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Friday, 12 November 2021

James Hay
Deputy Secretary
Energy Climate Change and Science
NSW Department of Planning, Industry and Environment

Lodged by email: electricity.roadmap@dpie.nsw.gov.au

Dear James

Submission to Network Infrastructure Projects Policy Paper

We welcome the opportunity to respond to the NSW Government's Policy Paper (Paper) on Network Infrastructure Projects under Part 5 of the Electricity Infrastructure Investment Act 2020, which implements the NSW Government's Electricity Infrastructure Roadmap (Roadmap).

We support the NSW Government's Roadmap, which will provide a reliable and affordable electricity supply for consumers as coal fired generation exits the energy system. As the jurisdictional transmission planner and operator for NSW and the ACT for over 40 years, Transgrid is well placed to build the new transmission infrastructure required under the Roadmap.

Attached is our submission which sets out Transgrid's views on the issues outlined in the Paper. Please contact me should you wish to discuss any aspect of this submission.

Yours sincerely



Eva Hanly

Executive Manager, Strategy Innovation and Technology

Network Infrastructure Projects under Electricity Infrastructure Roadmap

Transgrid submission to NSW Government Policy Paper

1. Background

The NSW Government has released a policy paper (Paper) on Network Infrastructure Projects under Part 5 of the Electricity Infrastructure Investment Act 2020 (EII Act). We understand submissions on the Paper will inform the development of Regulations under the EII Act as well as any supporting Guidelines to be developed by the Infrastructure Planner, the Consumer Trustee and the Regulator under the EII Act.

Part 5 of the EII Act establishes a NSW-specific framework for selecting network infrastructure projects (the authorisation process), calculating their prudent, efficient and reasonable capital costs under a Transmission Efficiency Test (TET) and determining the overall costs that can be recovered from consumers (the determination process). Under the EII Act, network infrastructure projects will be developed, built, owned (or leased) by a 'network operator' (network operator), chosen on a project-by-project basis.

The NSW Government's intent of this framework is to:

- Address the 'chicken and egg' problem where new network and new generation projects both need certainty of the other before investment decisions can be made;
- Bring forward supporting network investment so that renewable generation can connect before the retirement of coal; and
- Enable network infrastructure projects to progress through pre-construction, construction and operation in a faster timeframe than has historically occurred.

The NSW Government states that the framework may also allow for a broader suite of costs and benefits – including environmental externalities, fostering local community support, financing arrangements and other factors – to be taken into account in determining whether to proceed with a project, how projects should be staged and funded, and how costs should be recovered.

This submission sets out Transgrid's views on the issues outlined in the Paper. It is structured as follows:

- Section 2 covers our views on the proposed guiding principles provided in the Paper.
- Section 3 sets out our views on the classes of network infrastructure required for a Renewable Energy Zone (REZ) network infrastructure project.
- Section 4 relates to how projects are identified under the EII Act and the role the Infrastructure Planner plays in this process.
- Section 5 sets out our views on funding early works and other preparatory activities.
- Section 6 covers how transmission projects are authorised under the EII Act.
- Section 7 sets out our views on the TET and how the Regulator makes a revenue determination.
- Section 8 relates to how the Regulator will review and adjust revenue determinations made under the EII Act.
- Appendix A provides our response to the NSW Government's specific questions included in the Paper.

2. Guiding principles

2.1. The NSW Government's policy paper

The NSW Government puts forward some guiding principles to be used in developing the Regulations and Guidelines under the EII Act.

2.2. Our View

Transgrid supports the guiding principles proposed by NSW Government which focus on obtaining the best outcomes in energy reliability and lowest costs for consumers. We make the following observations:

