

3 September 2026

Australian Energy Market Commission

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To Whom It May Concern,

**Stanwell submission:
Review of the integrated system plan framework, discussion paper**

Stanwell Corporation Limited (Stanwell) appreciates the opportunity to provide feedback to the Australian Energy Market Commission's (AEMC) *Review of the integrated system plan framework, discussion paper* (the Discussion Paper).

Stanwell is Queensland's leading provider of electricity and energy solutions to the National Electricity Market and large energy users along the eastern seaboard of Australia.

With over 40 years of continuous operations, Stanwell maintains a reliable supply of power from two of the most efficient coal-fired power stations in Australia – the Tarong Power Station near Kingaroy and Stanwell Power Station near Rockhampton.

Stanwell's experience working with communities to build, operate and maintain reliable coal-fired power stations is also being applied through partnerships with the private sector to build the new energy, storage and firming solutions Queensland needs for the future.

This submission contains the views of Stanwell only and should not be construed as indicative or representative of the views or policy of the Queensland Government.

1. Purpose and Ongoing Role of the ISP

Stanwell believes the current intended purpose of the Integrated System Plan (ISP) which is to provide a roadmap for the transition of the National Electricity Market (NEM) remains true and supports the Commission's initial position that the ISP will remain a valuable and necessary tool in the future.¹ Stanwell supports an ISP that provides clear, credible and transparent information to support efficient investment and operational decision-making across the NEM. While the ISP plays a critical role in transmission planning and long-term system development, stakeholders require greater visibility of the assumptions, uncertainties, and modelling processes that underpin its conclusions.

¹ [AEMC Review of the Integrated System Plan \(ISP\) framework discussion paper](#) p.3

2. Future Scope of ISP

After reviewing the five Straw Persons that are presented in the Discussion Paper, Straw Person 3 (SP3) is Stanwell's preferred scope for the future ISP.

Stanwell supports SP3 because it captures the key factors impacting the optimum development pathway (ODP) while maintaining a clear focus on identifying major transmission projects. Unlike SP1 and SP2, SP3 also recognizes the importance of providing a timely national pathway for project delivery. Stanwell supports the inclusion of this delivery objective on the basis that it is directed towards improving the effectiveness, efficiency and timeliness of the existing actionability framework and RIT-T process. Any reforms in this area should seek to reduce unnecessary delays while maintaining rigorous assessment and fiscal discipline, ensuring major transmission projects can be delivered in a timely and efficient manner.

Stanwell does not support the use of the ISP as the trigger for project specific assessment for "other major regulated investments" as proposed in SP4 for two reasons:

- Transmission development and other major regulated investments are inherently interdependent. The ISP already relies on a highly complex modelling framework that incorporates significant uncertainty across demand, generation, storage, fuel, policy and network assumptions. The addition of another "outcome" for the ISP to solve (being the identification of "major regulated investment") would over-complicate the modelling effort without resolving existing quality, transparency and usability issues with the ISP.
- Rather than increasing the complexity of the ISP forecasting process and creating more work for AEMO, efforts should be directed towards making all information about ISP models available to all users. This includes the models themselves, methodologies, the input assumptions and traces to all ISP users.

What should be captured by the Actionability Trigger?

Stanwell's preferred position is that the ISP should optimise the entire electricity system but only trigger actionable regulatory processes for major transmission projects. Generation, storage and firming requirements should be identified by the ISP, but investment decisions for those resources should continue to occur through separate market-based and transparent frameworks rather than actionability mechanisms.

The rest of our submission outlines our recommended changes to the ISP and AEMO processes which would greatly improve the value of the ISP to market participants, investors and policy makers.

3. Expand breadth of scenarios and test more sensitivities

A scenario is characterised by a set of assumptions. Sensitivity is tested by adjusting one or more of the assumptions in a given scenario. Stanwell would like AEMO to test and present a broader range of scenarios and sensitivities.

