

3 September 2026

Ms Anna Collyer
Chair
Australian Energy Market Commission
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Dear Anna

Re: Review of the Integrated System Plan Framework (EPR0092)

ElectraNet appreciates the opportunity to respond to the AEMC's discussion paper for the Review of the Integrated System Plan (ISP) framework. ElectraNet offers this submission in addition to the joint submission lodged on behalf of network businesses by Energy Networks Australia.

Overall, the review should be guided by the principle that the ISP should remain a planning instrument and should not become a policy document. Actionability also remains important because it provides a pathway for projects of national importance to progress.

ElectraNet supports the ISP as a strategic planning guide and considers targeted reforms are required to improve robustness, flexibility, delivery confidence and stakeholder trust. In summary:

- The ISP should provide a more **robust** and credible outlook through enhanced sensitivity testing. It is not AEMO's role to second-guess policy, but the ISP should assess the risk of policy delays on the planning outlook. The ISP should be less about modelling precision and more about risk-based decision making in the presence of uncertainty;
- **Demand forecasting** should be more forward-looking for planning purposes in an environment of ongoing transformation and asymmetric risk in delayed or under investment in transmission;
- Greater flexibility is required in **scenario** weightings to address differing and developing regional circumstances;
- RIT-T proponents should have greater flexibility to vary **assumptions** from the Inputs, Assumptions and Scenarios Report (IASR) produced by AEMO where more granular or updated information becomes available and these changes should be adopted in its feedback loop assessment;
- An ISP project should only cease to be **actionable** if determined by AEMO under clear and objective criteria established at the time it makes its initial decision on actionability. In such an event, any RIT-T and associated early works in progress should continue on an actionable basis, unless AEMO specifically determines otherwise;

- The changing role of transmission in an increasingly **weather-dependent** power system should be more fully recognised, including greater testing of weather risks and climate change impacts;
- Joint planning arrangements should include a formal **assurance** step requiring each TNSP to confirm that the network representation, assumptions and development options adopted by AEMO appropriately reflect the latest understanding of its network.

We expand on each of these issues below.

1. Robustness to Uncertainty

The ISP should be more robust to policy uncertainty while respecting the respective roles of governments and AEMO.

Jurisdictions are responsible for setting energy and emissions reduction policies and determining which targets should be reflected in the AEMC Targets Statement. It is therefore not AEMO's role to evaluate whether those policies are desirable or whether governments should maintain, amend or withdraw them. Doing so would risk politicising the ISP and weakening its role as a credible and independent planning roadmap.

However, policy uncertainty cannot be ignored. Current assumptions that policy targets are delivered on time and in full, despite widely held market expectations to the contrary, risk producing an Optimal Development Path (ODP) that is unrealistic and therefore not useful for investors, consumers and decision-makers.

The ISP should clearly test the robustness of the ODP having regard to uncertainty in the timing, scale and delivery of jurisdictional policies, particularly where those policies materially affect demand, generation, storage or transmission needs. This should be done through transparent sensitivity analysis, not by removing committed policy settings from the central planning case or requiring AEMO to make policy judgements.

Sensitivity analysis should be used to identify whether projects remain – or become needed – under plausible variations in policy delivery, including delayed achievement of targets, changes in implementation timing and alternative patterns of related investment.

This would help distinguish projects that are robust across a credible range of futures from those whose inclusion, or exclusion, depends heavily on a specific policy assumption. It would also provide stakeholders with a clearer understanding of the constraints being imposed by Governments on AEMO in selecting the ODP.

This approach is consistent with a least-regrets planning framework. The objective should not be to produce a deterministic forecast of the future, but to ensure that major transmission decisions are resilient to foreseeable uncertainty and that the risks of investment and under-investment are considered transparently.

In this way, the ISP should be less reliant on modelling precision and more reliant on risk-based decision making and evidence-backed judgement to ensure robust planning in the presence of uncertainty.

In many cases, the risks to consumers from insufficient transmission investment may far outweigh the risks associated with prudent early planning, particularly where projects can be staged, refined or reassessed as uncertainty resolves.

Accordingly, the ISP framework would be strengthened by requiring clearer explanation of how sensitivity analysis has informed ODP selection and how broader testing of policy risks has produced a robust planning outlook that covers a more credible and realistic range of outcomes.

This would improve transparency, credibility and stakeholder confidence without requiring wholesale change to the ISP framework or disrupting the investment signals needed to support the transition. It would also better inform RIT-T assessments on the most influential factors driving the need for transmission developments and allow for such factors to be reviewed and updated for new information, as addressed further below.

