



**ENERGY
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30 September 2021

Ms. Danielle Beinart
Director, Australian Energy Market Commission
GPO Box 2603
Sydney, NSW 2001

RE: Transmission Planning and Investment Review

Dear Danielle,

As you know, Energy Consumers Australia is the national voice for residential and small business energy consumers. Established by the then Council of Australian Governments Energy Council in 2015, our objective is to promote the long-term interests of energy consumers with respect to price, quality, reliability, safety and security of supply. Like the AEMC, we note that consumers will pay for transmission investments for decades and ensuring that the regulatory framework for assessing and approving transmission investments are fit-for-purpose is imperative. Accordingly, we appreciate that the AEMC has decided to review important issues associated with Transmission Planning and Investment and provided an opportunity to comment on the recent consultation.

Our detailed responses to many of the questions raised in the consultation paper are enclosed. Our overarching consideration of how this review relates to consumers' changing expectations is below.

Two major transitions sit at the heart of today's Australian energy system. The first transition requires massive, system-level changes to the way electricity is generated – shifting from the burning of fossil fuels such as coal and natural gas to non-emitting generation in the form of solar, wind and other renewable sources and storage. This very necessary transition can be executed well or badly – depending on whether there is meaningful engagement with consumers. A poorly executed transition risks exposing consumers to higher costs and a system that fails to meet their needs.

At the same time, generation is becoming far more decentralised as consumers and communities gain the ability to generate power and feed it into the grid. The system is morphing from a small number of largescale generators to a large number of smaller ones, scattered widely across cities and communities Australia-wide. This second transition is more obviously about people: it is about energy consumers and their behaviour as they try to navigate the system, encountering new possibilities, opportunities and limitations as a result of changing technology and emerging social practices. Australian households and businesses lead the world in adoption of rooftop solar, and investments in battery storage, electric vehicles and other technologies are quickly increasing. How the system helps them to navigate the newfound possibilities associated with these investments so that they deliver benefit for them and value for the system, will partly determine how successful the second transition can be.

These two transitions are inextricably linked. Unfortunately, the planning and regulatory frameworks we use for determining the future of electricity networks – the vital infrastructure that helps determine the pace and success of the transitions – have been inherited from a power system that is increasingly different from the system in use today and the one to which we are transitioning. While it is necessary to review and update these regulatory frameworks, it is insufficient to do so with an eye only on the first transition.

Transmission is the circulatory system of a centralized energy system, but the extent to which it is needed depends upon the pace of decentralisation and how consumers want to balance reliability, affordability, energy independence, resilience, and other interests. The inability to effectively measure



consumer's needs, values, and expectations and incorporate them into system plans and investment tests will build a system that is both more expensive than required and one that fails to meet consumer needs.

Navigating these two transitions – and the regulatory frameworks that enable us to successfully plan and invest in the infrastructure required for them – is not simple. As such, we hope that this consultation is not just the beginning of a review of the regulatory framework for transmission investments, but the start of a holistic, deliberate review of the planning and regulatory frameworks for the whole system. In this sense, the ESB's post-2025 review and data strategy, the AER's DER Integration Guidance, the continued evolution and improvement of the ISP and many other developments in energy regulation are all positive signs towards improving network planning and investment.

This review raises two issues which we think are essential for further examination to enable a successful, affordable, and consumer-centric energy transition: the difficulty in quantifying and monetizing the benefits of energy investments, and the use of non-network options to solve grid issues. As the AEMC knows, both issues are just as prevalent and integral to distribution as they are to transmission planning, and so ECA encourages a comprehensive, thoughtful approach to improving how the regulatory framework considers these issues in both contexts.

The review does not raise the issue of better forecasting energy demand and consumer needs to effectively plan for the second transition. Doing so, however, is key to determining the need for large-scale generation and storage and therefore transmission. While we acknowledge that the ISP continues to improve its evaluation of consumer demand and distribution level issues, Australia's distribution system planning is neither sufficiently robust nor integrated with transmission level planning and the ISP to meet consumer expectations. Despite our record uptake of distributed energy resources, our distribution system planning falls significantly behind developments overseas. While a review of distribution system planning is (unfortunately) outside of this current review, improving it is a priority for ECA and for ensuring that future transmission and distribution investments are fit for purpose. We look forward to working with the AEMC and other market bodies to make room in the crowded energy transition agenda for improving distribution planning.

