

To: AEMO

Reference: 2022 Draft ISP Consultation

Date: 11th February 2022

Subject: Draft 2022 Integrated System Plan

Iberdrola Australia welcomes the opportunity to make a submission. Iberdrola Australia delivers reliable energy to customers through a portfolio of wind capacity across New South Wales, South Australia, Victoria, and Western Australia, including both vertical integrated assets and PPAs. Iberdrola Australia also owns and operates a portfolio of firming capacity, including open cycle gas turbines, dual fuel peaking capacity, and battery storage. Our development pipeline has projects at differing stages of development covering wind, solar and batteries. This broad portfolio of assets has allowed us to retail electricity to over 400 metered sites to some of Australia's most iconic large energy users.

Iberdrola Australia is part of the global Iberdrola group. With more than 120 years of history, Iberdrola is a global energy leader, the world's number-one producer of wind power, an operator of large scale transmission and distribution assets in three continents making it one of the world's biggest electricity utilities by market capitalisation.

The 2022 ISP is a valuable planning document, with AEMO considering scenarios that are consistent with Australia's international obligations to make efforts to limit global warming to 1.5 degrees and with state and commonwealth commitments to net-zero emissions by 2050. We thank AEMO for the significant effort that has gone into the development of the ISP scenarios, and the close engagement with all stakeholders, and the subsequent modelling.

1. Step Change scenario the most likely

The Step-Change scenario is appropriate as a conservative central case and, of the scenarios proposed by AEMO, we agree that it is the most appropriate choice for the 'most likely' scenario. In light of Australia's international commitments, technology improvements, and the costs of maintaining aging units, coal closures will inevitably proceed much faster than are currently announced. It is appropriate for AEMO's central case to include credible future closures consistent with the necessary reduction in emissions.

The consultation with energy industry stakeholders has been a robust process, and we agree that this is a good source for appropriate scenario weightings.

As demonstrated through the Delphi process, there seems little value in the Slow Change scenario. Based on history, even the Progressive Change scenario is likely to be too conservative to be realistic (i.e., technology and political ambition have always improved over time). Furthermore, there is no “learning” from these scenarios, in terms of identifying future shock, risks, or opportunities.

Conversely, the underlying climate modelling assumes significant offsets to achieve the target of net-zero by 2050. It would therefore be prudent for AEMO to consider (in the next ISP) scenarios where Australian climate targets are met through a physical reduction in emissions – a stronger physical constraint.

We therefore suggest there would be more value for AEMO to focus its resources on the next level of analysis for the Step Change and Hydrogen Superpower scenarios and related sensitivities.

In particular, AEMO should focus on planning ahead for necessary physical or market structure changes, or identify constraints or opportunities that could be applied in sensitivities. Developing a plan for how the inevitable endpoint of a zero-emissions grid could be achieved will provide more insights than debating near term limits or constraints. It will also help identify and quantify future risks and the volume of essential system services that might be required – providing a valuable long-term forecast for developers.

Our suggestion therefore would be to limit further investigation on the Slow Change scenario and Progressive change scenario (perhaps using a discount on the net benefits from Step change scenario to reflect uncertainty in the outcomes) and for AEMO to focus on key questions relating to actioning the ISP and ensure we have a coordinated, cohesive future grid. For example:

- What does the worst week look like? What is the demand and availability profile of the expected worst-case week in the future, high-VRE grid? Furthermore, should we expect periods of wind and solar droughts? A recent paper relevant to this topic that is currently under peer review is attached to this submission.
- Will we be able to sustain the cost of gas infrastructure to deliver limited gas power generation in a high electrification scenario? Does this affect the outcome of firming technology and cost?
- What does a faster coal retirement than announcements to date mean for consumer outcomes, and obligations of minimum retirement notice?
- What will supply chains look like with the year-on-year high build of generation, both utility-scale and distributed?
- Hydrogen superpower gets us to emissions reductions earlier than any other scenario - are there any barriers to achieving this scenario that could be addressed?

- Are costs disproportionately allocated across consumers, and is there are risk that lower-income households bear the brunt of this cost considering high levels of distributed energy resources?

AEMO does not need to work alone - these questions should be tackled together by AEMO, Government, think tanks, and industry – with close engagement with all consumers. Considering these scenarios mean we *are now planning* for a high VRE world and asking the right questions, so we are not caught in a reactionary state, delaying efficient outcomes.

2. Optimal development path

Broadly, Iberdrola Australia supports the optimal development pathway (ODP) presented in the Draft ISP. It is critical that low-cost transmission is developed quickly to facilitate the large growth in VRE needed to decarbonise our economy. In particular, the delays around valuable transmission assets such as Project EnergyConnect may mean there is value in more contestable works. We also support the work that state governments are pursuing on delivering transmission to unlock new renewable generation efficiently and at the required rate.

As articulated in the Draft ISP, the net benefits for consumers from the ODP are clear and likely to provide additional benefits not captured in the Draft ISP if coal exits much earlier than modelled. Risk management is important, particularly around the risk of earlier coal closure, and building infrastructure helps manage these risks.

3. Data and model release

The ISP is such a data rich resource and feeds through to all energy stakeholders. The ISP becomes the cornerstone for analysis on the NEM, and is used to justify policy positions, technology development and changes in system operation. We therefore support the continued publication of the database used to simulate the ISP to allow as many stakeholders as possible to further their own analysis, research and modelling on the ISP. This allows greater flow of information and transparency around the findings of the ISP and any further work (RIT-T, Government policy, REZ developments).

The release of the database from previous ISP's has been invaluable and Iberdrola Australia encourages this continued sharing of information.

We look forward to continuing to work with AEMO on the ISP. If you would like to discuss this submission, please contact me on joel.gilmore@iberdrola.com.au or 0411 267 044.

Yours sincerely

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