



3 September 2026

Australian Energy Market Commission

Sydney NSW 2000

Submitted via <https://www.aemc.gov.au/contact-us/lodge-submission>

Dear Mr Dunk,

Review of the Integrated System Plan (ISP) framework

Hydro Tasmania welcomes the opportunity to respond to the AEMC's Review of the ISP framework. Hydro Tasmania is Australia's largest generator of renewable energy and has been actively involved in the development of the ISP since its inception.

Changes to the ISP framework should be assessed against whether they support efficient planning and investment in the long-term interests of consumers. Broadening the scope or complexity of the ISP should not be an objective in itself. Any changes should address an identified limitation in the current framework and materially improve planning or investment decisions.

Hydro Tasmania supports the evolution of the ISP towards a broader whole-of-system planning framework, broadly consistent with Strawperson 3 (SP3). The ISP should provide clearer information about the capabilities the NEM requires, including capacity, energy duration, flexibility, system services and interstate transfer capability, while preserving competition and appropriate project-level scrutiny over how those needs are met.

In particular, the future framework should:

- give greater visibility and investment planning signals for energy adequacy and resilience, not only capacity requirements, as the NEM becomes more weather-dependent, including the duration and scale of potential energy shortfalls;
- use scenario and sensitivity analysis to help decision-makers understand what could change an investment decision, or assist in identifying decisions that may be optimal across a range of potential pathways, rather than simply adding alternative futures;
- distinguish between outcomes produced through optimisation and those driven by government policy or other assumed inputs, and highlight the risks and implications if those outcomes are not achieved;
- consider existing assets alongside new investment when assessing how an identified capability need can be met; and



- maintain a clear distinction between broader planning and actionability. The ISP should be clear about what it establishes and what remains to be tested through market, regulatory or procurement processes.

Hydro Tasmania supports better representation of gas market interactions and improvements to the national delivery pathway where genuine duplication can be removed without reducing investment scrutiny.

Further consideration should be given to:

- Avoiding false precision: Expanding the scope and reach of the ISP does not necessarily lead to better outcomes for consumers or investors. An expanded ISP (including what is co-optimised) will require strong treatment of uncertainty and the practical limitations on market optimisation across multiple dimensions, to examine which investments are robust across a range of futures scenarios rather than focussing only on one optimal pathway. This is particularly important when considering the inclusion of DER and other distributed resources in co-optimisation, where assumptions about their availability, controllability and contribution to system capacity should reflect their practical limitations.
- Circularity in decision making: Where jurisdictional policies are embedded as an ISP input or constraint, the resulting pathway may then inform further procurement (including potentially through approaches such as CIS and ESEM). The ISP needs to make clear where outcomes have been optimised in contrast to where they are as a result of inputs.
- Presentation of modelling outputs: ISP outputs should clearly communicate the expected system capability and resilience required, including duration, flexibility, interstate transfer capability and system services, rather than appearing to prescribe technology deployments. Investment in the technologies should remain a question best answered by investors through competitive market settings.

Please find our detailed responses to the consultation questions in Attachment 1. Please contact Shannon Byron at shannon.byron@hydro.com.au to discuss any follow up to this letter.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Erin van Maanen'.

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ATTACHEMENT 1 – Response to Consultation Questions

Question 1: The ongoing role of the ISP

Are there additional benefits provided by the ISP that are not explored in this chapter?

Hydro Tasmania broadly agrees with the Commission's summary of the ISP's benefits. We consider there are some additional benefits that should be reflected in the future framework:

- A national perspective on system needs and capabilities. Individual jurisdictional or investment decisions may not capture all NEM-wide benefits. This is particularly important for interregional capability, which can provide energy transfer, access to geographically diverse resources, reliability, resilience and greater flexibility. These benefits may be undervalued when assessed primarily from the perspective of one jurisdiction.
- Clear investment signals without prescribing the response. Better information about the scale, timing and nature of future system needs can support investment while preserving competition over how those needs are met. For example, the same system need may be met through different combinations of new generation, storage, transmission or demand-side resources, and the ISP should avoid implying that there is only one optimal combination. For major investment signals, the ISP should identify the level of confidence in the need and the assumptions or conditions that would materially change its timing or nature. The value is not necessarily in another scenario, but in explaining what would have to change before the investment conclusion changes.

Question 2: Key changes to the environment in which the ISP operates

1. Have changes in the sector, such as the increasing role of distributed energy resources and consumer energy resources, affected the value of the ISP in its current form?

