

APA submission AEMC Transmission Planning and Investment Review

30 September 2021



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Ms Danielle Beinart Director Australian Energy Market Commission

Lodged online

30 September 2021

RE: APA Submission to AEMC Transmission Planning and Investment Review

Dear Ms Beinart,

Thank you for the opportunity to comment on the AEMC's Transmission Planning and Investment Review Consultation Paper (Consultation Paper). We support the review and the AEMC's consultative approach to identifying ways to improve the timely and efficient delivery of major transmission projects.

APA is one of the largest energy businesses in Australia. As well as owning and operating over 15,000 kilometres of natural gas pipelines, we are also one of the largest investors in renewable power generation in Australia, with over \$750 million in renewable energy projects.

For over 20 years APA has been developing large scale transmission investment across Australia. Our in-house team is spread across more than 50 locations around Australia and has first-hand experience in managing the significant issues that arise when planning, building and operating linear infrastructure. The issues we manage every day, including land access, stakeholder engagement, and environmental approvals, also arise when developing electricity transmission infrastructure.

Our submission to the Consultation paper highlights the increasing risks associated with building linear infrastructure and provides suggestions on how some of the issues being experienced across the National Electricity Market could be resolved.

If you wish to discuss our submission in further detail, please contact APA's Manager Policy, John Skinner, on 02 9693 0009 or john.skinner2@apa.com.au.

Regards,

P.b.C.

Peter Bolding General Manager Economic Regulation & Policy

APA Group

1 Executive summary

Key points

- APA has over 20 years' experience planning, constructing and operating linear infrastructure across Australia.
- The risks and uncertainties when developing major transmission infrastructure are increasing. Investors should have the experience and capability necessary to construct and operate critical energy infrastructure.
- There are many reasons for the delays in bringing the necessary transmission infrastructure online. Making transmission delivery contestable will help improve the timeliness and efficiency of investment.
- We support amendments to the Regulatory Investment Test for Transmission to streamline and build consumer confidence in the process.

APA is a leading Australian Securities Exchange (ASX) listed energy infrastructure business. Consistent with our purpose to strengthen communities through responsible energy, our diverse portfolio of energy infrastructure delivers energy to customers in every state and territory on mainland Australia.

Our 15,000 kilometres of natural pipelines gas connect sources of supply markets and across mainland Australia. We operate and maintain networks connecting 1.4 million Australian homes and businesses to the benefits of natural gas and we own or have interests in gas storage facilities, gasfired power stations.





Our investments include over

\$750 million in renewable generation, while our high voltage electricity transmission connects Victoria with South Australia and New South Wales with Queensland.

APA is supporting the transition to a lower carbon future. Our ambition is to achieve net zero operations emissions by 2050. Through our Pathfinder Program, we are investigating how hydrogen and other technologies such as batteries and microgrids, can support a lower carbon future.



As the Energy Security Board (ESB) has noted, substantial new transmission capacity is required to accommodate between 26GW and 50GW of new large-scale renewable generation by 2040.¹ This is a significant undertaking that will require industry, governments and stakeholders to find solutions that ensure the required infrastructure is built. Given the delays associated with actioning Integrated System Plan (ISP) projects such as the NSW-SA interconnector, we support the AEMC initiating a review of regulatory arrangements for transmission planning and investment.

APA has significant, first-hand experience planning, constructing and operating linear infrastructure and renewable energy generation. We are well placed to provide advice on the complex issues that impact the delivery of major linear energy infrastructure.

We strongly support contestability in the delivery of major transmission projects. There are many reasons for the delays in actioning ISP projects. However, there is little doubt that making transmission contestability explicit in regulatory frameworks would help improve the timeliness and efficiency of project delivery. This is because contestability would enable businesses like APA to leverage their financial strength and expertise to help deliver the infrastructure necessary. Amendments to both national and jurisdictional regulatory arrangements will likely be required to enact such an approach.

Our submission below provides an overview of the key issues we wish to raise, including the increasing risks associated with linear infrastructure and the role of contestability in driving more timely and efficient outcomes.

