realistic options (although others are mentioned) to ensure continuity options:
 - 1) a Gas Storage Facility, and;
 - 2) an LNG terminal under the description of Strategic Floating LNG.
- The report seems to draw a conclusion that these options are challenging to have in place by 2025. However, while option 1 may take a bit longer, the statement about an LNG terminal not being realistic before 2030 is not a factual statement unless Government decides to actively prevent it.
- There are a number of floating LNG terminals (FSRU terminals) available on the market which can be procured to ensure Ireland's security of supply very quickly. In addition, there are identified points in the national gas transmission system which offer a fairly short tie-in meaning Ireland could have a terminal in as little as 12-18 months, should the government decide to support it.
- Therefore, the conclusion that no security of supply infrastructure for gas is possible before 2030 is incorrect.
- Considering what the Netherlands, Germany and Finland have done to ensure gas supply, i.e. implementation of floating LNG receiving terminals in a timeframe of 6-8 months, it is unclear as to why the government of Ireland has not acted yet.

- If a permanent gas storage facility is not palatable, a temporary/floating LNG import terminal is clearly the only way to move forward. The government therefore needs to act quickly and arrange for security of supply measures through implementation of an LNG terminal.

3. Are the five shock scenarios that were considered, and the additional scenarios related to the Russian invasion of Ukraine, sufficiently broad?

- The shock scenarios are taking a view that offshore wind and electricity interconnections with GB and France will already make up a significant resource for energy supply post 2025.
- With regard to security of supply, the model should take into account delays in the implementation of this infrastructure or lack of infrastructure, especially considering most projects are already delayed due to planning/statutory backlogs. In addition, disruption to these interconnected markets should be considered, i.e. not being a dependable source of energy in case of European wide disruption.
- A situation considering disruption of other energy sources should also be considered simultaneously with natural gas disruption, e.g. lack of coal/oil generation capacity. This has already proven to be the case during the current crisis.

Mitigation Options

4. Do you have any additional mitigation options that you think should be considered?

- The report does not consider a nuclear power plant as a mitigation option. Although this is currently banned under current Irish policy, the fact that Ireland wishes to connect to France, due to France's nuclear power portfolio shows that there may be a merit to studying the impact of such an installation in Ireland.

5. Which gas supply mitigation options, if any, should be considered for implementation?

- An LNG terminal should be considered as the quickest, most economic and secure way for Ireland to ensure no disruptions to its gas supply, and therefore its electrical supply.
- Ireland's offshore oil and gas reserves should also be considered as mitigation options, i.e. through exploitation of existing and new oil/gas fields. Oil and gas will continue to be used for the foreseeable future, not just for energy but in the provision of most everyday items including plastics, lubricants, fertilizer production, etc.

6. Which electricity supply mitigation options, if any, should be considered for implementation?

- Due to the fact that Ireland generates more than 50% of its power from gas, the main mitigation option in the immediate term is to have an LNG terminal as this will help to ensure supply of gas to gas fired power plants. An LNG terminal would also comply with the government's desire not to have permanent gas storage infrastructure.
- Another alternative, although contrary to government policy, would be to consider a nuclear power
 plant or to keep peat fired power plants as reserves for emergency electricity supply. As peat should be
 only used in emergencies, gas fired turbines could be installed to run at existing peat power plants,
 ensuring continuity of local jobs and power expertise.

7. What measures should be considered on the demand side to support security of supply of electricity and gas?

 In the absence of immediate alternatives, an LNG terminal, with access to international LNG markets, is the only way to ensure gas supply to Ireland is the only option to ensure security of supply of both gas and electricity.

8. Do you have any views on how the mitigation options should be implemented?

 I believe that an LNG terminal is the clear way forward to mitigate any gas supply disruptions and also ensures electricity supply. There are a number of ways the government can implement this. Here are a couple of ideas:

1) Commercial LNG project

- Establishment of rules so that Irish energy companies maintain a minimum storage level of gas/LNG on the island of Ireland and either manage this directly or through an aggregator, depending on the commercial structure of the terminal.
- The Commission for Regulation of Utilities (CRU) would need to be involved in such a process, especially to any changes in market regulation.

- 2) Establishment of a National Gas Reserves Agency or Public-Private partnership which would be
 - Mandated to procure and manage an LNG receiving terminal/gas storage facility and stock levels
 - Ensure minimum gas stock for island of Ireland through management of the LNG terminal and procurement of LNG from market.

Policy Measures

- 9. Do you support the policy measures proposed in section 8 of the consultation paper?
 - Under section 8, "Tools and Measures", it mentions regular planning and reviews. I would also suggest to include a point where upon completion of any security of supply review, action is taken to remedy any shortfalls identified in the planning or intended reviews. Considering the present geopolitical situation, the Department could have a task force dedicated to Irish security of supply. Such a task force could be mandated to raise topical issues to government, ensuring that the government of the day is held to account on security of supply measures.
- 10. What further tools and measures do you think would contribute the most to Ireland's energy security of supply?
 - Policy should be made clearer in regard to the expansion of data centres and how the government intends to supply electricity for these energy intensive items as well as ensuring supply to homes/businesses over the coming decades.
 - The government should also reconsider the ban on offshore oil and gas exploration as a mitigation point.

Thank you for your consideration and I am available for any clarification.



Links to reports:

¹SEAI: https://www.seai.ie/publications/Energy-Security-in-Ireland-2020-.pdf

²CRU: https://www.cru.ie/wp-content/uploads/2018/02/National-Preventive-Action-Plan-Gas-2016-18.pdf

³IEA: https://iea.blob.core.windows.net/assets/07adb8b6-0ed5-45bd-b9a0-3e397575fefd/Energy Policies of IEA Countries Ireland 2019 Review.pdf

IAE: http://iae.ie/wp-content/uploads/2018/08/IAE Natural Gas Energy Security.pdf

⁵Eirgrid: http://www.eirgrid.ie/site-files/library/EirGrid/All-Island-Generation-Capacity-Statement-2020-2029.pdf.