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30 September 2021

Ms Anna Collyer

Chair
Australian Energy Market Commission
Level 6, 201 Elizabeth Street
NSW 2000

Via electronic lodgement

Dear Ms Collyer

Transmission Planning and Investment Review Consultation Paper (EPR0087)

AusNet welcomes the opportunity to make this submission in response to the Australian Energy Market Commission's (AEMC's) Consultation Paper for the Transmission Planning and Investment Review (the Review).

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").

Investment in new transmission infrastructure is critically needed to support decarbonisation and to ensure a secure energy supply for Australia in the 21st century by providing network capacity to connect areas rich in renewable energy resources to energy users.

In recent years, many reforms have been put in place to deliver the transmission infrastructure needed for the energy transition, and the first wave of major transmission projects have been initiated or have commenced delivery. This review presents an opportunity to identify the emerging issues and ways to improve the framework for transmission investment and delivery as the energy transition enters a more mature phase.

The AEMC has rightly identified two priorities for the transmission investment framework: delivering new transmission infrastructure in a timely manner; and, ensuring that that investment is efficient. There is an urgency around the expansion of the transmission grid. Unlocking capacity for renewable generation and increasing interconnection between states are enablers of decarbonisation. Without this investment, network capacity can limit the ultimate pace at which new renewable generation can be added and the pace at which thermal generation closure can be managed, leading to price, security and reliability concerns.

Major transmission projects are also large and long-lasting investments, and as such it is important that we get the decisions about how and when to build-out the transmission grid for the National Electricity Market (NEM) right. Energy users need to know that the process for selecting and building new transmission assets, that they will ultimately fund through their electricity bills, will deliver them value such as through greater access to low-cost renewable energy.

At times, there will be direct conflict between promoting timeliness and efficiency. This Review will need to make a judgement about where the balance should lie, and the way this can be supported through the Rules framework.

AusNet's attached submission highlights two areas that deserve attention within this Review:

1. The role for contestable delivery to promote efficient transmission investment; and
2. Recognising the importance of social licence for transmission investment and identifying where the Rules framework can support better outcomes for communities that host transmission infrastructure.

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 can offer a perspective grounded in practical experience on some alternative arrangements for transmission contemplated in the consultation paper.

A balanced assessment is needed of where contestable models of transmission provision could benefit energy users. AusNet's view is that the optimal model sits somewhere between the NEM and Victoria's current model. The greatest opportunities from contestability are associated with large, separable projects such as interconnectors or separable Renewable Energy Zone (REZ) network assets (i.e. radial).

This recognises that contestability has both potential benefits and pitfalls, and that scale is a key factor in determining whether there is a net benefit.

- The primary benefits from introducing contestability for large transmission projects result from the potential to drive down costs, promote innovation in solution design and achieve greater certainty of delivery.
- Transmission contestability also introduces challenges including split accountabilities for security, reliability and safety; greater complexity in contractual arrangements and coordination of operational functions; and discontinuity in delivery of community engagement. Based on AusNet's Victorian experience, some types of projects do not benefit from a contestable procurement model.
- Introducing a limited model of contestability that only applies to large transmission projects that are separable from the existing grid would avoid the major pitfalls of contestable transmission frameworks, and deliver the best value for energy users.

Social licence for transmission expansion is a key issue as investment grows and more communities are affected by the transformation of the NEM. Communities that host new transmission projects experience additional impacts from the new infrastructure than other energy users, and the perception often exists that transmission assets will negatively impact the community without providing benefit within the project area. Community attitudes and expectations around both engagement and compensation have also changed since the NEM's transmission backbone was built. There are opportunities to evolve the regulatory framework to enable greater consultation and benefits realisation for communities.

There are many other issues where more incremental changes to the transmission planning and investment framework may be helpful. Where relevant we have reflected on our experience of issues with the current framework. The Energy Networks Australia submission also provides further details of issues experienced by TNSPs across the NEM.

AusNet has responded to issues raised in the Material Change in Network Infrastructure Project Costs Rule Change Request (Project ERC0325) in a separate submission.

If you have any questions regarding this submission, please contact me via email at katie.yates@ausnetservices.com.au.

We look forward to opportunities to continue to provide input into this Review as it progresses.

