

30 September 2021

Ms Danielle Beinart
Director, Australian Energy Market Commission
Lodged on AEMC website

Dear Ms Beinart,

Response to consultation paper - *Transmission Planning and Investment Review (EPR0087)* and rule change proposal - *Material change in network infrastructure project costs (ERC0325)*

The Clean Energy Investor Group (CEIG) welcomes the opportunity to provide feedback on the Australian Energy Market Commission (AEMC)'s consultation paper on *Transmission Planning and Investment Review* and the rule change proposal on *Material change in network infrastructure project costs* published on 19 August 2021.

CEIG represents domestic and global renewable energy developers and investors, with more than 11GW of installed renewable energy capacity across more than 70 power stations and a combined portfolio value of around \$24 billion. CEIG members' project pipeline is estimated to be more than 18GW. CEIG strongly advocates for an efficient transition to a clean energy system from the perspective of the stakeholders who will provide the low-cost capital needed to achieve it.

CEIG provides detailed responses to the questions outlined in the consultation paper and rule change proposal in Attachment 1.

CEIG thanks the AEMC for the opportunity to provide feedback on its consultation paper and rule change proposal and looks forward to continued engagement with the AEMC on those issues. Our Policy Director Ms. Marilyne Crestias can be contacted at marilyne.crestias@ceig.org.au if you would like to further discuss any elements of this submission.

Yours sincerely,



Simon Corbell
Chief Executive Officer and Chairperson
Clean Energy Investor Group Ltd
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ATTACHMENT 1 – CEIG RESPONSE

SUBMISSION TO THE CONSULTATION PAPER-TRANSMISSION PLANNING AND INVESTMENT REVIEW STAKEHOLDER FEEDBACK TEMPLATE

The template below has been developed to enable stakeholders to provide their feedback on the questions posed in the consultation paper and any other issues that they would like to provide feedback on. The AEMC encourages stakeholders to use this template to provide feedback on issues raised. This template is not exhaustive and therefore stakeholders are encouraged to comment on any additional issues or suggest additional solutions. Stakeholders should not feel obliged to answer each question, but rather address those issues of particular interest or concern. Further context for the questions can be found in the consultation paper.

SUBMITTER DETAILS

ORGANISATION: CLEAN ENERGY INVESTOR GROUP

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DATE 30 September 2021

PROJECT DETAILS

NAME OF RULE CHANGE: Transmission Planning and Investment Review

PROJECT CODE: EPR0087

PROPONENT: AEMC

SUBMISSION DUE DATE: 30 September 2021

INTRODUCTION- ASSESSMENT CRITERIA

1. Do you agree with the Commission’s proposed assessment framework for this Review?	
2. Are there any additional criteria the Commission should consider as a part of its assessment framework?	

CHAPTER 3 – ISSUES IN THE REGULATORY FRAMEWORK AND PROCESSES FOR PLANNING OF MAJOR TRANSMISSION PROJECTS

Implications of increased uncertainty for the ex-ante incentive-based regulatory framework