- Contestability in construction is an important component of ensuring that consumers are paying the least possible costs for infrastructure. Over 85% of Transgrid's capital expenditure is currently contested in the market and we encourage the NSW Government to ensure that contestability in construction continues so that the least cost energy solution can be provided to consumers.
- Ensuring that the cost of any new model includes the whole of life and total system costs of transmission project delivery will be important to ensure it provides improved outcomes for consumers. Under the national framework, a transmission network service provider's (TNSP) costs and returns are transparently determined by the Australian Energy Regulator (AER).
- Maintaining the strict technical and cyber security requirements that currently apply to TNSPs in their role as owners and operators of nationally critical infrastructure and applying these to any other third party will ensure NSW consumers are afforded the same protections and levels of service as currently provided for under the national framework.
- The security and reliability of the system as a whole must remain as a paramount driver of all decisions regarding network investment through the transition to renewable energy.
- The current cost benefit test for network infrastructure projects under the National Electricity Rules (NER) does not adequately value the benefits of decarbonisation and we support any initiative the NSW Government would make to accurately reflect the true costs and benefits of transmission infrastructure.
- We support the NSW Government's principle that risks should be allocated to the entity best able to manage them. It is important that where risks are allocated to a network operator through a non-contestable process, the network operator should be appropriately compensated for this level of risk in the revenue determination process.

3. Classes of network infrastructure

3.1. The NSW Government's policy paper

The NSW Government's policy paper discusses how a REZ network infrastructure project may consist of various classes of network infrastructure prescribed by the Regulations.

Having received stakeholder views on this topic as part of its consultation on the tranche two Regulations, the NSW Government proposes to prescribe the following classes of network infrastructure in Regulations under the EII Act:

- Class 1 – Transmission (as defined in the NER)
- Class 2 – Distribution (as defined in the NER)

- Class 3 – Network infrastructure (services). Non-network options to meet transmission or distribution network needs.
- Class 4 – System security. Plant or services providing system security support for a REZ such as system strength.

3.2. Our view

Transgrid supports alignment of the classification of network infrastructure under the Roadmap with that under the NER. Consistency with the NER will provide investment certainty which will minimise costs for consumers.

System strength services are increasingly critical as the energy system transitions to intermittent renewable energy. Specifically identifying these services is a positive step, which recognises their criticality to maintaining system reliability and security. It will also facilitate the procurement and delivery of these services differently to other services.

4. Identifying network projects

4.1. The NSW Government's policy paper

The NSW Government intends that the Consumer Trustee's Infrastructure Investment Objectives Report (setting out a 20 year development pathway for generation, long duration storage and firming) will be informed by a network strategy, prepared by the Infrastructure Planner. The strategy will set out the network infrastructure investments necessary to give effect to the development pathway in the Infrastructure Investment Objectives Report.

The NSW Government proposes the Infrastructure Planner develops the strategy through a joint planning process with the Australian Energy Market Operator (AEMO) (as national transmission planner) and Transgrid (as the jurisdictional planning body). NSW Energy Corporation (Energy Co) is the Infrastructure Planner under the EII Act for the first five REZs.

4.2. Our view

Transgrid supports the Infrastructure Planner developing a network strategy with AEMO, in its capacity as national transmission planner, and Transgrid, as the jurisdictional planning body for NSW and the ACT. Aligning and co-ordinating the work of the three planning organisations will ensure that a portfolio approach is used for all network planning and development - this will reduce the risk of system reliability or security concerns and result in more efficient outcomes for consumers.

5. Funding and financing preparatory activities and development works

5.1. The NSW Government's policy paper

Under the EII Act, preparatory activities and development works such as planning studies and community engagement, are to be undertaken by the Infrastructure Planner. These works are to be undertaken prior to the authorisation of a network operator to avoid delays to transmission network projects.

The NSW Government intends that recovery for early works be provided for in one of two ways:

- From the network operator authorised to carry out the project.
- Directly from the Scheme Financial Vehicle under the EII Act.

5.2. Our view

Transgrid supports allowing for the recovery of early works activities and stands ready to support and assist the Infrastructure Planner with this task. Early works are a critical element of a project lifecycle and ensuring the funding mechanism is clear will allow projects to proceed in a more timely fashion therefore delivering better outcomes for NSW consumers. Early engagement with communities and stakeholders will also ensure that their views and concerns can be considered early in the process of developing infrastructure options.

Whilst the Paper seeks views on how costs for early works should be recovered, it does not consider how it will ensure these costs are efficient. This should be addressed in the framework to provide the best outcome for consumers. Under the NER, Transgrid's early work costs are independently assessed and considered by the AER to ensure the most efficient outcome for consumers.

