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12 November 2021

Ms Alexandra Finley
Executive Director Commercial
Energy Corporation of NSW
Department of Planning, Industry and Environment

Via email (Electricity.Roadmap@dpie.nsw.gov.au)

Dear Ms Finley

Network Infrastructure Projects Policy Paper

AusNet appreciates the opportunity to respond to the Department of Planning, Industry and Environment's *Network Infrastructure Projects Policy Paper* (the **Paper**).

AusNet is the largest diversified energy network business in Victoria and owns and operates over $11 billion of regulated and contracted assets. It owns and operates three core regulated networks: electricity distribution, gas distribution and the state-wide electricity transmission network, as well as a significant portfolio of contracted energy infrastructure. It also owns and operates energy and technical services businesses (which trade under the name "Mondo").

We welcome the New South Wales (**NSW**) Government's plan to introduce a contestable approach to the development and delivery of Renewable Energy Zone (**REZ**) network infrastructure projects. In particular, AusNet believes contestable provision of large transmission network expansions can deliver benefits for energy users that include driving down project costs, improving solution design, and mitigating delivery risks.

Preparatory and development works are critical to overall outcomes for REZs and the framework for these activities should support the success of NSW's REZ network infrastructure projects by reducing uncertainty, increasing optionality and maximising each project's overall value.

AusNet's attached submission draws on our practical experience with contestable transmission network development, particularly in Victoria, to identify opportunities for the NSW Government to refine the proposed NSW REZ Framework and maximise benefits to NSW customers.

The success of the proposed NSW REZ Framework in attracting high quality bids from the Network Operator Tender will rely on there being a level playing field between incumbent network providers and credible non-incumbent network developers. This includes:

- **Developing safeguards that promote true competition between the incumbent network provider and non-incumbent network developers** (e.g. establishing clear parameters for the involvement of incumbent network providers where that involvement could present a competitive advantage to the providers); and
- **Removing barriers that prevent non-incumbent network developers from competing on an equal basis with the incumbent** (e.g. carefully considering the level of prescription applied to technical specifications and maintenance services; making maintenance part of the contestable service; further defining 'readily separable' projects; and establishing a clear and transparent process for non-incumbent network developers to hold a NSW transmission licence).

The effective engagement of the communities that host REZs, and establishment of a social licence for development, is critical to the timely development of transmission infrastructure. There are specific challenges in managing the potential for discontinuity in community engagement where multiple parties are involved, which the NSW REZ Framework should

recognise and address. We have identified a set of key principles to maximise the benefits of REZ network infrastructure to local communities. This includes options to enhance focus on community impacts in early stages of project identification, and to ensure any handover in social licence activities between the Infrastructure Planner and preferred network developer are clearly defined and set well in advance.

The Paper identifies several areas related to the NSW REZ Framework under further consideration. AusNet has made some observations that may assist the NSW Government as it further refines its framework. One of our key observations is that there is an opportunity to make connection assets within the REZ subject to a competitive tender on the same basis as proposed by its REZ Framework. AusNet recommends that the NSW Government investigate this further so to clarify the regulatory treatment of all REZ network infrastructure assets, and leverage economies of scale and solution design efficiencies that would come from competitively procuring connection and network assets together.

If you have any questions regarding this submission, please contact Jason Jina, Energy Policy Lead by email at [redacted]

We look forward to opportunities to continue to provide input into the NSW REZ Framework as it progresses.

