



NSW transmission planning review

Consultation Paper

14 February 2025

Purpose and authors

This consultation paper has been prepared by the following Farrier Swier Consulting Pty Ltd (farrierswier) staff and sub-contractors who have each been appointed by the NSW Minister for Energy under section 21(2)(b) of the *Energy and Utilities Administration Act 1987* (NSW) to examine and report to the Minister on the inquiry into transmission planning:

- Richard Owens, review lead
- David Swift
- Claire Rozyn
- Geoff Swier
- Jess Hunt.

Disclaimer

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1. Context and purpose of this paper

1.1 ESTABLISHMENT OF THE TRANSMISSION PLANNING REVIEW

The NSW Minister for Energy has authorised an independent, expert review into transmission planning in NSW (the transmission planning review).

On 11 February 2025, the Minister for Energy appointed the following people to examine and report to the Minister on the inquiry into transmission planning under section 21(2)(b) of the *Energy and Utilities Administration Act 1987* (NSW):

- Richard Owens, review lead
- David Swift
- Claire Rozyn
- Geoff Swier
- Jess Hunt,

(the review team).¹

The review team will undertake this transmission planning review in accordance with Terms of Reference attached to the Minister’s instrument of authorisation for the review.

The Terms of Reference and this Consultation Paper are available on the project website at www.energy.nsw.gov.au/nsw-plans-and-progress/regulation-and-policy/nsw-transmission-planning-review-2025.

1.2 THE REVIEW RESPONDS TO RECOMMENDATIONS IN THE ELECTRICITY SUPPLY AND RELIABILITY CHECK UP

The Terms of Reference state that the purpose of the review is to consider transmission planning arrangements in NSW to reduce duplication and ensure coordination between relevant entities.

The review was established by the Minister in response to the following recommendation in the Electricity Supply and Reliability Check Up conducted by Marsden Jacob Associates (the Check Up):²

- 18. Under s.21(2)(b) of the *Energy and Utilities Administration Act 1987*, the Minister should commission an expert review of current Transmission Planning arrangements in NSW to reduce duplication and advise on the best approach to ensuring coordination between the Roadmap bodies (Energy Co, Transgrid, AEMO, AEMO Services).**

The Terms of Reference include the following summary of the issues identified by the Check Up in relation to transmission planning in NSW:

The Check Up considered transmission planning in NSW to be overly complicated, with a tension created between the roles of a range of parties involved in transmission planning decisions. These were noted as the jurisdictional planner, Transgrid, the Renewable Energy Zone (REZ) planner, the Energy Corporation of NSW (EnergyCo), the Integrated System Plan

¹ *Instrument of Authorisation – Transmission Planning Review*, 11 February 2025.

² Marsden Jacob Associates, *NSW Electricity Supply and Reliability Check Up*, 4 August 2023, p14.

(ISP) planner, the Australian Energy Market Operator (AEMO), and, through the REZ network project approval process, AEMO Services.

The report noted the range of transmission planning publications issued by these entities, all of which cover many of the same projects. These include AEMO's biennial ISP, Transgrid's Transmission Annual Planning Report (TAPR), and Energy Co's recently issued Network Infrastructure Strategy (NIS). The report also noted that AEMO Services considers the timing of network infrastructure projects in developing its Infrastructure Investment Objectives (IIO) Report as the Consumer Trustee under the Roadmap legislation.

1.3 PURPOSE OF THIS PAPER AND REQUEST FOR STAKEHOLDER INPUT

This paper summarises the scope of the transmission planning review and the process that will be adopted by the review team in undertaking its review and preparing its report to the Minister.

The review team seeks initial stakeholder feedback on issues with the current transmission planning arrangements in NSW and options for reforms to those arrangements.

