



public interest
ADVOCACY CENTRE

Transmission planning and investment review

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About the Public Interest Advocacy Centre

The Public Interest Advocacy Centre (PIAC) is leading social justice law and policy centre. Established in 1982, we are an independent, non-profit organisation that works with people and communities who are marginalised and facing disadvantage.

PIAC builds a fairer, stronger society by helping to change laws, policies and practices that cause injustice and inequality. Our work combines:

- legal advice and representation, specialising in test cases and strategic casework;
- research, analysis and policy development; and
- advocacy for systems change and public interest outcomes.

Energy and Water Consumers' Advocacy Program

The Energy and Water Consumers' Advocacy Program (EWCAP) represents the interests of low-income and other residential consumers of electricity, gas and water in New South Wales. The program develops policy and advocates in the interests of low-income and other residential consumers in the NSW energy and water markets. PIAC receives input from a community-based reference group whose members include:

- NSW Council of Social Service;
- Combined Pensioners and Superannuants Association of NSW;
- Ethnic Communities Council NSW;
- Salvation Army;
- Physical Disability Council NSW;
- Anglicare;
- Good Shepherd Microfinance;
- Financial Rights Legal Centre;
- Affiliated Residential Park Residents Association NSW;
- Tenants Union;
- The Sydney Alliance; and
- Mission Australia.

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Introduction

PIAC welcomes the opportunity to respond to the Australian Energy Market Commission's (AEMC) Transmission Planning and Investment review (the Review).

PIAC considers a fast and orderly transition of the energy system is in the long-term interests of consumers. Transition to a net-zero emissions energy system is inevitable. We are focused on ensuring it occurs fairly, efficiently and at least cost to consumers. As transmission has an important role in facilitating this transition, we welcome this review.

Over coming decades tens of billions of dollars in new network investment will be required to bring about the transition. It is critical this investment is subject to a robust, transparent and fit-for-purpose regulatory regime that ensures it is in the consumer interest and does not burden them with costs they do not benefit from and risks they cannot manage.

The current arrangements for transmission planning and investment have worked well in the past but are unsuitable as the energy system rapidly changes. The current regulatory framework is designed to deliver efficiency of incremental investment to an established centralised generation and transmission system. The energy system transition requires a step-change in new investment and major expansion of the transmission system. This is largely to serve new generation rather than demand and often involves inter-regional projects such as interconnectors.

This shift in how and for whom the network is developed means the existing arrangements no longer ensure costs of investment are recovered on a beneficiaries-pay basis and do not allow risk to sit with those best-placed to manage it. All costs are still recovered from consumers and are mostly apportioned between jurisdictions according to where the infrastructure is located rather than where the benefits accrue. These arrangements do not support sustainably building transmission infrastructure ahead of new generation, as the primary beneficiaries of the new investment – generators – are not required to pay its costs. They also do not support efficient NEM-wide investment as costs for interregional transmission cannot be fully allocated to the beneficiaries. The result is inefficient transmission investment, leaving consumers with unfair and unmanageable costs and risks and slowing the deployment of renewables.

In this review, the AEMC should prioritise comprehensive reform to cost and risk sharing for transmission investment and look at ways it can encourage efficient and timely investment where it is needed. To this end, we support the intent of the material change in network infrastructure project costs rule change. We consider this rule change will promote more accurate and robust cost estimation and reduce uncertainty over the benefits of major network investments. We do not believe this rule change will cause unnecessary delays in the development of efficient projects.

PIAC does not recommend this review focus on widening the range of benefits which can be included in assessment processes or in any way weakening the Regulatory Investment Test for Transmission (RIT-T). Neither of these measures are key to the delivery of efficient and beneficial projects, and risk allowing and encouraging over-investment for which consumers will pay for decades.

Fairer cost allocation a priority

PIAC has undertaken work to establish fairer and more efficient means of recovering costs of shared transmission investment. PIAC is developing a proposed rule change to ensure the costs of interconnectors are recovered from beneficiaries rather than from consumers in the jurisdiction in which the infrastructure is built. A major driver of this is the Project EnergyConnect interconnector between NSW and South Australia. The interconnector will primarily benefit South Australian consumers, yet NSW consumers will pay the majority of the costs. An excerpt this rule change (not for publication) is included in Appendix 1.