- CER, DER, orchestrated demand response and distribution network capability now have a material influence on wholesale market outcomes, system needs and future investment requirements. This strengthens the value of the ISP but also highlights the limitations of treating these resources primarily as exogenous inputs.
- We support better representation of these resources. However, we do not mean every resource needs to be fully co-optimised. Materiality, data quality and modelling maturity should determine the appropriate level of representation. Additional complexity should be introduced only where it is capable of materially changing the ODP or improving an investment decision.

2. Where do national and jurisdictional planning and delivery frameworks complement one another, and where do they create coordination challenges for planning and investment decisions?

- National and jurisdictional frameworks are complementary when they use consistent assumptions and provide clarity about their respective objectives and roles. The ISP provides the NEM-wide perspective that individual jurisdictions cannot develop in isolation, while jurisdictional frameworks



can address local policy objectives and delivery issues such as approvals, land use and community considerations.

- Coordination problems arise where there are material differences in assumptions, timing or development pathways. The differences and their consequences should be transparent.
- There is also a potential circularity where government policy and procurement outcomes become ISP inputs or constraints, and the resulting ISP pathway then informs further procurement. The ISP should clearly identify which outcomes have been produced through optimisation and which result from policy, procurement or other assumed inputs. This will become increasingly important if ISP outputs inform jurisdictional or national procurement mechanisms.
- Cross-jurisdictional investment needs can be difficult to coordinate. Some investments in one jurisdiction can contribute materially to meeting system needs across multiple jurisdictions. The ISP could better identify where investment needs span jurisdictions and therefore require coordinated policy or procurement responses, rather than allowing modelled investment in one jurisdiction to be interpreted as simply meeting that jurisdiction's own needs or targets. This is particularly relevant for generation and storage, where the cross-jurisdictional value of investment may be less apparent than for transmission.

3. What features of the future energy system should the Commission consider when assessing whether and how the ISP framework should be changed to remain effective and resilient across a range of potential futures?

- The future framework should reflect increasing weather dependence, greater CER and demand-side participation, interactions between transmission and distribution, reliance on storage across different durations, changing load profiles, gas electricity interactions, delivery constraints and commercial viability.
- Inter-day and inter-seasonal energy adequacy deserve particular attention. The ISP should test the system across different weather and inflow conditions, including sustained periods of low renewable generation, and provide visibility of the duration and depth of potential energy shortfalls.
- An identified capability need should not automatically be treated as a requirement for new construction. The ISP should provide a level playing field for new investment and additional capability from existing assets. Augmentation, redevelopment, life extension and changed operation may provide capacity, duration, flexibility or system services at lower whole-of-system cost than new investment.

Question 3: The choice of future comes down to the plan and actionability

1. Do you agree that the plan and the actionability mechanism are the right way to frame the choice of possible purposes for the ISP in the future energy system?



- Yes, clarifying the desired balance between these functions is a sensible starting point for the review. We would, however, distinguish between the breadth of the planning framework and actionability.
- There is value in the ISP considering a broader range of resources, but it does not follow that those resources should become actionable through the ISP. Any extension of actionability should be supported by evidence of a coordination or market failure that cannot be addressed efficiently through existing arrangements, and confidence that intervention would improve outcomes for consumers.

2. Are there other parts of the ISP framework that should be considered alongside the plan and the actionability mechanism in shaping its future purpose?

- The Review should also consider the relationship between the ISP and subsequent regulatory, project-assessment and jurisdictional procurement processes. As the ISP broadens, its outputs are likely to influence more decisions. It should therefore be clear what an ISP conclusion establishes and what remains to be determined through subsequent processes.
- We see the ISP as being well placed to identify system needs and provide information about the capabilities required to meet them. Subsequent processes may be better placed to determine whether intervention is required, and which investment represents the efficient response. Clearer allocation of these roles could reduce duplication without turning the ISP itself into the investment decision.

3. Does the ISP provide sufficient guidance and information to support decisions by parties beyond regulated asset owners? If not: what are the key gaps; and what improvements would enhance its value for these users, particularly unregulated investors?

- The ISP remains an important source of information for generators, storage developers, retailers, policymakers and consumers.
- Its value could be improved by providing clearer information about:
 - the scale and timing of emerging system needs
 - the capability required, rather than only an indicative technology mix
 - the level of confidence attached to the need
 - the assumptions or conditions that would materially change it
 - for capabilities with long lead times, when investment decisions may need to be made.