Yours sincerely

Katie Yates

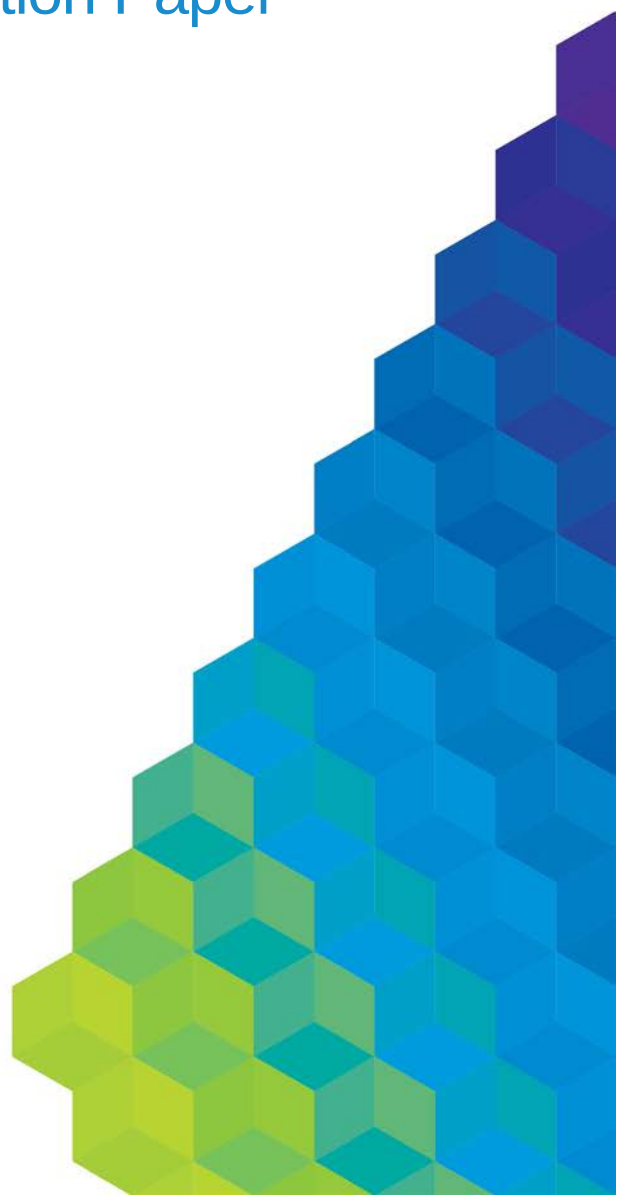
Manager Energy Policy

AusNet

AusNet submission to the Australian Energy Market Commission (AEMC)

Response to the Transmission Planning and Investment Review Consultation Paper

30 September 2021



1. Introduction

AusNet Transmission Group Pty Ltd (**AusNet)** is pleased to provide our response to the AEMC's Consultation Paper for the Transmission Planning and Investment Review published in August 2021.

Our response provides AusNet's perspective on:

- The priority issues of the Review, specifically:
  - The role for contestable delivery to promote efficient transmission investment (Section 2.1)
  - Recognising the importance of social licence for transmission investment (Section 2.2)
- Other issues:
  - Investment test design (Section 3.1)
  - Variability and visibility of certain project costs (Section 3.2)
  - Treatment of early works (Section 3.3)

When considering the priority issues, AusNet has also provided an initial view on possible solutions or next steps.

2. Priority issues

2.1 The role for contestable delivery to promote efficient transmission investment

The Consultation Paper contemplates a potential role for contestable provision of major transmission projects.

AusNet sees the Review as an opportunity to make a balanced assessment of where contestable models of transmission provision could benefit energy users. In our view, the optimal model sits somewhere between the existing NEM framework where TNSPs have the exclusive right to deliver transmission projects and the Victorian model of contestability.[1]

The following section presents the potential benefits and challenges of contestability, particularly in the Victorian context and explores a limited model of contestability that could maximise the value obtained from contestable provision of large transmission projects.

Contestability offers several advantages compared to the existing NEM framework, including potential to drive down costs, innovation in solution design and greater certainty of delivery

The primary benefits from introducing contestability for large transmission projects result from the ability to:

1. Drive down costs

Competitively tendering the ownership and operation of a large transmission project is a persuasive tool to drive all proponents (including the incumbent TNSP) to appropriately allocate risk and find cost efficiencies.

[1] Victoria is the only NEM jurisdiction where TNSP functions are split between the transmission planner-procurer and owner-operators, known as declared transmission system operators (DTSOs). AEMO in its capacity as Victorian planner-procurer conducts a competitive tendering process to build, own and operate relevant network augmentations if the cost of the project is likely to exceed $10m (monetary limb), and the project is considered "separable" (i.e. results in distinct and definable service that will not have a material adverse effect on the incumbent NSP's ability to provide services to AEMO) (separability limb). Outside of Victoria, TNSPs have the exclusive right to plan, procure, own and operate major transmission projects.

If the procuring party can demonstrate the project represents a meaningful and attractive opportunity for third party ownership (rather than a perceived attempt to improve terms with the incumbent), contestability can attract sufficient depth of competition to reveal the most efficient price.

Another key driver of costs is access to finance. There is a view that a Primary TNSP operating under a regulated monopoly model may have access to a lower cost of capital to finance the project, compared to commercial enterprises in Australia. However, given their scale, AusNet considers large transmission projects are also likely to attract the interest of international third-party proponents (or consortiums) who are also likely to have access to low-cost finance.

2. Improve solution design

A solutions-based approach to competitively tendering allows proponents to compete on project design ideas to address an identified need. As a result, it is one of the primary levers by which competition promotes efficient costs in transmission investment, lower construction risk and higher customer benefits.

Through innovation in layout, adjustment in equipment selection, 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 Primary TNSP.