Again, thank you for your review and consultation of transmission planning and investments and for your attention to our comments.

Yours sincerely,

Brian Spak

Director, Energy System Transition

Encl: Submission to the consultation paper-transmission planning and investment review

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: Energy Consumers Australia

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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?	Click or tap here to enter text.
Are there any additional criteria the Commission should consider as a part of its assessment framework?	Click or tap here to enter text.

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	
2. 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?	Yes – seems like the appropriate list.
3. 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 and operational outcomes?	<p>The current ex-ante incentive-based approach to regulation compels the TNSPs to proceed cautiously and focus on developing projects when there is a high certainty that the assessed benefits will significantly outweigh the costs. Given the high costs, long life, and inherently uncertain benefits of transmission assets, this approach is appropriate and a good thing for consumers, as it defers pursuit of projects that are likely to offer negligible or no net benefits.</p> <p>The main opportunity to drive more efficient outcomes is to improve the accuracy of total project cost estimates. Even if providing improved accuracy of costs increases the total cost of the project, it will likely be negligible for major (greater than \$500 million) transmission projects. ECA considers greater time and cost spent more accurately developing a better cost estimate to be a good investment by networks (and the consumers who will ultimately pay for improved cost estimates). The other primary opportunity ECA sees to improve outcomes is to significantly incentivise the development of non-network options for projects in which such options provide similar or the same benefits as transmission projects.</p> <p>One could suggest improving the accuracy of the benefits would also drive more efficient outcomes. While in theory that may be true, in practice it is difficult to imagine significantly greater accuracy in estimating benefits – which are inherently less certain than costs for transmission projects.</p>
4. Do you agree that the Review should take forward this issue as a priority issue? If not, why?	ECA has not seen sufficient evidence suggesting that this issue should be taken forward at all, much less as a priority. There is little if any evidence that the existing approach creates undue delay for projects that are

clearly and demonstrably net beneficial and in the interest of consumers. Indeed, the consultation notes that jurisdictional approvals are the major source of delay in building transmission projects. The net benefits of most projects are uncertain, and therefore careful analysis – along the lines of the existing ex-ante approach – is most appropriate. Despite the ISP, detailed analysis has not yet demonstrated that additional transmission will be net beneficial for consumers in nearly any future thereby negating the need for detailed estimates of the costs and benefits of prospective investments. The existing ex-ante framework provides the rigour required to make sure consumers only pay for investments that create net benefits for them.

Economic assessment of major transmission projects

5. 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?

Click or tap here to enter text.

6. Do you agree that the RIT-T has a clearer value-add in relation to non-ISP projects? If not, why?

Yes.

7. Do you agree that the Review should take forward this issue as a priority issue? If not, why?

Click or tap here to enter text.

Benefits included in planning processes

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 included in the current planning processes are sufficiently broad to capture the drivers of major transmission investment, and wider economic benefits should not be included. While economic benefits of increased employment are real, including them within the electricity regulatory framework will likely create more confusion than it will solve.

Are major transmission projects failing to satisfy economic assessments because certain benefits (market or non-market) are not permitted to be quantified?

ECA can't assess this specific question, but there is evidence that consumers are increasingly eager to see local energy investments – rooftop solar, home batteries, “smart” appliances – as the primary source of their energy. Consumers are inclined towards such a future for many economic and non-economic reasons, such as energy independence and community cohesion. If the regulatory approach appropriately captured the values, needs, and expectations of consumers – including non-economic drivers – some transmission projects that do satisfy a “conventional” economic assessment may not be shown as beneficial. In other words, it's possible that if non-economic consumer needs and expectations were included in economic assessments, some major transmission projects would fail to satisfy economic assessments they meet when consumer needs are excluded from the analysis.