6. Authorising network projects

6.1. The NSW Government's policy paper

We understand that the NSW Government proposes the following process for the authorisation of network infrastructure projects:

- The Infrastructure Planner will select and recommend a network project, including a network operator, to the Consumer Trustee for authorisation.
- A network operator will be selected by the Infrastructure Planner through either, a contestable process or, where a contestable process is not feasible, the Infrastructure Planner may choose an incumbent network operator such as Transgrid.
- The Consumer Trustee will decide whether to authorise a project recommended by the Infrastructure Planner having regard to the:
 - Infrastructure Investment Objectives Report the Consumer Trustee prepares under the EII Act, and
 - Long-term financial interests of consumers, which requires the Consumer Trustee to balance ensuring sufficient network capacity is available and network charges are not excessive.
- There is also the option of a preliminary authorisation of an infrastructure project by the Consumer Trustee. The purpose of a preliminary authorisation is to enable more detailed and competitive offers from generators, storage providers and firming providers seeking to invest in a REZ. The information from this process is also intended to inform the final network infrastructure project recommended by the Infrastructure Planner.
- Any contestable process for the REZ network infrastructure project would be limited to the ownership and construction of the infrastructure. Transgrid would continue to be the transmission system operator in NSW and the ACT. Transgrid would also operate any REZ network transmission infrastructure delivered under the Roadmap. The contestable arrangements are intended to work in a similar to those that apply to designated network assets under the NER.

6.2. Our view

We support a single system operator for the energy network in NSW

We support Transgrid retaining the role of system operator as set out in the NSW Government's Paper and we look forward to working closely with the NSW Government in this role. Having a single operator for the energy system ensures that NSW will benefit from the learnings from global jurisdictions where having multiple operators has significantly contributed to system failure. Having a single operator will facilitate a smooth transition to the reliable and low emissions electricity supply that the NSW Government's Roadmap seeks to achieve.

We support contestability in design and construction of major transmission projects

Transgrid supports competitive processes in design and construction for major transmission projects which is one of the key drivers of the lowest possible cost of infrastructure being delivered for consumers.

As the TNSP in NSW and the ACT, Transgrid already undertakes leading market competitive tender processes for all professional services, construction, equipment and materials provision for major transmission projects. For example on Project EnergyConnect, approximately 85% of the total cost of the project has been procured under a competitive market process. The remainder of the costs are made up of property acquisition, environmental costs and Transgrid's internal costs to manage the delivery and operation of the assets. These costs are all assessed as to whether they are prudent and efficient by the AER under the current framework.

Contestability in the ownership of NSW's major transmission projects could have the unintended consequence of system failure

REZ projects in NSW are planned to be integrated into the existing transmission network, rather than being separate and discrete radial lines. We do not support third party ownership of transmission infrastructure integrated into the existing transmission network in NSW, due to the possible risks to system reliability and security.

Transgrid's view is that introducing a new and untested economic framework for the ownership of new transmission assets at this point in time (during a complex and significant energy transition) creates unnecessary risk for NSW consumers.

In particular:

- There are benefits of having a single point of accountability under the current framework, including avoiding unintended reliability and security to concerns due to the added complexity of having multiple parties involved, and having a single party for recourse.
- There are synergies from having one provider of the supply chain of services (including planning and design, asset ownership and operation, and emergency supply management).
- Efficient upgrades to the transmission network would become more complex where there are multiple transmission providers.

As we understand it, any competition for REZ Network Infrastructure Projects proposed by the NSW Government would be limited to the rate of return. We note that under the NER, returns are regulated by the AER and are transparently set at a level which is in the long term interests of consumers.

If implemented, contestability in ownership of transmission investment should be limited to where any potential benefits outweigh the risk to the energy system

Our view is that the Regulations should acknowledge that the Infrastructure Planner is not required or encouraged to undertake a contestable process for the ownership of the REZ network infrastructure in circumstances where it leads to an increase in system risk or would not demonstrate cost savings for consumers. The Regulations should therefore provide exclusions from contestability including:

- Augmentation of existing network infrastructure.
- Where the REZ network infrastructure project is not clearly physically separable from the existing transmission network owned and operated by The TNSP.
- Where the new infrastructure provides links between, or links to, the high voltage network that supplies the east coast states with their energy supply.
- Provision of system strength services, which have the potential (if not owned and operated to strict standards and performance criteria) to affect the energy security and reliability.

