Ref. A6431883

7 September 2026

Ms Anna Collyer
Chair
Australian Energy Market Commission
GPO Box 2603
SYDNEY NSW 2001

Dear Ms Collyer,

Reference EPR0092

Response to Discussion Paper – Review of the integrated system plan framework

Powerlink welcomes the opportunity to provide input to the Australian Energy Market Commission's (AEMC's) Discussion Paper (Paper) on the *Review of the integrated system plan framework*, published on 23 July 2026.

Powerlink supports the integrated system plan (ISP) as a key planning publication to guide nationally significant investment and integrated planning that delivers whole-of-system benefits in the long-term interest of consumers.

For the ISP to achieve this goal, it needs to be credible. This requires the plan to be based on the most current information available and to be highly transparent on the benefits of the plan compared with alternatives. It should be clear why projects have been included in the Optimal Development Path (ODP).

As Queensland's jurisdictional planning body and transmission network service provider, Powerlink has a deep understanding of the Queensland transmission network, the broader power system and the customers it serves, including electricity producers and consumers. In planning the transmission network, Powerlink considers and optimises investment required for asset replacement with augmentations that support the future needs of the system, including connecting new resources or loads and responding to changes in the distribution network. This approach is underpinned by ongoing investment in understanding our customers, communities and the evolving needs of the transmission network.

In the development of the ISP, the jurisdictional planning body has an essential role through high-quality and iterative joint planning that ensures the ISP is grounded in real world conditions and avoids unnecessary duplication of effort between AEMO and JPBs.

In the attachment to this submission, Powerlink focuses on a select number of complementary areas that we consider would materially improve the quality and credibility of the ISP and the effectiveness of the actionability framework for transmission planning:

- The transparency of the ISP and ODP could be improved by placing greater priority on identifying and articulating project value drivers and regret risks across a broader range of sensitivities. Additional information on a project-basis of the degree to which the value of the ODP depends on each project in

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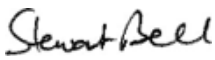
the ODP and what sensitivities would affect this value would improve stakeholder understanding and confidence.

- There should be greater flexibility for AEMO to accept updated information through the ISP development cycle, such as refinements in the network options and updated network capability.
- The actionability framework should recognise the different purposes of a strategic-level plan (such as the ISP) and project-specific evaluations and allow greater flexibility for RIT-T assessments to depart from ISP inputs and assumptions where justified.

If you have any questions in relation to this submission, please contact Jennifer Harris.

Yours sincerely,



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ATTACHMENT

The purpose of the ISP is to set out a strategic direction for the efficient development of the power system over the next 25 years to navigate the changes in demand and supply bounded within the achievement of policy objectives.

Powerlink supports efforts to continue to improve the quality and credibility of the plans so that directions and projects proposed by the ISP are robust, low-regret and provide value to end consumers of electricity.

This attachment expands on three areas for improvement:

1. strengthening understanding of project value drivers and regret risks,
2. enabling more iterative updates through the ISP cycle, and
3. clarifying how the actionability framework should apply to project-specific assessments.

AREA 1 - The transparency of the ISP and ODP could be improved by placing greater priority on identifying and articulating project value drivers and regret risks across a broader range of sensitivities

The National Electricity Market (NEM) is in a period where forecasts across all areas (e.g. electricity demand, costs of generation, storage and network, and deliverability) carry a high level of uncertainty. Additionally, the power system is becoming more weather dependent as the penetration of variable renewable energy supply grows. Both factors mean that **single-value forecasts are no longer appropriate** and distributions of outcomes need to be considered. In other words, it is not sufficient to work with a single representation of the future or to identify a plan that works or is optimal on the 'average'.

AEMO undertakes an extensive and highly consultative process to identify the input parameters to use in developing the ISP.

However, even when the best available information is used to develop input parameters, identifying an 'optimal' pathway based off a single set of parameters does not ensure that the pathway is robust and that appropriate decisions are made in the face of uncertainty.

Both over and under investment will affect consumers. However, not all investments are equally important to achieve the Optimal Development Path (ODP) or reduce the risk of higher cost future outcomes.

Currently, the ODP is derived from a weighted average analysis of the core ISP scenarios and tested against a limited set of sensitivities relative to other Candidate Development Paths (CDPs). In the 2026 ISP, AEMO concluded that the ODP remained robust against six broad sensitivities.