This acknowledges that while cost savings from competitive procurement service inputs are significant, the potential savings are likely to be less than a solutions-based approach to competitive tendering. This is because proponents are purchasing materials and services from the same market and must meet project-specific criteria based on a technical specification / project scope.

3. Provide greater certainty of delivery

The commercial frameworks that guide contestable processes are purposely designed to select the proponent with the right capacity and capability to deliver the project on time. At a very early stage, proponents are required to explicitly consider their delivery model and associated risks (labour constraints, availability of equipment, adequacy of output specification etc).

When selected, both the preferred proponent and the Primary TNSP (should they be different parties) are bound to a performance incentives scheme that encourages them to reach project completion and commissioning on or before the agreed date. The performance incentives scheme can also encourage the delivery of other priorities, for example wider economic benefits through social procurement requirements. Over time, contestable models can encourage alternative ways to deliver these projects and outperformance (i.e. innovation and flexibility within the project delivery methodology that mitigates delivery risks).

By contrast, there are fewer incentives to meet the ISP's delivery timeframes under the existing regulatory framework for projects exclusive to the Primary TNSP.

Transmission contestability also introduces challenges. Based on AusNet's Victorian experience, some types of projects do not benefit from a contestable procurement model

Victoria has also experienced several challenges with its current model of contestable transmission provision. These challenges largely stem from the division of functions between the Primary TNSP (AEMO) and declared transmission system operators (DTSOs) such as AusNet. Energy users will benefit from a more targeted application of contestability to those projects where the benefits are expected to be greatest and likely to outweigh the pitfalls.

The key challenges of introducing contestability in the NEM are as follows:

- **Maintaining clear accountability for the security, reliability and safety of the existing shared network and new elements.** There is a risk that a project is located within a meshed part of the Primary TNSPs existing shared network, which means it is very difficult to delineate accountability for the performance of individual network elements. For example, Victoria's existing contestability criteria do not consider whether it is feasible for a third-party proponent (i.e. proponent other than the Primary TNSP) to build, own and operate a particular large transmission project.

In addition, there is a risk that accountability for system security and reliability at a region or system-wide level is fragmented over time if multiple parties own and operate core elements on the shared network.[2]

We note system security and reliability has been one of the primary concerns raised against contestable transmission provision. For example, the AEMC's recent final determination on connection to dedicated connection assets (DCAs) resulted in a reduction in contestability compared to the existing regime for large DCAs on the basis that:

Treating material additions to the transmission system as part of the transmission network, rather than as connection assets, ensures these assets are built and operated to the standard required for the 'network'. This allows for a more holistic development and safe and reliable operation of the transmission network as a whole.[3]

- **Avoiding unnecessary complexities and coordination challenges** – Some models of contestable provision can result in multiple parties responsible for different transmission functions, introducing various complexities and coordination challenges. For example, whilst AusNet and AEMO work cooperatively to achieve the best outcomes, separate accountabilities for network augmentation, connections and shared network services (by AEMO) and network ownership, operation, maintenance and replacement (by AusNet) mean that optimal coordination is often difficult to achieve. These issues have become more apparent in a transitioning power system, playing out in a number of different ways:
  - **Complicated contractual arrangements**: The relationship between the planning and operation of the network must be handled through a Network Services Agreement between the two parties, rather than through intra-firm processes. As a result, Victoria currently has the most complicated contractual arrangements in the NEM.
  - **Limited levers to manage operational risks**: The Primary TNSP may focus on upfront costs rather than lifecycle costs (e.g. planning for system-intact operability, and not maintainability, with the limited ability to take outages for planned maintenance now a significant and growing issue due to changes in demand and operating conditions). This is less likely to occur where the Primary TNSP expects to maintain ongoing operation of the assets. Difficulties in managing operational risks can lead to worse outcomes for customers.
  - **Continuity of early works and community engagement**: Preparatory works are typically started by the Primary TNSP before being passed onto the successful proponent (who is responsible for project delivery). In some cases, meaningful community engagement may not have been conducted until after the preferred solution and successful proponent is chosen. Careful consideration is required to ensure the proponent has the right skills and experience to complete these activities and manage the potential discontinuity from having multiple parties involved.
- **Recognising the benefits of contestable tendering processes do not outweigh administrative burden and transaction costs for small to medium sized projects** – Contestable tendering processes typically require additional time to tender the service (e.g. prepare tender documentation, conduct tender evaluation etc) and negotiate relevant contractual agreements between relevant parties. These processes can add anywhere from 6 to 12 months to the length of a project. AusNet considers large transmission projects are better suited to benefit from contestability as the opportunity for cost savings from small to medium sized projects is unlikely to outweigh the administrative burden and transaction costs.[4]

It is worth highlighting that the above challenges are relevant to the Victorian model of contestability and may not impact all possible contestability models. To date, there is only one project that has been competitively tendered under the Victorian model that could be considered a large transmission project in the context of the Review.

[2] Note this is not currently an issue as AusNet currently owns 99% of Victoria's declared shared network.