We suggest that there should be a positive obligation on the Infrastructure Planner to demonstrate that there will not be an increase in risk to the reliability and security of the network as a whole in NSW and the national electricity market prior to recommending a network operator to the Consumer Trustee for a network infrastructure project.

Ensuring third party providers in the energy system are able to meet the strict safety and security expectations of the community

TNSPs, as the owners and operators of national critical infrastructure, are subject to rigorous and complex security, cyber, data and technical standards and regulations. These requirements would need to be understood by, and apply equally to, any new market entrant.

All parties included in any tender process should be subject to the same obligations as TNSPs to ensure NSW consumers are afforded the same high level of service and protection that they currently receive and expect.

Under the model proposed by the NSW Government, Transgrid as the system operator, will need to have a clearly defined role to ensure that infrastructure that is being designed and constructed is at a suitable standard. This may include specifying design standards; obtaining evidence that transmission assets have been built in accordance with design standards and are maintained appropriately; and having access to the assets to operate them. Also, the liability regime will need to be amended to ensure that Transgrid, as the system operator, is not held responsible for any losses as a result of the failure of the assets of others. The integrity of the energy system as a whole is the primary objective of Transgrid and we need to be able to continue making operational decisions to ensure this is the case, regardless of any new entrants' commercial agenda.

7. Transmission Efficiency Test and revenue determination

7.1. The NSW Government's consultation paper

The NSW Government states that:

- The Regulator will conduct a Transmission Efficiency Test (TET) to determine a prudent, efficient and reasonable capital cost for the development and construction of the network infrastructure project.
- The Regulator will also determine the amount payable to the network operator for the project consisting of return on capital costs, return of capital costs, and an allowance for operating and other costs.
- The amount determined by the Regulator under the TET must not exceed the maximum amount set by the Consumer Trustee.

7.2. Our view

We support the TET and revenue determination process being undertaken in parallel by the Regulator, as the TET is a key input to the Regulator's revenue determination. Wherever possible, the framework should be consistent with the NER as this will provide greater investment certainty which will provide better outcomes for NSW consumers.

We strongly support the NSW Government's recognition that transmission projects need to be financeable and the proposed inclusion of a financeability principle.

Where a provider is chosen through a contestable process, we support the Regulator adopting the competitively tendered price in making its TET and subsequent revenue determination. We do not support expenditure incentive schemes being applied to a competitively tendered project as incentives should form part of the tendered bid.

8. Reviewing revenue determinations

8.1. The NSW Government's consultation paper

The NSW Government is consulting on issues relating to how the Regulator will review and adjust revenue determinations made under the EII Act.

It states that the EII Act outlines three circumstances in which the Regulator is to review a revenue determination:

- Once every five years.
- At any time when directed by the Consumer Trustee.
- At any other time specified in the Regulations.

The NSW Government proposes that the Regulations clarify that the Regulator may only adjust a revenue determination based on this third reason in circumstances that would permit an adjustment under the National Electricity Rules.

The NSW Government also seeks stakeholder views on whether the Regulations should provide clarity on the transfer of assets to the national framework and the transfer of network infrastructure from one network operator to another person.

8.2. Our view

We support the proposal for the Consumer Trustee to have the ability to adjust revenue determinations as this will ensure that the needs and priorities of consumers remain paramount. Under the current National framework, the regulator has full transparency into the financial performance of TNSPs and the ability to adjust determinations if these returns are not seen to be in the best interests of consumers. This is an important fundamental aspect of a regulated energy system and should be maintained.

The proposal to allow assets under the Roadmap to be transferred to a regulated asset base (RAB) under the NER has merit. The implications and details of this proposal would need to be worked through.

There is also a need to clarify the circumstances under which a transfer of network infrastructure from a network operator to another person may occur under the EII Act. This should only occur in consultation with the relevant network operator and on payment of appropriate compensation.