Yours sincerely

Katie Yates

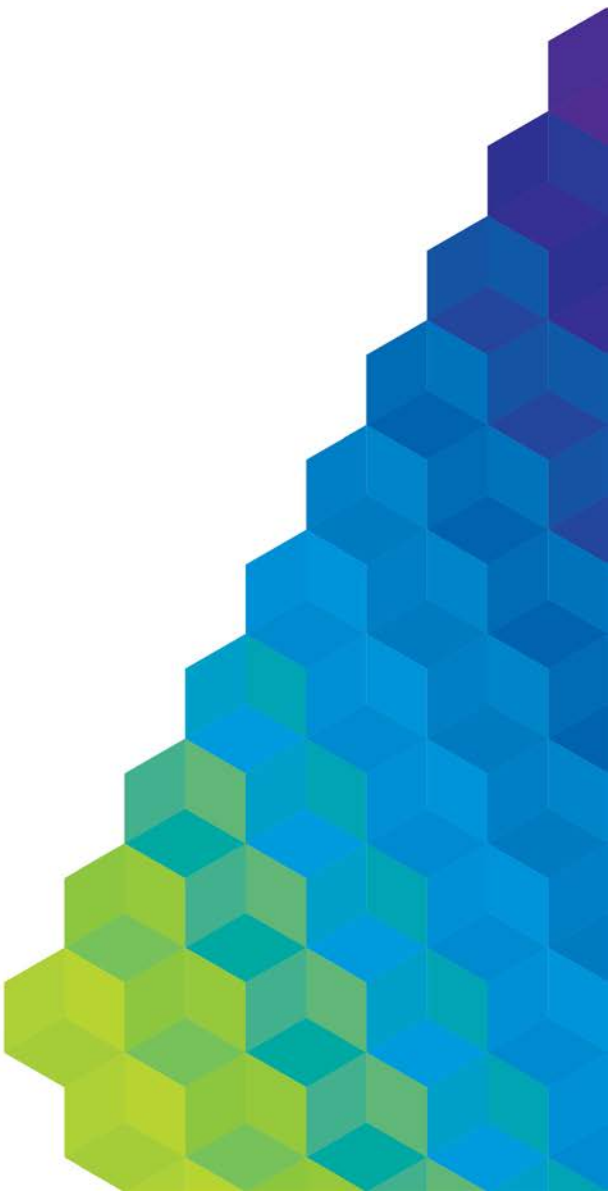
Manager Energy Policy

AusNet

AusNet Submission to the Department of Planning, Industry and Environment (DPIE)

Response to the Network Infrastructure Projects Policy Paper

12 November 2021



1. Introduction

AusNet Transmission Group Pty Ltd (**AusNet)** is pleased to provide our response to the Department of Planning, Industry and Environment (**DPIE** or **NSW Government**) *Network Infrastructure Projects Policy Paper* (the **Paper**) published in October 2021.

The Paper sets out a framework to identify, develop and deliver REZ network infrastructure projects (the **NSW REZ Framework**).

Our submission:

- Identifies opportunities to create a more level playing field between incumbent network providers and credible non-incumbent network developers (Section 2).
- Comments on the importance of social licence, including key principles for maintaining continuity in project activities where multiple parties are involved (Section 3).
- Presents some additional observations for the NSW Government's consideration as it continues to refine the Framework (Section 4).

2. There are opportunities for the proposed NSW REZ Framework to create a more level playing field

2.1 Safeguards to promote true competition

Protecting the integrity of the competitive tender process is critical to attracting sufficient depth of competition to reveal the most efficient price for a contestable REZ network infrastructure project.

Without safeguards that promote competitive tension there is a risk that the contestable process is perceived as principally a mechanism for improving terms with an incumbent network developer. This can suppress the willingness of other potential network operators to invest the upfront costs needed to participate in the tender process, thereby reducing the benefits of having multiple network developers compete for a REZ network infrastructure project.

As the primary owner and operator of the transmission network in Victoria, where arrangements for transmission investment are unique within the NEM and involve contestable provision, AusNet has practical experience with the benefits and shortcomings of contestable transmission processes. We also have experience competing for projects that rely on the existing contestable arrangements for connection assets in the NEM (including IUSA assets in NSW), which have seen incumbents continue to provide the majority of connection assets.

To promote true competition, the NSW Government should consider the following safeguards as part of its NSW REZ Framework:

- **Equal access to and notification of relevant information** (particularly during the network planning phase prior to tender).
- **Establish clear parameters for the involvement of incumbent network developers in the NSW REZ Framework where that involvement could present the incumbent with a competitive advantage** as part of the Network Operator Tender. For example:
  - Involvement in preparatory and development works, including community engagement activities;
  - Involvement in providing technical or system advice that informs the contestable solution; and
  - Use of any legacy powers that have been provided to incumbent network developers only (see discussion of current licensing arrangements below).
- **Ensure the tender process is conducted early enough (and over a sufficient time period) to allow all network developers to assess and respond to the Infrastructure Planner's requirements** (includes achieving date proposed for practical completion).