At least one of the scenarios must be plausible

Policy targets, emissions pathways and carbon-cost assumptions can materially influence model constraints and the forecast ODP. Stanwell agrees that the ISP must be driven by a singular objective and Net Zero by 2050 is a satisfactory objective for now. We also agree that government policy needs to be included in at least some scenarios in the ISP so that governments can understand how their policies may impact the optimal development pathway.

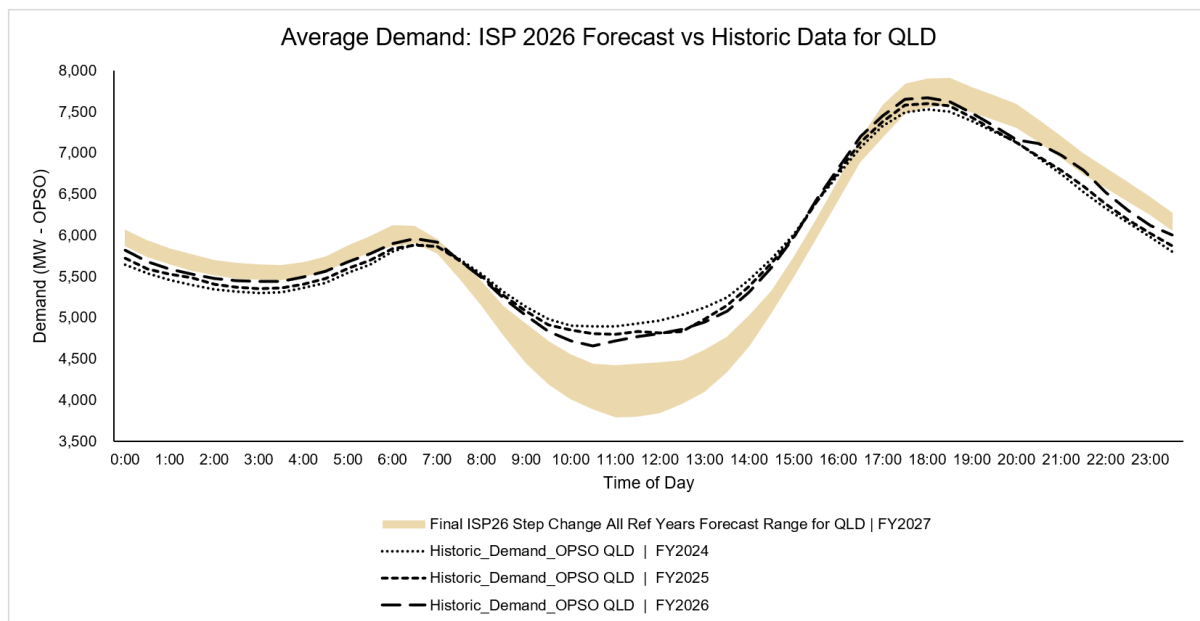
However, there would be value in complementing policy-aligned scenarios with additional scenarios that test a range of alternative delivery pathways and timing assumptions. This would help stakeholders better understand the implications of uncertainty associated with policy implementation over time. The objective is not to limit consideration of government policy within the ISP, but to provide a broader range of plausible futures through which the resilience of the ODP can be assessed. Exploring alternative scenarios, including different policy delivery trajectories, may provide policymakers and market participants with greater insights into the sensitivity of outcomes and the relative impact of different assumptions on system development pathways.

