

Transmission Planning Review

Terms of Reference

Background

In November 2020, the NSW Government released the NSW Electricity Infrastructure Roadmap (the Roadmap) that was subsequently legislated under the *Electricity Infrastructure Investment Act 2020* (the EII Act).

Between May and August 2023, the NSW Government commissioned Marsden Jacob Associates to undertake an *Electricity Supply and Reliability Check Up* (the Check Up) to identify any additional steps that NSW needs to take to deliver the Roadmap to ensure a reliable supply of clean, affordable energy.

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 (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 EnergyCo's 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.

The NSW Government accepted Recommendation 18 of the Check Up on 5 September 2023, which states that:

Under s.21(2)(b) of the Energy and Utilities Administration Act 1987 (EUA Act), 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 (EnergyCo, TransGrid, AEMO, AEMO Services).

The Check Up recommended that the review consider how the roles of Infrastructure Planner and REZ Network Operator, established under the EII Act, should interact with existing entities in the forward planning of transmission. The Check Up recommended that procurement approaches for the contestable delivery of transmission projects led by EnergyCo should be considered as part of the review.

To progress this recommendation, the NSW Minister for Energy has authorised an independent, expert review into transmission planning in NSW (the Review).

Objectives

The Review will be an independent review, led by a highly experienced expert in electricity network and infrastructure planning (Review Lead), with support of suitable subject matter experts (Experts). Aligned with the intent of Recommendation 18 of the 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 an 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.

- **Timely delivery** – deliver a transmission planning regime fit-for-purpose to support the timely delivery of NSW’s legislated objectives for a clean, affordable, reliable power system and net zero targets.
- **Public Interest alignment** – allocation of roles and responsibilities that are in the best interests of NSW energy consumers and communities hosting transmission infrastructure.
- **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 National Electricity Market (NEM).
- **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.

Deliverables

The Review Lead will be responsible for leading the Review process, including the following key deliverables:

- 1) A delivery plan for conducting the Review with a **Review Plan and Schedule**, and a **Stakeholder Engagement Plan**.
- 2) An **Assessment Framework** for assessing reform options with consideration to the Review Scope and Objectives.
- 3) A **Consultation Paper** for targeted consultation with key stakeholders.
- 4) An **Options Paper** resulting from the stakeholder engagement and options assessment process, for consultation with impacted parties.
- 5) An **Interim NSW Transmission Planning Review Report**, to be exhibited publicly for 4 weeks.
- 6) A **Final NSW Transmission Planning Review Report** containing recommendations to the Minister.

The Review is expected to be completed within 6 months of the Minister's authorisation of the Review under the EUA Act.

Extension option without additional costs to the term of the contract of up to 3 months will be available to the Review Lead, subject to a written request and endorsement from the Project Sponsor seeking approval.

The contract will not be considered as fulfilled until the Minister's acceptance of the final report and the Project Sponsor's may extend the term of the contract as required to allow for this.

Scope of the Review

In conducting the Review, the Review Lead will consider:

- The current roles, responsibilities, interactions of relevant parties, under the EII Act, the Electricity Supply Act (ESA Act), the National Electricity Law (NEL) and National Electricity Rules (NER), and other relevant rules, regulations, legislative and licencing 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 any roles and responsibilities for 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.

Exclusions

The following items are out of scope for 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 contractually agreed, licenced and/or gazetted REZ Network Operator roles and responsibilities regarding network planning, including for system strength.

NSW Transmission Planning

For the purpose of the Review, ‘transmission planning’ refers to activities undertaken by the following entities in relation to planning of the NSW transmission system:

- The Energy Corporation of NSW, 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 Ltd, including its role as the Consumer Trustee under the EII Act and its delivery of the IIO Report.

Planning of the NSW transmission system captures 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 REZ networks 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 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.

Transmission planning is not intended to include project-specific activities related to the planning and delivery of transmission infrastructure under EII Act or NEM frameworks, such as detailed engineering and technical design, route alignment, environmental approvals, and construction of transmission network projects.

Governance

The Review will be conducted by an expert Review Lead, authorised by the Minister for Energy under the EUA Act. Experienced subject matter Experts are appointed to provide specialist advice and support the Review Lead in planning the Review, consulting with stakeholders, analysing

submissions, and developing recommendations as outlined in the Minister's authorisation of the Review.

The NSW Government executive sponsor for the Review is the Executive Director, Strategy and Implementation, Energy, Climate Change and Sustainability at DCCEEW (Project Sponsor).

DCCEEW will provide Secretariat and support functions for the Review as agreed with the Review Lead.

The DCCEEW Secretariat and Project Sponsor will convene monthly **Project Governance Meetings** with the Review Lead and Experts, as well as ad hoc in person briefings with the Minister for Energy and other stakeholders as required.