[3] AEMC, *Connection to dedicated connection assets, Final Determination,* July 2021, p.123.

[4] The $10 million threshold for contestability in Victoria has been fixed since the framework was introduced. AusNet believes this value is significantly below the size where competitive procurement delivers overall value to energy users.

There is an opportunity for the Review to introduce contestability for large transmission projects with specific characteristics

AusNet sees the Review as a significant opportunity to introduce a model of contestability for large transmission projects where value for money can be achieved and accountability for system security and reliability is not undermined. For example, ISP projects that involve interconnectors or large radial transmission assets with a single connection point to the shared network. Contestable projects should be large in terms of expected cost (e.g. $100 million or greater).

This position recognises that the benefits of contestability must outweigh any additional costs and complexities.

Introducing a limited model of contestability that only applies to large transmission projects that are separable from the existing grid would avoid the major pitfalls of contestable transmission frameworks and deliver value for customers. Capturing only these types of transmission projects would:

- **Maximise the value obtained from tendering ownership and operation of transmission investment by targeting large transmission projects**. A contestable model could be designed which acknowledges that small to medium sized projects have less head room for third-party proponents to outcompete the Primary TNSP and therefore are better suited to regulatory oversight. It therefore focusses on large transmission projects, which offer significant opportunity for to drive costs down and encourage proponents to propose innovative solutions, as discussed above.
- **Ensure a single party holds responsibility for transmission planning, augmentation, connections and the provision of shared network services.** A contestable model could be designed that avoids the current problems associated with the division of TNSP functions in Victoria by ensuring the Primary TNSP is both an integrated planner and asset owner responsible for augmentations, replacements, and connections to the existing shared network assets. The Primary TNSP could also act as a key partner for jurisdictional governments' renewable energy zone initiatives.
- **Maintain singular accountability for overall system security, reliability and safety**. AEMO as the system operator is responsible for power system security. In this role, AEMO coordinates multiple jurisdictions and coordinates (or delegates) various power system security responsibilities with TNSPs within those jurisdictions.[5] This demonstrates that the current system architecture is sufficiently flexible to accommodate multiple parties building, owning and operating transmission infrastructure, provided the types of projects subject to contestability are sufficiently discrete and separable.[6]

  A contestable model could be designed that allows the Primary TNSP to enter into contractual arrangements with the relevant third-party proponent to ensure that system security and reliability performance expectations for individual contestable network elements are met.[7] This is because interconnector or large radial transmission projects enable the Primary TNSP to clearly delineate physical ownership between existing shared network and the additional shared network projects eligible for competitive tender. This may not be possible for projects which are embedded within a meshed network.

[5] AEMO's power system security guidelines provides relevant information on the various power system security services that are procured, how they are procured and who is responsible. TNSPs work closely with AEMO on power system security issues, particularly for responsibilities that require detailed network knowledge and asset accountability.

[6] Interconnector or large radial transmission projects are located on discrete and separable parts of the shared network. [7] This is consistent with current practice under the Victorian framework which requires both the Primary TNSP and third-party proponent to agree to a network agreement. This network agreement must be consistent with regulatory requirements set out in Schedule 8.1 of the NER. This includes requirements and risk principles that establish the preferred risk allocation across key project planning, delivery and operating risks. The network agreement can also include other contractually agreed requirements (e.g. TNSP performance incentives that mirror the regulatory regime).

[7] This is consistent with current practice under the Victorian framework which requires both the Primary TNSP and third-party proponent to agree to a network agreement. This network agreement must be consistent with regulatory requirements set out in Schedule 8.1 of the NER. This includes requirements and risk principles that establish the preferred risk allocation across key project planning, delivery and operating risks. The network agreement can also include other contractually agreed requirements (e.g. TNSP performance incentives that mirror the regulatory regime).

Safety will continue to be underpinned by jurisdictional obligations including transmission licence conditions that apply to all TNSPs.

- **Promote contestability where its benefits justify the increased time and transaction costs to tender the 'service'.** As discussed earlier, contestability can significantly increase the time and transaction costs to undertake investment. Competitively tendering ownership for larger projects where consumers bear greater risk will drive greater whole of life project efficiencies and certainty of delivery.
- **Enable jurisdictional governments to play an important role in overseeing the development of renewable energy zones and promoting meaningful consumer and local government engagement**. A contestable model could be designed that supports jurisdictional governments seeking to accelerate transmission investment via renewable energy zones and related strategic investments. It could also be designed to recognise jurisdictional governments have an important role to play in early phases of community engagement for large transmission projects. For example, educating communities on the benefits of the project, and balancing the competing views of different parties before strategic investment decisions are made.

2.2 Recognising the importance of social licence for transmission investment

Transmission infrastructure investment proposed under the Integrated System Plan and various state initiatives will unlock the significant amount of large-scale renewable energy and storage required to balance the progressive closures of coal fired generation and the growing demand for electricity associated with the increased electrification of the economy. This increased transmission footprint will facilitate the energy transformation and enable jurisdictional governments to meet their renewable energy and decarbonisation objectives.