4. Demand forecasts need to be easier to test and understand

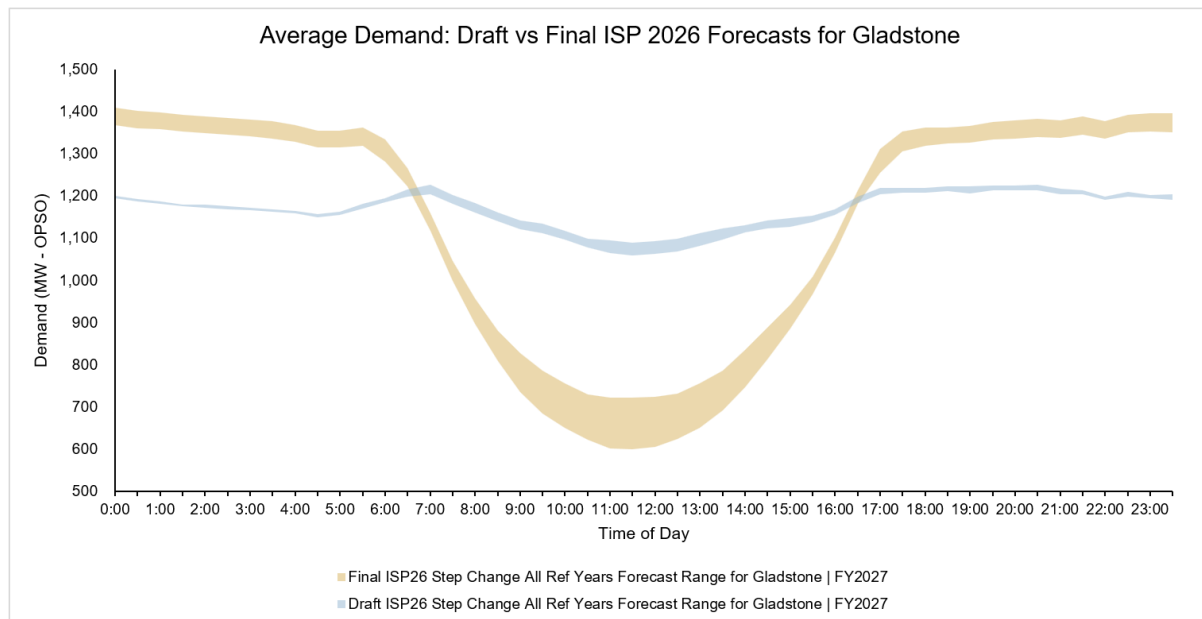
Demand assumptions are a key driver of generation and transmission requirements and a fundamental input into participant's corporate modelling and forecasting activities. Significant changes in forecast demand between ISP releases, such as between the Draft and Final ISP, or between successive ISP cycles, can be difficult for forecasters to rationalise. While we understand AEMO may not be able to release specific details about the type of large commercial or industrial loads due to confidentiality, understanding the behavior of the demand volumes being added or removed is critical as this impacts the demand shape.

In light of this, there is value for the ISP to categorise the type of demand being added or removed based on its behavior so that users can apply the demand traces more appropriately in their forecasting. It also enables users to make a judgement on the likelihood of the demand playing out as shown in the demand trace. Alternatively, site specific information can be protected by explaining the drivers of significant forecast revisions and publishing multiple demand traces with indicative likelihood ranges. This would improve stakeholders' ability to assess both near-term forecasts and the uncertainty associated with projections to 2050.

Another observation of demand traces produced by AEMO is that between iterations the near-term demand trace can sometimes be materially different from the current state with little to no explanation provided. These discrepancies are exaggerated when examining data at the subregional level. For example, historically we see the Gladstone region display a flat load profile (similar to the Draft ISP26 forecast below)², however in the Final ISP26 release this was changed dramatically with minimal explanation. Regardless of the scenario being tested by AEMO, we consider that at the very least, the data for traces in the near term should always align closely to the current state. It is not clear how a forecast for 2040 or 2050 could be considered credible if the starting point is clearly not accurately reflective of contemporary conditions.



² Australian Energy Market Operator (AEMO), 2026 ISP Traces – ISP Demand Trace Data – Sub Regional, supporting material to the 2026 Integrated System Plan (ISP), accessed 24 August 2026.



Increase stress testing of weather and renewable variability

As the level of renewable penetration in the NEM increases, the generation is increasingly becoming more weather dependent. One observation is that the ISP presented by AEMO to date often paints a fairly “vanilla” picture of the depth and duration of the wind droughts expected to occur.

The weather inputs together with the design of the model (where it has foresight of upcoming weather events and hence builds for it in preparation) may understate the level of firming that would be required under real-world uncertainty.