- **Restricting incumbent network providers' access to proposals of other tendering parties.** We note previous NSW Government EOIs have included a clause that indicated information would be shared with TransGrid.

2.2 Remove barriers that prevent non-incumbent network developers from competing on an equal basis with the incumbent

Scope of technical specifications

Innovative solution design is one of the primary levers by which non-incumbent network developers can deliver efficiency improvements compared to incumbent providers. By adjusting equipment selection and through innovation in layout, operation and delivery models a third-party proponent can significantly reduce the total cost of equipment (substations, lines, towers), construction, and/or optimise the route to reduce land or easement acquisition compared to the standard solution provided by the incumbent.

The Paper suggests that many important design decisions are expected to be "locked-in" prior to tender, including the detailed technical parameters for the asset's design, construction, operation, maintenance and interface with the shared network (i.e. the 'functional specifications'). It also suggests incumbent providers will contribute to the development of the Network Strategy, which may involve providing input into technical requirements for REZ network infrastructure projects (e.g. operating requirements).

There is a legitimate basis for the Infrastructure Planner to prescribe some elements of the functional specification in detail (e.g. to ensure minimum technical performance and safety requirements are met). However, setting technical requirements too tightly can limit a non-incumbent provider's ability to develop an innovative design that leverages their experience and intellectual property, and deliver the efficiency improvements highlighted above.

In this context, it is important that the Infrastructure Planner finds the appropriate balance within its NSW REZ Framework that maintains minimum technical performance and safety requirements without 'over prescribing' technical specifications such that it precludes efficiency gains obtainable from innovative solution design. AusNet has provided its view on the key requirements that should be included in a functional specification in Appendix A.

EnergyCo will need to engage the appropriate resources in terms of practical planning tools and experience to protect technical innovation throughout the authorisation process (e.g. from the identification phase through the operations and maintenance (**O&M**) of the preferred REZ network infrastructure).

Scope and contestability of maintenance services

Similar to technical specifications, AusNet suggests the Infrastructure Planner carefully considers the level of prescription applied to maintenance services. Tight prescription of maintenance services can limit network developers' ability to develop innovative designs. If set to a level based on a worse-case scenario approach (e.g. assumed failure of major components which are considered reliable by industry standards), maintenance services can also add significant costs over the lifetime of the project. For example, a 1% increase in maintenance would represent a 1% increase in the annuity payment over the contract term. Given maintenance is typically 1-2% of total capex, this increase would add several million dollars in additional cost to a REZ network infrastructure project.

While not discussed in the Paper, AusNet strongly supports including maintenance of REZ network infrastructure projects in the contestable service. Should the incumbent network be required to provide maintenance, AusNet would expect:

- **Insurance providers to raise concerns about providing liability insurance to a non-incumbent network developer that is not maintaining its own assets.** This is likely to result in insurance providers placing additional demands on the network developers such as higher premiums and deductibles or insisting that the maintenance provider is fully insured up to an equivalent limit.
- **Non-incumbent network developers to be required to seek a quote for maintenance as part of their tender for project services** (rather than provide such services themselves). In these circumstances, the incumbent would face fewer incentives to provide competitive terms to non-incumbent network developers or to consider their whole of lifecycle costs.

- **Non-incumbent network developers to be required to disclose their capital solution to the incumbent network.** In order to obtain a maintenance quote from the incumbent, non-incumbent network developers would have to share their proposed solution. This would give the incumbent information on competing bidders' capital solutions, including any innovations, unique solution design and redundancy built into their proposals.

Collectively, these challenges highlight that if maintenance of REZ network infrastructure projects was a non-contestable service it would have a material impact on non-incumbent network developers' ability to compete on an equal basis with the incumbent.