3. Do you agree with that the identified factors contribute to an increase to the uncertainty surrounding major transmission projects, relative to BAU projects? Are there other factors that should be taken into account?	<p>CEIG agrees with the factors identified by the AEMC - they highlight the complexity, scale and pace of the energy transition ahead of Australia.</p> <p>The following assumptions are most likely to generate higher uncertainty around the costs and benefits of major transmission projects:</p> <ul style="list-style-type: none"> • evolution of demand for electricity: not well understood yet under scenarios with strong hydrogen development and/ or 'Australia as an energy superpower'; • operation and retirement of the existing thermal generation fleet: uncertainty around timing and pace of plant retirements and uncertainty around the timing and scale of potential government interventions; • policy direction of federal and state governments. <p>Lack of appropriate climate scenario planning</p> <p>CEIG believes that the lack of appropriate climate scenario planning for the purpose of the NEM’s transition also contributes to uncertainty. Combined with a lack of certainty around decarbonisation goals, it translates into a lack of urgency when market bodies and governments consider new transmission investment since there are no direct goals to work towards.</p> <p>CEIG’s <i>Clean Energy Investor Principles Report</i> has pointed out that governments should choose and implement an ISP scenario which is consistent with Australia’s commitments under the Paris climate Agreement. If governments can reach agreement to endorse an ISP scenario, they can then move more confidently to decide on the scale and timing of transmission infrastructure required. This will in</p>
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	<p>turn give investors and consumers the clarity they need to make financial decisions.</p> <p>The research commissioned by CEIG has identified AEMO’s 2020 ISP Step Change scenario as the only current ISP scenario which aligns with Australia’s international climate commitments. Collectively, CEIG investors consider Step Change a conservative but prudent scenario to adopt in planning for the NEM transition and for the required transmission investment pipeline.</p> <p>The lack of appropriate climate scenario planning also ignores the greater benefits from planning for a faster decarbonisation. Modelling commissioned by TransGrid¹ in July 2021 shows that the total benefits for the preferred option to upgrade HumeLink would increase by \$700 million to \$3.3 billion under an ISP Step Change scenario (compared to \$2.6 billion under Central).</p> <p>Failing to reform the regulatory framework for transmission could create an existential threat to the NEM</p> <p>Planning for investment in the transmission network has traditionally been conducted on a ‘least regret’ basis through the ISP, with incremental additions to the transmission network.</p> <p>For Australia to successfully transition its energy sector, investment in the transmission network needs to be pro-actively facilitated by new market rules that will help to unlock cheaper and cleaner electricity. This becomes even more important to become an ‘energy superpower’, attract new manufacturing industries and electrify the Australian economy.</p> <p>CEIG member feedback suggests that if regulatory reforms fail to deliver a timely and efficient upgrade to the transmission network in the NEM, there is a risk that clean energy investment - and the benefits associated with new industries and new economic activity - could instead be focused on locations outside the NEM with less risky regulatory environments. This could cause an existential threat to the very existence of the NEM itself.</p>
<p>4. Do you consider that the current ex-ante incentive-based approach to regulation is appropriate for major transmission projects? Why? Are there opportunities to drive more efficient expenditure</p>	<p>The architecture of the NEM and the rules underpinning planning and investment in the transmission network were built to accommodate incremental change in a largely static system. In contrast, the NEM is now undergoing its most fundamental change for a century. The challenge of the 2020s and beyond is primarily to facilitate the transition to zero-carbon, reliable and affordable electricity in the NEM and the transmission network needs to be upgraded to facilitate this transformation of the electricity system.</p>

¹ TransGrid, *Reinforcing the New South Wales Southern Shared Network PACR (Ernst & Young)*, July 2021 [https://www.transgrid.com.au/what-we-do/projects/current-projects/Reinforcing the NSW Southern Shared Network/Documents/Reinforcing the New South Wales Southern Shared Network PACR - EY Market Modelling Report.pdf](https://www.transgrid.com.au/what-we-do/projects/current-projects/Reinforcing%20the%20NSW%20Southern%20Shared%20Network/Documents/Reinforcing%20the%20New%20South%20Wales%20Southern%20Shared%20Network%20PACR%20-%20EY%20Market%20Modelling%20Report.pdf)

and operational outcomes?	The risks of over- and under-investment in the transmission network are asymmetric and investing in timely, proactive upgrades can be expected to deliver overall net benefits for consumers as opposed to investing reactively and risking broader market costs (e.g. through higher energy prices and intervention payments).
5. Do you agree that the Review should take forward this issue as a priority issue? If not, why?	CEIG agrees that the AEMC should consider this a priority issue.
Economic assessment of major transmission projects	
6. Are there opportunities to streamline the economic assessments of ISP and non-ISP projects without compromising their rigour? If so, how could the framework be streamlined?	To limit the risk of delays, there should be a focus on removing duplication with the processes defined for the ISP Actionable projects. Timeliness of investment in transmission is particularly important in the context of the dynamic, fast-paced transformation of the energy system underway. CEIG believes that the economic assessment of transmission projects should focus on facilitating the timely and efficient delivery of projects, whilst remaining an effective safeguard for consumers.
7. Do you agree that the RIT-T has a clearer value-add in relation to non-ISP projects? If not, why?	
8. Do you agree that the Review should take forward this issue as a priority issue? If not, why?	CEIG agrees that the AEMC should consider this a priority issue.
Benefits included in planning processes	
9. Are the benefits included in current planning processes sufficiently broad to capture the drivers of major transmission investment? Does the scale and pace of the NEM's energy transition necessitate inclusion of other classes of market benefits or wider economic benefits? If so, what kind of other classes of market benefits or wider economic benefits should be included?	The benefits currently included in the RIT are too narrow and do not account for the broader benefits that accrue to the whole electricity system from transmission network upgrades and augmentation, beyond the transmission project alone. The following benefits should be factored in the RIT: <ul style="list-style-type: none"> • minimising the risk of market power concentration by enabling a more distributed, more diverse generation fleet across the NEM and increasing competition; • improving system resilience: increasing diversification of energy sources across the NEM (technology types and locations) and providing customers with greater access to those energy sources through improved ability to trade across and within NEM regions; • minimising the risk of power system separation events and the associated consumer costs; • improving system reliability: minimising the risk of insufficient supply by enabling the timely deployment of new generation

