

Response from Gideon Rozner, Director of Policy, Institute of Public Affairs:

Thank you for your continuing interest in the work of the IPA.

I am indeed aware that there are off-shore wind farms around the world. I dearly wish that Australia learns the lesson of those operations before it commits to closing existing power stations on the promise of projects which are a long way off delivery, and which evidence suggests will under-perform forecasts.

Even if they worked as promised, without faults, for all of their promised lifetimes, it is incontrovertible that their integration into the national grid – forcing out reliable base load power - will lead to higher costs to consumers and industry. That is why we are interested.

Now, to my specific comments. Firstly, examples of difficulties with offshore transmission cables are not hard to find. For example:

National Grid, encountering unforeseen problems, has suspended work on Block Island to replace part of an underwater cable that delivers electricity from the nation's first offshore wind farm to the mainland power grid. ([read here](#))

Closer to home, are you not aware of the difficulties experience by Basslink, which connects Tasmania and Victoria, and in particular its 2015 failure? See, for example, this report in the Australian Financial Review ([read here](#)).

The economic cost of the failure of the Basslink power cable is more than \$560 million and rising...

The breakdown of the cable on December 20 cut the only high-voltage electricity transmission connection between the mainland and Tasmania, sending wholesale power prices up by more than fourfold in the March quarter to \$177 per megawatt-hour.

Secondly, I draw your attention to the work of Gordan Hughes, who was a Professor of Economics at the University of Edinburgh, and a senior adviser on energy and environmental policy at the World Bank until 2001. In his 2012 analysis, "The Performance of Wind Farms in the United Kingdom and Denmark", for the Renewable Energy Foundation, he noted:

Onshore wind turbines represent a relatively mature technology, which ought to have achieved a satisfactory level of reliability in operation as plants age. Unfortunately, detailed analysis of the relationship between age and performance gives a rather different picture for both the United Kingdom and

Denmark with a significant decline in the average load factor of onshore wind farms adjusted for wind availability as they get older

In a later study he further noted that subsea transmission lines “are notorious for the severity and length of their outages.”

That quote appears in an important analysis of the experience in the USA, *Out to Sea: The Dismal Economics of Offshore Wind (2020)*, [here](#).

I also refer you a study by Andrew Montford of the Global Warming Policy Foundation, *Offshore Wind Cost Predictions And Cost Outcomes (2021)*, which addresses the North Sea wind farms to which you so kindly referred me. See for example these conclusions (**emphasis added**):

Advocates claim that costs for windfarms have been falling quickly for several years, although there is general agreement that the cost is, on average, still several times the cost of power from gas-fired power stations.

However, they suggest that windfarms commissioned in 2019 and 2020 will have dramatically lower costs, and those in future years will be lower still.

The capital cost elements of all these predictions mostly contradict the figures put forward by windfarm developers themselves.

The financial accounts of Beatrice, the only offshore windfarm that was commissioned in 2019, already show that **the advocates’ estimates cannot be achieved in practice**.

The Dogger Bank windfarms, to be built in shallow waters, may have somewhat lower costs. However, for most forthcoming offshore windfarms, costs are likely to remain at around £125–150/MWh, **approximately four times the cost of power from a gas-fired power station**.

I remain of the view that the questions over these projects have not been satisfactorily answered. You quote the promised output of the Star of the South project, but it has yet to even complete its environmental assessment process, let alone construction and commissioning. ([See here](#)).

The studies cited above suggest that its projections deserve, at the very least, sustained scrutiny. As do the incredible proliferation of reports pushed into the public domain spruiking Australia’s wonderful clean energy future. Perhaps a job for Media Watch? And let me note again that even the promised capacity factor of an

off-shore wind farm is much less than that of an existing base load power plant, and hence require layers of backup elsewhere on the grid.

The IPA is funded by more 8,000 Members across Australia, a great many of whom make further donations to support its research.