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Australian Energy Market Commission
Level 15, 60 Castlereagh Street
Sydney NSW 2000

Submitted via portal EPR0092

Dear Ms Beinart

NSW DNSP response to AEMC's Review of the Integrated System Plan framework

Ausgrid, Endeavour Energy and Essential Energy, together the three NSW Distribution Network Service Providers (**DNSPs**), appreciate the opportunity to provide feedback to the Australian Energy Market Commissions (**AEMC**) Review of the Integrated System Plan (**ISP**) framework Discussion Paper (the **Paper**).

The NSW DNSP's welcome the progress made thus far regarding the Review of the ISP Framework. As the energy transition progresses, we recognise the need for the ISP to evolve to continue meeting the needs of the electricity system and the broader community. The AEMC's "strawpeople" (**SPs**) appropriately highlight the key choices that need to be made about the future role of the ISP.

In providing support for the AEMC's Review, our submission provides feedback on key issues within the Paper. This has been set out in three sections:

1. The Future ISP scope (SPs 3 and 4):

- details support for extending the ISP to include co-optimisation to the distribution system and demand-side, and some of the practical challenges that will need to be overcome to deliver on a broader plan; and
- sets out the actionability pathway for distribution projects, being the key distinction between SP3 and SP4, and our views on how the ISP can support the timely delivery of distribution projects while retaining flexibility for DSNPs to select the most appropriate regulatory and investment framework.

2. Interaction with jurisdictions: The ISP should make greater use of existing jurisdictional planning outputs (for example, planning outputs that are already required within NSW) and reconcile any differences transparently, rather than inadvertently creating inefficiencies through duplicating analysis or creating misaligned planning processes.

3. Treatment of gas (SP5): Greater visibility of future gas demand is relevant, but is likely better addressed through dedicated gas network reforms and existing rule changes than by expanding the ISP.

Section One: The ISP should encompass the whole electricity system, including distribution network and demand side resources

Challenges arising from extending co-optimisation to distribution, CER and demand side resources poses are not insurmountable

In our view, it is desirable for the ISP to make further steps towards the ambition of providing a “whole of system” plan for the electricity system. As such, NSW DNSPs consider SPs 3 and potentially 4 to be the most suitable direction for future ISPs, because these appear to be most effective at accounting for the importance of the distribution network and demand side resources in planning for the electricity system. An approach that treats the distribution network and demand side resources as merely static inputs into a transmission and large generation-centred modelling approach is increasingly outdated, particularly in circumstances where distributed and demand side resources (ranging from behind the meter batteries, to electric vehicles, to data centres) are having the most transformative effects on the electricity system. There is scope to increase the pace of iterative improvements between ISPs to deepen treatment of distribution and demand-side capabilities and to move from pursuing more detailed distribution inputs (as currently is occurring) towards genuine co-optimisation by the early 2030s.

Expanding the ISP deeper into distribution co-optimisation will need the Australian Energy Market Operator (**AEMO**) to make greater use of DNSP planning knowledge and outputs. Importantly, extending the ISP’s co-optimisation to distribution networks, consumer energy resources (**CER**) and the demand side does not require AEMO to itself replicate detailed DNSP planning models or model every distribution feeder. DNSPs are best placed to model their own networks, given their understanding of demand growth, emerging loads, network constraints, reliability requirements and delivery risks, feeding that analysis in to AEMO’s processes. Accordingly, AEMO’s role should remain focused on optimisation.

This could be achieved through a clear division of responsibilities, outlined in **table 1** below.

Table 1: Division of responsibilities

AEMO’s responsibilities:	DNSP’s responsibilities:
• Set common parameters, scenarios and information requirements for national modelling; • Assess distribution opportunities alongside transmission, generation, storage and demand-side alternatives within the ISP.	• Provide standardised inputs at appropriate transmission-distribution interface points, including available capacity, the cost and timing of increasing capacity, operational constraints, and relevant network and non-network options. • Retain responsibility for local network analysis, including, if required, explaining material departures from national assumptions.