	<p>(particularly important in the context of potential unforeseen thermal plant retirements in the absence of a transparent retirement schedule);</p> <ul style="list-style-type: none"> improving the ability to deliver economic benefits (regional development and employment), social benefits (for local communities and Traditional Owners) and environmental benefits (including benefits from decarbonisation). This is consistent with how highly those benefits are valued by Australian States and Territories in their clean energy policies, auctions and programs; and consumer savings foregone from transmission network projects that are delayed or abandoned: CEIG agrees with the AEMC that those should also be factored in.
10. Are major transmission projects failing to satisfy economic assessments because certain benefits (market or non-market) are not permitted to be quantified?	
11. Are changes warranted to the manner in which carbon emissions inform transmission planning and regulatory processes?	<p>CEIG's <i>Clean Energy Investor Principles Report</i> has outlined that an environmental objective should be added to the National Electricity Objective to recognise the need to reduce carbon emissions in the pursuit of efficient investment in, and operation, of electricity services.</p> <p>This would provide consistency with Australia's commitments under the Paris climate Agreement and would enable the market bodies to make the appropriate revisions to the assessment criteria used to inform policy and regulatory decisions, including RITs.</p>
12. Do you agree that the Review should take forward this issue as a priority issue? If not, why?	CEIG agrees that the AEMC should consider this a priority issue.
Guidance on hard to monetise benefits	
13. What classes of market benefits are hard to monetise? Is there a way that these benefits could be made easier to quantify?	
14. Would guidance on hard to monetise benefits improve the timeliness at which projects proceed through the regulatory process?	CEIG agrees that guidance could be useful in standardising and simplifying the assessment of hard to monetise benefits and would support a more complete assessment of project benefits upfront.
15. Do you agree that the Review should take	CEIG agrees that the AEMC should consider this a priority issue.

forward this issue as a priority issue? If not, why?	
Market versus consumer benefits test	
16. Do you consider that there are certain changes that have occurred in the energy sector that warrant reconsidering the merits of a market versus consumer benefits test? If yes, what are these changes and why do they require revisiting this issue?	
17. Do you agree that the Review should take forward this issue as a priority issue? If not, why?	
Treatment of non-network options	
18. Do you agree that there are barriers for non-network options in economic assessments? If so, do you agree with the barriers identified? Are there any further barriers? How should these barriers be addressed?	<p>CEIG agrees with the barriers identified by the AEMC.</p> <p>Feedback provided by CEIG members suggests that non-network options do not appear to be appropriately considered as the role of TNSPs as owner and operator of the transmission network and the revenue regulation framework both incentivise TNSPs to favour network solutions.</p>
19. Do you agree that the Review should take forward this issue as a priority issue? If not, why?	CEIG agrees that the AEMC should consider this a priority issue.

CHAPTER 4 – ISSUES IN THE REGULATORY FRAMEWORK AND PROCESSES FOR TRANSMISSION INVESTMENT, FINANCING AND DELIVERY

Balancing TNSP's exclusive right to build and own transmission projects	
20. Are there features of financing infrastructure projects used in other sectors that should be considered in the context of the efficient and timely delivery of major transmission projects?	As detailed in question 21, CEIG supports the AEMC exploring alternative mechanisms to finance major transmission projects.