PIAC has developed an approach to cost and risk sharing of REZs that aims to ensure the costs of shared REZ infrastructure are recovered from the beneficiaries – primarily connecting generators – and the risks are not borne entirely by consumers. More details on PIAC's approach can be found in our submission to the Post-2025 Market Design Consultation Paper.¹ and submissions to the AEMC's COGATI consultation². The approach allows the capital costs of shared infrastructure, including augmentations to the existing network, to be recovered from connecting generators, rather than just consumers, and for shared infrastructure to be financed by a contestable investor, such as government, the TNSP or some other entity, rather than just through a TNSP.

A fundamental aspect of the PIAC approach is that REZ transmission capex is recovered from both generators and consumers, rather than just consumers. This is achieved by separating transmission investment into two portions: one, consistent with current cost recovery, is rolled into the RAB of the incumbent TNSP and is recovered via Transmission Use of Service (TUoS) as per normal; and a contestable portion, funded by a contestable investor or government, is recovered through generator connection charges. The connection charge would be pre-determined at a fixed rate (such as \$/MVA) that increases with time based on a Rate of Return (RoR) commensurate to the underutilisation risk the speculative investor bears. This is both transparent to all parties and incentivises early connection.

The PIAC approach seeks to allocate costs and risks fairly and efficiently, while providing a means for REZ infrastructure to progress through the regulatory process more quickly by lowering the consumer benefit projects must provide.

PIAC understands this approach is opposed by some generators. We urge the AEMC to prioritise the interests of consumers, who do not choose to shoulder, nor have the ability to mitigate, the costs and risks of shared REZ transmission. Any claims generators are unable to contribute to the shared transmission cost in a REZ are unsubstantiated and baseless, given these will typically be in the order of the cost of direct connection outside of a REZ only without the benefits of favourable Marginal Loss Factors (MLF) and fewer constraints afforded by a REZ.

Similarly, there is no evidence or sound reasoning to suggest generators would choose en-masse to build outside REZs if they are required to pay a portion of the shared network. Generators get

¹ PIAC submission to Post-2025 Market Design Consultation Paper. <https://piac.asn.au/wp-content/uploads/2020/10/20.10.30-PIAC-sub-to-P2025-Market-Design-Consultation-Paper-updated.pdf>

² PIAC submission to Coordination of Generation and Transmission Investment consultation paper. <https://piac.asn.au/wp-content/uploads/2019/04/19.04.30-PIAC-sub-to-COGATI-consultation-paper.pdf>

a range of benefits from connecting in a REZ that are not impacted by making a contribution to their transmission costs.

Assessment framework

QUESTION 1: ASSESSMENT FRAMEWORK

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?

PIAC supports the existing proposed assessment criteria. We recommend adding a criterion stipulating costs are recovered such that the primary beneficiaries from a given investment pay for that investment. Where there are multiple beneficiaries, the costs should be recovered proportionally to their share of the benefits, and where it is not practical and transparent to identify the primary beneficiaries, a causer-pays principle should be used.

Cross-subsidies between consumer classes, or between consumers and other cohorts, should only be permitted where they are immaterially small, or where wide-scale, well-informed consumer feedback demonstrates clearly that consumers are willing to pay those costs.

Issues in the regulatory framework and processes for planning of major transmission projects

QUESTION 2: IMPLICATIONS OF INCREASED UNCERTAINTY FOR THE EX-ANTE INCENTIVE-BASED REGULATORY FRAMEWORK

1. 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?
2. 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?
3. Do you agree that the Review should take forward this issue as a priority issue? If not why?

QUESTION 3: ECONOMIC ASSESSMENT OF MAJOR TRANSMISSION PROJECTS

1. Streamlining the economic assessment of ISP and non-ISP projects has implications for the rigour of the analysis. What level of compromise between streamlining and rigour is acceptable? Are there opportunities to streamline the economic assessments of ISP and non-ISP projects consistent with this acceptable level of compromise? If so, how could the framework be streamlined?
2. Do you agree that any changes to the assessment process needs to consider the role of the RIT-T in the context of ISP and non-ISP projects? If not, why?
3. Do you agree that the Review should take forward this issue as a priority issue? If not, why?

