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AEMO's Draft Integrated System Plan Consultation

AGL Energy (AGL) welcomes the opportunity to provide feedback on AEMO's Draft Integrated System Plan (ISP). The ISP is a crucial document to manage the transition towards net zero at the least cost, while also providing secure, reliable and affordable energy to consumers.

Proudly Australian for more than 186 years, AGL supplies around 4.3 million energy and telecommunications customer services. AGL is committed to providing our customers simple, fair, and accessible essential services as they decarbonise and electrify the way they live, work, and move.

AGL operates Australia's largest private electricity generation portfolio within the National Electricity Market (NEM), comprising coal and gas-fired generation, renewable energy sources such as wind, hydro and solar, batteries and other firming technology, and gas production and storage assets. We are building on our history as one of Australia's leading private investors in renewable energy to now lead the business of transition to a lower emissions, affordable and smart energy future in line with the goals of our Climate Transition Action Plan.

AEMO's biennial ISP process is a key tool to guide and support the orderly transition to a reliable, secure, affordable and renewable NEM. AGL agrees with the Draft ISP that Australia's energy transition is essential. We note that the shift to renewables is well underway with increasing support from all NEM jurisdictions as well as industry, and will deliver real benefits to households, businesses and the broader economy. That said, it is also exceptionally complex with many inherent tensions that must be managed. The development of new infrastructure projects in a timely and coordinated fashion is essential to support the replacement of aging plant with a mix of low-cost and low-emissions new generation. We strongly support AEMO's efforts to deliver the ISP in a manner that is necessarily comprehensive and has been undertaken in broad consultation with the industry and consumer representatives.

Modelled outcomes from the Draft ISP provide useful insights for policymakers and other stakeholders as to how aspirational targets may be able to be achieved. Scenarios that highlight the opportunity to meet long-term carbon targets at a lowest overall system cost provide a useful basis to develop additional policies to support these pathways, and to address critical challenges such as the orderly closure of thermal assets and the development of projects that may provide substantial long-term benefits but are unable to meet thresholds for investment or necessary development approvals in the short-term.

Compared to previous iterations of the ISP, scenarios in the Draft ISP have become more homogenous, especially with respect to developments prior to 2030. In large part, this is due to the significant policy announcements involving large-scale buildout of variable renewable generation (VRE) prior to that date. Although the convergence of scenarios is useful in providing some certainty to investors on a likely pathway, it detracts from the important role of the ISP in providing information to the market about the impact of different potential outcomes on overall energy market development.

Sensitivity testing

Steps taken by AEMO to test sensitivities to the optimal development pathway (ODP) in the Draft ISP are useful in assessing its credibility. The sensitivities tested, in particular results relating to the *Constrained Supply Chains* and *Reduced Social Licence* analyses, are useful in order to assess the potential impacts of delays to projects on the overall ODP.



In particular, the *Social Licence* objective is very useful to highlight the potential risks to value presented by the ODP in the event of delays to projects as a result of community concerns. Social licence for investment in new renewable energy, storage and transmission infrastructure is fundamental to achieving the ODP. However, we note that while this sensitivity assessed the impact of delays to transmission projects by considering the impact of a two year delay to transmission projects, it does not consider the potential impact of delays to new renewable projects in the same way, instead applying an increased generation cost estimate of 5-60% to reflect increased cost to gain social acceptance. Somewhat counterintuitively, the reduced social licence sensitivity therefore has the impact of *increasing* the amount of overall generation that is built between 2026-2030 as a result of these adjustments, by more than an additional 5 GW from the Step Change scenario.¹ Experience also suggests that delays for new transmission and renewable generation can be significantly longer than 2 years.

While AGL acknowledges that the ISP is primarily a document that is aimed at identifying critical transmission build, this is intricately related to generation build. Therefore, it may be worth AEMO further exploring the impacts of delays to generation projects and whether these materially impact the identified ODP, or if delays in renewable projects could result in other pathways becoming more viable lower-cost alternatives to meet stated government policies and objectives.

Risks to delivery of the ODP and to the energy transition

The Draft ISP thoroughly identifies and articulates the key risks to the delivery of the ODP. The risks are significant and need careful management as the contingencies are not merely 'possible', but are already being realised and are creating real barriers to delivering the energy transition at the very rapid rate identified by the ODP.

AGL agrees with all the risks identified in Draft ISP, including that: market and policy settings are not yet ready for the rate change; uncertainty is risking timely investment; the full benefits of customers' investments in consumer energy resources (CER) may not be realised; the necessary social licence and developing the necessary skilled workforce and supply chains will be significant challenges.

While governments and policymakers are taking steps to address the challenges identified by AEMO in the ISP, more timely and coordinated policy and reform will be required. Lack of coordination in policy and reform is a key risk to the ODP as at times it can appear that policy makers are concurrently making reforms that facilitate the ODP on one hand, and creating new barriers on the other. In our view, the following issues require additional urgent attention in order to be able to credibly realise the ODP.

Risk that consumer energy resources are not adequately integrated into grid operations

As AEMO has identified, CER have the potential of providing significant system benefits and could offset the need for grid-scale investment. To fully capture the potential benefits, CER needs to be orchestrated and appropriately integrated into the NEM in a way that supports power system reliability and security. Customers need to understand and see the benefits and have trust in the energy sector to achieve this.

Given the prominence of CER in achieving more ambitious scenarios, we consider that it is important for AEMO to state the importance of accelerating appropriate policy settings to help ensure the delivery of integrated and orchestrated CER, including the importance of being clear on the roles of industry participants, and need for appropriate standards.

¹ See AEMO Draft 2024 ISP, Appendix 2. Generation and Storage Development Opportunities, pp 59-61



Risk that markets and power system operations are not yet ready for 100% renewables

AEMO notes in its Draft ISP that it is continuing to work with governments, market bodies and industry on the technical requirements for a secure power system capable of operating at 100% renewables, and the subsequent evolution of market frameworks and settings to deliver those requirements in both investment and operational timeframes.

We note the comprehensive detail that AEMO has provided in Appendix 7 to the Draft ISP relating to System Security is a useful addition.

However, we note that the requirements to maintain adequate reserves in the market, as well as mandatory levels of system services such as frequency control, inertia, system strength, restart capability, and voltage control, are currently significantly hampering the acceleration of the rollout of both CER and grid-scale renewables.

Accordingly, it may be reasonable to expect that system security remediation will continue to lag new generation development, despite AEMO and policymakers taking large steps forward to reduce the grid's reliance on traditional synchronous assets.

We consider further thought into how the scarcity of system services beyond what is currently contemplated in the ISP could be beneficial as it could help identify potential impacts on delivering projects.

Demand response

Although AEMO broadly seems to account for some demand response and demand elasticity in its models, there is insufficient detail to understand how this is done, or whether more significant demand-side participation could materially impact the ODP.

We would support further analysis into the role that demand response, in particular industrial demand response, could have in supporting the various scenarios.

If AEMO would like to discuss these matters further, we would welcome the opportunity to provide further context and discuss the points made in the submission prior to the finalisation of the proposed exposure draft. Please contact me on +61 409 533 584 or at cstreets@agl.com.au and we can arrange a meeting.

Yours sincerely,

Chris Streets

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