21. Should the delivery of transmission projects be made contestable? If not, why?

Increased contestability is desirable

CEIG is supportive of mechanisms that increase competition in the right to build, own, finance and operate transmission infrastructure assets (defined broadly as 'poles and wires' but also complementary network assets).

CEIG's *Clean Energy Investor Principles Report*² has pointed out that over the last 20 years, the transmission companies have largely focused on maintaining a large existing electricity grid, not on building complex infrastructure projects, and that they may also lack incentives for efficient scoping and procurement since the regulatory framework guarantees their return based on the size of their regulated asset base.

In contrast, private investors have greater capacity and capability to deliver the large scale of transmission investment required:

- investors have deep experience in delivering large infrastructure projects;
- they are used to managing complex risks;
- they have gained valuable experience gained in other sectors and/or other countries; and
- they can leverage larger pools of capital at lower cost for the ultimate benefits of consumers.

Reformed market rules should allow greater participation from private sector entities that might have a greater risk appetite but also access to a larger pool of capital to take on higher project risks. New business models could emerge from this: for example, the private sector could apply its lower cost of capital and its technical expertise to de-risk projects upfront (e.g. manage route planning or community consultation activities).

CEIG notes that the AEMC has previously expressed concerns³ around who:

- *"is ultimately responsible for the safety, reliability and security of the shared transmission network, including who is responsible for resolving any issues;*
- *to contact in the event that there is an issue identified with certain assets, including who AEMO should direct if it needs to do so to support power system security;*
- *is responsible for mitigating particular risks, for example, performance risks and any incentives or penalties that are applied*

² CEIG, *Clean Energy Investor Principles Report*, August 2021.

³ AEMC, *Coordination of generation and transmission investment, Final report*, December 2018, p.34.

	<p><i>through regulation or contracts.”</i></p> <p>CEIG believes that there would be merit in considering amendments to contestability frameworks that would be cognisant of the AEMC’s concerns.</p> <p>Financeability and TNSP’s cost of capital</p> <p>In October 2020, TransGrid and ElectraNet submitted two rule change requests to amend the regulatory framework in response to financeability issues around ISP projects.</p> <p>In its own paper⁴, TransGrid acknowledged that, even if the proposed rule change was approved, its cost of capital would remain relatively high, requiring “prudent capital management”:</p> <p><i>“...even with the proposed changes, the Notional Project is unlikely to achieve the benchmark credit rating of BBB+ until quite late in its life. However, it could, with prudent capital management, nonetheless achieve an investment grade rating sufficiently early to overcome the barrier to securing the capital necessary to proceed with the project.”</i></p> <p>This raised questions around the relative competitiveness of the cost of capital accessed by TNSPs in Australia and shows that there could be benefits in exploring new financing models for transmission investment.</p> <p>Considering the scale of future transmission infrastructure investment contemplated in the 2020 ISP, CEIG supports the AEMC exploring alternative mechanisms to finance major transmission projects. The expansion of contestability frameworks for transmission infrastructure could be useful in mitigating financeability issues and could lead to a lower cost of capital and deliver additional benefits to consumers.</p>
<p>22. What options, other than changes to the right of TNSPs to provide regulated transmission assets, could be considered to ensure timely investment and delivery of major transmission projects?</p>	<p>Investment in transmission infrastructure is a critical requirement for the success of the energy transition and needs to be delivered in time for new clean generation capacity to be operational ahead of coal plant closures.</p> <p>CEIG is concerned about the delays to the delivery of transmission infrastructure investment – delays have already started to occur in</p>

⁴ TransGrid, *National Electricity Rules change proposal - Making ISP projects financeable - Participant Derogation*, 30 September 2020.

some projects already underway, and CEIG is concerned about the ability of the TNSPs to deliver the scale of required investment.

To ensure a more orderly transition, a quicker and more efficient build out of transmission infrastructure needs to occur. CEIG's alternative solutions below are focused on speeding up the delivery of transmission infrastructure investment.