Are changes warranted to the manner in which carbon emissions inform transmission planning and regulatory processes?	Click or tap here to enter text.
Do you agree that the Review should take forward this issue as a priority issue? If not, why?	Click or tap here to enter text.
Guidance on hard to monetise benefits	
What classes of market benefits are hard to monetise? Is there a way that these benefits could be made easier to quantify?	<p>Ancillary services benefits are hard to quantify and monetise, but they are important. Relatedly, benefits from markets that don't exist yet are difficult, if not impossible to quantify. Yet given that the ESB's post-2025 review is predicated on the development of new markets, it seems that there is a high degree of certainty that new markets will exist, even if there is low certainty over what the markets will look like.</p> <p>As noted above, the value consumers receive from their and their neighbours' investments in rooftop solar, batteries, "smart" appliances, and other DER includes non-economic benefits that are also difficult to quantify and monetise – the Value of DER methodology study commissioned by the AER discusses this issue. While these values may not be obviously related to transmission, increased transmission investments and the new generation they bring on-line do change the overall investment profile for consumer investments in energy-related appliances. Greater understanding and quantification of consumer interest in local energy solutions could provide more insight into changing demand patterns, and demand forecasts have a material impact on the benefits of transmission investments.</p> <p>The AEMC (or other market bodies/institutions) could run a consultation or series of events focused squarely on the topic of difficult to quantify benefits (for both transmission and distribution projects) to make progress in simplifying the quantification process.</p>
Would guidance on hard to monetise benefits improve the timeliness at which projects proceed through the regulatory process?	Click or tap here to enter text.
Do you agree that the Review should take forward this issue as a priority issue? If not, why?	<p>As noted above, the nature of the energy transition makes increasingly clear that consumers see benefits that the existing regulatory structure does not include, perhaps because these benefits are hard to monetise. The challenge of monetising or quantifying benefits is not a compelling rationale to avoid trying to quantify them. However, the AEMC should be wary of opening the door to the inclusion of hard to monetise benefits that are poorly developed. Indeed, some of the benefits calculated in existing transmission projects appear to be tenuously developed and lack a strong evidence base.</p> <p>ECA's view is that the most important "hard to quantify" benefit that the AEMC and AER need to consider are non-economic drivers to consumers about the energy future they value and expect. While we believe carefully planned and considered transmission projects should look at the type of energy infrastructure</p>

consumers want, which may enable the avoidance of investing in assets that are ultimately unwanted, needed, and will become stranded. Outside of this specific benefit, we are reluctant to support further review of these benefits. Though the future energy system consumers value (economically and otherwise) should be an important input into transmission planning and investment, we acknowledge that the AEMC's discussion of non-economic benefits in this review likely excludes these consumer benefits.

If review is to occur, it is essential that it focuses on "hard to monetise" benefits that can – with proper evidence, data, and rigour – be calculated rather than benefits that are simply "hard to monetise" because they are intrinsically uncertain and impossible to accurately estimate.

Market versus consumer benefits test	
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?	No
Do you agree that the Review should take forward this issue as a priority issue? If not, why?	No
Treatment of non-network options	
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?	Yes, there are a dearth of non-network options implemented, and it follows that the assessments somehow fail to appropriately consider these solutions. We agree with the identified barriers and would extend the commentary that the fundamental purpose of the NSPs is to own and operate networks. This intrinsic, institutional inertia creates several follow-on issues. First is a simple lack of knowledge and awareness of technology that can substitute for network solutions. Furthermore, it is difficult if not impossible to get accurate solution architecture – and pricing – from potential non-network service providers outside of a dedicated tender that could lead to contracted work.
Do you agree that the Review should take forward this issue as a priority issue? If not, why?	Yes, fixing structural issues in non-network solution implementation is a priority issue for ECA.