However, the scale of transmission investment required represents a substantial step change from the last 20 years where only incremental investment has been required. The difference between the preferred location of large-scale renewable energy, the location of existing networks and where the energy demand is results in a greater need for greenfield transmission projects (as opposed to the uprating of existing assets).

The potential dilemma for greenfield projects is that the location of significant renewable generation and transmission infrastructure development can occur in a setting where the local energy demand is far less than the infrastructure supports, thereby amplifying the perception that the real benefit of the infrastructure is captured by others elsewhere but the cost is borne locally.

Greenfield transmission projects also present challenges as communities hosting proposed infrastructure are likely to have limited experience or understanding of transmission assets, the planning process, or the requirement for such infrastructure in the context of the energy transition. The perception often exists that transmission assets will negatively impact the community without providing benefit within the project area.

Communities may also bear the costs and localised impacts of large-scale energy infrastructure, which could include visual amenity impacts, landscape and land use changes and challenges associated with competing land-use.

The reception of greenfield transmission projects by affected local communities is an important factor for the delivery of these projects, and the ability to achieve their wider benefits for energy users.

There is potential for areas that host new transmission assets to experience additional benefits, however not all of these benefits are currently being fully realised

The pipeline of major transmission projects has the potential to provide a range of benefits to the regional communities within which they will be located. These include:

- **Direct economic benefits** – such as job creation during the planning, construction and maintenance phases of the project; expenditure on vegetation and landscape management and enhancement.
- **Indirect economic benefits** – such as the jobs induced through local procurement of goods and services to support the project delivery (e.g. use of local business for geotechnical activities, materials transport and hospitality), and community education and training programs (e.g. training, apprenticeships, education partnerships with local providers and scholarships).

- **Emerging community benefits** – such as both TNSP corporate and project-level community benefit sharing practices which are expected to extend beyond grants to include in-kind support for community projects that may benefit from the proponents' expertise and the provision of energy solutions that improve community resilience and energy affordability (e.g. support for local Power Purchase Agreements, solar PV and battery storage initiatives, standalone power systems and microgrids).

Existing regulatory frameworks do not address the benefits above, or consider whether these benefits are commensurate with the potential costs and impacts borne by these communities, as the framework focuses on the cost-benefit analysis to energy users collectively. Other federal and jurisdictional frameworks, such as planning, environmental and land use statutory approvals processes may pick up aspects of these benefits, however, there remains the potential for gaps or missed opportunities. For example, community benefits sharing practices which are not an explicit part of existing regulatory frameworks.

However, as the needs and concerns of affected communities are important and must be balanced with the timely and efficient delivery of transmission investment, consideration is needed of how the framework can be adjusted to consider social licence outcomes.

Community expectations and avenues to influence have changed since the NEM's transmission backbone was built

Community expectations and avenues to influence the proposed development of energy infrastructure have also changed over time. This has been driven by practices in other sectors, changes in statutory approvals frameworks for all development, changes in technology supporting active engagement and mobilisation within communities, an increase in competing land uses in the face of community growth and recognition of opportunities for sector coupling (e.g. shared energy and telecommunications infrastructure and services).

This includes expectations around:

- **Level, timing and features of community engagement** – There is a greater expectation that communities are involved in decision making processes that impact preferred options and route selection for infrastructure proposals. This is also mixed with expectations of transparency about all stages and details of transmission development, sometimes well in advance of the timing for such details to have been developed. Various communities and stakeholders express desire to be engaged early, often and with empathy.
- **Use of community benefit sharing practices** – There is a greater expectation of compensation for directly impacted landowners as well as growing discussion of whether and how indirectly impacted but in-close-proximity landowners are treated. Communities potentially impacted by new transmission development are also looking to practices in other infrastructure sectors for comparison and ideas. The emerging community benefits discussed above are also valued, where they are implemented via transparent engagement in response to real community needs and opportunities.
- **Compulsory acquisition laws** – There is some community discomfort with the use of compulsory access and acquisition powers for major infrastructure projects across a range of sectors. The powers for such activities in the energy sector are not significantly different to those in other utility and infrastructure sectors. These powers are regularly used for access to existing network assets, and were used in a 'last resort' capacity by governments during the previous period of transmission expansion.

These changing expectations raise questions for the energy sector and regulatory agencies, including government bodies, to consider, particularly, how and when community understanding is built and through what frameworks social licence is developed.

Opportunities to evolve the framework to enhance consultation and benefits realisation for affected communities

There are four areas within the existing regulatory framework that may lead to tensions with communities that host new transmission infrastructure:

1. There is no acknowledgement or requirement for early consideration of potential social and environment impacts that may be of concern to communities

NER clause 5.15.2(a) defines a credible option is an option (or group of options) that addresses the identified need, is commercially and technically feasible, and can be implemented in sufficient time to meet the identified need.[8] Feasibility as defined here does not consider social or environmental impacts.