AusNet notes the Paper proposes the incumbent network operator hold responsibility for the provision of operational services to all REZ network infrastructure projects due to operations and system security concerns. In AusNet's view and experience, these risks are limited by the functions played by AEMO including the responsibility it holds for national power system security, and that TNSPs switch under instruction from AEMO. The proposed NSW REZ arrangements may provide the incumbent operator with a competitive advantage for contestable projects.

Definition of 'readily separable' projects

AusNet supports the NSW Government's view that the Infrastructure Planner should run a contestable process to procure a Network Operator where feasible, other than in circumstances where the network investment is not readily separable from the existing system.

We strongly encourage the NSW Government to consider the basis on which portions of a REZ network project are deemed contestable or non-contestable, including further refining the definition of 'readily separable' projects so as to reflect the following principles:

- **All REZ network infrastructure projects which have the characteristics of an interconnector or discrete network infrastructure with a single connection point are best suited to contestability and should be (at least in part) contestably procured.** This is because:
  - REZ network infrastructure projects are large in nature and therefore offer significant opportunities for non-incumbent network proponents to out-compete an incumbent (e.g. drive down costs, propose innovative solutions, deliver a project on or before schedule) and deliver benefits that outweigh the costs associated with contestable procurement, particularly compared to smaller and medium sized projects.
  - Transmission system architecture is sufficiently flexible to accommodate multiple parties building and maintaining transmission infrastructure, as is currently the case for all load and generation connections and interface points between different network owners.
- **REZ network infrastructure projects with more than one connection point to the existing shared network may be readily separable and that a key determining factor of separability is the level of interface works required to integrate the project with the existing shared network** (e.g. extent to which the project is 'meshed'). AusNet has provided some additional thoughts on this matter below in the context of transmission projects currently under development in the NEM.
- **A clean division between contestable and non-contestable network elements of a REZ network infrastructure project would reduce integration risks borne by non-incumbent network developers** and provide greater confidence they are competing on an equal basis with the incumbent network provider**.** This recognises that transmission infrastructure projects require detailed delineation of network elements (e.g. detail at level of a conceptual single-line diagram) and that the management of interface works are critical to the success of any project.

Why interface works are a key factor in determining whether a project is 'readily separable': A case study comparing Western Victorian Transmission Network Project (WVTNP) and Central West Orana (CWO) REZ.

Under the Victorian model, the definition of a 'separable augmentation' that determines whether a network project with an expected value over $10m is contestable is based on whether the

augmentation results in a “distinct and definable service” that will not have a “material adverse effect on the incumbent network service providers’ ability to provide services to AEMO.”[1]

Under this definition, both the WVTNP and CWO REZ would be considered ‘separable’ and therefore subject to competitive tender. In practice, the interface works required for a particular project are key to making many projects separable. Each project carries its own level of interface risk. Some projects require more complex interface works than others before they are ‘readily separable.’

The WVTNP is a highly meshed augmentation project. It sits within the middle of Victoria’s existing declared shared network and will interface with 13 existing terminal stations that are owned by four different entities. To facilitate this upgrade, interface works will be required to connect to the existing network at four points (including both ends and two terminal stations), and complete exit works and protection setting reconfigurations at each terminal station. Communications equipment upgrades and allocation of new channels are also required.

These works have different risk profiles, and it was critical that AEMO partner with a network developer able to manage the interface risks across multiple sites and parties to:

- Minimise outages to the network;
- Minimise and manage single contingency operations during changeovers;
- Ensure appropriate communications paths between stations;
- Align project schedule to ensure works are completed in line with the overall project; and
- Minimise rework for protection settings at the affected terminal stations.

By comparison, the CWO REZ is akin to an extension of the existing network, not dissimilar to a radial connection. It is not expected to have many interfaces or to impact the existing shared network beyond its points of connection.

Delivery of system strength services

AusNet strongly supports the NSW Government considering how best to integrate the AEMC’s new framework for the provision of system strength in planning timeframes within its NSW REZ Framework.