Derogation and direction under legislation

CEIG supports an acceleration in the pace of delivery of transmission infrastructure investment and notes that the Victorian and New South Wales governments both have mechanisms in place (or available to them) to either derogate from the existing rules or to allow for directions for priority transmission projects.

In the context of the urgency of transmission investment in the NEM, investors accept that some transmission investment will be driven by State-specific policies (even though this could implicitly create some level of divergence in how transmission investment is implemented across the NEM and could somewhat go against a more integrated NEM).

Provision of government funding to expedite the development of transmission infrastructure

Investment in transmission serves a higher public policy purpose – reducing carbon emissions and aligning the Australian market with global investor sentiment – and governments should continue to consider opportunities to expedite the development of transmission infrastructure through capital contributions if necessary.

Project lead times for renewable generators are now lower than 2 years whereas transmission project lead times are between 6-7 years. CEIG believes that State and Territory governments can have a role to play to take on this timing risk.

Governments taking an upfront role in the funding (or guaranteeing) of transmission infrastructure investment could help unlock the necessary capacity in the transmission network to leverage investment in generation that can be ready to be delivered with shorter lead times.

This could deliver substantial decarbonisation benefits, alongside other investment benefits traditionally valuable to governments such as promotion of regional and local economic development, job creation, strengthening of supply chains and ability to maintain reliability of supply. Government would then be able to recoup costs once a project has passed a thorough RIT-T process.

Independent body to manage transmission planning and investment across the NEM

	<p>Government funding could also be provided to an independent body(ies) or Special Purpose Vehicle(s) tasked with expediting the planning and investment in sufficient transmission infrastructure across the NEM.</p> <p>The independent body(ies) could be coordinating activities in a more central manner, particularly around procurement, planning and approval activities.</p> <p>CEIG notes that some governments are considering setting up such bodies to facilitate grid and REZ planning (e.g. Victoria and New South Wales). There could be efficiencies in how this body(ies) and those envisaged by the ESB in its REZ Framework could operate (e.g. Jurisdictional Planning Bodies (JPB)).</p> <p>The AEMC should consider the ability for the independent body(ies) to have compulsory acquisition rights, similar to the rights currently afforded to TNSPs.</p> <p>Provision of CEFC funding</p> <p>Governments could allocate specific funds and/or a specific mandate for the CEFC to support the investment of transmission infrastructure. Recently, the CEFC has invested in Project EnergyConnect alongside TransGrid.</p>
23. Do you agree that the Review should take forward this issue as a priority issue? If not, why?	CEIG agrees that the AEMC should consider this a priority issue.
Treatment of of 'early works'	
24. Do stakeholders seek further clarity on the meaning of preparatory activities and early works?	
25. Should the Commission consider how the costs of early works can be recovered?	<p>CEIG agrees that the issues around the financing of 'early works' should be resolved to limit delays to investment in transmission infrastructure.</p> <p>As suggested above, increasing contestability and providing the ability for entities beyond TNSPs to participate in the financing of 'early works' could deliver benefits to consumers. Underwriting arrangements by governments should also be considered.</p>
26. Do you agree that the Review should take forward	CEIG agrees that the AEMC should consider this a priority issue.

this issue as a priority issue? If not, why?	
Processes for jurisdictional environmental and planning approval	
27. Would additional clarity on cost recovery arrangements for preparatory activities or early work improve a TNSP's ability to meet jurisdictional requirements in a timely manner?	
28. Do jurisdictional planning and environmental requirement intersect with the national transmission planning and investment frameworks in ways that are not discussed above and may require further consideration?	
29. Do you agree that the Review should take forward this issue as a priority issue? If not, why?	CEIG agrees that the AEMC should consider this a priority issue.

OTHER COMMENTS

30. Please provide any further comment relating to issues discussed in the chapters 1-4 of the consultation paper.	
31. Please discuss any further issues the Commission should take forward in this review in relation to topics covered in chapters 1-4 of the consultation paper.	

TEMPLATE FOR MATERIAL CHANGE IN NETWORK INFRASTRUCTURE PROJECT COSTS RULE CHANGE REQUEST

CHAPTER 5 – MATERIAL CHANGE IN NETWORK INFRASTRUCTURE PROJECT COSTS RULE CHANGE REQUEST

Who should decide whether whether the RIT-T must be reapplied?