Powerlink supports this approach but considers that more extensive sensitivity analysis and a clearer articulation of the insights from those sensitivities would improve the robustness, transparency and credibility of the plan. Further, while the current robustness assessment considers scenarios and sensitivities at the pathway level, the ISP does not clearly identify whether individual projects within the path are robust to changes in their key value drivers or exposed to material regret risks.

For example, **the ISP could identify between the strong and weak contributors to the ODP by assessing the materiality of their key value drivers and the sensitivity to plausible changes in assumptions.**

If this analysis were conducted and the ISP clearly articulated the value drivers and regret risks for each project in the final ODP (at least those declared actionable), it would strengthen stakeholder understanding and confidence in each project's benefits. It would also support the subsequent RIT-Ts by ensuring that modelling and credible

option development focuses on the identified value drivers and areas of regret that warrant more detailed analysis, rather than on modelling factors that are not sensitive or relevant for this project assessment.

While the proposal above would place additional demands on AEMO in an already highly complex process with challenging time constraints, AEMO has been improving its consideration of uncertainties. Prioritising further improvements in this area would help the ISP focus attention on those high-value projects that deliver the greatest value and benefit to consumers.

As part of its review, the AEMC could examine whether AEMO has the ability to use the information from this robustness testing to affect the inclusion of a project in the ODP with very marginal contribution to the net benefits of the whole plan from a value and risk perspective.

AREA 2 - There should be greater flexibility in the framework for AEMO to accept updated information through the ISP development cycle

The ISP process follows a highly organised and stringent development and consultation process, designed to cover a multitude of inputs, methodologies and models to produce outcomes in the ISP within a two-year period.

Where critical inputs, assumptions and approaches sit along this consultation process, there is very limited ability to update them during the ISP cycle. While this supports consistency in timing and delivery, it does not necessarily produce the most up-to-date planning outcome.

It is not realistic to assume that TNSPs can provide a suite of network options and capabilities at the start of the ISP cycle that are sufficiently broad enough to cover all potential modelling outcomes. Instead, Powerlink supports an iterative planning approach with AEMO, enabling both parties to respond effectively to emerging modelling outcomes and, on the back of these insights, further refine options and inputs. An iterative process helps ensure the ISP remains relevant and captures the benefits of ongoing learning from the outcomes of early modelling, including where network options or associated inputs may need adjustment. It is also crucial that the ISP can adopt material changes in the market and policy environment, as was the case with the publication of the Queensland Energy Roadmap in October 2025.

Under this approach, information about the capability of the existing network, committed and anticipated network augmentations and the Electricity Network Options Report (ENOR) could be treated as live documents with regular, perhaps quarterly updates similar to the NEM Generation information publication. This means that information regarding potential network upgrade options and network capability improvements may change (sometimes significantly) as new investigations are undertaken that reveal changes in our understanding or with new information internal and external to the business.

The ability to materially change these inputs currently exists only through the consultation following the draft ISP publication.

As an example of the value and impact of iterative planning, Powerlink's public submission to the Draft 2026 ISP[1] summarised several focus areas identified from the published draft results. This included:

- The reassessment of a network option between northern and central Queensland to effectively consider asset replacement cost savings rather than a standalone option.

[1] https://www.aemo.com.au/consultations/current-and-closed-consultations/draft-2026-isp-consultation

- Updated advice on power transfer capability between northern and central Queensland identified from more recent power system studies.
- A more detailed reflection of limitations between central and southern Queensland to more appropriately assess augmentation options in this area of the network.
- Seeking a deeper understanding of the drivers around the value and timing of augmentation options between Queensland and New South Wales to ensure robust least-cost outcomes to consumers.

Through iterative joint planning following the draft ISP, Powerlink and AEMO reviewed the modelling and the above observations to refine the inputs for the final ISP. The modelling for the final 2026 ISP considered these updates, which ultimately changed the ISP outcomes. These examples demonstrate the value of iterative planning, responding to modelling outcomes and improving inputs.

Powerlink believes that a single opportunity between the draft and final ISPs significantly limits the ability to refine modelling and inputs. Additional flexibility will both improve the quality and relevance of the ISP, as well as alignment of the ISP with subsequent RIT-T assessments by reducing the differences in assumptions created by the timing difference between the ISP and when the RIT-T assessment is conducted.