PIAC considers any contemplated changes to the economic assessment process for major projects should not lead to its overall weakening. Given the scale of new transmission investment required in coming decades, it is critically important this expenditure is subject to strong, transparent, and accessible economic assessment and governance arrangements.

PIAC agrees any changes to the assessment process needs to consider the role of the RIT-T in relation to ISP and non-ISP projects.

QUESTION 4: BENEFITS INCLUDED IN PLANNING PROCESSES

1. 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?
2. Are major transmission projects failing to satisfy economic assessments because certain benefits (market or non-market) are not permitted to be quantified?
3. Are changes warranted to the manner in which carbon emissions inform transmission planning and regulatory processes?
4. Do you agree that the Review should take forward this issue as a priority issue? If not, why?

PIAC considers the benefits included in current planning processes are sufficiently broad to capture the drivers of major transmission investment and does not support the inclusion of other classes of market benefits or wider economic benefits in the absence of changes to recover those costs on a beneficiary-pays basis.

PIAC and other key consumer representatives have consistently raised the issue of cost-recovery of new transmission infrastructure with the AEMC, ESB, transmission businesses, and others. Any consideration of widening benefits should proceed a discussion about who pays for the investment and acknowledge the current cost-recovery arrangements are no longer fit-for-purpose. It is understandable parties who currently do not pay for transmission investment, but are major beneficiaries of it, would like to include more benefits than are currently considered and which do not clearly provide net market benefits; these parties are not consumers who, under current arrangements, face these costs.

The focus on widening benefits, without a discussion on who pays for them in the context of large new projects which are seeing major cost increases between the Project Assessment Conclusions Report (PACR) and Contingent Project Application (CPA) stages of assessment, is perplexing.

If projects are unable to provide net market benefits then they are not prudent and efficient investments in the long-term interests of consumers. These projects may be in the wider community interest, particularly if they hasten the decarbonisation of the energy system or deliver social or economic benefits in areas of need. If this is the case, governments should seek to contribute to their capital from consolidated revenue and consumers should not bear these costs. Similarly, transmission investment may benefit new connecting generators by allowing them better access to market, in which case costs should be recovered from these generators. The

allowable benefits should not be altered to ensure investments go ahead where the cost to consumers outweighs the benefit to them.

PIAC notes, benefits are often very uncertain and materialise over the long-term, while costs are more predictable and, under current arrangements, begin to be recovered immediately. This situation is likely to worsen if more benefits are considered in the RIT-T and serious action is not taken to ensure cost estimates are robust and realistic.

PIAC recommends widening of scope benefits is rejected as a priority in this review. PIAC recommends work to ensure the costs of network investment accrue to the beneficiaries is prioritised before – or at least, in concert with – work to consider wider benefits.

QUESTION 5: GUIDANCE ON HARD TO MONETISE BENEFITS

1. What classes of market benefits are hard to monetise? Is there a way that these benefits could be made easier to quantify?
2. Would guidance on hard to monetise benefits improve the timeliness at which projects proceed through the regulatory process?
3. Do you agree that the Review should take forward this issue as a priority issue? If not, why?

PIAC recommends the AEMC exercise caution in considering hard to monetise benefits.

New technologies, particularly non-network solutions, may have hard to monetise network and market benefits that, if included in the assessment process, could lead to better consumer outcomes. For example, non-network options such as batteries can provide a wide range of Frequency Control Ancillary Services (FCAS) and other system security services that realise considerable benefits typically not captured under current RIT assessments.

However, these types of benefits are also by their nature difficult to measure and establish value for, and as such if included are vulnerable to manipulation to justify inefficient and/or sub-optimal investment.

QUESTION 6: MARKET VERSUS CONSUMER BENEFITS TEST

1. Do you consider that there are 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?
2. Should the Review take forward this issue as a priority issue? Why?