The NEM is operating under increasingly tight network operating conditions due to inadequate system strength and challenges associated with falling minimum demand. The AEMC’s final rule sought to help address inadequate system strength by making the Jurisdictional Planning Body (**JPB**) for that region or Coordinating TNSP the System Strength Service (**SSS**) Provider responsible for delivering an efficient amount of system strength at declared system strength nodes on the shared network.

Any decision to adopt the AEMC’s final rule should carefully consider the party best placed to act as the SSS Provider. Similar to maintenance services, requiring the incumbent network provider to provide system strength services within the REZ could result in non-incumbent network developers being required to seek a quote for system strength services (as part of their tender for project services) and potentially seek system strength remediation solutions from the incumbent if conditions deteriorate after the REZ is commissioned. Both these scenarios may adversely impact a non-incumbent network developer’s ability to compete on an equal basis as the incumbent as part of a Network Operator Tender.

For the reasons above, we recommend the NSW Government investigate a model where the successful network operator contracted to build the REZ is also the SSS Provider for that network zone, which in AusNet’s experience is a very easily definable and measurable characteristic measured at the node or the connection point into the broader network. Under this model, the successful network operator would have to consider how the AEMC’s system strength standard is met within this REZ and any broader impacts the REZ network infrastructure project has on the shared network.

[1] See Clause 8.11.3 of the National Electricity Rules.

Ensure there is a pathway for credible non-incumbent network developers to obtain a transmission licence

Current transmission regulation in NSW applies only to a transmission system declared under section 93 of the *Electricity Supply Act* 1995 (**ESA**). To our knowledge, TransGrid is the only declared transmission operator in NSW. As such, there is no requirement to obtain a transmission licence unless the system is so declared, leading to uncertainty about the regulations applicable to the REZ Infrastructure project. There are a number of advantages conferred upon a network operator by virtue of it being licensed relating to acquisition of land tenure and planning, which we set out in more detail below. We also note that if infrastructure is declared a transmission system under section 93 of the ESA, the network developer will need to apply for a transmission licence in accordance with the processes set out in Schedule 2 to the ESA.

Depending on the type of facilities connected to a REZ, and in the absence of a declaration of a REZ being a transmission system, the network developer may be required to obtain a distribution licence. Pursuant to section 13 of the ESA, the infrastructure used to convey electricity to wholesale customers (such a battery storage system) is a distribution system, irrespective of voltage.

It would be helpful to clarify the regulatory framework applicable to the REZ Infrastructure in the regulations developed by the NSW Government. This will address any uncertainty over which, if any, licence will be required by the network developer.

AusNet has identified that there are several land, planning and approval processes that lack clarity around whether non-incumbent network developers have the required authority to progress particular actions. We do note many of these rights and processes would be available to a distribution licence holder in NSW. These processes include:

- **Acquisition of easement in gross** – Land tenure for transmission infrastructure is typically secured by way of easements in gross, being an easement that does not require the network developer to own an adjacent piece of land benefiting from the easement. Only 'Prescribed Authorities' pursuant to section 88A of the *Conveyancing Act 1919* may create an easement in gross. The incumbent network developer and a number of other power and gas entities have been declared Prescribed Authorities by regulation 49 of the *Conveyancing (General) Regulation 2013*.
- **Compulsory acquisition of land** – Only a licence holder under the ESA is able to compulsorily acquire land, however as noted above it is not clear whether a REZ developer needs a licence and if so, which one.
- **Development approvals** – Only an 'electricity supply authority' may undertake a development for the purposes of electricity transmission without consent, and this is loosely defined in the *State Environmental Planning Policy (Infrastructure) 2007* as "a body engaged in the distribution, generation and supply of electricity to the public."
- **Environmental Impact Assessment** – Only a "determining authority" (defined to be an authorised network operator pursuant to the *Electricity Network Assets (Authorised Transactions) Act 2015*) under the *Environmental Planning and Assessment Act 1979* (the **EP&A Act**) can self-determine the environmental impacts of its projects. It is not clear how non-incumbent network developers could become a determining authority given the limited scope of the Authorised Transactions Act or whether they would be required to go through a normal planning approval process for their projects.
- **Public land and preliminary investigation powers** – Only a transmission licence holder under the ESA can do all things necessary to exercise its functions with respect of the transmission system.