AREA 3 - The actionability framework should recognise the different purposes of a strategic-level plan (such as the ISP) and project-specific evaluations and allow greater flexibility for RIT-T assessments to depart from ISP inputs and assumptions

The framework requires RIT-Ts for actionable projects to align with the ISP. This is appropriate to ensure that the market benefits calculated in the RIT-T assessment remain consistent with achieving the value of the project within the identified ODP.

However, the CBA guidelines restrict the definition of “alignment” to strict adherence of the same inputs, assumptions and scenarios and limits ‘demonstrable reasons’ for departing from these to a material change in circumstances.

Both AEMO and the ENA have previously commented on the need for greater flexibility to enable RIT-Ts to adopt more current or localised information and apply different scenarios or sensitivities.

Powerlink considers that this is an important area for improvement and clarification.

The framework needs to acknowledge that the ISP and the RIT-T are answering fundamentally different questions and therefore would require fit-for-purpose approaches, while remaining aligned and consistent.

The ISP needs to take a macro view of the entire NEM. In so doing, it needs to apply inputs, assumptions, scenarios and sensitivities that inform the value and risks of various pathways from this macro level. For practical and computational purposes, the ISP needs to adopt simplifying assumptions – for example, a simplified representation of the network, linearised network augmentations, etc.

The RIT-T assessment, on the other hand, examines in greater detail the “identified need” of a specific project defined in the ISP. It develops, tests and refines alternative network and non-network options, including their timing and sequencing, and more accurately computes the market benefits of each option. As described above, this process is iterative, with option development refined through insights from market modelling so that the assessment targets the underlying drivers of the identified need.

To have the required resolution for this analysis, the model needs to incorporate more current and detailed local information. This could include detailed representation of the local network and constraints that materially affect the market benefits and areas of avoidable costs (e.g. avoiding asset replacements).

As an illustrative example, the 2026 ISP has declared the Brisbane Area 275kV Reinforcement an actionable ISP project. For our RIT-T assessment, Powerlink will need to represent the relevant network constraints around the Brisbane area and the interactions of generation and load around this area and the Central to Southern Queensland grid section in detail. This is necessary to accurately capture the impact of an augmentation on market development and operation and distinguish between credible options. In contrast, in the ISP these constraints were represented as single value seasonal limits for computational tractability.

On the other hand, there are also factors that are important in the ISP as a NEM-wide assessment that do not materially affect the benefit assessment for the project under the RIT-T assessment. For example, the sub-regional representation in other NEM regions is unlikely to have any material impact for the Brisbane Area 275kV Reinforcement.

Scenarios and sensitivities should also be fit-for-purpose for the RIT-T in question so that they are stress-testing the value and risks of the augmentation options on factors that are identified as having the most impact on a particular case. This would also extend to the assessment of discrete network options and reflecting viable network and market operation, leveraging localised knowledge.

A further complication is that RIT-Ts currently need to align with the most recent inputs, assumptions and scenarios report (IASR), even when this changes part-way through the RIT-T process and there is no ISP that has identified an ODP under these updated assumptions. This creates a significant amount of rework and cost for the RIT-T proponent, which would be reduced if the RIT-T proponent could adopt, with due justification, only the changes to the inputs that are likely to materially affect the costs and benefits of the project being assessed.

In other words, the framework needs to be fit-for-purpose rather than ‘one-size-fits-all’, while staying consistent with the ISP.

While this is a significant challenge for transmission, the need to adopt fit-for-purpose assumptions would be even more pronounced for distribution network assessments. If the actionability framework were extended to distribution, a DNSP should not have to replicate the ISP to assess these options and the ISP should not need to go down to the level of detail of modelling the distribution network.

The framework should clarify that RIT-T proponents may adopt updated, localised or more detailed assumptions in some areas and less detailed assumptions in others, where justified, provided the assessment remains consistent with the ISP’s identified need and strategic intent. Two key clarifications needed for this are:

- what it means for an assessment to be “consistent with the ISP”, so that AEMO and JPBs have flexibility to adopt assumptions that are appropriate for the purpose of each assessment; and
- how the feedback loop should operate where a RIT-T adopts more detailed and locally appropriate assumptions.