The ISP should continue to provide broad investment signals without appearing to prescribe a particular technology or project. AEMO's scenario and sensitivity analysis has an important role in providing a robust view of the uncertainties facing the future energy system, including how different investment pathways perform under a range of plausible conditions. This can help market participants assess the robustness of potential investments and make better-informed decisions about the timing, scale and type of investment required.



Question 4: Strawpeople are used to illustrate possible futures

- Hydro Tasmania broadly supports SP3. It provides a sensible direction for broader whole of system planning while retaining a more targeted approach to actionability.
- We support greater co-optimisation where interactions between CER, DER, demand-side resources and distribution investment are material to the development pathway. However, broader planning does not necessarily require broader actionability.
- We are cautious about extending actionability beyond major transmission projects. It is not yet clear what problem broader actionability for competitive investment would solve, how it would work in practice, or whether it would produce better outcomes for consumers. There may be a stronger case for regulated distribution investment where there is a clear coordination challenge.
- The national framework adds greatest value where individual jurisdictions cannot capture the full system costs and benefits of an investment. This is particularly relevant for interregional transfer capability and other system needs whose costs and benefits cross jurisdictional boundaries. This should be an important consideration in determining where actionability is warranted.

Question 5: Framework for choosing the future purpose of the ISP

1. Do you agree with the Commission's approach to forming an initial preference between the strawpeople?

- Broadly yes. We agree with the Commission's focus on whether broadening the ISP would provide material additional value relative to the complexity it introduces.

2. Do you agree with the four factors and the two judgements on their relative weight that underpin our initial preference for SP3? Where you disagree, what evidence supports a different direction?

- Broadly yes. SP3 appears likely to improve planning outcomes while maintaining a manageable level of complexity.
- As outlined in Question 4, Hydro Tasmania supports broader co-optimisation where interactions are material, but does not consider that broader planning should automatically expand actionability.

3. What evidence supports or challenges the Commission's hypothesis that a broader plan would materially improve the ODP, including in relation to co-optimisation, modelling capability and the risks of increased complexity?

- Current treatment of CER and demand-side resources as exogenous inputs can materially affect ODP outcomes as their scale and interaction with the wholesale market increases.
- We support further co-optimisation where these interactions are material and the available data and modelling are sufficiently mature.
- Co-optimisation should be guided by materiality, data quality and modelling capability. The framework should also preserve transparency by clearly identifying which assumptions and inputs



drive material changes in the ODP. Increasing complexity without corresponding decision value risks making the development pathway less stable and harder to understand.

4. What evidence supports or challenges the Commission's hypothesis that a more effective national delivery pathway would materially improve delivery outcomes, including through reform of the RIT-T and greater coordination with jurisdictional processes?

- Hydro Tasmania is not a TNSP and does not have direct experience administering the RIT-T.
- At a framework level, there may be scope to remove duplication where the ISP has already established the underlying system need, while retaining scrutiny of whether a particular project remains the efficient response.
- Reassessment should also be driven by material new information rather than simply the occurrence of another ISP cycle. A more timely and predictable national pathway may reduce incentives to move projects to jurisdictional processes, particularly where costs and benefits cross jurisdictional boundaries. Faster delivery should not come at the expense of appropriate scrutiny and outcomes for consumers.

5. Are there features of jurisdictional planning and delivery frameworks that the Commission should consider incorporating into the national framework to strengthen its role alongside jurisdictional pathways?

- There may be useful lessons from jurisdictional frameworks around:
 - Earlier consideration of community, social licence and deliverability risks in the planning process, while retaining clear boundaries between the ISP's planning role and the responsibilities of jurisdictions and project proponents for community engagement and project deliverability.
 - Greater focus on delivery risks, with clear accountability for delivery timeframes and visibility of emerging delays.
 - Stronger project development coordination.
- The ISP should retain its NEM-wide perspective. This is where the national framework adds strong value relative to individual jurisdictional processes.

Question 6: We will consider potential benefits of extending the ISP to gas

- Hydro Tasmania has consistently supported greater gas market analysis within the ISP.
- Gas availability, price and infrastructure constraints can materially affect electricity market outcomes and the relative value of alternative firming and long-duration storage options. These interactions need to be represented realistically.
- There may be benefits from extending the ISP to co-optimize electricity and gas infrastructure investment. However, these benefits should be assessed against those that can be achieved through improved modelling of electricity-gas interactions, to establish whether full co-optimisation would



provide additional value. Co-optimisation does not mean that actionability should automatically extend to gas infrastructure, unless doing so solves a particular coordination problem..