This is particularly important because the ISP should not be assessed by whether it accurately predicts a single future over a 20-year horizon. Rather, its value lies in identifying a development path that remains credible and robust under a range of plausible futures. This would support more stable investment signals across ISP cycles and reduce the risk of projects moving on and off the ODP as assumptions change.

The Rules should provide guidance to AEMO to require more detailed sensitivity testing to consider the full range of risks in order to improve transparency on the selection of the ODP and deliver a planning outlook that is more robust to policy uncertainty.

2. Forward-Looking Demand Outlook

Demand forecasting for ISP planning purposes should recognise that the energy transition is increasingly characterised by step changes in demand, not only incremental growth from existing customers.

Large industrial loads, electrification, minerals processing and other energy-intensive developments can emerge quickly and materially alter the efficient timing and scale of transmission investment. In this environment, a forecasting approach that only includes loads once they are highly committed risks understating future demand at precisely the point when early planning decisions are needed.

This distinction is particularly important because the forecasts contained in the ISP and Electricity Statement of Opportunities (ESOO) serve different purposes.

A conservative commitment threshold in the ESOO may be appropriate for short-term reliability assessment, where forecasts inform immediate resource adequacy obligations and reliability interventions.

However, the ISP is a long-term transmission planning instrument intended to identify an efficient development path over time. For that purpose, excluding credible prospective loads until they reach high levels of commitment can create a false sense of certainty and shift planning risk onto consumers through delayed, less coordinated or higher-cost network development.

A more fit-for-purpose approach would include a reasonable probability-weighted assessment of material prospective loads where there is credible evidence of development intent, informed by a range of indicators such as connection enquiries, customer engagement, site selection, approvals progress or other observable milestones.

This does not require AEMO to assume that every potential load will proceed. Rather, it recognises that assigning zero value to all loads below a strict commitment threshold introduces a substantial downward bias in demand forecasting and, therefore, in the usefulness of the ODP where demand growth is rising, lumpy and material to transmission needs.

The key issue is one of asymmetric risk:

- Over-forecasting demand may lead to early preparatory works and project activities, extended project staging, or option value being tested through the planning process. These impacts are relatively small and manageable.
- Under-forecasting demand, by contrast, can defer efficient investment, constrain future customer connections, reduce optionality, require more reactive solutions once load materialises and potentially threaten reliability. These are material impacts which can increase costs for consumers and weaken the ISP's role in supporting timely, least-cost transition planning.

The demand forecasting framework of the ISP should therefore reflect the relative costs of over versus under forecasting and choose a method that reflects this balance. In practice, this might require conservatively high assumptions in a rising demand environment.

Under this approach, the central planning outlook should incorporate credible expected load growth on a transparent and evidence-based approach, supported by sensitivities that test higher and lower outcomes. This would better reflect the uncertainty facing network planners while preserving discipline, transparency and accountability in the forecasting process.

Transmission planning also needs to recognise the mismatch between the development timeframes for major network infrastructure and the shorter lead times often associated with new large loads.

Major greenfield transmission projects can require many years to develop, approve and deliver, while new industrial, digital or electrification loads may emerge over a shorter period. If planning forecasts wait until those loads are fully committed, the network development pathway may already be too late to support efficient connection, reliability and customer outcomes.

AEMO should draw on granular information available through connection enquiries and network planning processes, apply probabilistic judgement to credible prospective loads, and be transparent about the uncertainty attaching to those forecasts. This would preserve AEMO's methodological flexibility while making clear that forward-looking planning forecasts are necessary where demand growth is material, lumpy and uncertain.

The Rules should provide clearer guidance that demand forecasts used for long-term planning can appropriately differ from forecasts used for short-term operational and reliability purposes. Reflecting the relative cost of over-forecasting (low cost) versus under-forecasting (higher cost) the Rules should allow for longer-term forecasts to be prudently high.

3. Flexibility in Scenario Weightings

AEMO should have more flexibility to exclude or differently weight scenarios that are less relevant to a particular region or project when undertaking RIT-T assessments.

The current framework allows AEMO to direct proponents to exclude scenarios in some circumstances, but it is less clear whether AEMO can apply weighting adjustments that better reflect localised risks and conditions.

This is important because national scenario weightings may not always provide the most appropriate basis for assessing a specific project, particularly where regional demand, renewable resource development, policy settings or network constraints differ materially from the NEM-wide average.

Allowing AEMO to adjust scenario weightings for actionable ISP project RIT-Ts, rather than only include or exclude scenarios, would provide a more proportionate and flexible tool for reflecting these circumstances. It would also improve the alignment between ISP assumptions and the specific risks being tested in a RIT-T, without undermining the consistency and discipline provided by the IASR process.