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	
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?	In the renewable energy sector, project financing accesses different investors with different risk appetites throughout the project development process. There are perhaps lessons from project finance that can inform and improve transmission financing.
Should the delivery of transmission projects be made contestable? If not, why?	If the NSP has the option to develop an identified, clearly needed transmission project and chooses not to do so, then the project should be made contestable. An approach in which the existing TNSP has a "right of refusal" to develop projects may be a suitable construct for contesting certain transmission projects.
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?	The in-depth regulatory process for determining the need for new transmission projects exists to protect consumers from bad investments that will stay on consumers' bills for sixty years. If the cost recovery of contestable transmission projects were not to be included in a regulated asset base and be recovered, for example, by generators who then pass the cost of transmission onto consumers through higher wholesale prices, this would materially change the risk profile of transmission. Better managing consumers' exposure to the cost of transmission – through alternative approaches to cost recovery -- could be considered an alternative approach.
Do you agree that the Review should take forward this issue as a priority issue? If not, why?	Click or tap here to enter text.
Treatment of 'early works'	
Do stakeholders seek further clarity on the meaning of preparatory activities and early works?	Yes
Should the Commission consider how the costs of early works can be recovered?	Yes, and the Commission should consider if it remains appropriate to recover from consumers the costs of early works for projects that are ultimately abandoned.
Do you agree that the Review should take forward this issue as a priority issue? If not, why?	Yes
Processes for jurisdictional environmental and planning approval	
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?	Click or tap here to enter text.

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?	Click or tap here to enter text.
Do you agree that the Review should take forward this issue as a priority issue? If not, why?	Click or tap here to enter text.

OTHER COMMENTS

8. Please provide any further comment relating to issues discussed in the chapters 1-4 of the consultation paper.	Click or tap here to enter text.
9. 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.	Click or tap here to enter text.

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?	
Should this decision remain the responsibility of the proponent or should it be a matter for the AER? Why?	The decision should be a matter for the AER because the proponent has a clear conflict of interest.
If the decision remains with the proponent, should the AER have the right to test that opinion?	Yes, because the proponent has a clear conflict of interest.
Cost thresholds	
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?	When cost estimates increase substantially, the concept of requiring proponents of large projects to analyse the full suite of options more carefully is sound. Our view is that there should be percent thresholds that require the proponent to re-visit assumptions as a default for all transmission investments. During the initial application, however, the proponent should have the ability to request a waiver of those defacto percentage (or otherwise fixed) thresholds and use a more nuanced alternative to determine the need to re-visit the RIT if

	another option is more fit-for-purpose given the investment. The AER would be best placed to determine if the proposed alternative is more appropriate way to balance the risks of inadvisable network investment.
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?	Click or tap here to enter text.
Do you have any views regarding the suggested alternative "decision rule" approach?	Click or tap here to enter text.
Should updated project cost data be provided to AEMO to help improve the accuracy of the ISP?	Yes – it is imperative that the industry collectively improves its ability to develop accurate cost (and benefit) data. More data sharing should be encouraged as it will promote best practice and reduce cost for consumers over time.
Do you have any other suggestions regarding alternative ways to manage cost increases?	Click or tap here to enter text.
Requirements when reapplying the RIT	
Should the requirement to reapply the RIT be more targeted?	Click or tap here to enter text.
Should any additional analysis and modelling that is required to be undertaken be published and subject to public consultation?	Yes.
Trigger to reapply the RIT	
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?	Click or tap here to enter text.
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?	Click or tap here to enter text.
Should there be a limit on how many times RIT analysis must be updated?	Click or tap here to enter text.
Should RIT cost estimates be more rigorous?	
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	More rigorous cost estimates are advisable, but there is no value in providing a more accurate and rigorous estimate for an option that is not going to be selected. Requiring AACE 2 estimates for the top three credible

appropriate to require an AACE 2 estimate (i.e. a detailed feasibility study) for each credible option?	options, while allowing NSPs to apply to the AER for a relaxation of this level (to, for example, AACE 2 estimates for only the top two options) if the details of their project suggest relaxation is appropriate might provide a reasonable approach.
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?	Click or tap here to enter text.
Do you have any other suggestions to address the issues raised in the rule change request?	Click or tap here to enter text.

OTHER COMMENTS

10. Please provide any further comments on this chapter.	Click or tap here to enter text.
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