¹ Energy Security Board, Post 2025 Market Design Final advice to Energy Ministers, Part A, p44



2 Submission

2.1 APA is an experienced developer of linear infrastructure

Over the past 20 years, APA has become one of Australia's leading energy companies, with a strong track record of delivering large linear infrastructure projects. We generally plan and deliver the assets we own and operate, and currently have more than \$1.5 billion of investments under development.

Our experienced, in house team has the following capabilities:

- Land access, easement corridor maintenance and environmental approvals
- Community and stakeholder engagement
- Cultural heritage and native title
- Local, state and federal government liaison

Recent projects that have required us to leverage this expertise include the Northern Goldfields Interconnect pipeline in WA and the Western Outer Ring Main in Victoria. Figure 2 outlines our linear infrastructure across Australia.

Figure 2





As well as being a leading developer of linear infrastructure, we also have recent experience developing wind, solar and microgrid infrastructure. Our in-house teams have developed generation assets from concept to operation, and our business includes technical and construction personnel that have delivered APA's portfolio of renewable assets.

Importantly, we already operate and maintain two transmission interconnectors, Murraylink and Directlink, and understand the complexity of commissioning new connections to both gas and electricity transmission networks. We also have well developed relationships with energy retailers, transmission network service providers (TNSPs), and State and Federal regulators and planning authorities.

2.2 Uncertainty in major transmission projects

The Consultation Paper raises the question as to whether there is greater uncertainty relating to the costs and benefits of major transmission projects. In our experience, the risks, costs and uncertainties relating to major transmission projects are increasing. Some of these heightened risks are outlined below.

The increasing risks associated with transmission investment have also been recognised by investors. In an investor note on 21 September 2021, Moody's noted the rising environmental and social risks associated with gas pipelines.² These increasing risks are also faced by other linear infrastructure such as electricity transmission and rail lines.

² AFR, APA Sparks \$10b AusNet bidding war, 22 September 2021



2.2.1 Environmental factors

Environmental approvals can add a significant amount of time, cost and complexity to infrastructure projects.

Case study: Western Outer Ring Main (WORM)

The WORM project in Victoria involves the construction of 50km of high-pressure gas pipeline to connect the western section to the northern and eastern section of the Victorian Transmission System, allowing for more delivery capability to meet Melbourne's winter peak gas demand.

On 22 December 2019 the Victorian Minister for Planning determined that an Environmental Effects Statement (EES) was required for the project. Following completion of the EES, the Minister of Planning commenced an inquiry under the *Environment Effects Act 1978* on 28 July 2021 to review public submissions, the EES and consider the environmental effects of the project. Previous investment proposals of a significantly larger nature, such as the full looping of the 200km Victorian NSW Interconnect, were not required to go through such a rigorous and time-consuming process.

This process is continuing, with a Directions Hearing held on 6 September 2021 and a Public Hearing to commence on 4 October 2021, which is expected to run for 2-3 weeks.

As the WORM case study shows, environmental approvals can add at least two years to the planning process for gas transmission infrastructure.³ Similar processes are relevant for electricity transmission infrastructure. One of the key issues encountered by service providers is that the extent of environmental planning processes are often not clear until well into a project. The cost of environmental processes can stretch into the millions of dollars.

2.2.2 Land access

Different states manage access to land for surveys differently. In Victoria, for example, the energy infrastructure developer is required to come to an arrangement with each individual landowner for access to that person's property. However, permission to access a property can be withdrawn at any time, and the infrastructure developer then has to rely on Compulsory Access applications. This adds time and cost to the planning process. Each jurisdiction has its own unique process that relates to the type of infrastructure being constructed. These processes do not generally mandate overall timeframes and provide little assurance that land access can be gained for projects.

³ Victorian Government, WORM Gas Pipeline Inquiry, <u>https://engage.vic.gov.au/worm-inquiry</u>



2.2.3 Social environment

Consideration of the social environment and positive relationships with communities is key to the success of a transmission project. The social dynamics surrounding a project are often complex and changing, and stakeholders are increasingly voicing their expectations about proposed infrastructure projects. Following are some suggestions for working with communities to achieve mutually beneficial outcomes.

