

To: AEMO Forecasting and Planning

By email

Date: 13 August 2024

### **Subject: 2025 IASR Scenarios Consultation**

Iberdrola Australia delivers reliable energy to customers through a portfolio of wind and solar capacity across New South Wales, South Australia, Victoria, and Western Australia. Iberdrola Australia 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 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 group supplies energy to almost 100 million people in dozens of countries, has a workforce of more than 37,000 employees and operates energy assets worth more than €123 billion. Our global expertise positions us to deliver an integrated approach to decarbonisation across Australia, including through our hydrogen and networks businesses.

### **All scenarios should include successful implementation of renewable energy and emissions targets**

Iberdrola Australia agrees that it is important that all scenarios modelled in the ISP are consistent with Australia achieving its renewable energy and emissions reduction targets. It is crucial that the ISP supports government and industry stakeholders by identifying the least cost and least regrets pathway for an energy transition that is consistent with Australia's commitments.

In our submission on the Draft 2024 ISP, Iberdrola Australia proposed that it would be helpful if the ISP clearly identified and articulated gaps between government targets and the estimated combined impact of existing government policies. For example, we have seen in previous ISPs that achieving a modelled pathway in some scenarios relies on strict constraints being applied in the modelling (for example annual emissions constraints in the model) where there was no real-world equivalent to these constraints. We consider that, where the achievement of a target would require policy or regulatory intervention on top of current policies, this should be stated in the ISP.

Following the publication of the Draft 2024 ISP, the Commonwealth Government announced the expansion of the Capacity Investment Scheme (CIS). While there is some uncertainty regarding the impact of the CIS, this development means that existing policies are broadly in line with the 2030 government targets of 82% renewable energy and a 43% emissions reduction. For the Progressive Change and Step Change scenarios, there's unlikely to be a gap between policies and targets for the period to 2030. However, beyond

2030, outcomes in these scenarios are likely driven by modelling constraints (like emissions constraints) where additional policy intervention will be required to achieve a similar outcome. Achieving the outcomes in the Green Energy Exports likely requires additional policy or regulatory intervention in all years of the modelling period. (We note though that this is consistent with good scenario planning – AEMO should *consider* credible scenarios even if legislated policies do not yet support their delivery).

In the Consultation Paper, AEMO states that all “all scenarios in the scenario collection apply relevant policies that meet public policy criteria, **as required by the NER**”. Iberdrola Australia strongly agrees that the appropriate modelling approach for the ISP is to include existing policies, government targets, and in general be on a trajectory to meet Australia’s share of global emissions reductions. However, it would be valuable for AEMO to clarify its interpretation of how the NER requires it to include these policies.

There may be some operational constraints and challenges that pose risks to the successful delivery of policies and targets, particularly in the near term. However, we don’t consider that this is a reason to model slower pathways, or energy transitions that don’t align with government targets. The successful delivery of the energy transition is within the influence of government and industry – and the ISP should outline one or more pathways that demonstrate the necessary actions of each party (e.g., what combinations of build and transmission or REZs could deliver the targets). Where the achievement of a policy or target has a strong dependence on the delivery of some project (for example the development of a REZ, or a transmission project upgrade), the ISP should identify this dependency – so that relevant stakeholders can direct attention to ensuring the timely delivery of these projects.

### AEMO’s proposed changes to scenarios

Iberdrola is broadly supportive of maintaining three scenarios in the 2023 IASR, all in line with Australia’s contribution to limiting global temperature rise.

#### Green Energy Exports

With regard to the *Green Energy Exports* scenario, we agree with the proposal to increase its focus on domestic green energy industry demand growth. Iberdrola Australia views that this scenario, in its current form, has a set of assumptions that may be too different in scale to the other two scenarios. We propose that this scenario should maintain strong global decarbonisation to limit temperature increases to 1.5°C, with the electricity sector playing a significant role in decarbonisation. However, additional assumptions that are more aggressive around higher demand growth and hydrogen production could be reduced. This would make this 1.5°C scenario more comparable, and more useful, as a higher case of potential required actionable network projects.