32. Should this decision remain the responsibility of the proponent or should it be a matter for the AER? Why?

33. If the decision remains with the proponent, should the AER have the right to test that opinion?

Cost thresholds

34. Should the NER include a requirement to reapply the RIT, or update analysis, when costs increase above specified thresholds? If so, do you have a view as to what those thresholds should be?

CEIG does not support the proposed rule change

CEIG does not support the proposed rule change to automatically reapply the RIT when costs increase beyond a certain threshold,

CEIG believes that this proposal will materially exacerbate the delays in delivering the ISP projects; this will in turn further delay the ability for consumers to benefit from cheaper and cleaner electricity. As noted in response to question 4, the AEMC should carefully weigh the risks of over- and under-investment in transmission and note that they are asymmetric. Proactive (and timely) investment in transmission can be expected to deliver overall net benefits for consumers as opposed to investing reactively (or more slowly) and risking broader market costs through higher wholesale prices, intervention payments or a lack of capacity.

The proposal would also lengthen an already slow process, particularly if the requirement to reapply the RIT could be triggered multiple times.

Project Energy Connect is a good example of the length of time required to progress a major transmission upgrade:

- the need for Project Energy Connect was first raised in 1999 under the RiverLink proposal;
- formal proceedings started in 2018-19;
- financing issues raised by TransGrid and ElectraNet required additional consideration by the market bodies (2020-21);
- commissioning is now scheduled for 2023 (subject to further delays from this potential rule change).

Likewise, HumeLink and the Victoria to New South Wales Interconnector West (VNI West) projects have suffered delays with far away commissioning dates around 2026-27 and 2027-28 respectively.

CEIG also agrees with the AEMC that requiring more detailed cost estimates upfront would likely mean that fewer options would be considered because it would be too costly and timely to assess them all to the required level of detail.

	<p>Potential unintended consequence</p> <p>CEIG understands the concerns of consumer groups around cost increases. However CEIG is concerned that the rule change proposal could create substantial delays to the necessary transmission network upgrades and could derail the clean energy transition.</p> <p>As highlighted under CEIG’s response to the AEMC’s <i>Transmission Planning and Investment Review</i>, failing to reform the regulatory framework and failing to upgrade the transmission network in a timely manner could create an existential threat to the NEM.</p> <p>CEIG member feedback suggests that absent timely and efficient transmission network upgrades in the NEM, there is a risk that clean energy investment could instead be focused on locations outside the NEM with less risky regulatory environments. This could cause an existential threat to the very existence of the NEM itself.</p>
35. Do you consider this requirement should apply to all RIT projects or only those above a particular cost threshold/s? If so, do you have a view as to what the threshold/s should be?	
36. Do you have any views regarding the suggested alternative “decision rule” approach?	
37. Should updated project cost data be provided to AEMO to help improve the accuracy of the ISP?	
38. Do you have any other suggestions regarding alternative ways to manage cost increases?	
Requirements when reapplying the RIT	
39. Should the requirement to reapply the RIT be more targeted?	
40. Should any additional analysis and modelling that is required to be undertaken be published and subject to public consultation?	
Trigger to reapply the RIT	

41. Do you have any views as to how the requirement to reapply the RIT should be given effect, including for contingent and non-contingent projects?	
42. Should there be a cut-off point (e.g. once the AER approves the CPA, or once construction commences) beyond which any requirement to update analysis cannot be triggered? If so, what would be an appropriate cut-off point?	
43. Should there be a limit on how many times RIT analysis must be updated?	
Should RIT cost estimates be more rigorous?	
44. Do you consider that the current level of rigour used for RIT cost estimates is suitable? If not, what level of rigour is appropriate? In particular, would it be appropriate to require an AACE 2 estimate (i.e. a detailed feasibility study) for each credible option?	
45. If more detailed cost estimates are required at the RIT stage, should this apply to all RIT projects, or only to larger projects? If so, which projects should be subject to this requirement?	
46. Do you have any other suggestions to address the issues raised in the rule change request?	

OTHER COMMENTS

47. Please provide any further comments on this chapter.	
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