The relevant legislation that underpins these processes was developed when there was only one foreseeable transmission network developer in NSW. As a result, for all of the above-mentioned processes the criteria to qualify and the process to register as an authorised entity is unclear.

For example, the relevant provisions of Schedule 2 of the ESA, which sets out the procedure for applying for a transmission licence, refer to a repealed section. This means there is no process for

other parties besides TransGrid to become a transmission licence holder.[2] In addition, it is not clear whether a licence is actually required to build, own and maintain a transmission asset in NSW.

The absence of a clear legal framework to enable these powers to be exercised creates challenges for non-incumbent network developer to compete on a level playing field, and therefore for the NSW Government to maximise the benefits of competitive transmission model. For example, it is clear that an entity holding a transmission licence (e.g. TransGrid) is an 'electricity supply authority' and may undertake certain developments without consent. However, it is not clear whether non-incumbent network developers are an 'electricity supply authority.' If non-incumbent developers do not hold this status, they would be subject to local planning policy requirements for planning consent. These additional requirements would result in their proposals being at considerable disadvantage compared to that of the incumbent in terms of cost and time to deliver.

AusNet strongly recommends the NSW Government establish a clear and transparent process for a non-incumbent network developer to acquire the required authority to exercise powers it will need to deliver a REZ Network Infrastructure Project on the same basis as an incumbent, including to become a transmission licence holder if deemed required.

AusNet's position has been informed by independent legal advice. We would be happy to meet with you to discuss the specifics of our concerns and provide further information if required.

Minimum requirements to participate in a Network Operator Tender

AusNet supports the NSW Government developing eligibility criteria against which network developers are shortlisted, enabling the Government to partner with parties that have a long-term interest in transmission asset ownership and maintenance.

Schedule 2 of the ESA includes 'conditions of licences.' We suggest that many of these conditions could be treated as part of the minimum requirement for network developers seeking to participate in a Network Operator Tender.

3. The NSW REZ Framework would benefit from further consideration of social licence

3.1 Social licence for transmission expansion is a key issue as investment grows and more communities are involved in the transformation of the NEM

The effective engagement of the communities that host REZs, and establishment of a social licence for development, is critical to the timely expansion of electricity network infrastructure, including the NSW Government's REZs.

A well-developed planning framework can help facilitate social licence for transmission infrastructure and is a priority issue for network developers and the communities they work with.

The Paper does not address how the NSW REZ Framework will support the establishment and maintenance of social licence for new electricity network infrastructure. We would encourage further consideration of options to enhance focus on community impacts in early stages of project identification and to mitigate the risks associated with the continuity for building social licence where multiple parties are involved.

Section 3.2 below provides AusNet's perspective on maintaining continuity in social licence activities.

[2] AusNet notes that the *Electricity Infrastructure Investment Act 2020* refers to a definition of transmission operator that holds meaning within the Electricity Supply Act. Therefore, this issue also appears to be relevant to REZ network infrastructure projects.

3.2 There are principles that the NSW Government can adopt to maintain continuity of social licence activities where multiple parties are involved

AusNet is committed to working with all stakeholders to improve social licence practices for transmission investment and the outcomes for local communities. Below is a set of key principles for maintaining continuity of social licence activities where multiple parties are involved.

- **Planning decisions should include early consideration of social and environmental impacts.** The Paper does not provide clarity about how (or whether) the Infrastructure Planner will consider social and environmental impacts as part of its process to develop a preliminary and final recommendation for a specific REZ network infrastructure project.

  AusNet considers it reasonable that an indicative socio-economic assessment is completed before the project's preferred solution, route corridor and technical design features are approved. This could include provision within the NSW REZ Framework for the Infrastructure Planner to remove a project option based on its deliverability (even if it is a technically or economically sound option) or increase a preferred solution's cost envelope in recognition of any specific localised impacts on the community.