As a result, the existing regulatory framework (notably the RIT-T) does not provide for early consideration of potential social and environmental impacts that may be of concern to communities. Instead, these impacts and stakeholders' associated view of them, are addressed much later via statutory approvals and are subject to variations between jurisdictions (e.g. environmental impact assessments, cultural heritage approvals, land use planning approvals, environmentally protected species approvals).

In addition, these processes do have within them their own elements of community consultation and engagement on potential impacts.

2. The preferred solution is being selected before assessment of social and environmental impacts has been considered

Through various guidelines,[9] RIT-T proponents are encouraged to utilise the RIT-T process as a vehicle to engage with consumers and other stakeholders and address any relevant concerns identified through that engagement.

However, this engagement is largely targeted at encouraging non-network proponents to propose suitable options and providing adequate scrutiny that the preferred option maximises the net economic benefit across the market, compared to all other credible options. It does not require the RIT-T proponent (or AEMO as part of its feedback loop) to consider localised environmental and social impacts and benefits of the preferred option, nor those of potential comparative options.

As a result, these potential impacts, and wide-ranging community views on them, are at risk of fully emerging through later development approvals processes which may result in a higher risk of project proposals being derailed than would be the case if these impacts and potential benefits were considered earlier in time under the existing regulatory framework.

3. The risk that there is a lack of continuity for social licence building, particularly in jurisdictions where multiple parties are involved in the planning and delivery of the project

There is a challenge within existing regulatory frameworks in terms of managing the potential for discontinuity where multiple parties are involved in community engagement relating to the project over progressive phases. For example, the transition of community engagement, social licence and benefit sharing practices between the party responsible for strategic planning phase (e.g. AEMO, REZ body) versus the proponent accountable for project delivery (e.g. Primary TNSP or third-party).

4. Factoring in compensation and community benefit costs

Some community stakeholders are concerned about whether the existing regulatory frameworks provide sufficient clarity about the quantum and duration of compensation to landholders and the level of community benefits.[10] This is a complex issue that is actively being considered with respect

[8] An option is commercially feasible under NER clause 5.15.2(a)(2) if a reasonable and objective operator, acting rationally in accordance with the requirements of the RIT–T, would be prepared to develop or provide the option in isolation of any substitute options.

An option is technically feasible if there is a high likelihood that it will, if developed, provide the services that the RIT–T proponent has claimed it could provide for the purposes of the RIT–T assessment.

[9] For example, the AERs Cost benefit analysis guidelines published in 2020 and Consumer Engagement Guideline for Network Service Providers published in 2013.

[10] RE-ALLIANCE, *Building trust for transmission,* July 2021, p.22-24.

to a number of transmission projects across the NEM. AusNet considers that there may be merit in the AEMC considering whether the existing regulatory frameworks are dedicating the right amount of funding to the types of activities which contribute towards building social licence.

These issues are receiving increased attention and scrutiny in conjunction with large transmission projects across the NEM within a wider social licence context. This raises the potential risk for future transmission projects to experience delays. In the worst-case scenario project proponents may be forced to revisit preferred solutions and options for projects that have demonstrated a net-market benefit to consumers.

We are also seeing jurisdictional governments introducing or exploring new functions and powers to promote social licence in transmission. For example, the NSW Government has introduced legislation that can prohibit connections to network infrastructure (including renewable energy zones) where there is "significant opposition from the community in the local area to the proposed infrastructure."

This recognises that jurisdictional governments have an important role to play in the earlier phases of stakeholder engagement (e.g. social education, ensuring stakeholder voices are part of the strategic options identification and assessment process), but will also require project proponents to take responsibility for stakeholder engagement during the delivery phase (e.g. engaging with potentially affected landowners and communities, providing ongoing communication about the status of the project).

The absence of fit-for-purpose NEM-wide community engagement and benefit sharing practices for transmission projects is arguably the most critical challenge to the timely development of transmission infrastructure required to enable the energy transformation.

Social licence issues should be a key priority for the Review. We encourage the AEMC to investigate opportunities to consult and consider the views of community stakeholders as part of transmission planning processes before the preferred route, option and technology are selected.

We also welcome consideration of how the existing regulatory frameworks can support jurisdictional governments and project proponents to work together to provide continuity across social licence activities.

3. Other issues

In addition to the priority issues discussed in the previous section, this section provides AusNet's observations on some of the issues raised in the consultation paper that are important to the transmission planning and investment framework: investment test design; variability and uncertainty of costs; and funding arrangements for early works.

3.1 Investment test design

The Consultation Paper raises questions about the design of the Investment Test with respect to both the timeliness of the process and the scope of benefits that are captured within the existing test. In particular whether the RIT-T and ISP are sufficiently broad (e.g. capture wider economic benefits and carbon emissions).

Pace of energy transition is challenging the performance of the investment test

The pace of the energy transition presents significant challenges for the economic tests that the regulatory framework uses to determine new transmission investment.

The lengthy Regulatory Investment Test for Transmission (RIT-T) process can mean the validity of findings are questioned as soon as the assessment is completed due to rapid changes occurring in the energy mix and flows across the grid which change the benefits of any project.