QUESTION 7: TREATMENT OF NON-NETWORK OPTIONS

1. 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?
2. Do you agree that the Review should take forward this issue as a priority issue? If not, why?

PIAC considers there are barriers for non-network options to be effectively considered in economic assessments and this may be leading to inefficient investment and poor consumer outcomes. The current RIT arrangements do not fully capture the range of benefits non-network options provide and there is a bias within Network Service Providers (NSP) towards network options, for a range of reasons. We consider this issue is likely to have an increasingly negative impact on consumers as the energy system continues to change and more network investment is required.

To address the barriers non-network solutions face under the current arrangements we recommend additional clarity and transparency should be provided on how cost-benefit modelling is applied to non-network options. This should include supplementary RIT guidelines, and leverage the AEMO ISP input assumptions. This will help ensure the full suite of benefits are captured and assessed against network options on an equal footing, supporting economic efficiency principles.

PIAC also recommends the review focus on how the RIT currently values non-network options, whether the existing arrangements are leading to their optimal deployment, and consequently, whether changes should be made.

Issues in the regulatory framework and processes for transmission investment and delivery

QUESTION 8: BALANCING TNSPS' EXCLUSIVE RIGHT TO BUILD AND OWN TRANSMISSION PROJECTS

1. 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?
2. Should the delivery of major transmission projects be made contestable? If not, why?
3. What options, other than changes to the exclusive right of TNSPs to provide regulated transmission assets, could be considered to ensure timely investment and delivery of major transmission projects?
4. Do you agree that the Review should take forward this issue as a priority issue? If not, why?

PIAC considers the monopoly granted TNSPs by some jurisdictions should not, and need not, grant them the exclusive right to build and own all types of new transmission projects. Rather, incumbent TNSPs should have priority access to the right to invest in, build and own transmission projects. Where they are unwilling to fund a project at the regulated rate of return and under the prevailing cost recovery regime, other entities should be allowed the opportunity to do so. If other entities are not willing to invest at the regulated rate of return, then the project should be made fully contestable, with the key criterion for choosing an investor being the lowest Rate of Return they will accept to invest in a project.

Opening up transmission to contestable investment if TNSPs are not willing to invest could complement changes to require parties who benefit from the infrastructure to contribute to its delivery. It can also prevent delays in the delivery of necessary investment. The recent

announcement by a partnership of generators to self-fund a major transmission line to connect a prospective renewable energy hub in NSW shows generators are willing and able to pay their way for infrastructure optimised to meet their needs.³

PIAC strongly supports the review taking forward consideration of making major transmission projects contestable.

QUESTION 9: TREATMENT OF 'EARLY WORKS'

1. Do stakeholders seek further clarity on the meaning of preparatory activities and early works?
2. Should the Commission consider how the costs of early works can be recovered?
3. Do you agree that the Review should take forward this issue as a priority issue? If not, why?

PIAC supports further work being undertaken to clarify the meaning of preparatory activities and early works, and to explore arrangements for their cost recovery. While PIAC supports governments directly funding transmission capex, we are concerned the current trend towards government underwriting of early works adds pressure on the regulator to approve projects which have received early government support. This may create more, rather than less cost and risk for consumers.

Exploring ways to fund early works, such as through the ex-ante framework, may encourage more robust consideration of costs and benefits as part of the RIT-T process, and reduce the need for government underwriting.

QUESTION 10: PROCESSES FOR JURISDICTIONAL ENVIRONMENTAL AND PLANNING APPROVAL

1. Would additional clarity on cost recovery arrangements for early works improve a TNSP's ability to meet jurisdictional requirements in a timely manner?
2. Do jurisdictional planning and environmental requirements intersect with the national transmission planning and investment frameworks in ways that are not discussed above and may require further consideration?
3. Do you agree that the Review should take forward this issue as a priority issue? If not, why?

Material change in network infrastructure project costs rule change

Question 11: Who should decide whether the RIT must be reapplied?

1. Should this decision remain the responsibility of the proponent or should it be a matter for the AER? Why?
2. If the decision remains with the proponent, should the AER have the right to test that opinion?