Question 7: Evidence of material issues with the planning framework and potential solutions

- The ODP should be tested across a wider range of weather, inflow and load conditions, including sustained periods of low renewable generation. Our portfolio modelling experience shows that assumptions around load and periods of low VRE can materially affect the timing and value of firming and interconnection requirements.
- The modelling should show the duration, frequency and scale of potential energy shortfalls. This would help distinguish between circumstances where short duration flexibility is sufficient and those requiring longer duration capability. As the NEM becomes increasingly weather-dependent, consideration of energy adequacy and resilience will be critical to identifying efficient system requirements.
- The modelling should also capture material complementarities between transmission, storage, flexible generation and VRE. These capabilities are not always substitutes. In some circumstances, the value of one depends on the availability of another. These interactions should be visible where they can materially change the efficient development pathway.
- Where practical, modelling should allow existing assets to respond to an identified capability need through augmentation, redevelopment or changed operation, rather than representing the response primarily through predetermined new-build technology options.
- Scenario and sensitivity analysis should focus on the variables capable of materially changing an investment conclusion or development pathway. The ISP should identify which conclusions are robust across plausible futures and the conditions under which the answer changes. More comprehensive modelling should not translate into more complex modelling, as additional complexity is unlikely to add value where it does not change a decision or the ODP.

Question 8: Evidence of material issues with the delivery framework and potential solutions

- As outlined in response to Question 5.4, there may be scope to remove duplication where the ISP has already established the underlying system need. Project-level scrutiny should nevertheless remain.
- We support flexibility to depart from ISP assumptions where material new or project-specific information demonstrates that doing so would result in a more efficient outcome. Any departure from the ISP should be transparent and justified. Reassessment should be driven by material changes in circumstances rather than simply the occurrence of another ISP cycle.
- Greater clarity would also be useful where projects move between, or interact across, national and jurisdictional planning pathways. Stakeholders should be able to understand which process applies, the status of the project and how previous assessments will be treated.



Question 9: Evidence of material issues with the governance arrangements and potential solutions

- The governance challenge is not simply whether the ISP should be updated more frequently. It is how to preserve a stable and credible planning baseline while ensuring material new information is visible and appropriately reflected.
- We recognise the practical constraints associated with ISP timelines, including the need for firm “drop-dead” dates to support robust quantitative modelling. We consider that to some extent, this can be managed through well-designed sensitivities that capture plausible future states (for example, scenarios involving coal plant life extensions).
- However, the current framework is less well suited to incorporating material qualitative developments that arise after these cut-off points. In these cases, AEMO should have greater flexibility to reflect new and relevant market information outside the core modelling cycle, ensuring the ISP remains responsive.
- Greater transparency should focus on decision-relevant information. In particular, stakeholders should be able to readily understand what has materially changed since the previous ISP, the assumptions driving that change, and the impact on the ODP.
- The framework should distinguish between updating information and reopening the ODP. Material developments could be reflected transparently between cycles without requiring the plan to be reconsidered unless they materially change a system need, its timing or the preferred development pathway.
- Regarding how projects are represented in the ISP, we consider that projects should be represented consistently, with clear information on their status and treatment. Where the treatment of a material project changes, the reason and implications for the ODP should be transparent.

Question 10: Other issues for the Review

- Hydro Tasmania broadly agrees with the Commission's proposed focus areas.
- One further consideration is the increasing influence of ISP outputs on decisions beyond the formal actionability framework, including competitive investment and jurisdictional policy and procurement. As this influence grows, the framework should clearly distinguish between an identified system or capability need, an indicative development pathway, and an investment or procurement decision. Greater clarity about the status and intended use of different ISP outputs would reduce the risk that an indicative planning outcome is treated as a prescribed investment response.
- The Review could consider whether the ISP sufficiently captures portfolio-level resilience, in addition to least-cost outcomes under central assumptions. A development pathway that appears efficient under central assumptions may be less resilient where different resources are exposed to common weather, fuel, technology, supply-chain or geographic risks. The ISP should explore these portfolio-level risks more deeply, including the extent to which different combinations of resources



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provide greater resilience to correlated or systemic risks. Greater visibility of these risks would complement the scenario and sensitivity analysis proposed in response to Question 7 and help decision-makers understand the resilience of alternative pathways, alongside their modelled cost.