RE: Network Imperfections Charges October 2026 – September 2027 Consultation

Date: 16 July-2026

To: Market Modelling Group (mmg@cru.ie) and the All-Island Regulation Team (tsc@uregni.gov.uk)

Thank you for the opportunity to submit a response to this Network Imperfections Charges October 2026 – September 2027 Consultation

I am a lecturer and researcher in energy-related topics at University College Cork. I am submitting this response in a personal capacity, and it does not represent the views of my organisation or colleagues.

In response to the request for stakeholders' views on the following questions:

Q1: Whether the TSOs' forecasts of costs and assumptions for Tariff Year 2026/27 are reasonable

Yes. The calculation of Imperfection Costs by EirGrid appears reasonable. However, it should be noted that Ireland faces a particular challenge with Imperfection Costs when compared to other European countries. In Great Britain and Germany, these charges are approximately €10/MWh and €5/MWh respectively (using the country-level figures provided in the report divided by annual electricity consumption), compared to Ireland's DBC costs.

Q2: Whether there are additional actions the TSOs could take to minimise Imperfection Charges

I don’t think there is sufficient information presented in the consultation to determine what additional actions the TSOs could take to minimise Imperfection Charges.

Imperfection modelling is complex and extremely challenging, not only because of the complexity of the power system itself but also because of the inherent uncertainty in the primary drivers of costs, such as gas prices and generator outages. It is not always possible to map a direct TSO action to a market consequence in complex systems with multiple interdependencies and overlapping constraints.

There comes a point in any analysis where additional modelling and scenario analysis become redundant in the face of uncertainty. More modelling or additional scenarios do not necessarily lead to better outcomes or lower prices, and TOOT analysis tends to be best at identifying primary drivers but loses value when there are multiple overlapping drivers

Having reviewed both this consultation and previous consultations, I am think that there is a risk of overanalysing the problem and under-examining solutions.

It is established in this and previous consultations that gas prices, generator outages, and profiles are the primary drivers of Imperfection Costs. These factors are outside the control of the TSO and cannot be predicted at all with certainty. However, I believe not enough attention and resources is being given to understanding and evaluating options that could reduce the volume of imperfections.

I would respectfully question whether the highly skilled modelling resources within the TSOs could be better utilised in quantifying the monetary impact of solutions rather than further improving our understanding of the problem.