Prior to projects commencing, selection of priority regions for energy infrastructure projects needs a greater focus on engaging with communities and consideration of their feedback. In many cases, a project proponent starts their relationship with local communities and landholders on the back foot, as the zone or location is already locked in. Infrastructure businesses have a responsibility to work with landholders and communities to consider their views but often have no scope for genuine consultation with regards to the designated zone/area. Earlier consultation with landholders and community, including by governments, when identifying and designating asset locations or regions would help build greater support for development areas.

Current approval and planning processes can inadvertently hinder a project's ability to develop strong relationships with local communities. A focus on demonstrating targeted consultation and support at a particular point in time, for example an approval point, can result in a polarising 'for or against' framing of a project, rather than a process which is aimed at working through concerns, and achieving positive outcomes in impacted communities.

The complexity of messaging across the diverse range community stakeholders, combined with involvement of advocacy groups, often contributes to actions which lengthen the planning process. This lengthened process, in turn, often means that projects have a greater impact on communities than necessary, for example, through multiple or additional access to land or consultation conversations. This also contributes to disenchantment or lack of trust in the planning process, and in the project itself.

Projects would more effectively contribute to long term and sustainable outcomes if communities and regions were better supported to develop clear priorities and longterm plans for development prior to project. This would support a movement away from 'quick wins', for example investment in community infrastructure, towards contributions which support regional growth and development. This would need to be supported by greater access to social and economic data at a local and regional level.

2.2.4 Cultural heritage/ native title

Consistent with stakeholder engagement more generally, positive engagement on cultural heritage and native title issues can engender positive stakeholder support. These issues are dealt with differently across jurisdictions, and in conjunction with the



often sensitive nature of these issues, can increase the risks and uncertainties associated with major projects, particularly around timeframes.

As with other areas of approval (notably vegetation assessments), potential delays can arise if aspects of a project change during approval and implementation phases. This can lead to an infrastructure developer needing to re-enter land on multiple occasions to undertake further assessment, which can contribute to stakeholder project fatigue and disenchantment.

2.2.5 Vegetation approvals

Inevitably, linear infrastructure projects include the removal of vegetation for the purpose of construction. Vegetation approvals span flora and fauna and there is a complex matrix of governance that spans local, state and Federal government. Whilst the approval pathways are reasonably clear and established, there are nuances the can lead to issues of jurisdictional clarity, applicability of hierarchical processes and uncertainty of outcome.

APA's WORM project, for example, is located both within and outside Melbourne's Urban Growth Boundary. This resulted in different rules applying to different sections of the project and an opaque delineation between State and Federal assessment and approval processes. Navigating the relevant approval processes resulted in construction of the WORM being delayed and an increase in costs.

2.2.6 Government approvals

For major transmission projects, environmental approvals under relevant jurisdictional legislation can take several years to complete and usually involves consultation with a wide range of stakeholders. Despite a final decision to approve a particular project, there are a significant number of secondary approvals that need to be sought. Some of these include:

- Water and creek crossing approvals
- Road work permits
- Crown land licences and approval
- Flora and Fauna approvals
- Cultural heritage approvals

The fact that a project has received Ministerial approval following a robust environmental process does not mean that these secondary approvals are streamlined. They add further time, cost and complexity to projects. To expedite the approval process, Ministerial approval of a large infrastructure project, particularly where an Environmental Effects Statement or Environmental Impact Statement process has been applied, should either encompass the approval of secondary approvals or mandate in-principal approval subject to the proponent and the authority agreeing any specific conditions.



2.3 Economic assessment of regulated transmission infrastructure

In its April 2021 Options paper and July 2021 Final Advice to Energy Ministers, the ESB questioned whether the economic assessment test for new regulated transmission infrastructure, the Regulatory Investment Test for Transmission (RIT-T) continues to remain fit for purpose.⁴

The move to more centralised planning of electricity transmission infrastructure through the ISP means that there will inevitably be overlap between the cost benefit assessment undertaken by AEMO when developing the ISP and the economic assessment undertaken by a TNSP when progressing ISP projects. This is because the RIT-T for ISP projects relies on many of the inputs and assumptions from the ISP.

