

Addendum to the Winter Outlook 2024/25

System Operator for Northern Ireland

January 2025

Introduction and Summary

SONI (System Operator for Northern Ireland) is Northern Ireland's electricity Transmission System Operator.

SONI does not generate or sell electricity, rather we operate the electricity transmission system in real time to ensure power can flow from where it is generated to where it is needed. As such, we rely on those who secure contracts to generate electricity through the all-island markets for electricity, to make that generation available to us when it is required. Each year, SONI publishes the Winter Outlook which sets out our assessment of the expected consumer demand for electricity against the expected available generation over the winter period.

This Addendum to the Winter Outlook 2024/25 covers the period from 13 January 2025 to 31 March 2025. The data-freeze date for the Addendum is 15 January 2025, with assumptions based on best available information at this date.

The System Operator for Northern Ireland (SONI) published the Winter Outlook on 8 October 2024.

The <u>Winter Outlook 2024/2025</u> concluded there would be sufficient generation to meet consumer demand in normal operating conditions and pointed to an improved picture from Winter 2023/2024 due to the connection of two new gas turbines.

This Addendum to the Winter Outlook 2024/25 has been published due to circumstances that amount to a material change in the initial outlook.

The Northern Ireland System is planned such that the portfolio of generation available in Northern Ireland is sufficient to meet peak consumer demand, whilst also covering a range of credible contingencies for reasonably foreseen events e.g. the loss generation.

On the 7 December 2024, Storm Darragh caused significant and unforeseen damage at a power station in Northern Ireland, which resulted in the loss of a significant amount of conventional generation. As a result of this damage, three of six large generators in Northern Ireland were forced into extended outage, necessary to assess and resolve damage caused by the storm.

Such an event is a scenario that cannot be reasonably forecast. As this event has changed the outlook for the remainder of the Winter period, the System Operator has provided an updated assessment for the remainder of the Winter period.

The revised outlook for the remainder of the Winter period **still indicates that there will be sufficient generation to meet consumer demand in normal operating conditions**, with the risk of disruption to the electricity supply remaining low. There is no risk of blackouts where the expected portfolio of conventional generation remains available. However, the power system will be operating at an increased level of risk for the remainder of the Winter period.

The System Operator continues to monitor the situation closely on an ongoing basis and is working with all stakeholders to implement tried and tested plans to minimise the risk of any disruption.

Weekly Analysis

Figure 1 shows the updated expected weekly de-rated generation capacity based on de-rating factors for each import scenario versus the forecast demand plus reserve.



Figure 1: Northern Ireland weekly de-rated generation capacity (dashed lines) for each import scenario versus the forecast demand plus reserve (bars)

In the median and high import scenarios, demand plus reserve is met in all weeks.

There are two weeks in the low import scenario where the demand plus reserve requirement exceeds the de-rated capacity.

The risk of the system entering the Alert and Emergency states is higher in these weeks. Based on information at the time of the data-freeze, January is expected to be the most onerous period from a capacity margin perspective.

Conclusion

The assessment of the generation margin for the remainder of this Winter period indicates that in the median import scenario there will be sufficient generation margin throughout. However, the power system will be operating at an increased level of risk.

There is a risk that the system could enter the Alert State at times, most likely at periods of low wind and low interconnector imports.

The risk of the system entering the Emergency State due to insufficient generation being available to meet the demand is **low**.

There is **no risk of a system-wide "blackout"** (a total loss of control of the electricity system) solely due to insufficient generation this Winter.

The System Operator continues to work closely with all stakeholders, including the Department for the Economy, the Utility Regulator, NIE Networks, Mutual Energy and private industry to ensure security of supply is maintained in Northern Ireland.

SONI's team of experienced, expert grid control engineers is always managing a degree of risk in operating the transmission system and have tried-and-tested mitigation and contingency plans in place in the event that any challenges arise.

These plans include:

- Maximising all other available generation of the system
- Maximising imports from Great Britain and Ireland
- Reconfiguration of the planned outage schedule
- Acceleration of any new generation due to come onto the system; and,
- Use of small, more responsive generation, such as Open Cycle Gas Turbines and other technologies such as batteries.