- **Key stakeholders from identified REZs must have a meaningful opportunity to contribute to project decision making.** Engagement of local stakeholders (e.g. local businesses, commercial and industrial operators, community groups) to inform REZ project design from an early stage can identify potential impacts and benefits for affected parties ahead of key decision points.

- **Responsibility for social licence is shared, and messaging should be coordinated and consistent between the planner and the preferred network developer through to project completion.** Ensuring focus on social licence and local impacts throughout the entire REZ process recognises:

  - the actions and quality of relationships between NSW roadmap entities, network developers and the community all influence a project's social licence, and community acceptance of REZ development more broadly;

  - the Infrastructure Planner and the preferred network developer will require coordinated and consistent messaging about why the REZ is being developed, the steps required before the project is approved and reaches completion, when and how the communities hosting REZ infrastructure can engage with the project, and the practical implications of living and working with the project.

- **Any handover in social licence activities between the Infrastructure Planner and preferred network developer should be clearly defined and set well in advance.** While overall responsibility for social licence is shared, at the point where the REZ network infrastructure project moves from the strategic planning to delivery phase, the primary lead of social licence activities may shift to the preferred network developer. The Infrastructure Planner should have a clear view of which social licence activities it and the preferred network developer are responsible for, and at what point responsibility for any activities will pass from one to the other (if at all). For example, the Infrastructure Planner may wish to retain responsibility for educating communities on the benefits of the project and Roadmap more broadly for the duration of a project based on its broader communications plans. However, it may wish to reduce its involvement in project specific social licence activities after the completion of the environmental effects statement (**EES**) process.

  Assuming key regional stakeholders have a meaningful opportunity to contribute to project decision making, the Infrastructure Planner should involve the preferred network operator as soon as it is selected. This recognises that coordinating activities between the planner and delivery partners as early as possible would minimise social licence continuity issues and enhance the skills, knowledge and experience of all parties.

  Alternatively, the Infrastructure Planner and/or NSW Government could continue to act as the primary lead of social licence activities through to project completion. This is the approach taken for major infrastructure projects in other sectors (e.g. road, rail). In these projects, responsibility for the project's stakeholder engagement sits above the contestable process and the preferred

proponent sits under the branding of the project to maintain key relationships with key stakeholders.

- **Social licence activities must be backed by detailed application guidelines.** The detail of how social licence considerations are integrated into the NSW REZ Framework will be critical to how REZ projects are received by their host communities. AusNet suggests that social licence activities related to NSW REZs be guided by a best-practice guideline that all parties involved must abide by. Assuming the guidelines are publicly consulted on prior to finalisation and periodically reviewed, they could provide a level of assurance to key stakeholders and communities that their voices will be heard.

4. Additional observations for the NSW Government as it continues to refine the Framework

This section addresses further issues related to the NSW REZ Framework including: information requirements for participants, risk allocation, and treatment of connection assets within REZs.

Finding ways to minimise complexity and promote transparency within the NSW REZ Framework will provide greater confidence to all parties that the Paper's guiding principles will be achieved

The proposed NSW REZ Framework is complex. It involves multiple Roadmap entities, coordination across generation, storage, network infrastructure providers and communities within a NSW-specific framework. Every effort should be made to:

- Clarify the detailed interactions between different elements of the authorisation process, wider Roadmap activities and existing regulatory framework.
- Streamline processes to avoid additional complexity and coordination challenges that could impact the timeliness of the investment.
- Highlight where different industry participants are likely to interact with the NSW REZ Framework.
- Uphold transparency of process and decision making (e.g. how the NSW Government will respond to critical issues or disagreements between roadmap entities that impact overall portfolio or project level milestones).

It may make sense for the NSW Government to consult on the regulations required to implement the NSW REZ Framework.

Risk allocation will be critical to the success of the competitive tender process

While identified as a guiding principle, the Paper makes limited comments about how risks will be allocated to parties best able to manage them.

Any risks that are not borne by the Infrastructure Planner will likely be passed onto the successful network operator. A line-by-line identification and assessment of these risks will be required to help network developers understand how best to value and price their proposals. Seeking agreement on these terms upfront can help avoid risk premiums from being applied.