A nationally consistent framework should not require uniform outputs where network characteristics, data availability and customer needs differ. Rather, it should allow local and regional planning to inform national planning. In NSW, factors such as Western Sydney growth, data centre developments, electrification, bulk supply point limitations and transmission-distribution interface planning are highly location-specific and difficult to accurately represent through broad assumptions alone.

We recommend that AEMO make greater use of DNSP planning outputs, not just DNSP data inputs. DNSPs already prepare plans and investment strategies for zone substations, and 33 kV and 132 kV networks. Following the approval of the 'Enhancing distribution network planning & reporting' rule change (ERC0410), distribution networks will be required to produce Distribution Network Development Plans (DNDPs), with annual updates. Information produced in the DNDPs should be incorporated into the ISP development cycle. In addition to this requirement, we note that the NSW DNSPs have also jointly developed the Distribution System Plan (DSP) Opportunities Report, which provides a coordinated, bottom-up assessment of the role distribution networks can play in supporting the energy transition. These outputs provide more granular insight into distribution network capacity, customer behaviour, CER, local demand growth and whole-of-system planning opportunities.

The ISP should integrate these planning outcomes into the national framework, enabling AEMO to coordinate and validate system-wide implications, while DNSPs continue to lead local planning. DNSPs should be recognised as strategic planning partners whose outputs inform the ISP, rather than simply providers of forecasts and assumptions. The framework should therefore include a transparent process for DNSPs to nominate distribution projects and portfolios for ISP assessment, understand how AEMO has treated those proposals, and receive feedback where an option is not progressed.

The future ISP framework should also promote consistent and transparent modelling to comparable network options. Where different candidate projects are represented using materially different assumptions, constraints or optimisation pathways, AEMO should explain the basis for those differences and their implications for the assessment. This is particularly important where modelling choices affect the ability of distribution options to demonstrate their potential whole of system value.

Additionally, we support the development of an expanded plan that goes beyond projects or infrastructure investments to include practical actions and initiatives. For instance, there may be situations where the most cost-efficient approach involves coordinating or orchestrating customer behaviour in relation to CER, fostering behaviour changes among customers, or supporting energy efficiency programs. These strategies should be incorporated into the broader ISP framework for consideration.

Finally, the ISP should remain grounded in an actionable plan that supports reliability, security and efficient customer outcomes. For the ISP to be practical, investable, deliverable and able to withstand changes in external factors over time, AEMO must be able to assess which policies and projects can realistically be implemented. AEMO should retain the flexibility to apply qualitative judgments in its assessment of these policies and projects as assumptions in its modelling, rather than treating them as fixed inputs, and to recognise real-world delivery considerations, including lead times, constructability, customer requirements, investment timing and operational constraints.

Expanding the ISP's actionability framework to distribution is viable but requires further groundwork

NSW DNSPs agree in principle that there are benefits from a linkage between a broader plan to encompass co-optimisation of the distribution system, and the development of an Actionability Framework as proposed in SP4. Distribution investments considered through the ISP are likely to fall into two broad categories and should not necessarily be subject to the same actionability mechanism.

The first category comprises identifiable major distribution or sub-transmission projects that can be specified, costed and assessed in a manner broadly comparable to transmission projects. The final 2026 ISP demonstrates that these projects are capable of being recognised within the Optimal Development Path (ODP) through the Hunter-Central Coast Renewable Energy Zone (REZ) Expansion and Dubbo Distribution Project. However, the current framework identifies these as

distribution development opportunities without providing a comparable actionability pathway available to transmission projects.

The second category comprises portfolios of lower voltage and high voltage investment that collectively enable additional CER, flexible demand, electrification or distributed generation. These investments may not be capable of being reduced to a single project at the time of the ISP. The actionability mechanism for this category may therefore need to identify an area, capacity requirement or defined portfolio outcome, rather than prescribe individual network augmentations. Further consideration is needed in relation to how ISP recommendations regarding these types of investments would interact with the conventional distribution network regulatory reset process, given differences in timing (with ISPs every 2 years and regulatory resets every 5 years), and differences in analytical and decision-making approach between the AER and AEMO.