However, it would still be appropriate to consider an ISP sensitivity with much higher hydrogen exports. We note that historically NEM forecasts have always underestimated the pace of technological and political change in the renewable energy space. This includes the uptake of wind power, the uptake of rooftop PV, the uptake of large-scale solar, and the rate of coal closures and jurisdictional renewable energy and climate targets. Based on current policies and technologies, large-scale hydrogen exports by 2035 may be *unlikely*, but not *non-credible*. There is therefore a role for the ISP to highlight what would

be required *if* Australia seeks to be a global energy superpower and exporter – i.e., not tens of gigawatts of new capacity but hundreds of gigawatts. This type of sensitivity can help inform strategy (e.g., sizing of REZs and interconnector, efficient levels of congestion, etc.)

### **Progressive Change**

We agree with the proposal to maintain the *Progressive Change* scenario as featuring a slower rate of change and more challenging economic conditions. We strongly agree that it should continue to meet 82% renewable energy and at least 43% emissions reduction by 2030.

We consider that further consideration should be given to details of this scenario to ensure that it continues to meet AEMO’s principles of being ‘Internally Consistent’ and ‘Plausible’. In the 2024 IASR, the *Progressive Change* scenario features some assumptions that lead to dramatic and sudden changes in demand profiles. For example, the sudden closure of large industrial loads in 2030 is a somewhat arbitrary aspect of this scenario – particularly where this coincides with massive investment in new renewable energy capacity. We consider this would be better explored in a sensitivity, or its drivers be explored and explained more cohesively. Likewise, hydrogen demand grows significantly until 2034, sits flat for about 13 years, then increases again from 2047. We view that assumptions like this should be smoothed to make the scenario more likely and useful.

### **Changes considered but not proposed by AEMO**

#### **Compressing the scenario collection**

We agree with AEMO that adjusting the *Step Change* scenario to lessen the pace of change in that scenario would not be an appropriate change. We agree that the scenarios should consider a broad range of futures to allow informed planning. We outline some feedback on the *Progressive Change* and *Green Energy Exports* in the section above.

#### **Delaying the transition by applying deliverability constraints or ignoring policy timeframes**

We strongly agree that AEMO should model pathways that are consistent with Australia meeting its renewable energy and emissions reduction targets. There are a range of deliverability risks, and potential challenges in fulfilling some policies. However, we consider that the role of the ISP should be to provide a roadmap for a successful energy transition and to highlight what projects should be developed to deliver that transition. Where certain projects are identified as critical for meeting a policy or target, the ISP should provide guidance on how projects can be prioritised or the risks mitigated, rather than modelling a pathway where the risks aren’t managed effectively.

For example, we note that some criticism of the ISP depends on speculation that current targets are unachievable. Assuming a slower transition might require less transmission or REZs. However, this is not an interesting or useful scenario to model – rather, the ISP should demonstrate (if applicable) what transmission or REZs are *required* to deliver state and national emissions reduction targets.

#### **Scenarios that focus on a specific parameter or technology outcome**

There is considerable uncertainty in the energy transition over the timescales modelled in the ISP. There are a number of technologies that currently have little impact on the electricity system but may have a large impact on supply or demand in the future, such as hydrogen, electric vehicles, and the uptake and controllability of various consumer energy resources. We agree that the scenario definition should be broader and consider a range of factors, but that there is a useful role for sensitivity analysis to consider specific dependencies where there is a wide range of uncertainty.

### **Conclusion and future consultation**

We look forward to continuing to work with AEMO on the development of the 2026 ISP. In particular, we consider it important that the next ISP becomes a true integrated system plan. This requires AEMO to model non-energy services, including inertia, system strength, system restart requirements, and any other identified transitional services. This ensures that the ISP provides a self-consistent representation of the future grid, including providing timing, location, and technology signals for new battery storage systems. AEMO's subsequent planning frameworks should consider *at least* the most challenging ISP scenarios and, in particular, how services will be procured under accelerated coal closure timelines.

If you would like to discuss this submission, please contact me on joel.gilmore@iberdrola.com.au or 0411 267 044.

Yours sincerely

**Dr Joel Gilmore**  
GM Regulation & Energy Policy