At this initial stage of the review, we are particularly interested in stakeholders' views on:

- whether the current NSW transmission planning arrangements are meeting the objectives set out section 3.1 below
- what are the main issues and challenges with the current NSW transmission planning arrangements and the reasons why they are not considered to be meeting those objectives
- what options should we consider for potential changes to NSW transmission planning arrangements so that they better deliver on the review's objectives and the draft assessment criteria set out in section 3.2 below.

We would also appreciate any feedback on the draft assessment criteria for the review, which are set out in section 3.2 below.

Stakeholders can provide input either by meeting with the review team or by providing written comments. You can contact the review team by email at transmissionplanningreview@dcceew.nsw.gov.au.

If you wish to provide written comments or submissions, please submit them by Monday 10 March 2025 by emailing them to transmissionplanningreview@dcceew.nsw.gov.au.

We propose to undertake a highly consultative approach to the review and there will be a range of opportunities for stakeholders to engage with us during the review, including meetings and submissions on an Options Paper and an Interim Report as explained in section 4 below. The indicative dates for each of our reports and submissions to those reports are set out in section 4.

We will publish submissions to the Interim Report on the project website. We do not intend to publish submissions to this Consultation Paper or the subsequent Options Paper, but those submissions will inform our Interim Report and Final Report and may be quoted or summarised in those reports.

Submitters should also note that this work is being undertaken on behalf of the NSW Government Department of Climate Change, Energy, the Environment and Water (the Department). The Department may need to release information by law, for example to comply with the *Government Information (Public Access) Act 2009*. If any information contained in a submission is confidential, the person making the submission should clearly identify the confidential information, provide reasons why it is confidential and (where possible) provide a public version with the confidential information omitted. For more information, please visit DCCEEW's information access page here: <https://www.nsw.gov.au/departments-and-agencies/dcceew/information-access-governance-and-feedback>.

2. Scope of the review

2.1 SCOPE OF THE REVIEW

The Terms of Reference state that the review will propose, with clear rationale, the features of optimal transmission planning arrangements for NSW, consistent with NSW legislated and policy objectives and targets, and aligned with the objectives discussed in section 3.1.

The Terms of Reference provide that the review will consider the following issues:

- The current roles, responsibilities, interactions of relevant parties under the *Electricity Infrastructure Investment Act 2020* (EII Act), the *Electricity Supply Act 1995*, National Electricity Law (NEL), National Electricity Rules (NER) and other relevant rules, regulations, legislative and licensing instruments, and binding requirements that apply to transmission planning.
- Existing administrative and contractual arrangements and functions for relevant parties that hold functions for transmission planning, including roles and responsibilities of REZ network operators that are gazetted or proposed for gazettal and defined in licences and/or contract.
- How transmission planning and decision making occurs with regard to key inputs, including generation and storage project delivery and key transmission planning publications (including the ISP, TAPR, IIO Report, and NIS).
- NSW transmission planning arrangements, including for provision of centralised system strength services and infrastructure, to facilitate the efficient and effective application of both contestable and non-contestable network infrastructure delivery models.
- Distribution network planning for the higher-voltage parts of the NSW electricity distribution network that may be suitable for the connection of grid scale generation and storage, having regard to the changing model for distribution networks.
- Consultation outcomes from all interested stakeholders of NSW electricity network planning, including Roadmap entities, market bodies and regulators, distribution networks and planners, project developer representatives and industry groups, and consumer representatives.

The review relates to NSW transmission planning arrangements. The Terms of Reference define ‘transmission planning’ for the purposes of the review as including:

- Transmission planning activities undertaken by the following bodies:
 - EnergyCo, including its role as Infrastructure Planner under the EII Act for the first five NSW REZs, and other functions of the Infrastructure Planner under the EII Act.
 - Transgrid, including its role as the NSW Jurisdictional Planning Body under the NER and its delivery of the TAPR.
 - AEMO, including its role as system planner for the NEM and its delivery of the ISP under the NER.
 - AEMO Services, including its role as the Consumer Trustee under the EII Act and its delivery of the IIO Report.
- Planning of the NSW transmission system including activities relevant to:
 - Identification of transmission network constraints and the forward planning for major transmission network augmentations and upgrades.
 - The interaction of generator connection processes with overall planning of the transmission network.
 - Planning for the integration of REZs and any third party owned and operated network infrastructure with the backbone shared transmission network.