³ RenewEconomy, 2021. <https://reneweconomy.com.au/walcha-energy-proposes-to-go-it-alone-on-major-nsw-transmission-link/>

PIAC strongly supports the AER, rather than the project proponent, having the responsibility of deciding whether the RIT must be reapplied. PIAC supports the process for reapplication of the RIT outlined by the rule proponents.

If, following the completion of the PACR and prior to the submission of the CPA application to the AER, the capital cost of the preferred option increases by more than a certain percentage, then the TNSP must notify the AER. The AER then has the discretion to:

- Waive the requirement for reapplication of the RIT-T if the revised capital cost is <\$150m for transmission projects, or
- Set out how that reapplication would apply for that particular project if the revised capital cost is ≥ \$150m.

This reapplication could be no more than simply re-doing the PACR with the revised capital costs of the preferred option and an adjustment to the capex of the other options, for example by some material cost index, to see if the original preferred option still has net benefits and is still the preferred option. This process would include a round of stakeholder engagement to give confidence in the revised results. In other cases, it might be more comprehensive.

PIAC does not consider TNSPs have the incentive to decide to reapply the RIT in the consumer interest. Thus, there has been no instance where a proponent has reapplied the RIT.

PIAC agrees with the AEMC that the possibility of a material decline in benefits should also potentially trigger a reapplication of the RIT. Considerable reductions in project benefits can affect the preferred option and render a project no longer in the consumer interest. While we support further consideration of this issue, we do not believe it should prevent the salient aspects of the material costs rule change progressing and providing better governance and accountability over the costs of major projects.

QUESTION 12: COST THRESHOLDS

1. Should the NER include a requirement to reapply the RIT, or update analysis, when costs increase above specified percentage thresholds? If so, do you have a view as to what those percentage thresholds should be?
2. Do you consider this requirement should apply to all RIT projects or only those above a particular cost threshold/thresholds? If so, do you have a view as to what the cost threshold/s should be?
3. Do you have any views regarding the suggested alternative “decision rule” approach?
4. Should updated project cost data be provided to AEMO to help improve the accuracy of the ISP? Do you have any other suggestions regarding alternative ways to manage cost increases?

PIAC supports the proposal by the rule change proponents for the NER to include a requirement to reapply the RIT or update analysis when costs increase above a specified percentage threshold and for this requirement to only apply to projects above a certain cost. PIAC considers both these requirements should prevent unnecessary administrative and regulatory burden on

TNSPs while ensuring projects with the most significant potential impact on consumer bills are subject to appropriate governance and approvals processes.

PIAC considers the thresholds put forward by the rule change proponents are reasonable and likely to achieve an appropriate balance.

QUESTION 13: REQUIREMENTS WHEN REAPPLYING THE RIT

1. Should the requirement to reapply the RIT be more targeted?
2. Should any additional analysis and modelling that is required to be undertaken be published and subject to public consultation?

PIAC supports the AER being able to exercise its discretion on what 'reopen' or 'reapply' means in each project case. A more targeted approach should not be prescribed in the rules but should be left to AER's discretion under the existing rules.

PIAC considers additional modelling and analysis should be published and subject to consultation consistent with what would be required at the first RIT.

QUESTION 14: TRIGGER TO REAPPLY THE RIT

1. 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?
2. 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?
3. Should there be a limit on how many times RIT analysis must be updated?

QUESTION 15: SHOULD RIT COST ESTIMATES BE MORE RIGOROUS?

1. 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?
2. 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?
3. Do you have any other suggestions to address the issues raised in the rule change request?

PIAC considers RIT cost estimates should reflect the actual likely cost of the project and allow for accurate comparison of options to ensure investment is prudent and efficient. Rather than specify a particular level of rigour for cost estimates, we consider the material costs rule change will encourage more rigorous and realistic cost estimates during the RIT. As the rule proponents state in their submission, they would see the rule as a success if, once it is implemented, no eligible projects are subject to a reapplication of the RIT. This would mean the rule has led to more accurate cost estimates during the original RIT, avoiding the need for reassessment.

Cost estimates should include a reasonable estimate of unknown and unforeseeable costs.

