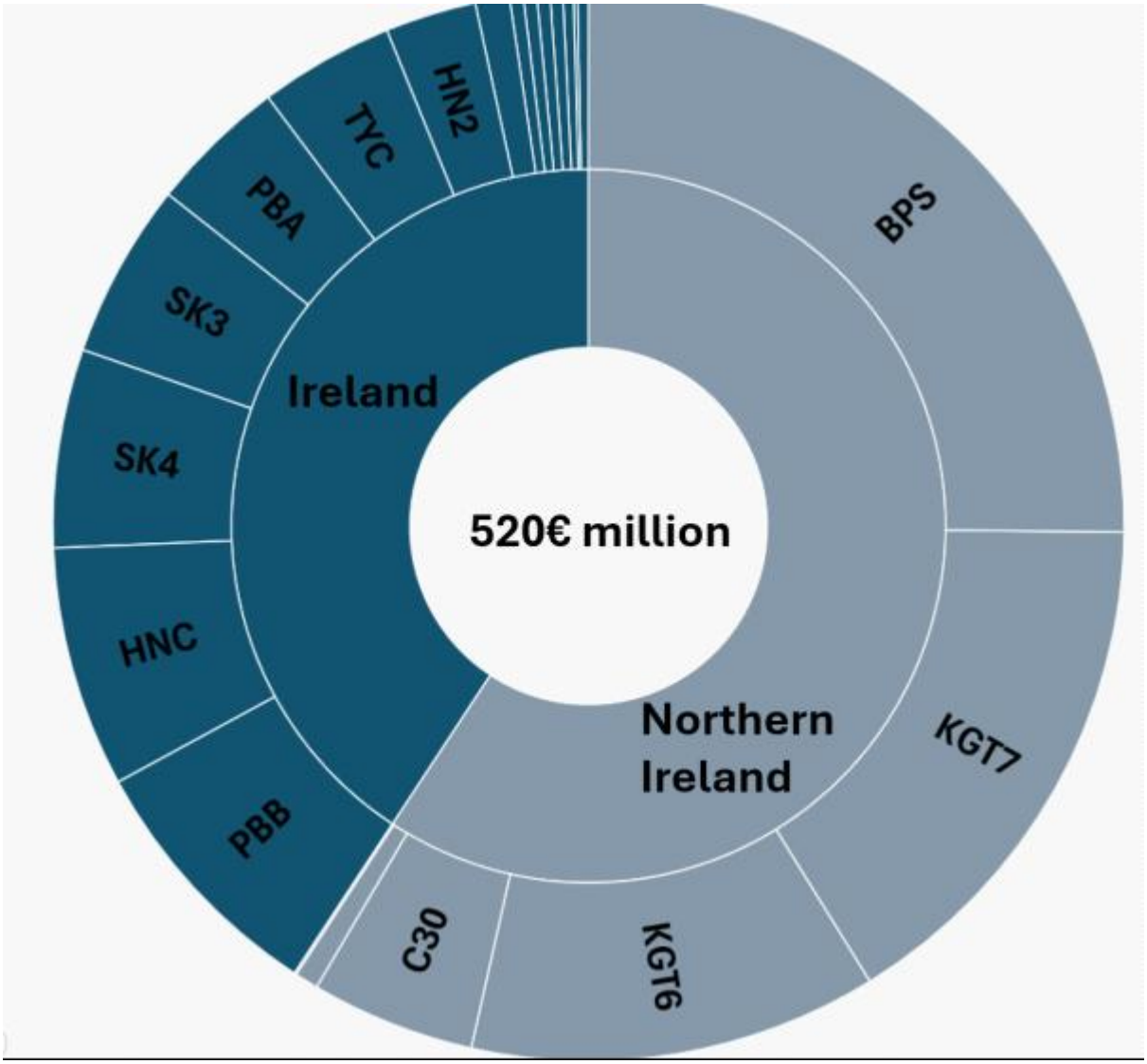
To achieve this, more information could be reported rather than more scenarios being modelled.

I would suggest the following two actions.

1. Imperfection Charges Should Be Reported by Jurisdiction

Relative to its size, the Northern Ireland system appears to have a disproportionately large impact on Imperfection Costs. This is not unusual for a smaller, constrained region with an older thermal generation fleet. I also acknowledge the unforeseen five-month simultaneous outage of three large Combined Cycle Gas Turbine units in Northern Ireland.

The chart below is derived from monthly published information from the SEM Market Monitoring Unit and illustrates the distribution of selected dispatch and balancing payments (CPREMIUM, CDISCOUNT and CFC) to specific power plants across the all-island system from May 2025 to April 2026 (noting calendar months rather than the tariff year).



Over €520 million was paid to generators over the past 12 months, with approximately 55% going to generators in Northern Ireland and 20% going to generators in Dublin. This looks peculiar given Northern Ireland's smaller share of all-island electricity generation

This concentration and magnitude of Imperfection Charges point to the need for investment in the Northern Ireland system, both in infrastructure and in stronger physical connections to the wider all-island system. It also highlights the need for improvements in operational policies across the full system.

It would be helpful if the studies could provide information (MWh and €) on the potential reduction in final DBC or Imperfection Costs that could be achieved through:

1. Enhanced operational policy changes;
2. Technology investments; and
3. Reductions in minimum generation requirements for units in Northern Ireland.

It would be particularly useful to understand the impact that the North-South Interconnector could have on final consumer bills and Imperfection Costs.

I note that work is underway in the work "*Ongoing Actions to Reduce Imperfection Costs*" as mentioned to in the consultation so my query may be better directed towards that workstream. However, I do not believe there is sufficient clarity within the consultation on the available options for reducing Imperfection Costs or on how stakeholders can usefully answer the consultation question: *"If there are additional actions the TSOs could take to minimise Imperfection Charges*."

2. Underlying Data

Having reviewed previous consultations, there appear to be recurring questions and queries relating to modelling assumptions and methodologies.

Would it not be more efficient and effective to make the underlying model available, similar to the CRU validated market model, with any commercially confidential or sensitive information removed? This could improve transparency, reduce repetitive queries, and allow more resources to investigating and quantifying solutions rather than repeatedly addressing questions on modelling assumptions.

Warmest regard

Paul Deane