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Dear Mr. Confrey,

CC: John O'Neill, Department of Communications, Climate Action and Environment

RE: Draft Electricity and Gas Network Sectoral Adaptation Plan

Thank you for your presentation on the Electricity and Gas Network's draft sectoral adaptation plan to the Climate Change Advisory Council's Adaptation Committee on the 24th May 2017. It was a welcome opportunity for the Adaptation Committee to engage with you regarding the draft plan. The Adaptation Committee also considered the text of the draft adaptation plan published for public consultation. The Committee made a recommendation to the Council to provide feedback on the energy networks sector plan.

The Climate Change Advisory Council is mandated to provide independent advice to help Ireland achieve its national transition objective on adaptation as outlined in the National Policy Position (2015). The Council believes that the sectoral planning process offers a valuable opportunity for sectors to build resilience to the impacts of climate change by identifying vulnerabilities, adaptive capacity, risks and opportunities, and developing adaptation plans to address them.

In response to the consultation on the draft plan, the Council wishes to outline some observations on the Electricity and Gas Network's draft sectoral adaptation plan:

Climate Policy

- The draft plan presents a good overview of the challenges in the sector. It demonstrates an awareness of how an evolving energy system will bring different challenges for climate change adaptation in the coming decades. However, it lacks detail on how the system will evolve, or an assessment of the costs of climate impacts and of building resilience in the sector.
- The draft plan notes the potential for increased demand for electricity from the adoption of mitigation options in other sectors. The text identifies a potential need to reinforce the network to manage this increase in demand, and underlines the potential need for additional adaptation measures.
- The Council welcomes the realistic vision presented that the energy generation mix could change completely by 2050 bringing a range of different climate change vulnerabilities. The Council would like to see a more detailed analysis of the range and penetration of potential technologies involved and transition pathways for the new energy mix required to achieve the mitigation objective and how these could impact resilience and adaptation. Energy storage technologies, solar PV and the other distributed generation systems are not considered in sufficient detail. Additionally, the long-term role of natural gas, in a transition to near-zero emissions, and the role of bio-methane production and impact on the grid is not well considered.

Governance and structures

- The Council commends the efforts taken in developing the draft sectoral adaptation plan as well as work by a number of agencies in taking positive steps towards building resilience in the sector through cross-agency collaboration. However, engagement with end-users appears to be limited and this should be addressed. The role of the Commission of Energy Regulation needs to be clarified. Issues of public acceptance could impact on the ability of asset owners and grid administrators to build a more resilient grid and energy system.

- Specific options for electricity generation, electricity transmission and distribution and gas networks are outlined but more detail is required. Actions are high level and require further development to guide implementation across the network. The timeframes for implementation of actions appear vague.
- The draft plan clearly flags a range of cross-sectoral issues including cascading impacts across sectors which the Council believes will be central to effective adaptation in the sector.
- Wider regional impacts of climate change on internationally interconnected energy networks do not appear to be considered but may be present in other sectoral plans.

Definitions and approach

- The draft plan presents a good whole-of-system view and includes a definition of what adaptation would mean for the sector. It would be useful to ensure consistency with the definition adopted in the Climate Action and Low Carbon Development Act 2015. A clearly defined sectoral resilience goal would be welcome in the next iteration of the plan.
- The Council welcomes that the sector is undertaking an assessment to identify vulnerable areas on networks and is in the process of identifying key vulnerable infrastructure or assets. The recognition of the risks associated with clustering of critical infrastructure is also noted. Future development scenarios for the sector are not well presented, and the plan is mainly focused on the challenge of maintaining the existing networks and level of service.
- The draft plan does not include an assessment of the increased costs from extreme weather or of the costs of installing more resilient grid equipment, infrastructure and adaptation measures. Such an assessment would be welcome in the next iteration of the plan.
- The Council welcomes the insight the plan provides into how a smarter grid could be vulnerable given its dependence on telecommunications to operate.

Engagement

- The plan shows awareness of external factors/shocks but does not include detail of those external factors, except through reference to other plans. More detail in the next iteration of the plan would be encouraged.
- The draft plan calls for research in this area to be supported, to allow risk to be routinely factored into investment decisions and policy decisions to help build resilience in this sector. Analysis of local and regional area projections of climate change is identified as critical in determining risks for the energy sector. The key sectoral stakeholder should consider options of how to provide the resources to enable this research, in cooperation with relevant funding agencies.

In conclusion, further analysis and modelling of how the energy system in Ireland will evolve and how that will affect its resilience and adaptation responses would strengthen future iterations of the plan.

The sector should develop a detailed assessment of the costs of responding to extreme weather and of the costs of installing more resilient grid equipment, infrastructure and adaptation measures.

With decarbonisation increasing dependency on electricity across society, the level of resilience that the energy system exhibits in the future may need to be higher than the current levels of service that systems offer in the face of extreme events.

Identification of particularly vulnerable sectors of the economy and society to interruptions in supply could inform future adaptation planning in the sector.

The Council looks forward to the statutory sectoral plan following completion of the National Adaptation Framework development process.

Yours sincerely,

Prof. John FitzGerald

Chair

Climate Change Advisory Council