A binary include-or-exclude approach can be too blunt where a scenario remains relevant but should carry less or more weight given local information. A more graduated approach would allow the RIT-T to remain anchored to the ISP while better reflecting the evidence available for the specific project and region being assessed.

The Rules should specifically provide AEMO the flexibility to adjust scenario weightings for actionable ISP project RIT-Ts when required to better reflect local circumstances.

4. Flexibility in IASR Assumptions

While the Rules permit departures from the IASR for demonstrable reasons, the current application of the AER's Cost Benefit Analysis Guidelines is overly restrictive.

In practice, the ability to reflect new information is limited under those Guidelines to whether that information is expected to be incorporated in a future IASR, ISP or ISP update. This can limit the ability of RIT-T proponents to use more current, granular or project-specific information, even where that information is material, evidence-based and has been tested with stakeholders through the RIT-T consultation process.

The framework should better support iterative planning by allowing AEMO and the RIT-T proponent to agree to variations in assumptions where new information has emerged since the IASR and where the change is transparent, justified and consulted on. This would improve the quality of project-level assessment while preserving the important role of the IASR as the common foundation for ISP and RIT-T analysis.

Consistent with this, the feedback loop should be based on the best available information at the time regardless of previous inputs and assumptions. Greater flexibility in the RIT-T will have limited practical value if actionability can only be confirmed by re-running the ISP model on the original assumptions.

The Rules should make it clear that AEMO can be satisfied that a project remains on, or should be included in, the ODP based on its own modelling or its assessment of modelling and evidence provided by the RIT-T proponent, including more granular network modelling that may not be replicated in the ISP.

Maintaining a presumption of alignment between ISP, IASR and RIT-T assumptions remains valuable because it reduces dispute risk and supports consistency across the framework. The reform should therefore not sever the link between the ISP and RIT-T. Rather, it should allow a transparent, evidence-based pathway for departure where forecasts are overtaken by new information and where the departure has been properly explained, consulted on and assessed.

The rules should be amended to clarify the intent for AEMO and a RIT-T proponent to agree to variations in assumptions where new information has emerged since the last IASR and for the feedback loop to be based in this information. The AER should be encouraged to make the corresponding changes to its CBA Guideline to enable this.

5. Stable Actionability Path

At present, the rules are silent on the ability of AEMO to revoke the actionable status of an ISP project. If the intention is for this ability to exist, a clear criteria-based framework should be in place for the actionable status of a project to be reviewed and if required changed. In the interests of stability and certainty under the planning framework, the key variables or conditions that may warrant a change in the actionable status of an ISP project should be clearly identified at the time actionable status is first confirmed.

If an ISP project ceases to be actionable after a RIT-T assessment has commenced, the RIT-T and associated early works activities should continue unless AEMO specifically determines otherwise, with this phase of the project to remain actionable under the ISP framework.

A change in actionability status should not automatically halt work that is already underway, particularly where substantial stakeholder engagement, option development, community consultation or early works have commenced.

Stopping the process can create significant unnecessary uncertainty for stakeholders and affected communities, lose project momentum, increase future delivery risk and undermine the importance of optionality in a rapidly changing environment.

The framework already allows AEMO to identify project stages, and clearer guidance should be provided in the Rules for this flexibility to be used to manage projects whose timing changes between ISP cycles.

Completion of the RIT-T can preserve option value even if the full project is no longer immediately actionable. It enables community and stakeholder engagement to continue in an orderly way, allows project information to be retained and refined, and provides a more efficient starting point if the project is reinstated on the ODP in a later ISP. This is preferable to abandoning work and restarting from a lower information base if circumstances change.

The Northern Transmission Project (NTx) is a case in point:

- AEMO identified the pending need for NTx in the 2022 ISP, requesting ElectraNet to undertake preparatory works with a timing between 2029 and 2040.