Rapid changes in generation, demand and decarbonisation policy (including setting bigger emissions reductions targets) can also drive big changes in the optimal timing and need for various transmission projects.

Just-in-time transmission delivery is inherently risky in this context. We are currently experiencing significant operational constraints as a result of not having forecast the need for certain investments early enough to have delivered projects that became needed. A just-in-time approach will likely lead to

security or reliability issues over the longer term with the power system currently being pushed to the edge of its technical operating envelope.

Differing outcomes and accountabilities sought from transmission development

Since the Integrated System Plan was conceived of and incorporated into the regulatory framework, there has been a rise in state- or territory-based transmission roadmaps and renewable energy zone plans.

Differences between these jurisdictional plans and the ISP reflect different views on desired or acceptable outcomes and attitudes to risk (and the likelihood of certain events, such as closures or major power stations) in transmission development planning. This need not be strictly the result of applying a different investment test, but certainly involves the application of different assumptions of constraints.

- The NEM's rules-based framework is directed at ensuring efficient, least-cost assessment (with some factoring of measurable emissions policy) through the RIT-T, ISP and regulatory oversight.
- Jurisdictional governments are concerned with State policy and strategic outcomes (e.g. broader economic benefits, certainty of generation investment, higher certainty of reliability, decarbonisation objectives), and are also more accountable to community attitudes and whether there is social licence for transmission investment and the broader energy transition.
- Customers are focused on efficient, least-cost, who-pays or who bears risk, particularly for major users who bare higher proportion of costs.

This leads to different assumptions about who holds accountability for energy market and non-energy market outcomes, what the appropriate level of certainty/assumptions of benefits to commit to transmission development is, and on what basis (cost allocation, funding stream).

3.2 Variability and visibility of certain project costs

The ability of regulatory frameworks to provide accurate and transparent cost estimates is critical to maintaining the confidence of stakeholders that major transmission projects are prudent and efficient.

The existing regulatory frameworks encourage TNSPs to minimise the costs of infrastructure investments. In particular, the AER carefully assesses the projects that are part of the reset process and TNSPs face very strong incentives to minimise the costs of these projects to ensure they remain within the capex allowance set for the relevant regulatory control period.

With respect to large greenfield transmission projects, as the number of projects has increased, uncertainty around equipment costs (substation, overhead lines and underground cabling) has started to decrease. However, AusNet agrees that there remain several areas of material uncertainty associated with project costs for major transmission projects. These costs include, but are not limited to:

- **Stakeholder and community engagement,** which takes time and is resource intensive for both the TNSP and the communities involved, particularly if the project involves greenfield assets and there is lack of continuity in the process.
- **Land and easement acquisition costs,** which can vary significantly depending on current land uses and landowner expectations, and are subject to time constraints.
- **Environmental and planning approval,** which are subject to public feedback, government assessments and Minister-led determinations, and unknown risks (e.g. unexpected environmental risks, cultural heritage risks and geotechnical findings that must be appropriately considered).
- **Outage restrictions,** which includes costs associated with the inability to gain access (determined by AEMO) to the necessary outages due to deteriorating network operating conditions and/or a period of poor weather. For example, network support agreement costs or project delay costs.

A common theme of these costs is that they are typically not revealed until the delivery phase of the project and are largely outside the TNSP's control. This creates challenges for the existing regulatory frameworks, which use these costs to determine the preferred option, whether the project passes the regulatory investment test and to approve project costs in the planning phase (e.g. before businesses have certainty of all project costs).

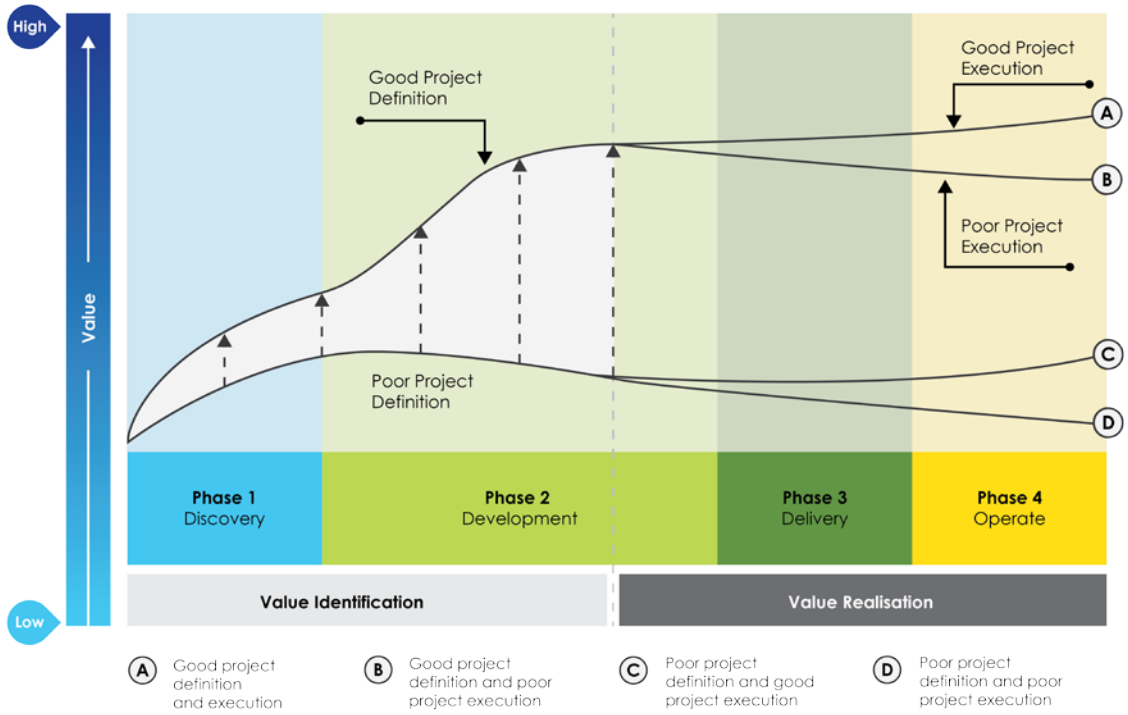
Addressing these concerns would also complement the 'Material change in network infrastructure project costs' rule change proposal (ERC0325), to which AusNet has recommended several changes in a separate submission.