Appendix A: Response to Questions in NSW Government's Policy Paper

Question	Response
Question related to the guiding principles	
Question 1: Do you agree with the proposed guiding principles? Are there additional principles that should be considered?	See section 2 of our submission.
Questions related to classification of REZ network infrastructure	
Question 2: What are your views on the proposed approach to defining classes of network infrastructure?	See section 3 of our submission. Transgrid supports alignment of the classification of network infrastructure under the Roadmap with that under the NER.
Question 3: Are there any risks to the effective delivery of a REZ if the necessary system strength services are not included as a class of network asset under the EII Act?	See section 3 of our submission.
Question related to the funding and financing of preparatory activities and development works	
Question 4: Does the proposed method appropriately balance the transparency of costs recovered through the Scheme Financial Vehicle against the certainty needed to conduct preparatory activities and development works to deliver timely REZs?	See section 4 of our submission.
Questions related to network infrastructure project authorisation	
Question 5: What information relating to network options do LTES Agreement and access rights tender participants require to provide sufficient certainty and confidence to participate in the bid processes?	See section 5 of our submission. Transgrid supports the NSW Government's approach to aligning the interest in generation investment in a REZ with that of the REZ network infrastructure. This approach will support efficient investment which is in the long term interests of consumers.
Question 6: What eligibility criteria should apply for Network Operators that may be authorised to carry out a REZ network infrastructure project?	See section 6 of our submission. Third party providers must be subject to the same standards and requirements as the TNSPs such as those relating to cyber security and other licence and NER requirements.
Question 7: What factors should be considered by the Consumer Trustee in recommending that the Minister direct, and by the Minister in directing, a Network Operator to carry out a REZ network infrastructure project under the EII Act?	Transgrid understands that, given the critical nature of the REZ projects, it is imperative that they are built in a timely and efficient manner. However, it is our view that there is no reason that Transgrid would not invest in major transmission projects, as long as the revenue allowance determined, having appropriate regard to the risks associated with delivering the project, enables the project to be delivered with a pre-determined, risk-reflective rate of return and that the projects are financeable. If a project meets these criteria and is in the long term interests of consumers, then Transgrid will

Network Infrastructure Projects (Part 5 of the Electricity Infrastructure Investment Act 2020)

Question	Response
	invest in it. Transgrid has strong social licence and contractual incentives to invest, which they take very seriously. We recently demonstrated this in extensively exploring all potential options to deliver Project EnergyConnect, which resulted in us obtaining Government funding from the Clean Energy Finance Corporation (CEFC) to secure the financeability of this important project.
Questions related to the Transmission Efficiency Test and the Regulator's determination	
Question 8: How can consumer and stakeholder input be considered in the TET and revenue determination processes?	Consumer input into the process should be much earlier than the TET and revenue determination processes.
Question 9: Is clarification required with regard to the principles to be taken into account by the Regulator and the objects of the Act, and are there any additional principles that should be considered by the Regulator?	There is a general principle addressing the recovery of efficient and reasonable costs.
Question 10: What views do you have on these elements and is there any other guidance that should be included in the TET guidelines to be developed by the Regulator?	The NSW government should refer to the AER guidelines already published in order to provide consistency between the EII Act and the NER.
Question 11: Should financeability concerns be addressed in the NSW framework?	<p>Yes. Contestability may be able to address short term considerations of financing for individual projects however it will not adequately address total life cycle costs of projects, network reliability, system security, emergency management or future synergies as REZ projects can be integrated within the existing shared network.</p> <p>The NSW government is better placed to address issues of financeability rather than introducing new risks (ultimately faced by customers) associated with contestability.</p>
Question 12: What views do you have on these elements and is there any other guidance that should be included in the guidelines regarding the revenue determination to be developed by the Regulator?	
Question 13: Are there any elements of the AER's approach to assessing and setting regulated revenue requirements that should be modified or added to when considering the framework that will be applied under the EII Act in New South Wales?	
Question 14: What do you think about an incentive scheme to ensure the availability of projects and the timely connection of generators to a REZ by Network Operators? How could that be designed?	It is not clear how an incentive framework can be implemented in a competitive framework.

Network Infrastructure Projects (Part 5 of the Electricity Infrastructure Investment Act 2020)

Question	Response
Questions related to reviewing a revenue determination	
Question 15: Do you agree there should be limited circumstances under which the Consumer Trustee directs the Regulator to review and remake a revenue determination outside of the five yearly cycle?	Yes.
Question 16: Do you agree with the proposed circumstances under which the Regulator may adjust a revenue determination during the five-yearly cycle?	Transgrid agrees with the 3 circumstances outlined in the paper.
Question 17: Is there a need to clarify the process for transitioning of assets between the NSW and national frameworks?	Yes. The circumstances and costs associated with transitioning frameworks should be understood prior to any investment.