Given the delays associated with actioning Integrated System Plan (ISP) projects such as the NSW – SA interconnector, the ESB is right to question whether the Regulatory Investment Test – Transmission (RIT-T) continues to be fit for purpose. The RIT-T process can take well over 12 months, adding significant time for actionable ISP projects to get underway.

We therefore support a streamlining of the RIT-T to ensure that actionable ISP projects are not unnecessarily delayed. That said, there remains an important role for a robust cost benefit analysis for all regulated infrastructure investment. Such analysis can incorporate the inputs, assumptions and scenarios of the ISP as well as other economic benefits.

The Consultation Paper seeks views on whether changes are needed for the matter in which carbon emissions inform regulatory processes. We support the incorporation of benefits associated with decarbonisation in the RIT-T and agree that the AEMC should consider this issue as part of its review.

However, factoring decarbonisation into investment modelling is a complex exercise. Any approach needs to ensure that projects are being compared on a like for like basis and that existing incentives (such as certificates available through the Renewable Energy Target) are factored in. The value of other system benefits, such as system strength and reliability also need to be considered.

If decarbonisation is quantified through a carbon price, sensitivities should be used as different carbon prices will lead to different investment outcomes. It is also important to recognise that if decarbonisation is to be included in the RIT-T, then it should also be factored into the Integrated System Plan (ISP), National Gas Infrastructure Plan (NGIP), and other system planning processes. This will ensure that energy planning is being undertaken on a consistent basis across energy markets.

⁴ ESB, Post 2025 Final Advice to Energy Ministers, July 2021, p45



2.4 Treatment of non-network options in economic assessments

APA supports technological neutrality and the equal treatment of network and nonnetwork options under the regulatory assessment test. The AEMC has previously considered the potential for capex bias as part of its Electricity Networks Economic Regulatory Framework Reviews.⁵

While there may not be clear barriers to the treatment of non-network options, such as batteries, under the RIT-T, it is likely that there are a number of factors which mean they are not considered on the same footing as network options.

Foremost among these factors is the considerable effort required on the part of both the TNSP and the non-network service provider to adequately consider a non-network option as one of the credible options when conducting a RIT-T. Not only is the nonnetwork service provider required to undertake a significant amount of work to put forward a detailed proposal to address the identified need, the TNSP must then undertake a significant amount of work to fully understand and consider that proposal.

While there may be some benefit in considering this issue as part of its review, we do not consider this is a priority issue. Of greater importance are wider measures to improve the timely and efficient of major transmission projects under the ISP.

2.5 Contestability of major transmission projects

Concerns about the timely delivery of key electricity transmission infrastructure have been well ventilated. One of the key reasons identified is the financability of projects during the construction phase. In its recent rule change proposal, TransGrid raised concerns about its ability to finance the NSW-SA interconnector under existing regulatory settings.⁶

Although the AEMC did not approve TransGrid's rule change request, there are significant issues in relation to the funding of major transmission projects. The scale of the investment required means that there are a small number of market participants with the financial leverage to undertake the desired works.

Given there has been relatively little electricity transmission investment over the last decade, there will also be a finite number of skilled personnel able to help build the infrastructure required.

Significant investment is required to connect 26GW to 50GW of new renewable generation over the next two decades. Given the concerns about the financing and the limited skills available to help build the infrastructure required, APA supports delivery of major transmission projects being made contestable. This will enable

⁵ AEMC, Electricity Networks Economic Regulatory Framework Review, September 2019

⁶ AEMC, Participant Derogation – Financability of ISP Projects (TransGrid) rule change, April 2021.



businesses like APA to leverage their financial strength and expertise to help deliver the infrastructure necessary.

We support the AEMC liaising with jurisdictional governments on the regulatory amendments necessary to clarify contestability arrangements for transmission investment. Depending on whether regulated electricity transmission projects are taking place under national laws or jurisdictional infrastructure schemes, regulatory amendments are likely to be required under both the National Electricity Law and Rules as well as jurisdictional legislation.