3.3 Treatment of early works

Early works activities are a critical lever to reduce the material uncertainty surrounding the costs and benefits of major transmission projects and to help de-risk the delivery of these investments.

AusNet actively utilises early works to inform the feasibility of proposed private (unregulated) augmentation projects and to ensure the value of each project is realised once operational. Figure 1 below highlights the high-level phases of a transmission project and the importance of investment in early works activities to its overall success. It illustrates that good project definition (which includes early works activities) through the discovery and development phases has a key bearing on the project, and that the overall value provided by the project is significantly reduced where there is good project execution but poor project definition.

Figure 1: Relationship between project definition (which includes early works activities) and value realisation



Source: *AusNet*

There is a lack of certainty over early works activities within the existing regulatory frameworks that discourages TNSPs from making a greater investment in early works for major regulated transmission projects. This includes uncertainty over:

- **The definition of and stage gates that must be satisfied to proceed** – AusNet agrees the meaning of both preparatory works and early works could be made clearer in the framework, along with guidance as to when they should be completed. This could be achieved by establishing a series of stage gates that must be completed to validate the feasibility of a project. For each of these stage gates, guidance could detail the preparatory or early works activities that must be completed before the project can proceed to the next stage gate, including minimum standards for those activities at each stage gate.

  Precedent from other major infrastructure sectors should be considered. For example, the "front-end loading (FEL) methodology" is a commonly used capital project planning process to test the feasibility of projects in the Oil & Gas industry, which include projects of a similar (if not larger) scale than major transmission projects.

  In the Victorian context, there is an obvious question about the appropriate level of due diligence required before projects are subject to a competitive tender process. Our experience suggests early

works should be conducted as early as possible to reduce risk borne by project proponents (and increase the competitiveness of their proposals).

- **Level of cost that is appropriate to incur before an investment decision is made** – It is currently unclear what represents an "efficient" level of cost for planners of major transmission projects to incur to obtain a higher level of cost accuracy and when it is appropriate to incur these costs.

  Previous discussions AusNet has held with energy user groups suggest that these parties would be interested to explore and to better understand the implications of a model where TNSPs invest more significantly upfront in early work activities to achieve greater price certainty for major transmission projects. This support is contingent on TNSPs engaging with key stakeholders prior to the decision to commence significant early works activities to demonstrate transparency of both the process undertaken by TNSPs and total costs before they are incurred.

  We understand that it is quite common for infrastructure developers to invest significantly upfront in early works activities. AusNet's own major transmission projects have committed in the order of 5 to 8% of total capex towards development costs (which includes early works).

  AusNet supports this approach, acknowledging that the accuracy and transparency of project costs will not outweigh the additional costs, delays and customer value that will be achieved in all circumstances.

- **Cost recovery** – At present, early works are usually included as part of a project's operating expenses until such point they can be capitalised. There is uncertainty for the party conducting early works about whether the costs of early works are recoverable if the project does not proceed or if a non-network option is determined the preferred option. In response to this issue, the costs of early works have been paid for, or underwritten, by jurisdictional governments on multiple recent projects.

  The Review should consider how the costs of early works can be recovered with more certainty under existing regulatory frameworks. This should include acceptance that some early works costs may be incurred which deliver findings that indicate a project is not viable (at least in its current form).

- **The party best placed to complete early works** – Consideration is also needed regarding the party best placed to complete early works. This acknowledges that the party completing early works has an important role to manage costs and risks associated with the project. They also have a significant advantage to other prospective proponents, where contestability is at play. Other factors the AEMC may want to consider include who is the party with the inherent capability to complete early works activities and how best to maintain continuity from the early works to delivery phase (where they are conducted by different parties).

For the reasons above, we support the AEMC's investigation into the appropriate definition, cost recovery mechanism and level of cost for early works.