We understand AEMO currently uses reference years which are comprised of the most recent 15 years of weather data. The weather data is applied in chronological order as a 15-year rolling average. Since it is not possible to eliminate “perfect foresight” of the model, we would like AEMO to conduct more stress testing of the ISP by applying more extreme historical weather years which are currently outside of the current 15-year window of reference years being used.

Increasing the stress test of weather dependency would create a more robust and defensible ISP and give a more realistic picture of necessary firming requirements to manage likely future extreme weather events.

The Optimal Development Path (ODP) scenario and its sensitivity to change

If developers, investors and decision-makers cannot readily rely on or validate ISP outcomes, the ISP’s effectiveness as a system planning framework is diminished. Stakeholders are forced to develop alternative forecasts and investments pathways, reducing the ISP’s value as a common reference point and increasing the risk that the investments envisaged by the ISP do not materialise in practice.

The core scenarios should encompass materially different but plausible futures, including delayed policy delivery, slower economic or renewable development, alternative industrial demand and electrification pathways, and alternative offshore wind outcomes. Sensitivities should then stress test and supplement, rather than replace, this broader scenario coverage. Rather than present a single line trajectory, the ODP should be presented within a range of plausible trajectories that demonstrate how key uncertainties affect the pathway.

5. AEMO to share all stages of the ISP modelling, inputs, assumptions and traces

Stanwell considers that greater transparency throughout the ISP modelling process would improve stakeholders’ confidence in ISP outcomes. While AEMO publishes a significant volume of supporting material, stakeholders would benefit from greater visibility of how assumptions are applied, how key

decisions are made during the various modelling stages, and how changes in inputs influence outcomes. This would improve stakeholders' ability to understand, test and replicate model results.

Stanwell also considers that greater clarity is required regarding the distinction between scenarios and sensitivities. To the extent practical, AEMO should publish additional sensitivity analysis and intermediate modelling outputs to provide stakeholders with a clearer understanding of the drivers of the ODP and the robustness of outcomes under alternative assumptions.

6. Better explanation from AEMO for ISP users who don't do forecasting

The ISP is often interpreted by stakeholders as a roadmap for how the NEM will develop in practice, rather than a modelled least-cost pathway under a defined set of assumptions. Stanwell considers AEMO should place greater emphasis on communicating the insights, risks and uncertainties arising from modelling, including through a limited set of clearly defined sensitivities. While the ODP identifies the least-cost development pathway, real-world investment decisions are also influenced by commercial viability, financing, development and delivery risks. Greater explanation of these limitations would improve stakeholder understanding of ISP outcomes and the uncertainty surrounding future system development.

7. Conclusion:

- Stanwell supports the Commission's preliminary view that the ISP will remain a valuable and necessary tool for planning the efficient long-term development of the NEM.
- Stanwell's preferred position is Straw Person 3, which appropriately balances a whole-of-system planning role with a clear focus on identifying and progressing major transmission investments through existing regulatory processes.
- Stanwell supports an ISP that optimises across generation, storage, transmission, CER and demand-side resources, while limiting actionability to major transmission projects. Generation, storage and firming requirements should continue to be delivered through market-based investment frameworks.
- Stanwell does not support expanding the ISP's role to trigger broader categories of major regulated investments, as presented in Straw Person 4. This would increase modelling complexity, introduce additional uncertainty, and risk reducing the transparency, credibility and usability of ISP outcomes without addressing existing stakeholder concerns.
- Rather than expanding the scope of the ISP, reform should focus on improving transparency, scenario testing and stakeholder confidence through greater access to modelling assumptions, inputs, traces, intermediate outputs and sensitivity analysis.
- A more transparent, testable and robust ISP will better support investment decision-making, improve confidence in the Optimal Development Path, and deliver greater value to market participants, policymakers and consumers navigating the energy transition.

If you have any questions in relation to this submission, please don't hesitate to contact Brad Supple at bradley.supple@stanwell.com. Stanwell would welcome the opportunity to discuss its views with the Commission and, if helpful, arrange for relevant subject matter experts to provide further detail on the issues and recommendations outlined in this submission.

Yours sincerely,



Ian Chapman
Manager Market Policy and Regulatory Strategy
Energy Markets