The Australian Energy Regulator's contingent project application (CPA) process for actionable ISP projects, as set out in its March 2021 Guidance Note, may provide a pathway to expedite major projects that are currently experiencing delays.⁷ The AER's Guidance Note outlines how TNSPs can stage the regulatory process for actionable ISP projects by lodging multiple CPAs with the AER. Each CPA corresponds to a different component of the actionable ISP project. Assuming the first stage of an actionable ISP project has been completed (CPA1), contestability could be introduced for subsequent stages of the project (e.g. CPA2 or CPA3).

2.6 Attracting investment in large scale transmission projects

A significant amount of capital is needed to fund the investment in new transmission and generation needed across the NEM. Failure to unlock the necessary investment will have severe market consequences given the pending retirement of Australia's coal generation fleet over the next couple of decades.

Businesses like APA wish to invest in long term energy projects that support the transition to net zero but, for the investment to be forthcoming, rates of return must compensate for the risks involved.

The fact that TransGrid was unable to fund Project Energy Connect without support from the Clean Energy Finance Corporation demonstrates that there may be issues with the way greenfield projects are funded. In particular, the regulated rate of return may not compensate investors for the significant risk borne by TNSPs when undertaking major infrastructure projects.

Major transmission infrastructure projects are often seen as being low-risk based on historical experience with the connection of large scale – usually coal fired - power stations to urban and industrial load centres. The technology is well established, and energy demand is relatively certain. The same technology may be used in new transmission across the NEM, but the market served by that investment is changing. Community expectations, supported by government policies, are driving the transition to renewables generation. The change in the generation sector, and public policy changes associated with that change, are creating uncertainty for investors in long-

⁷ Australian Energy Regulator, Guidance Note Regulation of actionable ISP projects, March 2021.



lived transmission infrastructure where, once, there was relative certainty. Investors are now seeking higher rates of return on these investments, and previous regulated rates of return are no longer an appropriate benchmark.

Contestability may be one of the ways that governments choose to promote the timely delivery of transmission infrastructure and attract low-cost capital to projects. While the price at which projects are offered is an important consideration, the lowest cost projects may in fact have the highest risk of delivery and be more susceptible to factors such as construction delays. Consumer interests will be protected if projects are offered by qualified service providers with strong balance sheets and a track record of delivering energy infrastructure projects.

Competitive tender processes used by governments or regulatory authorities as part of contestability arrangements could help establish a rate of return expected by investors for large infrastructure projects. The rate of return will be commensurate with the risk allocation for that particular project.

2.7 Material change in network costs rule change

It is important that energy consumers trust that the institutions that provide their energy supply are doing so efficiently and at least cost. For this reason, we support the intent of the rule change proposal submitted by the Energy Users Association of Australia and other proponents who seek to restore confidence in the RIT process.⁸ The rule change has been prompted by significant increases in costs for major infrastructure projects such as the NSW – SA interconnector.

It is also important that further layers of complexity are not added to the economic assessment of regulated transmission projects. The rule change proposal seeks a reapplication of the investment test if project costs increase above a particular threshold.

The RIT-T can take more than a year to complete. We therefore do not support a reapplication of the RIT-T should there be a material change in costs.

However, a number of options identified in the Consultation Paper are worth further consideration. Bespoke 'decision rules', which could be specified in a proponent's final RIT-T report, could enable proponents to test whether the preferred option remains preferred following market testing of costs. These decision rules could be subject to consultation with stakeholders and allow a reassessment of costs if the cost of the preferred option were to increase by a certain percentage following market testing.

⁸ EUAA, Delta Electricity, MEU, ERM and AGL, Material Change in Network Infrastructure Costs Rule Change, February 2015



We agree that this approach is potentially more efficient than a 'one size fits' all approach. However, we do not consider that these 'decision rules' should trigger a reapplication of the RIT-T, or the provision of updated analysis to the AER.

Instead, we consider that the decision rules should trigger an update to the analysis underpinning the RIT-T and consultation with stakeholders about the findings. It is important, however, that the decision regarding the preferred option remains with the RIT-T proponent.

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