Schedule 8.1 of the National Electricity Rules (**NER**) includes requirements and risk principles that establish the preferred risk allocation across various key transmission planning, delivery and operational risks in Victoria, and could provide a useful precedent.

A competitive tender for REZ connection assets may help clarify arrangements and realise additional benefits

There is an opportunity for the Infrastructure Planner to make connection assets within a REZ subject to a competitive tender on the same basis as proposed by its REZ Framework (e.g. Network Operator to build, own, finance and maintain asset). For example, the Infrastructure Planner could package together all of the connection and network assets within a REZ as part of its Network Operator Tender process.

We are aware that there are some additional processes and interactions that would have to be worked through is such an arrangement was adopted. For example, interactions with the REZ access scheme and processes to manage future connections required after the original build. However, there

are compelling reasons why the NSW Government should investigate a competitive tender process further:

1. **Clarifying arrangements between the NSW REZ Framework and existing regulatory framework**

   The Paper does not identify connection assets as one of the four classes of network infrastructure required in regulations, although there is a reference that suggests the NSW REZ Framework will disapply the dedicated connection asset (**DCA**) and designated network asset (**DNA**) framework which provide connection services under the NER.

   Consequently, it is currently unclear what regulatory treatment will apply to connection assets and if those arrangements will differ compared to REZ network infrastructure assets under the NSW REZ Framework. This opens the possibility that the functional specifications and O&M of connection assets required as part of the REZ will be completed by different parties depending on whether the asset classification is under the NSW REZ Framework or NER.

   AusNet strongly supports clarifying how the NSW REZ Framework will interact with the existing regulatory frameworks to avoid any unnecessary complexity and confusion. This clarity could be achieved by disapplying the DCA and DNA framework, and making connection assets within a REZ contestable on the same basis as proposed under the NSW REZ Framework.

2. **Realising additional benefits from contestability**

   The cost of connection assets can significantly alter the overall costs of a generation project. Generation proponents are increasingly looking to network developers to find cost efficiencies that improve the viability of their projects. In this context, there could be value in the Infrastructure Planner packaging together all of the connection assets within a REZ as part of a Network Operator Tender.

   A competitive tender process for REZ connections assets would unwind aspects of the national framework which unnecessarily limit competitive tension, and enable many of the benefits expected from competitively tendering REZ network projects to be passed on to customers. For example, under the existing regulatory framework individual generators (or a group of closely located generators) are required to procure their own connection assets at a cost agreed to with its preferred network developer. However, under the NSW REZ Framework the Infrastructure Planner could leverage economies of scale by procuring all connection and network assets required to connect foundational customers within the REZ as part of a single competitive procurement process.

   Procuring both network and connection assets together would raise the total value of investment which could attract further interest from additional credible network operators. It may also further harmonise the planning of generation and transmission assets and provide the Infrastructure Planner will greater flexibility as to how it optimises the REZ development. This could include further opportunities to find solution design efficiencies (particularly if network developers are asked to consider how best to configure both network and connection assets collectively as part of their proposals).

Appendix A: Setting the functional specification

To ensure the Infrastructure Planner receives the best outcome in terms of technical innovation while ensuring a fair contestable process, functional requirements should be developed to a minimum level required to ensure a safe and secure interface with the existing network.

Key requirements to be included in a functional specification are outlined below. Anything beyond this may limit the ability for parties to innovate in solutions.

- Conceptual level single-line diagram (SLD) (similar level to that provide on the next page)
- Nominal Voltage (and any voltage parameters outside of Australian Standards)
- Maximum Fault Level parameters
- Power Rating (MVA) requirements and associated environmental parameters under which this performance is required (temperatures, humidity, irradiance, windspeed etc)
- Protection performance requirements (clearance time performance requirements where they exceed those of the NER, security and reliability etc)
- Communication system interface requirements
- Functionality of any existing or proposed control schemes to be interfaced with
- Network reliability/availability requirements
- Overall Asset Design Life, noting some components will need to be replaced over the course of the asset's operation.

Figure 1: Example REZ Network Conceptual level SLD