In both cases, the ISP should identify the system need and the value attributed to the distribution outcome. This would support a fast and credible route for projects on the ODP. However, DNSPs should retain responsibility for selecting and delivering the efficient network and non-network response through the applicable regulatory and investment assessment framework.

It will also be important to carefully consider the interactions between an ISP Actionability Framework for distribution projects and jurisdictional arrangements in NSW.

Section Two: Interactions with other processes should be efficient and minimise duplication

The future ISP framework will operate alongside a substantially expanded network planning architecture in NSW. In particular, we note that the NSW Government is progressing:

- the development of a new biennial NSW System Plan;
- the appointment of EnergyCo as the Jurisdictional Planning Body; and
- new system-wide joint planning obligations involving EnergyCo, AEMO, Transmission Network Service Providers and DNSPs.

Concurrently, the new DNDP framework (outlined previously) will require DNSPs to undertake 20-year scenario modelling, drawing upon AEMO's Inputs Assumptions and Scenarios (**IASR**) as a common baseline.

Given the synergies between the various planning documents and these reforms, there is a real opportunity to develop a coherent planning hierarchy that delivers effective outcomes for the customers the energy system is ultimately intended to serve. However, there is also a material risk of misaligned timing and duplication if each of the processes noted above separately seeks similar forecasts, network information and option analysis from DNSPs. That is because doing so will add significant pressure to already constrained planning resources and directly compete with system planning and connection outcomes. In turn, this may give rise to risks pertaining to:

- quality, with overlapping reports potentially resulting in multiple sources of 'truth'; and
- the ability to realise the value sought from the various planning documents.

We recommend that AEMO make use of outputs produced through NSW joint planning where those outputs are fit for the relevant ISP purpose, rather than requiring the underlying analysis to be recreated through a separate ISP-specific process. Similarly, information prepared for a DNDP should be reusable for the ISP and NSW System Plan where it meets the relevant purpose and evidentiary standard. This would allow planning resources to be directed towards analysis of material system needs and credible options, and, therefore, the delivery of outcomes for end-consumers of the energy system, rather than the repeated preparation and repackaging of similar information.

We also recommend the AEMC consider how the ISP could reconcile different planning outcomes. For example, where a distribution or non-network option has been identified through a DNDP, the NSW System Plan or formal joint planning processes, AEMO should explain how that option has been treated in the ISP and provide reasons where it reaches a materially different conclusion. This would provide confidence that the national plan has been informed by jurisdictional and local planning evidence.

Section Three: Gas related information is relevant, but may not necessarily be best delivered through the ISP

DNSPs would welcome increased visibility over the future of gas demand, but we are not persuaded that the ISP is the most appropriate channel for delivering this. We recognise that there are key linkages between the electricity generation outputs of the ISP and the gas system. We are also very aware that customer demand for electricity, both at the household level and the commercial and industrial level, will be affected by electrification of energy demand that is currently served by gas. However, we note the Commission's analysis that the complex legislative requirements of SP5, and the potential incompatibility of the 'actionability' concept with unregulated gas infrastructure, both pose significant challenges to adopting SP5.

The "Better integration of gas and community sentiment into the ISP" rule change (ERC0395) which was adopted by the AEMC in 2024 allows AEMO to better understand these linkages and include them in ISP modelling.¹ The AEMC also has the opportunity, via the "Gas networks in transition" rule change package (GRC0084), to create obligations on gas network providers to publish more relevant data.² This could exist as a gas system equivalent to the requirements imposed on DNSPs to produce distribution network development plans (DNDP) as a result of the "Enhancing distribution network planning & reporting" rule change (ERC0410).³ We view these as more appropriate channels for understanding interactions between the gas and electricity systems than SP5.

We would be pleased to discuss any aspect of our submission with the AEMC. If that would be of assistance, please contact:

- Ausgrid: Simon Moore, Senior Policy Advisor at simon.moore@ausgrid.com.au
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Yours sincerely,



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¹ AEMC, [Better integration of gas and community sentiment into the ISP](#) rule change

² AEMC, [Gas networks in transition](#) rule change

³ AEMC, [Enhancing distribution network planning & reporting](#) rule change