

Some Thoughts and Analysis on Offshore Wind

Thank you for giving me the opportunity to comment on the above.

I note that Ireland has ambitious climate targets towards 2030, including a target to develop at least 3.5 GW of offshore wind energy. The sentence, to be technically correct, should of course read at least 3.5GW of offshore wind power.

For Ireland to use wind and solar effectively, there must be backup from fossil fuels such as gas, when the sun does not shine or the wind does not blow - that is, if we do not go for nuclear. No matter how much wind capacity you have it produces no power when the wind is calm, or indeed very strong, this applies to offshore as well as inshore. Forecasting wind power generation is very difficult so the amount of readily available backup you need is effectively equal to the amount of wind generation currently feeding the grid.

For example, this morning, 23 June, the forecast wind generation was more than twice the actual. Sometimes there can be as much as 1.5 GW difference between forecast and actual wind generated power. During five days last week the contribution of wind to the national grid averaged just 7% with gas around 75%. Any energy exchanged using interconnectors during the same period would have been of nuclear or fossil origin since the same calm wind conditions prevailed over Western Europe.

If Eirgrid forecasts are correct, over a similar 5 day period in 2025, wind would provide just 3% of peak demand. This of course would also apply to offshore wind power if we take coastal Johnstown Castle, Malin Head and Valentia as representative of offshore winds for those days.