- The timing and process for decision making relevant to determining the pathway, and providing all parties with clarity of responsibilities, for transmission infrastructure delivery under the National Electricity Market (NEM) or EII Act investment frameworks, including procurement approaches for the contestable delivery of transmission projects led by EnergyCo.
- Planning for system security services required to maintain the integrity of the grid, including inertia and system strength.

The Terms of Reference state that transmission planning is not intended to include project specific activities related to the planning and delivery of transmission infrastructure under the EII Act or National Electricity Market (NEM) frameworks, such as detailed engineering and technical design, route alignment, environmental approvals, and construction of transmission projects.

2.2 ISSUES THAT ARE OUT OF SCOPE

As set out in the Terms of Reference, the following issues are outside of the scope of the review:

- Recommendations on project delivery not directly related to future network planning, including procurement, financing, cost recovery, construction, ownership, operation or maintenance of transmission networks.
- Recommendations on arrangements related to the economic regulation of transmission networks by the AER under chapter 6A of the NER or section 38 of the EII Act.
- Recommendations on regulatory arrangements related to generator connections to the transmission network under chapter 5 of the NER, except to the extent that they materially impact transmission network planning issues.
- Issues related to environmental planning regulation under the *Environmental Planning and Assessment Act 1979* or other NSW or Commonwealth regulatory requirements.
- Removing the option for contestable procurement of transmission network projects in NSW under the *Electricity Infrastructure Investment Regulation 2021*.
- Recommendations to change to contractually agreed, licensed and/or gazetted REZ network operator roles and responsibilities regarding network planning, including for system strength.

3. Assessment framework

3.1 REVIEW OBJECTIVES

The Terms of Reference sets out the following objectives for the review.

Review objectives

Aligned with the intent of Recommendation 18 of Check Up, the Review will consider transmission planning arrangements in NSW to reduce duplication and ensure coordination between relevant entities.

The Review will propose, with clear rationale, the features of optimal transmission planning arrangements for NSW, consistent with NSW legislated and policy objectives and targets, and aligned with the objectives below. The Review will identify the specific reforms (across relevant

regulatory and policy instruments) and detailed steps to achieve an optimal structure for transmission planning in NSW.

1. **Timely delivery** – deliver a transmission planning regime fit-for-purpose to support timely delivery of NSW’s legislated objectives for a clean, affordable, reliable power system and net zero targets.
2. **Public Interest alignment** – allocation of roles and responsibilities that are in the best interests of NSW energy consumers and communities hosting transmission infrastructure.
3. **Effective & Efficient** – optimise the administrative simplicity, costs, and effectiveness of transmission planning in NSW, to serve the timely coordination of transmission development with renewable energy generation investment as the energy system transitions. This is to be done whilst taking into account the broader context and interaction with the NEM.
4. **Clarity** – define clear responsibilities for transmission planning in NSW, identifying scope boundaries and quality criteria, specify best-placed entities to deliver them, clear pathways for interaction and coordination between them (including to minimise duplication), and oversight/governance arrangements.

3.2 DRAFT ASSESSMENT CRITERIA

We have developed the draft assessment criteria set out below to guide our identification of issues with the current arrangements, development and assessment of options, and recommendations for reform that promote timely planning and delivery of NSW transmission projects. Recommendations should support the delivery of the Roadmap and the achievement of NSW’s legislated objectives for a clean, affordable, reliable power system and net zero targets.

These draft criteria are informed by the review scope, review objectives, the objects of the EII Act and the national electricity objective. We will also consider the objects of other legislation where relevant, for example if the review recommends changes to other relevant NSW legislation or regulations such as the *Energy and Utilities Administration Act 1987* or the *Electricity Supply Act 1995*. We will also take into account the specific NSW energy sector context and industry structure as well as NSW’s renewable energy and emissions reduction targets when applying these criteria.