- AEMO identified this as an actionable project in the 2024 ISP with timing ranging from 2030 to 2031 and required ElectraNet to apply the RIT-T. Application of the RIT-T commenced and a PADR was released in April 2026.
- Associated early works also commenced, including extensive community engagement in relation to route selection. Four separate corridor options were identified and consulted on with affected communities. In response to community feedback, a fifth corridor option was then identified and released for consultation.
- The 2026 ISP found that the project remained on the ODP but with later delivery timing. AEMO determined the project to be a Future ISP Project and no longer actionable, despite there being no formal mechanism to remove actionability.
- Ceasing the RIT-T at this time would undermine the work and consultation undertaken to date, and the role of the RIT-T in identifying a preferred option to address the identified need. It would also be non-compliant with the Rules, which require a RIT-T to be completed while a project remains on the ODP (NER 5.16A.4(b)) and require considerable additional rework at a later date.
- Ceasing engagement at this time would also create high levels of uncertainty for affected communities around corridor selection and the future potential impacts involved.
- Given the project remains on the ODP and there is an active RIT-T underway, AEMO concluded in the 2026 ISP that: *"ElectraNet should conclude the RIT-T. This will allow further assessment of local factors, system resilience, option value, future load development, and additional credible options".*
- AEMO also concluded that: *"continuing community engagement may help to narrow the corridor and reduce uncertainty for affected communities, while ensuring community considerations are reflected in future planning and decision-making. Stopping and restarting engagement can be disruptive, may erode trust, and could make it more difficult to build and maintain social licence for the project over time."*
- Consistent with this guidance and the requirements of the Rules, ElectraNet is currently proceeding to conclude the RIT-T and progress essential community engagement on corridor selection.
- The actionable status of an ISP Project is directly linked to its status as a contingent project under the Rules. Consequently, where the actionable status of a project is unclear or in doubt, this creates uncertainty over funding for early works or associated activities and uncertainty over the regulatory approval path to progress the project in the absence of actionable status in the next ISP.

Targeted reforms to the framework would prevent such a situation arising in future and provide the stability and robustness required of the national planning framework. This would preserve optionality, improve certainty for affected communities, allow more detailed analysis to confirm or challenge the latest ISP modelling, and support more orderly and timely project development.

Clear and objective criteria should be in place under the Rules to define the limited circumstances in which AEMO may determine that a project is no longer actionable.

In the event a project is determined to be no longer actionable, the Rules should require the RIT-T and any associated early works in progress to continue unless there are clear and demonstrable reasons for AEMO to determine otherwise, with this phase of the project to remain actionable.

6. Increasing Weather Dependence

As the power system becomes increasingly reliant on renewable generation, it also becomes more dependent on weather conditions. This elevates the role of transmission in accessing geographically diverse energy resources and managing variability across regions.

The growing frequency and severity of weather extremes further reinforces the role of the transmission network as a critical source of system resilience as climate risks increase over time.

Planning for a renewable-based power system must therefore consider a broader range of weather conditions and long-term climate risks through different operating scenarios to ensure reliability is maintained under increasingly variable conditions, not just average conditions.

Increased sensitivity testing should therefore be used to explore the impact of extreme weather and system stress events. In particular, AEMO should move beyond reliance on historical rolling weather year modelling toward an approach that tests a broader range of weather years and relevant high-impact events across ISP years, so the value of transmission and interconnection during less common but severe system conditions is more fully captured.

The need for increased modelling of weather risks and climate change impacts should be reflected in targeted requirements in the Rules to consider an appropriate range of operating conditions to better support least-regrets planning and system resilience.

7. Network Accuracy

The credibility of the ISP depends on accurately representing the transmission networks on which it relies. This is increasingly important as the role of transmission evolves through the energy transition.

Historically, transmission networks primarily transported electricity from large, centralised generators to consumers. Increasingly, however, they are facilitating complex and dynamic power flows between geographically dispersed renewable energy zones, storage resources and demand centres.

As power flows, constraints, system needs and network capabilities continue to evolve, maintaining an accurate and current understanding of the network and its behaviour becomes a critical input to long-term system planning.

It is not clear that current ISP modelling contains a sufficiently accurate and up to date representation of the South Australian transmission network and its key constraints and limitations. This is important in the context of the rapid changes impacting on the planning outlook in South Australia, including world-leading levels of renewable generation and solar PV uptake and rising demand outlook.

Against this backdrop, the joint planning arrangements would be strengthened through a formal assurance process requiring each TNSP to confirm that the network representation, assumptions and options adopted by AEMO appropriately reflect the latest understanding of its network.

This would provide greater confidence that ISP outcomes are grounded in the most accurate and up-to-date information available and strengthen the accountabilities to support this.

To support this assurance process, ISP development should involve more iterative joint planning between AEMO and TNSPs, including earlier access to modelling results, greater transparency of assumptions, and regular opportunities to refine inputs as new information emerges.

Network options and assumptions should be viewed as dynamic and evolving, and the framework should be sufficiently adaptive to incorporate material new information where this would improve the robustness, relevance and credibility of the ISP.

A formal assurance step should be included in the Rules requiring each TNSP to confirm that the network representation, assumptions and network options adopted by AEMO appropriately reflect the latest understanding of its network as part of a more iterative joint planning process.

We look forward to continuing to engage in the review as it progresses and would be happy to discuss any aspects of this submission further. If you would like to discuss any aspects of this submission, please feel free to contact Simon Appleby on appleby.simon@electranet.com.au or 0438 286 570.

Yours sincerely

A handwritten signature in black ink, appearing to read "N Buley".

Nicola Buley
Acting Chief Executive Officer