

Winter Outlook 2015/16

The EirGrid Group Winter Outlook is an annual report that provides information on expected electricity demand, and generation available to meet this demand in Ireland and Northern Ireland for the coming winter (1 November 2015 to 31 January 2016).

All-Island Summary

We expect there will be adequate generation capacity to ensure a secure supply of electricity over the coming winter period in Ireland and Northern Ireland. The all-island capacity margin¹ is expected to be 3441 megawatt (MW)². All-island installed wind generation now exceeds 2950 MW, corresponding to an all-island wind capacity credit of 425 MW. The all-island fuel mix is dominated by natural gas (39.5%), with 18.1% of electrical energy coming from coal, and 17.4% from wind.

Ireland

- ▶ Generation capacity margins are expected to be adequate over the winter period. There is predicted to be a capacity margin of 2499 MW².
- ▶ Demand growth remains low with a prediction of 1% growth³ in 2015.
- ▶ Installed wind capacity now exceeds 2320 MW, with a corresponding wind capacity credit of 343 MW towards overall capacity margin and security of supply.
- ▶ The East-West Interconnector (EWIC) is expected to be available at full capacity during the winter period and is contributing strongly to the security of supply.
- ▶ Demand-side response, where certain customers are available to reduce their overall demand at peak periods, has increased significantly in the past year to 229 MW, up from 161 MW in 2014.

Northern Ireland

- ▶ Generation capacity margins are expected to be adequate over the winter period. There is predicted to be a capacity margin of 1225 MW². Capacity margins are projected to decrease slightly in October & November but are still considered acceptable.
- ▶ Demand growth remains low with a prediction of 0.7% growth³ in 2015.
- ▶ Installed wind capacity now exceeds 630 MW, with a corresponding wind capacity credit of 129 MW towards overall capacity margin and security of supply.
- ▶ The Moyle Interconnector is expected to return to full capacity in late 2015/early 2016 following the laying of a new cable.

NOTES:

1. Capacity margin = the amount of surplus generation available at the time of maximum demand
2. Expected winter value at time of data freeze (July 2015)
3. Demand growth based on All-Island Generation Capacity Statement 2015-2024 median forecast

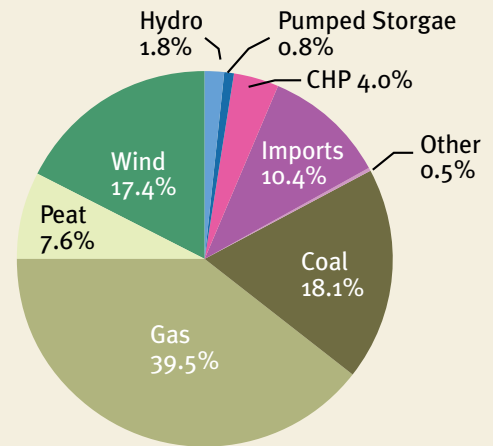
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All-Island Fuel Mix

The approximate 2014 fuel mix is shown in the figure based on EirGrid Group data.

- ▶ The fuel mix is dominated by natural gas at 39.5%;
- ▶ The second largest source of energy is coal at 18.1%;
- ▶ Wind energy now accounts for 17.4% of the all-island fuel mix;
- ▶ A significant portion (10.4%) is represented by imports (EWIC and Moyle).

All-Island Fuel Mix 2014

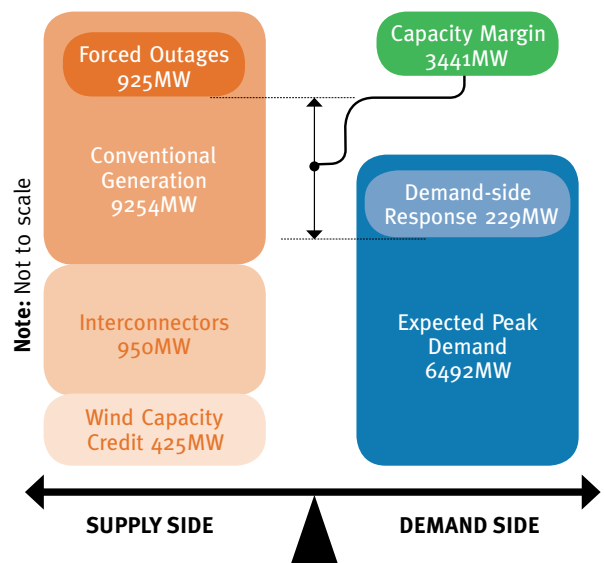


Capacity Margin and Security of Supply

The all-island capacity margin is expected to be 3441 MW over the winter period. Security of supply is dependent on a number of factors, not just the capacity margin. These factors include:

- ▶ **Fuel reserves** - uninterrupted supply of natural gas via the Moffat terminal;
- ▶ **Transmission system constraints** - generators have to be dispatched to avoid bottlenecks in the transmission system;
- ▶ **Generator forced outages** - a conservative estimate of a 10% forced outage rate has been assumed;
- ▶ **Limited interconnection between Ireland and Northern Ireland grids** - north-south tie-line flow normally limited to 450 MW for system security reasons.

All-Island Capacity Margin



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