We welcome stakeholder comments on these draft assessment criteria.

These draft assessment criteria are relatively high-level. As the review progresses, we may amend these draft assessment criteria based on the nature of the issues we identify with the current NSW transmission planning arrangements so that they focus on the material issues and can guide our assessment of potential reforms to address those issues.

We will refine these draft criteria based on stakeholder feedback and set out our final assessment criteria in the Interim Report.

Draft assessment criteria:

1. **Promote timely planning and delivery of transmission projects** | Do the NSW transmission planning arrangements promote timely planning and delivery of transmission network projects³ that support the achievement of NSW's legislated objectives for a clean, affordable, reliable power system and net zero targets?
2. **Promote efficient planning and delivery of transmission projects** | Do the NSW transmission planning arrangements incentivise efficient planning and delivery of transmission network projects, including:
 - minimising inefficient costs
 - recognising the specialist nature of transmission planning and the limited supply of appropriately skilled personnel
 - incentivising innovative approaches to the planning, procurement and delivery of projects
 - enabling flexibility to adapt to uncertainty and change?
3. **Improve outcomes for NSW electricity consumers and local communities** | Do the NSW transmission planning arrangements:
 - support improved outcomes for NSW electricity customers in relation to the affordability, reliability, security and sustainability of electricity supply
 - foster local community support for investment in transmission network projects
 - facilitate effective consultation and engagement with affected stakeholders, including NSW electricity customers, local communities and Aboriginal and Torres Strait Islander people
 - support the other objects of the EII Act?
4. **Provide clear and effective allocation and coordination of roles and responsibilities** | Do the NSW transmission planning arrangements:
 - allocate transmission planning and related roles to the bodies that are best placed to perform those roles, have incentives to perform them effectively and do not have conflicts of interest
 - provide clarity in the respective roles, responsibilities and objectives of the various bodies undertaking transmission planning and related functions
 - support clear, transparent and robust planning and decision making
 - minimise complexity and coordination challenges between different transmission planning bodies and functions and avoid overlaps or gaps that could lead to delayed or ineffective decision making
 - create appropriate mechanisms for effective cooperation and coordination between bodies and functions
 - provide appropriate oversight and governance of transmission planning bodies?
5. **Effectively integrate with the NEM** | Recognising that NSW is part of an interconnected electricity system, do the NSW transmission planning arrangements:
 - integrate effectively with national planning arrangements for the NEM and state-based planning arrangements in other NEM jurisdictions, including in relation to the planning of interconnectors and other transmission projects that affect multiple jurisdictions
 - allocate transmission planning and related roles between NSW-specific bodies and national bodies in a way that strikes an appropriate balance between (1) recognising NSW's specific circumstances and objectives and (2) leveraging the expertise of national bodies and the potential benefits of integrated system planning across the NEM?

³ References in the assessment criteria to 'transmission network projects' also includes projects that can support, or be an alternative to, a transmission network project, including high-voltage distribution network projects, non-network options, and system security services provided by transmission networks such as system strength and inertia.

4. Review process and timetable

The process and current indicative timing for the review is summarised in the table below.

Deliverable	Indicative timing
Consultation Paper published	14 February 2025
Engagement with stakeholders on the Consultation Paper	Mid-February to late-March 2025 (written submissions due by 10 March 2025)
Options Paper issued to impacted parties and other relevant stakeholders for 3 weeks targeted consultation	24 April 2025
Engagement with stakeholders on the Options Paper	Late-April to late-May 2025 (written submissions due by 16 May 2025)
Interim Report published for 4 weeks public consultation	27 June 2025
Engagement with stakeholders on the Interim Report	July 2025 (written submissions due by 25 July)
Final Report delivered to the Minister for Energy	By 11 September 2025 (within 7 months of establishment of the review)